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 July 31, 2020

OR

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

For transition period from to

Commission File Number: 001-15405

AGILENT TECHNOLOGIES, INC.

(Exact Name of registrant as specified in its charter)

Delaware	**77-0518772**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)

5301 Stevens Creek Blvd.,
Santa Clara, California 95051
(Address of principal executive offices)

Registrant's telephone number, including area code: **(800) 227-9770**

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

Title of each Class	Trading Symbol	Name of each Exchange on which registered
Common Stock, $0.01 par value	A	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 (§232.405 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 definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐	Non-accelerated filer	☐
Smaller reporting company	☐			Emerging growth company	☐

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

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

As of August 26, 2020, the registrant had 308,309,635 shares of common stock, $0.01 par value per share, outstanding.

AGILENT TECHNOLOGIES, INC.
TABLE OF CONTENTS

PART I — FINANCIAL INFORMATION

ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

AGILENT TECHNOLOGIES, INC.
CONDENSED CONSOLIDATED STATEMENT OF OPERATIONS
(in millions, except per share amounts)
(Unaudited)

	Three Months Ended July 31,		Nine Months Ended July 31,	
	2020	2019	2020	2019
Net revenue:				
Products	$ 932	$ 949	$ 2,878	$ 2,850
Services and other	329	325	978	946
Total net revenue	1,261	1,274	3,856	3,796
Costs and expenses:				
Cost of products	422	411	1,293	1,225
Cost of services and other	170	171	514	503
Total costs	592	582	1,807	1,728
Research and development	92	101	393	302
Selling, general and administrative	347	366	1,109	1,075
Total costs and expenses	1,031	1,049	3,309	3,105
Income from operations	230	225	547	691
Interest income	1	10	7	30
Interest expense	(19)	(18)	(59)	(53)
Other income (expense), net	7	5	64	20
Income before taxes	219	222	559	688
Provision (benefit) for income taxes	20	31	62	(189)
Net income	$ 199	$ 191	$ 497	$ 877
Net income per share:				
Basic	$ 0.64	$ 0.61	$ 1.61	$ 2.78
Diluted	$ 0.64	$ 0.60	$ 1.59	$ 2.74
Weighted average shares used in computing net income per share:				
Basic	309	312	309	316
Diluted	312	316	312	320

The accompanying notes are an integral part of these condensed consolidated financial statements.

AGILENT TECHNOLOGIES, INC.
CONDENSED CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (LOSS)
(in millions)
(Unaudited)

	Three Months Ended July 31, 2020	Three Months Ended July 31, 2019	Nine Months Ended July 31, 2020	Nine Months Ended July 31, 2019
Net income	$ 199	$ 191	$ 497	$ 877
Other comprehensive income (loss):				
Unrealized gain (loss) on derivative instruments, net of tax expense (benefit) of $(2), $1, $(2) and $0	(7)	3	(4)	2
Amounts reclassified into earnings related to derivative instruments, net of tax expense (benefit) of $0, $(1), $0 and $(2)	(1)	—	(2)	(4)
Foreign currency translation, net of tax expense (benefit) of $0, $(1), $0 and $(10)	60	(12)	20	1
Net defined benefit pension cost and post retirement plan costs:				
Change in actuarial net loss, net of tax expense of $4, $5, $9 and $11	10	5	28	17
Change in net prior service benefit, net of tax expense (benefit) of $(1), $0, $(1) and $(1)	—	(2)	(4)	(5)
Other comprehensive income (loss)	62	(6)	38	11
Total comprehensive income	$ 261	$ 185	$ 535	$ 888

The accompanying notes are an integral part of these condensed consolidated financial statements.

AGILENT TECHNOLOGIES, INC.
CONDENSED CONSOLIDATED BALANCE SHEET
(in millions, except par value and share amounts)
(Unaudited)

	July 31, 2020	October 31, 2019
ASSETS		
Current assets:		
Cash and cash equivalents	$ 1,358	$ 1,382
Accounts receivable, net	930	930
Inventory	746	679
Other current assets	211	198
Total current assets	3,245	3,189
Property, plant and equipment, net	846	850
Goodwill	3,606	3,593
Other intangible assets, net	876	1,107
Long-term investments	148	102
Other assets	825	611
Total assets	$ 9,546	$ 9,452
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$ 311	$ 354
Employee compensation and benefits	306	334
Deferred revenue	397	336
Short-term debt	40	616
Other accrued liabilities	260	440
Total current liabilities	1,314	2,080
Long-term debt	2,283	1,791
Retirement and post-retirement benefits	355	360
Other long-term liabilities	613	473
Total liabilities	4,565	4,704
Commitments and contingencies (Note 14)		
Total equity:		
Stockholders' equity:		
Preferred stock; $0.01 par value; 125 million shares authorized; none issued and outstanding	—	—
Common stock; $0.01 par value; 2 billion shares authorized; 309 million shares at July 31, 2020 and 309 million shares at October 31, 2019 issued and outstanding	3	3
Additional paid-in-capital	5,324	5,277
Retained earnings (accumulated deficit)	130	(18)
Accumulated other comprehensive loss	(476)	(514)
Total stockholders' equity	4,981	4,748
Total liabilities and equity	$ 9,546	$ 9,452

The accompanying notes are an integral part of these condensed consolidated financial statements.

AGILENT TECHNOLOGIES, INC.
CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS
(in millions)
(Unaudited)

	Nine Months Ended July 31,	
	2020	**2019**
Net income	$ 497	$ 877
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation and amortization	232	162
Share-based compensation	63	57
Deferred taxes	(1)	(267)
Excess and obsolete inventory related charges	18	12
Unrealized gain on equity securities	(26)	(1)
Asset impairment charges	99	—
Other non-cash expense, net	6	5
Changes in assets and liabilities:		
Accounts receivable	1	(58)
Inventory	(86)	(31)
Accounts payable	(35)	—
Employee compensation and benefits	(32)	(35)
Other assets and liabilities	(192)	(14)
Net cash provided by operating activities	544	707
Cash flows from investing activities:		
Investments in property, plant and equipment	(92)	(125)
Proceeds from sale of property, plant and equipment	1	—
Payment to acquire fair value investments	(20)	(21)
Payment in exchange for convertible note	(9)	(2)
Payment to acquire intangible assets	—	(1)
Acquisitions of businesses and intangible assets, net of cash acquired	—	(248)
Net cash used in investing activities	(120)	(397)
Cash flows from financing activities:		
Issuance of common stock under employee stock plans	56	52
Payment of taxes related to net share settlement of equity awards	(34)	(15)
Payment of dividends	(167)	(155)
Purchase of non-controlling interest	—	(4)
Issuance of senior notes	499	—
Debt issuance costs	(4)	—
Proceeds from revolving credit facility	798	—
Repayment of debt and revolving credit facility	(1,413)	—
Proceeds from commercial paper	240	—
Repayment of commercial paper	(200)	—
Repayment of finance lease	(4)	—
Treasury stock repurchases	(219)	(674)
Net cash used in financing activities	(448)	(796)
Effect of exchange rate movements	—	3
Net decrease in cash, cash equivalents and restricted cash	(24)	(483)
Cash, cash equivalents and restricted cash at beginning of period	1,388	2,254
Cash, cash equivalents and restricted cash at end of period	$ 1,364	$ 1,771
Supplemental cash flow information:		
Income tax paid, net	$ 325	$ 108
Interest payments	$ 53	$ 61
Non-cash changes in investments in property, plant and equipment - increase (decrease)	$ (8)	$ (26)

The accompanying notes are an integral part of these condensed consolidated financial statements.

AGILENT TECHNOLOGIES, INC.

CONDENSED CONSOLIDATED STATEMENT OF EQUITY
(in millions, except number of shares in thousands)
(Unaudited)

	Common Stock			Treasury Stock						
Three Months Ended July 31, 2020	**Number of Shares**	**Par Value**	**Additional Paid-in Capital**	**Number of Shares**	**Treasury Stock at Cost**	**Retained Earnings (Accumulated Deficit)**	**Accumulated Other Comprehensive Loss**	**Total Stockholders' Equity**	**Non-Controlling Interest**	**Total Equity**
Balance as of April 30, 2020	308,443	$ 3	$ 5,288	—	$ —	$ 15	$ (538)	$ 4,768	$ —	$ 4,768
Components of comprehensive income, net of tax:										
Net income	—	—	—	—	—	199	—	199	—	199
Other comprehensive income	—	—	—	—	—	—	62	62	—	62
Total comprehensive income								261		261
Cash dividends declared ($0.18 per common share)	—	—	—	—	—	(56)	—	(56)	—	(56)
Share-based awards issued, net of tax of $1	497	—	22	—	—	—	—	22	—	22
Repurchase of common stock	—	—	—	(362)	(33)	—	—	(33)	—	(33)
Retirement of treasury stock	(362)	—	(5)	362	33	(28)	—	—	—	—
Share-based compensation	—	—	19	—	—	—	—	19	—	19
Balance as of July 31, 2020	308,578	$ 3	$ 5,324	—	$ —	$ 130	$ (476)	$ 4,981	$ —	$ 4,981

	Common Stock			Treasury Stock						
Nine Months Ended July 31, 2020	**Number of Shares**	**Par Value**	**Additional Paid-in Capital**	**Number of Shares**	**Treasury Stock at Cost**	**Retained Earnings (Accumulated Deficit)**	**Accumulated Other Comprehensive Loss**	**Total Stockholders' Equity**	**Non-Controlling Interest**	**Total Equity**
Balance as of October 31, 2019	309,071	$ 3	$ 5,277	—	$ —	$ (18)	$ (514)	$ 4,748	$ —	$ 4,748
Components of comprehensive income, net of tax:										
Net income	—	—	—	—	—	497	—	497	—	497
Other comprehensive income	—	—	—	—	—	—	38	38	—	38
Total comprehensive income								535		535
Cash dividends declared ($0.54 per common share)	—	—	—	—	—	(167)	—	(167)	—	(167)
Share-based awards issued, net of tax of $34	2,258	—	21	—	—	—	—	21	—	21
Repurchase of common stock	—	—	—	(2,751)	(219)	—	—	(219)	—	(219)
Retirement of treasury stock	(2,751)	—	(37)	2,751	219	(182)	—	—	—	—
Share-based compensation	—	—	63	—	—	—	—	63	—	63
Balance as of July 31, 2020	308,578	$ 3	$ 5,324	—	$ —	$ 130	$ (476)	$ 4,981	$ —	$ 4,981

	Common Stock			Treasury Stock						
Three Months Ended July 31, 2019	**Number of Shares**	**Par Value**	**Additional Paid-in Capital**	**Number of Shares**	**Treasury Stock at Cost**	**Retained Earnings (Accumulated Deficit)**	**Accumulated Other Comprehensive Loss**	**Total Stockholders' Equity**	**Non-Controlling Interest**	**Total Equity**
Balance as of April 30, 2019	317,285	$ 3	$ 5,343	(9)	$ (1)	$ 178	$ (398)	$ 5,125	$ —	$ 5,125
Components of comprehensive income, net of tax:										
Net income	—	—	—	—	—	191	—	191	—	191
Other comprehensive loss	—	—	—	—	—	—	(6)	(6)	—	(6)
Total comprehensive income								185		185
Cash dividends declared ($0.164 per common share)	—	—	—	—	—	(51)	—	(51)	—	(51)
Share-based awards issued, net of tax of $1	325	—	19	—	—	—	—	19	—	19
Repurchase of common stock	—	—	—	(8,004)	(549)	—	—	(549)	—	(549)
Retirement of treasury stock	(8,013)	—	(110)	8,013	550	(440)	—	—	—	—
Share-based compensation	—	—	18	—	—	—	—	18	—	18
Balance as of July 31, 2019	309,597	$ 3	$ 5,270	—	$ —	$ (122)	$ (404)	$ 4,747	$ —	$ 4,747

	Common Stock			Treasury Stock						
Nine Months Ended July 31, 2019	**Number of Shares**	**Par Value**	**Additional Paid-in Capital**	**Number of Shares**	**Treasury Stock at Cost**	**Retained Earnings (Accumulated Deficit)**	**Accumulated Other Comprehensive Loss**	**Total Stockholders' Equity**	**Non-Controlling Interest**	**Total Equity**
Balance as of October 31, 2018	317,715	$ 3	$ 5,308	—	$ —	$ (336)	$ (408)	$ 4,567	$ 4	$ 4,571
Effects of adoption of new accounting standards	—	—	—	—	—	33	$ (7)	26	—	26
Components of comprehensive income, net of tax:										
Net income	—	—	—	—	—	877	—	877	—	877
Other comprehensive income	—	—	—	—	—	—	11	11	—	11
Total comprehensive income								888		888
Purchase of non-controlling interest	—	—	—	—	—	—	—	—	(4)	(4)
Cash dividends declared ($0.492 per common share)	—	—	—	—	—	(155)	—	(155)	—	(155)
Share-based awards issued, net of tax of $15	1,652	—	37	—	—	—	—	37	—	37
Repurchase of common stock	—	—	—	(9,770)	(674)	—	—	(674)	—	(674)
Retirement of treasury stock	(9,770)	—	(133)	9,770	674	(541)	—	—	—	—
Share-based compensation	—	—	58	—	—	—	—	58	—	58
Balance as of July 31, 2019	309,597	$ 3	$ 5,270	—	$ —	$ (122)	$ (404)	$ 4,747	$ —	$ 4,747

The accompanying notes are an integral part of these condensed consolidated financial statements.

AGILENT TECHNOLOGIES, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(UNAUDITED)

1. OVERVIEW, BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Overview. Agilent Technologies, Inc. ("we", "Agilent" or the "company"), incorporated in Delaware in May 1999, is a global leader in life sciences, diagnostics and applied chemical markets, providing application focused solutions that include instruments, software, services and consumables for the entire laboratory workflow.

Our fiscal year-end is October 31, and our fiscal quarters end on January 31, April 30 and July 31. Unless otherwise stated, these dates refer to our fiscal year and fiscal quarters.

Basis of Presentation. We have prepared the accompanying financial data for the three and nine months ended July 31, 2020 and 2019 pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"). Certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles ("GAAP") in the U.S. have been condensed or omitted pursuant to such rules and regulations. The October 31, 2019 condensed balance sheet data was derived from audited financial statements but does not include all the disclosures required in audited financial statements by U.S. GAAP. The accompanying financial data and information should be read in conjunction with our Annual Report on Form 10-K for the fiscal year ended October 31, 2019.

In the opinion of management, the accompanying condensed consolidated financial statements contain all normal and recurring adjustments necessary for a fair statement of our condensed consolidated balance sheet as of July 31, 2020 and October 31, 2019, condensed consolidated statement of comprehensive income (loss) for the three and nine months ended July 31, 2020 and 2019, condensed consolidated statement of operations for the three and nine months ended July 31, 2020 and 2019, condensed consolidated statement of cash flows for the nine months ended July 31, 2020 and 2019 and condensed consolidated statement of equity for the three and nine months ended July 31, 2020 and 2019.

Use of Estimates. The preparation of condensed consolidated financial statements in accordance with GAAP in the U.S. requires management to make estimates and assumptions that affect the amounts reported in our condensed consolidated financial statements and accompanying notes. Management bases its estimates on historical experience and various other assumptions believed to be reasonable. Although these estimates are based on management's best knowledge of current events and actions that may impact the company in the future, actual results may be different from the estimates. Our critical accounting policies are those that affect our financial statements materially and involve difficult, subjective or complex judgments by management. Those policies are revenue recognition, inventory valuation, retirement and post-retirement benefit plan assumptions, valuation of goodwill and purchased intangible assets and accounting for income taxes.

Risks and Uncertainties. We are subject to risks common to companies in the analytical instrument industry, such as global economic and financial market conditions, fluctuations in foreign currency exchange rates and fluctuations in customer demand, among others.

Both our domestic and international operations have been and continue to be affected by the ongoing global pandemic of a novel strain of coronavirus ("COVID-19") and the resulting volatility and uncertainty it has caused in the U.S. and international markets. In March 2020, the World Health Organization declared COVID-19 a pandemic and recommended containment and mitigation measures worldwide. As a result, hospitals and testing laboratories have halted certain elective medical procedures, which had an adverse effect on our customers' business. In the third quarter, revenue from the academia and government markets improved sequentially but continues to be negatively affected by delays in installations due to continued laboratory closures in the Americas and, to a lesser extent, in Europe. Revenue from the chemical and energy markets has also been negatively impacted by the global slowdown in economic activity associated with measures put in place to slow the pandemic. Revenue from the diagnostics and clinical markets declined due to continued reduction in demand for non-COVID testing, although we did see some gradual improvement within the third quarter. The revenue decline was also due to limited access to customer laboratories in the genomics research markets. The COVID-19 pandemic has caused significant volatility and uncertainty in U.S. and international markets, which could result in a prolonged economic downturn that could disrupt our business.

Variable Interest Entities. We make a determination upon entering into an arrangement whether an entity in which we have made an investment is considered a Variable Interest Entity ("VIE"). The company evaluates its investments in privately held companies on an ongoing basis. We have determined that as of July 31, 2020 and October 31, 2019, there were no VIE's required to be consolidated in the company's consolidated financial statements because we do not have a controlling financial interest in any of the VIE's that we have invested in nor are we the primary beneficiary. We account for these investments under either the equity method or as equity investments without readily determinable fair value, depending on the circumstances. We periodically reassess whether we are the primary beneficiary of a VIE. The reassessment process considers whether we have acquired the power to direct the most significant activities of the VIE through changes in governing documents or other circumstances. We also reconsider whether entities previously determined not to be VIEs have become VIEs, based on changes in facts and circumstances including changes in contractual arrangements and capital structure.

As of July 31, 2020 and October 31, 2019, the total carrying value of investments and loans in privately held companies considered as VIE's was $65 million and $29 million respectively. The maximum exposure is equal to the carrying value because we do not have future funding commitments. The investments are included on the long-term investments line and the loans on the other current assets and other assets lines (depending upon tenure of loan) on the condensed consolidated balance sheet.

Fair Value of Financial Instruments. The carrying values of certain of our financial instruments including cash and cash equivalents, accounts receivable, accounts payable, accrued compensation and other accrued liabilities approximate fair value because of their short maturities. The fair value of long-term equity investments which are readily determinable, and which are not accounted under the equity method are reported at fair value using quoted market prices for those securities when available with gains and losses included in net income. The fair value of long-term equity investments which are not readily determinable, and which are not accounted under the equity method are reported at cost with adjustments for observable changes in prices or impairments included in net income. The fair value of our senior notes, calculated from quoted prices which are primarily Level 1 inputs under the accounting guidance fair value hierarchy, exceeds the carrying value by approximately $197 million and $62 million as of July 31, 2020 and October 31, 2019, respectively. The change in the fair value over carrying value in the nine months ended July 31, 2020 is primarily due to decreased market interest rates. The fair value of foreign currency contracts used for hedging purposes is estimated internally by using inputs tied to active markets. These inputs, for example, interest rate yield curves, foreign exchange rates, and forward and spot prices for currencies are observable in the market or can be corroborated by observable market data for substantially the full term of the assets or liabilities. See also Note 11, "Fair Value Measurements" for additional information on the fair value of financial instruments.

Restricted Cash and Restricted Cash Equivalents. Restricted cash and restricted cash equivalents are included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. A reconciliation of cash, cash equivalents and restricted cash to the condensed consolidated balance sheet follows:

	July 31, 2020	October 31 2019
	(in millions)	
Cash and cash equivalents	$ 1,358	$ 1,382
Restricted cash included in other assets	6	6
Total cash, cash equivalents and restricted cash	$ 1,364	$ 1,388

Leases. We determine whether an arrangement is, or contains, a lease at inception. Prior to November 1, 2019, for leases where we are the lessee, we accounted for operating lease payments by charging them to expense as incurred. At the beginning of fiscal 2020, the company adopted new lease accounting guidance issued by the Financial Accounting Standards Board ("FASB"). The most significant change requires lessees to record the present value of operating lease payments as right-of-use ("ROU") and lease liabilities on the condensed consolidated balance sheet. Where we are the lessee, ROU assets represent the company's right to use an underlying asset for the lease term, and lease liabilities represent an obligation to make lease payments based on the present value of lease payments over the lease term. Classification of operating lease liabilities as either current or non-current is based on the expected timing of payments due under our obligations. As most of our leases do not provide an implicit interest rate, we use our incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. The incremental borrowing rate is the rate of interest that a lessee would have to pay to borrow on a collateralized basis over a similar term and at an amount equal to the lease payments in a similar economic environment. In order to determine the appropriate incremental borrowing rates, we have used a number of factors including the parent's credit rating, the lease term and the currency swap rate. The ROU asset also consists of any lease incentives received. The lease terms used to calculate the ROU asset and related lease liability include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Leases with an initial term of twelve months or less are not recorded on the condensed consolidated balance sheet and lease expense for these leases is recognized on a straight-line basis over the lease term. Lease expense for operating leases with an initial term of more than twelve months is recognized on a straight-line basis over the lease term as an operating expense. We have lease agreements which require payments for lease and non-lease components. We have elected to account for these payments as a single lease component.

A portion of our revenue relates to lease arrangements where Agilent is the lessor. Standalone lease arrangements are outside the scope of Accounting Standard Codification ("ASC") Topic 606, Revenue Contracts with Customers, and are therefore accounted for in accordance with ASC Topic 842, Leases. Each of these contracts is evaluated as a lease arrangement, either as an operating lease or a sales-type capital lease using the current lease classification guidance.

See also Note 2, "New Accounting Pronouncements" and Note 9, "Leases" for additional information about the company's leases.

2. NEW ACCOUNTING PRONOUNCEMENTS

Accounting Pronouncements Not Yet Adopted

There were no changes to the new accounting pronouncements not yet adopted as described in our Annual Report on Form 10-K for the fiscal year ended October 31, 2019 except for the following:

In December 2019, the FASB issued new guidance to simplify the accounting for income taxes. This guidance eliminates certain exceptions to existing guidance related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. The guidance also improves consistent application by clarifying and amending existing guidance related to aspects of the accounting for franchise taxes and enacted changes in tax laws or rates and clarifies the accounting for transactions that result in a step up in the tax basis of goodwill. The new guidance is effective for us beginning November 1, 2021, and for interim periods within that year. Early adoption is permitted. We do not expect that the adoption of this standard will have a material impact on our condensed consolidated financial statements and disclosures.

In January 2020, accounting guidance was issued that clarifies the accounting guidance for equity method investments, joint ventures, and derivatives and hedging. The guidance clarifies the interaction between different sections of the accounting guidance that could be applicable and helps clarify which guidance should be applied in certain situations which should increase relevance and comparability of financial statement information. This guidance is effective for us beginning November 1, 2021, and for interim periods within that year. Early adoption is permitted. We do not expect that the adoption of this standard will have a material impact on our condensed consolidated financial statements and disclosures.

In March 2020, the FASB issued an update for facilitation of the effects of reference rate reform on financial reporting. This new update provides the guidance needed to ease the process of migrating away from London Inter-bank Offered Rate ("LIBOR") and other interbank offered rates to new reference rates. The amendments are effective for all entities as of March 12, 2020 through December 31, 2022. We are evaluating the impact of this guidance on our condensed consolidated financial statements and disclosures.

Recently Adopted Accounting Pronouncements

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, Leases (Topic 842), which requires lessees to record most leases on the balance sheet as lease liabilities, initially measured at the present value of future lease payments, with a corresponding right-of-use asset. The accounting applied by a lessor is largely unchanged from that applied under the prior accounting standard.

On November 1, 2019, we adopted the new accounting guidance using the modified retrospective method, by applying the transition approach, for all lease arrangements at the beginning of the period of adoption. Results for reporting periods beginning November 1, 2019 are presented under the new accounting standard, while prior period amounts have not been restated. The standard had a significant impact on the opening condensed consolidated balance sheet as of November 1, 2019, but did not have a significant impact on the condensed consolidated statement of operations or condensed consolidated statement of cash flows for the nine months ended July 31, 2020 when compared to the same period in 2019. The most significant impact was the recognition of ROU assets and lease liabilities for operating leases, while the accounting for finance leases remained substantially unchanged. For leases that commenced before the effective date of the new accounting standard, we elected the permitted practical expedients to not reassess the following: (i) whether any expired or existing contracts contain leases; (ii) the lease classification for any expired or existing leases; and (iii) initial direct costs for any existing leases. We also elected to exclude leases with a term of 12 months or less in the ROU assets and lease liabilities.

Adoption of the new guidance impacted the condensed consolidated balance sheet as follows:

	October 31, 2019 As Reported	Impact of Adopting Lease Guidance	November 1, 2019 As Adopted
		(in millions)	
Other assets	$ 611	$ 192	$ 803
Other accrued liabilities	$ 440	$ 48	$ 488
Other long-term liabilities	$ 473	$ 144	$ 617

Other amendments to GAAP in the U.S. that have been issued by the FASB or other standards-setting bodies that do not require adoption until a future date are not expected to have a material impact on our condensed consolidated financial statements upon adoption.

3. ACQUISITIONS

Acquisition of BioTek and ACEA

On August 23, 2019 we completed the acquisition of privately-owned Lionheart Technologies LLC ("BioTek"), a leader in the design, manufacture and distribution of innovative life science instrumentation for $1.17 billion, under the merger agreement. As a result of the acquisition, BioTek has become a wholly owned subsidiary of Agilent. Accordingly, the results of BioTek are included in Agilent's condensed consolidated financial statements from the acquisition date. The acquisition of BioTek and its portfolio is another step to expand our position in the cell analysis market.

The consideration paid was $1.17 billion. Agilent funded the acquisition using existing cash of $470 million and debt of $700 million.

The BioTek acquisition was accounted for in accordance with the authoritative accounting guidance. The acquired assets and assumed liabilities were recorded by Agilent at their estimated fair values. Agilent determined the estimated fair values with the assistance of appraisals or valuations performed by third-party specialists, discounted cash flow analyses, and estimates made by management. We expect to realize revenue synergies, leverage and expand the existing sales channels and product development resources, and utilize the assembled workforce. These factors, among others, contributed to a purchase price in excess of the estimated fair value of BioTek's net identifiable assets acquired (see summary of net assets below), and, as a result, we have recorded goodwill in connection with this transaction.

Goodwill acquired was allocated to our operating segments and reporting units as a part of the purchase price allocation. All goodwill was allocated to the life sciences and applied markets reporting unit.

Agilent's acquisition of BioTek is treated as an asset purchase for tax purposes. The tax basis of the acquired assets equals the fair market value on acquisition date.

The following table summarizes the allocation of the purchase price to the estimated fair values of the assets acquired and liabilities assumed on the closing date of August 23, 2019 (in millions):

Cash and cash equivalents	$ 10
Accounts receivable	28
Inventories	21
Other current assets	2
Property, plant and equipment	8
Intangible assets	641
Goodwill	483
Total assets acquired	1,193
Accounts payable	(4)
Deferred revenue	(5)
Employee compensation and benefits	(7)
Other accrued liabilities	(2)
Long-term debt	(4)
Net assets acquired	$ 1,171

The fair value of cash and cash equivalents, accounts receivable, other current assets, accounts payable and other accrued liabilities were generally determined using historical carrying values given the short-term nature of these assets and liabilities.

The fair values for acquired intangible assets and deferred revenue were determined with the input from third party valuation specialists.

The fair values of certain other assets, inventory, property, plant and equipment, investments, long-term debt, and certain other long-term liabilities were determined internally using historical carrying values and estimates made by management.

Valuations of intangible assets acquired

The components of intangible assets acquired in connection with the BioTek acquisition were as follows (in millions):

	Fair Value	Estimated Useful Life
Developed product technology	$ 387	5-13 years
Customer relationships	202	3-8 years
Backlog	5	2 months
Tradenames and trademarks	43	10 years
Total intangible assets subject to amortization	637	
In-process research and development	4	
Total intangible assets	$ 641	

As noted above, the intangible assets, including in-process research and development, were valued with input from valuation specialists. Agilent used variations of the income approach in determining the fair value of intangible assets acquired in the BioTek acquisition. Specifically, the developed product technology and in-process research and development were valued using the multi-period excess earnings method under the income approach by discounting forecasted cash flows directly related to the products expecting to result from the projects, net of returns on contributory assets. The company utilized the incremental cash flow method for determining the fair value of the customer relationships acquired and the relief from royalty method to determine the fair value of the tradename. Order backlog was valued on a direct cash flow basis.

The primary in-process research and development project acquired relates to a next version of a product which was subsequently released to customers in 2020.

Acquisition and integration costs directly related to the BioTek acquisition totaled $3 million and $9 million for the three and nine months ended July 31, 2020, respectively, and were recorded in selling, general and administrative expenses.

On November 14, 2018, we acquired 100 percent of the stock of ACEA Biosciences ("ACEA"), a developer of cell analysis tools, for $250 million. The financial results of ACEA have been included in our financial results from the acquisition date.

The following represents the unaudited proforma operating results as if BioTek and ACEA had been included in the company's condensed consolidated statements of operations as of the beginning of fiscal 2018 (in millions, except per share amounts):

	Three Months Ended July 31,	Nine Months Ended July 31,
	2019	2019
Net revenue	$ 1,319	$ 3,930
Net income	$ 174	$ 816
Net income per share — basic	$ 0.56	$ 2.58
Net income per share — diluted	$ 0.55	$ 2.55

The unaudited proforma financial information assumes that the companies were combined as of November 1, 2017 and includes business combination accounting effects from the acquisition including amortization charges from acquired intangible assets, the impact on cost of sales due to the respective estimated fair value adjustments to inventory, changes to interest income for cash used in the acquisition, interest expense and currency losses associated with debt paid in connection with the acquisition and acquisition related transaction costs and tax related effects. The proforma information as presented above is for informational purposes only and is not indicative of the results of operations that would have been achieved if the acquisition had taken place at the beginning of fiscal 2018.

The unaudited proforma financial information for the three and nine months ended July 31, 2019 combines the historical results of Agilent (which includes ACEA after the acquisition date), the first two weeks of fiscal year 2019 for ACEA, and BioTek for the three and nine months ended July 31, 2019.

4. REVENUE

The following table presents the company's total revenue and segment revenue disaggregated by geographical region:

	Three Months Ended July 31,							
	2020				2019			
	Life Sciences and Applied Markets	Agilent CrossLab	Diagnostics and Genomics	Total	Life Sciences and Applied Markets	Agilent CrossLab	Diagnostics and Genomics	Total
	(in millions)							
Revenue by Region								
Americas	$ 174	$ 156	$ 121	$ 451	$ 160	$ 167	$ 138	$ 465
Europe	111	127	84	322	118	130	91	339
Asia Pacific	272	180	36	488	266	170	34	470
Total	$ 557	$ 463	$ 241	$ 1,261	$ 544	$ 467	$ 263	$ 1,274

	Nine Months Ended July 31,							
	2020				2019			
	Life Sciences and Applied Markets	Agilent CrossLab	Diagnostics and Genomics	Total	Life Sciences and Applied Markets	Agilent CrossLab	Diagnostics and Genomics	Total
	(in millions)							
Revenue by Region								
Americas	$ 553	$ 484	$ 365	$ 1,402	$ 473	$ 491	$ 367	$ 1,331
Europe	389	391	268	1,048	407	390	279	1,076
Asia Pacific	779	507	120	1,406	800	483	106	1,389
Total	$ 1,721	$ 1,382	$ 753	$ 3,856	$ 1,680	$ 1,364	$ 752	$ 3,796

The following table presents the company's total revenue disaggregated by end markets and by revenue type:

	Three Months Ended July 31,		Nine Months Ended July 31,	
	2020	2019	2020	2019
	(in millions)			
Revenue by End Markets				
Pharmaceutical and Biopharmaceutical	$ 440	$ 416	$ 1,263	$ 1,178
Chemical and Energy	260	291	839	899
Diagnostics and Clinical	178	198	572	578
Food	123	116	367	359
Academia and Government	119	103	375	333
Environmental and Forensics	141	150	440	449
Total	$ 1,261	$ 1,274	$ 3,856	$ 3,796
Revenue by Type				
Instrumentation	$ 526	$ 505	$ 1,610	$ 1,563
Non-instrumentation and other	735	769	2,246	2,233
Total	$ 1,261	$ 1,274	$ 3,856	$ 3,796

Revenue by region is based on the ship to location of the customer. Revenue by end market is determined by the market indicator of the customer and by customer type. Instrumentation revenue includes sales from instruments, remarketed instruments and third-party products. Non-instrumentation and other revenue include sales from contract and per incident services, our companion diagnostics and our nucleic acid solutions businesses as well as sales from spare parts, consumables, reagents, vacuum pumps, subscriptions, software licenses and associated services.

Contract Balances

Contract Assets

Contract assets (unbilled accounts receivable) primarily relate to the company's right to consideration for work completed but not billed at the reporting date. The unbilled receivables are reclassified to trade receivables when billed to customers. Contract assets are generally classified as current assets and are included in "Accounts receivable, net" in the condensed consolidated balance sheet. The balances of contract assets as of July 31, 2020 and October 31, 2019 were $150 million and $110 million, respectively. The increase in unbilled receivables during the nine months ended July 31, 2020 is a result of recognition of revenue upon the transfer of the control to the customer.

Contract Liabilities

The following table provides information about contract liabilities (deferred revenue) and the significant changes in the balances during the nine months ended July 31, 2020:

	Contract Liabilities
	(in millions)
Ending balance as of October 31, 2019	$ 386
Net revenue deferred in the period	331
Revenue recognized that was included in the contract liability balance at the beginning of the period	(273)
Change in deferrals from customer cash advances, net of revenue recognized	3
Currency translation and other adjustments	4
Ending balance as of July 31, 2020	$ 451

During the nine months ended July 31, 2019 revenue recognized that was included in the contract liability balance at October 31, 2018 was $230 million.

Contract liabilities primarily relate to multiple element arrangements for which billing has occurred but transfer of control of all elements to the customer has either partially or not occurred at the balance sheet date. This includes cash received from customers for products and related installation and services in advance of the transfer of control. Contract liabilities are classified as either current in deferred revenue or long-term in other long-term liabilities in the condensed consolidated balance sheet based on the timing of when we expect to complete our performance obligation.

Contract Costs

Incremental costs of obtaining a contract with a customer are recognized as an asset if we expect the benefit of those costs to be longer than one year. We have determined that certain sales incentive programs meet the requirements to be capitalized. The change in total capitalized costs to obtain a contract was immaterial during the three and nine months ended July 31, 2020 and are included in other current and long-term assets on the condensed consolidated balance sheet. We have applied the practical expedient to expense costs as incurred for costs to obtain a contract with a customer when the amortization period would have been one year or less. These costs include the company's internal sales force compensation program, as we have determined that annual compensation is commensurate with annual sales activities.

Transaction Price Allocated to the Remaining Performance Obligations

We have applied the practical expedient in ASC 606-10-50-14 and have not disclosed information about transaction price allocated to remaining performance obligations that have original expected durations of one year or less.

The estimated revenue expected to be recognized for remaining performance obligations that have an original term of more than one year, as of July 31, 2020, was $217 million, the majority of which is expected to be recognized over the next 12 months. Remaining performance obligations primarily include extended warranty, customer manufacturing contracts, and software maintenance contracts and revenue associated with lease arrangements.

5. SHARE-BASED COMPENSATION

Agilent accounts for share-based awards in accordance with the provisions of the authoritative accounting guidance which requires the measurement and recognition of compensation expense for all share-based payment awards made to our employees and directors including restricted stock units, employee stock purchases made under our employee stock purchase plan and performance share awards granted to selected members of our senior management under the long-term performance plan ("LTPP") based on estimated fair values.

Effective May 1, 2020, we adopted the Agilent Technologies, Inc. 2020 Employee Stock Purchase Plan ("ESPP"), which replaced our existing Employee Stock Purchase Plan. The ESPP allows eligible employees to contribute up to ten percent of their base compensation to purchase shares of our common stock at 85 percent of the closing market price at purchase date. There are 31 million shares authorized for issuance in connection with the ESPP.

Participants in the LTPP are entitled to receive shares of the company's stock after the end of a three-year period, if specified performance targets are met. Certain LTPP awards are generally designed to meet the criteria of a performance award with the performance metrics and peer group comparison based on the Total Stockholders' Return ("TSR") set at the beginning of the performance period. Effective November 1, 2015, the Compensation Committee of the Board of Directors approved another type of performance stock award for the company's executive officers and other key employees. Participants in this program are also entitled to receive shares of the company's stock after the end of a three-year period if specified performance targets over the three-year period are met. The performance target for grants made beginning 2017 and later were based on Earnings Per Share ("EPS"). The performance targets for the LTPP-EPS grants for year 2 and year 3 of the performance period are set in the first quarter of year 2 and year 3, respectively. All LTPP awards granted after November 1, 2015, are subject to a one-year post-vest holding period.

The final LTPP award may vary from 0 percent to 200 percent of the target award. We consider the dilutive impact of these programs in our diluted net income per share calculation only to the extent that the performance conditions are expected to be met. Restricted stock units generally vest, with some exceptions, at a rate of 25 percent per year over a period of 4 years from the date of grant.

The impact on our results for share-based compensation was as follows:

	Three Months Ended July 31,		Nine Months Ended July 31,	
	2020	2019	2020	2019
	(in millions)			
Cost of products and services	$ 5	$ 4	$ 16	$ 13
Research and development	2	2	7	6
Selling, general and administrative	12	12	41	39
Total share-based compensation expense	$ 19	$ 18	$ 64	$ 58

At July 31, 2020 and October 31, 2019, there was no share-based compensation capitalized within inventory.

The following assumptions were used to estimate the fair value of awards granted.

	Three Months Ended July 31,		Nine Months Ended July 31,	
	2020	2019	2020	2019
LTPP:				
Volatility of Agilent shares	23%	22%	23%	22%
Volatility of selected peer-company shares	15%-44%	15%-66%	15%-44%	15%-66%
Pair-wise correlation with selected peers	29%	30%	29%	30%
Post-vest holding restriction discount for all executive awards	5.3%	5.0%	5.3%	5.0%

Shares granted under the LTPP (TSR) were valued using a Monte Carlo simulation model. The Monte Carlo simulation fair value model requires the use of highly subjective and complex assumptions, including the price volatility of the underlying stock. For the volatility of our LTPP (TSR) grants, we used our own historical stock price volatility.

The ESPP allows eligible employees to purchase shares of our common stock at 85 percent of the price at purchase and uses the purchase date to establish the fair market value.

The estimated fair value of restricted stock units and LTPP (EPS) awards is determined based on the market price of Agilent's common stock on the date of grant adjusted for expected dividend yield. The compensation cost for LTPP (EPS) reflects the cost of awards that are probable to vest at the end of the performance period.

All awards granted to our senior management employees have a one-year post-vest holding restriction. The estimated discount associated with post-vest holding restrictions is calculated using the Finnerty model. The model calculates the potential lost value if the employees were able to sell the shares during the lack of marketability period, instead of being required to hold the shares. The model used the same historical stock price volatility and dividend yield assumption used for the Monte Carlo simulation model and an expected dividend yield to compute the discount.

6. INCOME TAXES

For the three and nine months ended July 31, 2020, the company's income tax expense was $20 million with an effective tax rate of 9.1 percent and $62 million with an effective tax rate of 11.1 percent, respectively. For the three and nine months ended July 31, 2020, our effective tax rate and the resulting provision for income taxes were impacted by the expiration of the U.S. statute of limitations in July 2020 for fiscal year 2016, which resulted in the recognition of previously unrecognized tax benefits of $16 million. For the nine months ended July 31, 2020, our effective tax rate and the resulting provision for income taxes were also impacted by the excess tax benefits from stock-based compensation of $15 million.

Our calculation of income tax expense for the three and nine months ended July 31, 2020 is dependent in part on forecasts of full year results. The impact of the COVID-19 outbreak on the economic environment is uncertain and may change these forecasts, which could impact tax expense.

For the three and nine months ended July 31, 2019, the company's income tax expense was $31 million with an effective tax rate of 14.0 percent and an income tax benefit of $189 million with an effective tax rate of (27.5) percent, respectively. For the nine months ended July 31, 2019, our effective tax rate and the resulting provision for income taxes were significantly impacted by a discrete benefit of $299 million related to the extension of the company's tax incentive in Singapore.

In the U.S., tax years remain open back to the year 2017 for federal income tax purposes and the year 2015 for significant states. In other major jurisdictions where the company conducts business, the tax years generally remain open back to the year 2009.

It is reasonably possible there could be significant changes to our unrecognized tax benefits in the next twelve months due to either the expiration of a statute of limitation or a tax audit settlement. Given the number of years and numerous matters that remain subject to examination in various tax jurisdictions, management is unable to estimate the range of possible changes to the balance of our unrecognized tax benefits. The company will continue to assess the impact of further guidance from federal and state tax authorities on its business and consolidated financial statements. Any future adjustments will be recognized as discrete income tax expense or benefit in the period the adjustments are determined.

7. NET INCOME PER SHARE

The following is a reconciliation of the numerator and denominator of the basic and diluted net income per share computations for the periods presented below:

	Three Months Ended July 31,		Nine Months Ended July 31,	
	2020	2019	2020	2019
	(in millions)			
Numerator:				
Net income	$ 199	$ 191	$ 497	$ 877
Denominator:				
Basic weighted-average shares	309	312	309	316
Potential common shares— stock options and other employee stock plans	3	4	3	4
Diluted weighted-average shares	312	316	312	320

The dilutive effect of share-based awards is reflected in diluted net income per share by application of the treasury stock method, which includes consideration of unamortized share-based compensation expense and the dilutive effect of in-the-money options and non-vested restricted stock units. Under the treasury stock method, the amount the employee must pay for exercising stock options and unamortized share-based compensation expense collectively are assumed proceeds to be used to repurchase hypothetical shares. An increase in the fair market value of the company's common stock can result in a greater dilutive effect from potentially dilutive awards.

We exclude stock options with exercise prices greater than the average market price of our common stock from the calculation of diluted earnings per share because their effect would be anti-dilutive. In addition, we exclude from the calculation of diluted earnings per share stock options, ESPP, LTPP and restricted stock awards whose combined exercise price and unamortized fair value were greater than the average market price of our common stock because their effect would also be anti-dilutive.

For the three and nine months ended July 31, 2020 and 2019, the impact of the anti-dilutive potential common shares that were excluded from the calculation of diluted earnings per share was not material.

8. INVENTORY

	July 31, 2020	October 31, 2019
	(in millions)	
Finished goods	$ 436	$ 416
Purchased parts and fabricated assemblies	310	263
Inventory	$ 746	$ 679

9. LEASES

As a lessee, we have various non-cancelable operating lease agreements for office space, warehouses, distribution centers, research and development facilities, manufacturing and production locations as well as vehicles, personal computers and other equipment. Our real estate leases have remaining lease terms of one to thirty years, which represent the non-cancelable periods of the leases and include extension options that we determined are reasonably certain to be exercised. We exclude options that are not reasonably certain to be exercised from our lease terms, ranging from six months to twenty years. Our lease payments consist primarily of fixed rental payments for the right to use the underlying leased assets over the lease terms as well as payments for common area maintenance. We often receive incentives from our landlords, such as rent abatement periods, which effectively reduce the total lease payments owed for these leases. Vehicle, personal computer and other equipment operating leases have terms between three and five years.

Prior to the adoption of the new lease accounting standard, future minimum lease payments as of October 31, 2019 and previously disclosed in the company's Annual Report on Form 10-K for the fiscal year ended October 31, 2019 under non- cancelable leases with initial terms exceeding twelve months were as follows:

	Operating Leases
	(in millions)
2020	$ 52
2021	41
2022	29
2023	21
2024	14
Thereafter	56
Total future minimum lease payments	$ 213

The components of lease cost for operating leases were as follows:

	Three Months Ended July 31, 2020	Nine Months Ended July 31, 2020
	(in millions)	
Operating lease cost	$ 14	$ 45
Short-term lease cost	—	1
Variable lease cost (a)	4	11
Sublease income	(4)	(11)
Total lease cost	$ 14	$ 46

(a) Variable lease cost includes cancelable leases, non-fixed maintenance costs and non-recoverable transaction taxes.

Supplemental cash flow information related to leases was as follows:

		Nine Months Ended July 31, 2020
		(in millions)
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flow from operating leases	$	44
Non-cash right of use assets obtained in exchange for operating lease obligations	$	31

Supplemental balance sheet information related to leases was as follows:

	Financial Statement Line Item		July 31, 2020
			(in millions, except lease term and discount rate)
Assets:			
Operating lease:			
Right of use asset	Other assets	$	183
Liabilities:			
Current			
Operating lease liabilities	Other accrued liabilities	$	52
Long-Term			
Operating lease liabilities	Other long-term liabilities	$	133
Weighted average remaining lease term in years			
Operating leases			7.9 years
Weighted average discount rate			
Operating leases			2.0%

Future minimum rents payable as of July 31, 2020 under non-cancelable leases with initial terms exceeding one year reconcile to lease liabilities included in the condensed consolidated balance sheet as follows:

		Operating Leases
		(in millions)
Remainder of 2020	$	15
2021		52
2022		39
2023		26
2024		15
2025		9
Thereafter		48
Total undiscounted future minimum lease payments	$	204
Less: amount of lease payments representing interest		(19)
Present value of future minimum lease payments	$	185
Less: current liabilities		(52)
Long-term lease liabilities	$	133

As of July 31, 2020, we had no additional significant operating or finance leases that had not yet commenced.

As a lessor, we have contracts for equipment leased to customers in connection with our diagnostics business which include both operating-type lease and sales-type lease arrangements. We account for the non-lease component under the revenue recognition rules and the lease component under the leasing guidance. Equipment lease revenue for operating lease agreements is recognized as visualization kits and reagents are shipped over the life of the lease, and the cost of customer leased equipment is recorded within property, plant and equipment, net in the condensed consolidated balance sheet and depreciated over the equipment's estimated useful life. For an arrangement that has been classified as a sales-type lease, revenue is recognized when the transfer of control of the underlying leased asset has occurred and the net investment lease recorded which is calculated at the present value of the remaining lease payments due from the lessee.

Revenue allocated to the lease income for both finance/sales-type lease and operating lease rental arrangements represents less than one percent of total net revenue in the three and nine months ended July 31, 2020.

As of July 31, 2020, the original cost and net book value of operating leased assets was $46 million and $13 million, respectively. As of July 31, 2020, lease receivables related to sales-type leases were $41 million.

10. GOODWILL AND OTHER INTANGIBLE ASSETS

The following table presents goodwill balances and the movements for each of our reportable segments during the nine months ended July 31, 2020:

	Life Sciences and Applied Markets	Diagnostics and Genomics	Agilent CrossLab	Total
		(in millions)		
Goodwill as of October 31, 2019	$ 1,438	$ 1,594	$ 561	$ 3,593
Foreign currency translation impact	5	6	2	13
Goodwill as of July 31, 2020	$ 1,443	$ 1,600	$ 563	$ 3,606

The components of other intangible assets as of July 31, 2020 and October 31, 2019 are shown in the table below:

	Purchased Other Intangible Assets		
	Gross Carrying Amount	Accumulated Amortization	Net Book Value
		(in millions)	
As of October 31, 2019			
Purchased technology	$ 1,413	$ 763	$ 650
Backlog	5	5	—
Trademark/Tradename	196	102	94
Customer relationships	329	87	242
Third-party technology and licenses	28	22	6
Total amortizable intangible assets	1,971	979	992
In-Process R&D	115	—	115
Total	$ 2,086	$ 979	$ 1,107
As of July 31, 2020			
Purchased technology	$ 1,419	$ 839	$ 580
Trademark/Tradename	196	113	83
Customer relationships	330	142	188
Third-party technology and licenses	28	24	4
Total amortizable intangible assets	1,973	1,118	855
In-Process R&D	21	—	21
Total	$ 1,994	$ 1,118	$ 876

During the nine months ended July 31, 2020, there were no additions to goodwill and there were no additions to other intangible assets. During the nine months ended July 31, 2020, other intangible assets decreased $1 million due to the impact of foreign currency translation.

In general, for United States federal tax purposes, goodwill from asset purchases is deductible; however, any goodwill created as part of a stock acquisition is not deductible.

Each quarter we review the events and circumstances to determine if impairment of indefinite-lived intangible assets and goodwill is indicated. During the three and nine months ended July 31, 2020, we did not identify any triggering events or circumstances, including events due to COVID-19, which would indicate an impairment of goodwill. During the nine months ended July 31, 2020, we recorded an impairment of in-process research and development of $90 million related to the shut-down of our sequencer development program in our diagnostics and genomics segment. There were no indicators of impairments of indefinite-lived intangible assets or goodwill during the three and nine months ended July 31, 2019, respectively.

Amortization expense of intangible assets was $45 million and $140 million for the three and nine months ended July 31, 2020, respectively. Amortization expense of intangible assets was $27 million and $82 million for the three and nine months ended July 31, 2019, respectively.

Future amortization expense related to existing finite-lived purchased intangible assets for the remainder of fiscal year 2020 and for each of the five succeeding fiscal years and thereafter is estimated below:

Estimated future amortization expense:

(in millions)		
Remainder of 2020	$	45
2021	$	172
2022	$	150
2023	$	107
2024	$	86
2025	$	68
Thereafter	$	227

11. FAIR VALUE MEASUREMENTS

The authoritative guidance defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required or permitted to be recorded at fair value, we consider the principal or most advantageous market and assumptions that market participants would use when pricing the asset or liability.

Fair Value Hierarchy

The guidance establishes a fair value hierarchy that prioritizes the use of inputs used in valuation techniques into three levels. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. There are three levels of inputs that may be used to measure fair value:

Level 1- applies to assets or liabilities for which there are quoted prices in active markets for identical assets or liabilities.

Level 2- applies to assets or liabilities for which there are inputs other than quoted prices included within level 1 that are observable, either directly or indirectly, for the asset or liability such as: quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in less active markets; or other inputs that can be derived principally from, or corroborated by, observable market data.

Level 3- applies to assets or liabilities for which there are unobservable inputs to the valuation methodology that are significant to the measurement of the fair value of the assets or liabilities.

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

Financial assets and liabilities measured at fair value on a recurring basis as of July 31, 2020 were as follows:

		Fair Value Measurement at July 31, 2020 Using		
	July 31, 2020	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	(in millions)			
Assets:				
Short-term				
Cash equivalents (money market funds)	$ 715	$ 715	$ —	$ —
Derivative instruments (foreign exchange contracts)	13	—	13	—
Long-term				
Trading securities	29	29	—	—
Other investments	25	—	25	—
Total assets measured at fair value	$ 782	$ 744	$ 38	$ —
Liabilities:				
Short-term				
Derivative instruments (foreign exchange contracts)	$ 22	$ —	$ 22	$ —
Long-term				
Deferred compensation liability	29	—	29	—
Total liabilities measured at fair value	$ 51	$ —	$ 51	$ —

Financial assets and liabilities measured at fair value on a recurring basis as of October 31, 2019 were as follows:

		Fair Value Measurement at October 31, 2019 Using		
	October 31, 2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	(in millions)			
Assets:				
Short-term				
Cash equivalents (money market funds)	$ 784	$ 784	$ —	$ —
Derivative instruments (foreign exchange contracts)	12	—	12	—
Long-term				
Trading securities	30	30	—	—
Other investments	25	—	25	—
Total assets measured at fair value	$ 851	$ 814	$ 37	$ —
Liabilities:				
Short-term				
Derivative instruments (foreign exchange contracts)	$ 6	$ —	$ 6	$ —
Long-term				
Deferred compensation liability	30	—	30	—
Total liabilities measured at fair value	$ 36	$ —	$ 36	$ —

Our money market funds and trading securities are generally valued using quoted market prices and therefore are classified within level 1 of the fair value hierarchy. Our derivative financial instruments are classified within level 2, as there is not an active market for each hedge contract, but the inputs used to calculate the value of the instruments are tied to active markets. Our deferred compensation liability is classified as level 2 because, although the values are not directly based on quoted market prices, the inputs used in the calculations are observable. Other investments represent shares we own in a special fund that targets underlying investments of approximately 40 percent in debt securities and 60 percent in equity securities. It has been classified as level 2

because, although the shares of the fund are not traded on any active stock exchange, each of the individual underlying securities are or can be derived from and hence we have a readily determinable value for the underlying securities, from which we are able to determine the fair market value for the special fund itself.

Trading securities, which is comprised of mutual funds, bonds and other similar instruments, other investments and deferred compensation liability are reported at fair value, with gains or losses resulting from changes in fair value recognized currently in net income. Certain derivative instruments are reported at fair value, with unrealized gains and losses, net of tax, included in accumulated other comprehensive loss within stockholders' equity. Realized gains and losses from the sale of these instruments are recorded in net income.

Impairment of Investments. There were no impairments of investments for the three and nine months ended July 31, 2020 and 2019.

Assets and Liabilities Measured at Fair Value on a Non-Recurring Basis

For the three months ended July 31, 2020, there were no impairments of long-lived assets held and used. For the nine months ended July 31, 2020 long-lived assets held and used with a carrying amount of $98 million were written down to fair value of zero, resulting in an impairment of $98 million related to the shut-down of our sequencer development program in our diagnostics and genomics segment. For the three and nine months ended July 31, 2019, there were no impairments of long-lived assets held and used. For the three and nine months ended July 31, 2020 and 2019, there were no impairments of long-lived assets held for sale.

For the three and nine months ended July 31, 2020 and 2019, there were no impairments of non-marketable securities. For the three months ended July 31, 2020 and 2019, a net unrealized loss of $1 million and zero, respectively, was included in net income as an adjustment to the carrying value of non-marketable equity securities without readily determinable fair value based on an observable market transaction. For the nine months ended July 31, 2020 and 2019, a net unrealized gain of $26 million and $1 million, respectively, was included in net income as an adjustment to the carrying value of non-marketable equity securities without readily determinable fair value based on an observable market transaction. As of July 31, 2020 and October 31, 2019, the carrying amount of non-marketable equity securities without readily determinable fair values was $94 million and $47 million, respectively.

Fair values for the non-marketable securities included in long-term investments on the condensed consolidated balance sheet were measured using Level 3 inputs because they are primarily equity stock issued by private companies without quoted market prices. To estimate the fair value of our non-marketable securities, we use the measurement alternative to record these investments at cost and to adjust for impairments and observable price changes (orderly transactions for the identical or a similar security from the same issuer) as and when it occurs.

12. DERIVATIVES

We are exposed to foreign currency exchange rate fluctuations and interest rate changes in the normal course of our business. As part of our risk management strategy, we use derivative instruments, primarily forward contracts and purchased options to hedge economic and/or accounting exposures resulting from changes in foreign currency exchange rates.

Cash Flow Hedges

We enter into foreign exchange contracts to hedge our forecasted operational cash flow exposures resulting from changes in foreign currency exchange rates. These foreign exchange contracts, carried at fair value, have maturities between one and twelve months. These derivative instruments are designated and qualify as cash flow hedges under the criteria prescribed in the authoritative guidance and are assessed for effectiveness against the underlying exposure every reporting period. For open contracts as of July 31, 2020, changes in the time value of the foreign exchange contract are excluded from the assessment of hedge effectiveness and are recognized in cost of sales over the life of the foreign exchange contract. The changes in fair value of the effective portion of the derivative instrument are recognized in accumulated other comprehensive income (loss). Amounts associated with cash flow hedges are reclassified to cost of sales in the condensed consolidated statement of operations when the forecasted transaction occurs. If it becomes probable that the forecasted transaction will not occur, the hedge relationship will be de-designated and amounts accumulated in other comprehensive income (loss) will be reclassified to other income (expense) in the current period. Changes in the fair value of the ineffective portion of derivative instruments are recognized in other income (expense) in the condensed consolidated statement of operations in the current period. We record the premium paid (time value) of an option on the date of purchase as an asset. For options designated as cash flow hedges, changes in the time value are excluded from the assessment of hedge effectiveness and are recognized in cost of sales over the life of the option contract. For the three and nine months ended July 31, 2020 and 2019, ineffectiveness and gains and losses recognized in other income (expense) due to de-designation of cash flow hedge contracts were not significant.

In July 2012, Agilent executed treasury lock agreements for $400 million in connection with future interest payments to be made on our 2022 senior notes issued on September 10, 2012. We designated the treasury lock as a cash flow hedge. The treasury lock contracts were terminated on September 10, 2012, and we recognized a deferred gain in accumulated other comprehensive income which is being amortized to interest expense over the life of the 2022 senior notes. The remaining gain to be amortized related to the treasury lock agreements at July 31, 2020 was $1 million.

In February 2016, Agilent executed three forward-starting pay fixed/receive variable interest rate swaps for the notional amount of $300 million in connection with future interest payments to be made on our 2026 senior notes issued on September 15, 2016. These derivative instruments were designated and qualified as cash flow hedges under the criteria prescribed in the authoritative guidance. The swap arrangements were terminated on September 15, 2016 with a payment of $10 million, and we recognized this as a deferred loss in accumulated other comprehensive income which is being amortized to interest expense over the life of the 2026 senior notes. The remaining loss to be amortized related to the interest rate swap agreements at July 31, 2020 was $6 million.

In August 2019, Agilent executed treasury lock agreements for $250 million in connection with future interest payments to be made on our 2029 senior notes issued on September 16, 2019. We designated the treasury lock as a cash flow hedge. The treasury lock contracts were terminated on September 6, 2019, and we recognized a deferred loss in accumulated other comprehensive income which is being amortized to interest expense over the life of the 2029 senior notes. The remaining loss to be amortized related to the treasury lock agreements at July 31, 2020 was $5 million.

Net Investment Hedges

Starting in 2020, we enter into foreign exchange contracts to hedge net investments in foreign operations to mitigate the risk of adverse movements in exchange rates. These foreign exchange contracts are carried at fair value and are designated and qualify as net investment hedges under the criteria prescribed in the authoritative guidance. Changes in fair value of the effective portion of the derivative instrument are recognized in accumulated other comprehensive income (loss) and are assessed for effectiveness against the underlying exposure every reporting period. If the company’s net investment changes during the year, the hedge relationship will be assessed and de-designated if the hedge notional amount is outside of prescribed tolerance with a gain/loss reclassified from other comprehensive income (loss) to other income (expense) in the current period.

As of July 31, 2020, we have 3 open forward contracts to sell euros to buy USD maturing in the fourth quarter, and these are designated as a net investment hedge of the U.S. parent's interest in foreign subsidiaries denominated in euro functional currency. In the three and nine months ended July 31, 2020, the change in fair value of the net investment hedge resulted in a net loss of $7 million and $6 million, respectively, recognized in accumulated other comprehensive income. For the three and nine months ended July 31, 2020, ineffectiveness and the resultant effect of any gains or losses recognized in other income (expense) due to de-designation of the hedge contracts were not significant.

Other Hedges

Additionally, we enter into foreign exchange contracts to hedge monetary assets and liabilities that are denominated in currencies other than the functional currency of our subsidiaries. These foreign exchange contracts are carried at fair value and do not qualify for hedge accounting treatment and are not designated as hedging instruments. Changes in value of the derivative instruments are recognized in other income (expense) in the condensed consolidated statement of operations, in the current period, along with the offsetting foreign currency gain or loss on the underlying assets or liabilities.

Our use of derivative instruments exposes us to credit risk to the extent that the counterparties may be unable to meet the terms of the agreement. We do, however, seek to mitigate such risks by limiting our counterparties to major financial institutions which are selected based on their credit ratings and other factors. We have established policies and procedures for mitigating credit risk that include establishing counterparty credit limits, monitoring credit exposures, and continually assessing the creditworthiness of counterparties.

A number of our derivative agreements contain threshold limits to the net liability position with counterparties and are dependent on our corporate credit rating determined by the major credit rating agencies. The counterparties to the derivative instruments may request collateralization, in accordance with derivative agreements, on derivative instruments in net liability positions.

The aggregate fair value of all derivative instruments with credit-risk-related contingent features that were in a net liability position as of July 31, 2020, was $11 million. The credit-risk-related contingent features underlying these agreements had not been triggered as of July 31, 2020.

There were 261 foreign exchange forward contracts open as of July 31, 2020 and designated as cash flow hedges. There were 191 foreign exchange forward contracts open as of July 31, 2020 and not designated as hedging instruments. There were 3 foreign exchange forward contracts open as of July 31, 2020 and designated as a net investment hedge. The aggregated notional amounts by currency and designation as of July 31, 2020 were as follows:

	Derivatives Designated as Cash Flow Hedges	Derivatives Designated as Net Investment Hedges	Derivatives Not Designated as Hedging Instruments
	Forward Contracts USD	Forward Contracts USD	Forward Contracts USD
Currency	Buy/(Sell)	Buy/(Sell)	Buy/(Sell)
		(in millions)	
Euro	$ (48)	$ (90)	$ 107
British Pound	(44)	—	6
Canadian Dollar	(40)	—	30
Japanese Yen	(88)	—	12
Korean Won	(60)	—	(37)
Singapore Dollar	15	—	20
Chinese Yuan Renminbi	(77)	—	(64)
Swedish Krona	—	—	(9)
Taiwan Dollar	—	—	(10)
Indian Rupee	—	—	(9)
Other	4	—	4
Totals	$ (338)	$ (90)	$ 50

Derivative instruments are subject to master netting arrangements and are disclosed gross in the balance sheet in accordance with the authoritative guidance. The gross fair values and balance sheet location of derivative instruments held in the consolidated balance sheet as of July 31, 2020 and October 31, 2019 were as follows:

Fair Values of Derivative Instruments

Asset Derivatives			Liability Derivatives		
	Fair Value			Fair Value	
Balance Sheet Location	July 31, 2020	October 31, 2019	Balance Sheet Location	July 31, 2020	October 31, 2019
		(in millions)			
Derivatives designated as hedging instruments:					
Cash flow hedges					
Foreign exchange contracts					
Other current assets	$ 1	$ 3	Other accrued liabilities	$ 10	$ 2
Net investment hedges					
Foreign exchange contracts					
Other current assets	$ —	$ —	Other accrued liabilities	$ 5	$ —
Derivatives not designated as hedging instruments:					
Foreign exchange contracts					
Other current assets	$ 12	$ 9	Other accrued liabilities	$ 7	$ 4
Total derivatives	$ 13	$ 12		$ 22	$ 6

The effect of derivative instruments for foreign exchange contracts designated as hedging instruments and not designated as hedging instruments in our consolidated statement of operations were as follows:

	Three Months Ended July 31,		Nine Months Ended July 31,	
	2020	2019	2020	2019
	(in millions)			
Derivatives designated as hedging instruments:				
Cash Flow Hedges				
Foreign exchange contracts:				
Gain (loss) recognized in accumulated other comprehensive loss	$ (9)	$ 4	$ (6)	$ 2
Loss reclassified from accumulated other comprehensive loss into interest expense	$ —	$ —	$ (1)	$ —
Gain reclassified from accumulated other comprehensive loss into cost of sales	$ 1	$ 1	$ 3	$ 6
Gain (loss) on time value of forward contracts recorded in cost of sales	$ —	$ (1)	$ 2	$ 1
Net Investment Hedges				
Foreign exchange contracts:				
Loss recognized in accumulated other comprehensive loss	$ (7)	$ —	$ (6)	$ —
Derivatives not designated as hedging instruments:				
Gain (loss) recognized in other income (expense)	$ 9	$ —	$ 6	$ (2)

At July 31, 2020, the estimated amount of existing net loss that is expected to be reclassified from accumulated other comprehensive loss to cost of sales within the next twelve months is $5 million.

13. RETIREMENT PLANS AND POST RETIREMENT PENSION PLANS

Components of net periodic costs (benefits). For the three and nine months ended July 31, 2020 and 2019, our net pension and post retirement benefit costs (benefits) were comprised of the following:

	Three Months Ended July 31,					
	U.S. Pension Plans		Non-U.S. Pension Plans		U.S. Post Retirement Benefit Plans	
	2020	2019	2020	2019	2020	2019
	(in millions)					
Service cost—benefits earned during the period	$ —	$ —	$ 6	$ 6	$ 1	$ —
Interest cost on benefit obligation	4	5	2	3	—	1
Expected return on plan assets	(7)	(7)	(11)	(11)	(2)	(1)
Amortization:						
Actuarial losses	—	—	12	9	1	1
Prior service credits	—	—	—	—	(1)	(2)
Total net plan costs (benefits)	$ (3)	$ (2)	$ 9	$ 7	$ (1)	$ (1)

	Nine Months Ended July 31,					
	U.S. Pension Plans		Non-U.S. Pension Plans		U.S. Post Retirement Benefit Plans	
	2020	2019	2020	2019	2020	2019
	(in millions)					
Service cost—benefits earned during the period	$ —	$ —	$ 18	$ 16	$ 1	$ —
Interest cost on benefit obligation	12	15	6	9	2	2
Expected return on plan assets	(22)	(21)	(35)	(33)	(5)	(3)
Amortization:						
Actuarial losses	2	—	36	27	3	3
Prior service credits	—	—	—	—	(5)	(6)
Total net plan costs (benefits)	$ (8)	$ (6)	$ 25	$ 19	$ (4)	$ (4)

The service cost component is recorded in cost of sales and operating expenses in the condensed consolidated statement of operations. All other cost components are recorded in other income (expense), net in the condensed consolidated statement of operations.

We made no contributions to our U.S. defined benefit plans during the three and nine months ended July 31, 2020, respectively. We contributed $9 million and $28 million to our non-U.S. defined benefit plans during the three and nine months ended July 31, 2020, respectively.

We made no contributions to our U.S. defined benefit plans during the three and nine months ended July 31, 2019, respectively. We contributed $5 million and $16 million to our non-U.S. defined benefit plans during the three and nine months ended July 31, 2019, respectively.

We do not expect to contribute to our U.S. defined benefit plans during the remainder of 2020 and we expect to contribute $9 million to our non-U.S. defined benefit plans during the remainder of 2020.

14. WARRANTIES AND CONTINGENCIES

Warranties

We accrue for standard warranty costs based on historical trends in warranty charges as a percentage of net product shipments. The accrual is reviewed regularly and periodically adjusted to reflect changes in warranty cost estimates. Estimated warranty charges are recorded within cost of products at the time products are sold. The standard warranty accrual balances are held in other accrued and other long-term liabilities on our condensed consolidated balance sheet. Our standard warranty terms typically extend to one year from the date of delivery, depending on the product.

A summary of the standard warranty accrual activity is shown in the table below:

	Nine Months Ended July 31,	
	2020	2019
	(in millions)	
Beginning balance as of November 1,	$ 32	$ 35
Accruals for warranties including change in estimate	36	40
Settlements made during the period	(37)	(43)
Ending balance as of July 31,	$ 31	$ 32
Accruals for warranties due within one year	$ 31	$ 32

Bank Guarantees

Guarantees consist primarily of outstanding standby letters of credit and bank guarantees and were approximately $41 million as of July 31, 2020 and $40 million as of October 31, 2019. A standby letter of credit is a guarantee of payment issued by a bank on behalf of us that is used as payment of last resort should we fail to fulfill a contractual commitment with a third party. A bank guarantee is a promise from a bank or other lending institution that if we default on a loan, the bank will cover the loss.

Contingencies

We are involved in lawsuits, claims, investigations and proceedings, including, but not limited to, intellectual property, commercial, real estate, environmental and employment matters, which arise in the ordinary course of business. There are no matters pending that we currently believe are probable and reasonably possible of having a material impact to our business, consolidated financial condition, results of operations or cash flows.

15. SHORT-TERM DEBT

Credit Facilities

On March 13, 2019, we entered into a credit agreement with a group of financial institutions which provided for a $1 billion five-year unsecured credit facility that will expire on March 13, 2024. During the nine months ended July 31, 2020, we borrowed $798 million and repaid $913 million under the credit facility. As of July 31, 2020, we had no borrowings outstanding under the credit facility. On August 7, 2019, we entered into an amendment to the credit agreement, which provided for a $500 million short-term loan facility that was used in full to complete the BioTek acquisition and which was repaid in full as of July 31, 2020. On October 21, 2019, we entered into a second amendment to the credit agreement, which refreshed the amount available for additional incremental term loan facilities under the credit agreement to permit additional incremental facilities of up to $500 million. We had no borrowings under the additional incremental loan facilities as of July 31, 2020. On April 17, 2020, we entered into a third amendment to the credit agreement which provides the company with the option to request the consent of the applicable class of lenders to extend the maturity date of revolving borrowings and swingline loans for an additional period of one year and of the 2019 incremental term loans for an additional period of up to 364 days. We were in compliance with the covenants for the credit facility during the nine months ended July 31, 2020.

Commercial Paper

In May 2020, we established a U.S. commercial paper program, under which the company may issue and sell unsecured, short-term promissory notes in the aggregate principal amount not to exceed $1.0 billion with up to 397-day maturities. At any point in time, the company intends to maintain available commitments under its revolving credit facility in an amount at least equal to the amount of the commercial paper notes outstanding. Amounts available under the program may be borrowed, repaid and re-borrowed from time to time. The proceeds from issuances under the program may be used for general corporate purposes. As of July 31, 2020, borrowings outstanding under our U.S. commercial paper program had a weighted average annual interest rate of 0.23 percent and a weighted average remaining maturity of approximately 3 days. We had borrowings of $40 million outstanding under the U.S. commercial paper program as of July 31, 2020.

16. LONG-TERM DEBT

Senior Notes

The following table summarizes the company's long-term senior notes:

	July 31, 2020		October 31, 2019	
	Amortized Principal		Amortized Principal	
	(in millions)			
2022 Senior Notes	$	399	$	399
2023 Senior Notes		598		597
2026 Senior Notes		298		298
2029 Senior Notes		493		492
2030 Senior Notes		495		—
Total	$	2,283	$	1,786

2030 Senior Notes

On June 4, 2020, we issued an aggregate principal amount of $500 million in senior notes ("2030 senior notes"). The 2030 senior notes were issued at 99.812% of their principal amount. The 2030 senior notes will mature on June 4, 2030, and bear interest at a fixed rate of 2.10% per annum. The interest is payable semi-annually on June 4th and December 4th of each year and payments commence on December 4, 2020.

All outstanding notes listed above are unsecured and rank equally in right of payment with all of Agilent's other senior unsecured indebtedness. Other than the issuance of the 2030 senior notes there have been no other changes to the principal, maturity, interest rates and interest payment terms of the Agilent senior notes, detailed in the table above, in the nine months ended July 31, 2020 as compared to the senior notes described in our Annual Report on Form 10-K for the fiscal year ended October 31, 2019.

17. STOCKHOLDERS' EQUITY

Stock Repurchase Program

On November 19, 2018 we announced that our board of directors had approved a new share repurchase program (the "2019 repurchase program") designed, among other things, to reduce or eliminate dilution resulting from issuance of stock under the company's employee equity incentive programs. The 2019 repurchase program authorizes the purchase of up to $1.75 billion of our common stock at the company's discretion and has no fixed termination date. The 2019 repurchase program does not require the company to acquire a specific number of shares and may be suspended, amended or discontinued at any time.

During the three months ended July 31, 2020, we resumed stock repurchases after suspending them on March 23, 2020. During the three and nine months ended July 31, 2020, we repurchased and retired approximately 362,000 shares for $33 million and 2.8 million shares for $219 million, respectively, under this authorization. During the three and nine months ended July 31, 2019, we repurchased and retired approximately 8.0 million shares for $549 million and 9.8 million shares for $674 million, respectively, under this authorization. As of July 31, 2020, we had remaining authorization to repurchase up to $808 million of our common stock under this program.

Cash Dividends on Shares of Common Stock

During the three and nine months ended July 31, 2020, we paid cash dividends of $0.18 per common share or $56 million and $0.540 per common share or $167 million, respectively, on the company's common stock. During the three and nine months ended July 31, 2019, we paid cash dividends of $0.164 per common share or $51 million and $0.492 per common share or $155 million, respectively, on the company's common stock.

Accumulated Other Comprehensive Income (Loss)

Changes in accumulated other comprehensive income (loss) by component and related tax effects were as follows (in millions):

		Net defined benefit pension cost and post retirement plan costs			
Three Months Ended July 31, 2020	**Foreign currency translation**	**Prior service credits**	**Actuarial Losses**	**Unrealized gains (losses) on derivatives**	**Total**
			(in millions)		
As of April 30, 2020	$ (244)	$ 127	$ (419)	$ (2)	$ (538)
Other comprehensive income (loss) before reclassifications	60	—	—	(9)	51
Amounts reclassified out of accumulated other comprehensive income (loss)	—	(1)	14	(1)	12
Tax (expense) benefit	—	1	(4)	2	(1)
Other comprehensive income (loss)	60	—	10	(8)	62
As of July 31, 2020	$ (184)	$ 127	$ (409)	$ (10)	$ (476)
Nine Months Ended July 31, 2020					
As of October 31, 2019	$ (204)	$ 131	$ (437)	$ (4)	$ (514)
Other comprehensive income (loss) before reclassifications	20	—	(5)	(6)	9
Amounts reclassified out of accumulated other comprehensive income (loss)	—	(5)	42	(2)	35
Tax (expense) benefit	—	1	(9)	2	(6)
Other comprehensive income (loss)	20	(4)	28	(6)	38
As of July 31, 2020	$ (184)	$ 127	$ (409)	$ (10)	$ (476)

Reclassifications out of accumulated other comprehensive income (loss) for the three and nine months ended July 31, 2020 and 2019 were as follows (in millions):

Details about accumulated other comprehensive income (loss) components	Amounts Reclassified from other comprehensive income (loss)				Affected line item in statement of operations
	Three Months Ended July 31,		Nine Months Ended July 31,		
	2020	2019	2020	2019	
Unrealized gain on derivatives	$ 1	$ 1	$ 3	$ 6	Cost of products
	—	—	(1)	—	Interest expense
	1	1	2	6	Total before income tax
	—	(1)	—	(2)	Provision for income tax
	1	—	2	4	Total net of income tax
Net defined benefit pension cost and post retirement plan costs:					
Actuarial net loss	(14)	(10)	(42)	(30)	
Prior service benefit	1	2	5	6	
	(13)	(8)	(37)	(24)	Total before income tax
	3	5	11	10	Benefit for income tax
	(10)	(3)	(26)	(14)	Total net of income tax
Total reclassifications for the period	$ (9)	$ (3)	$ (24)	$ (10)	

Amounts in parentheses indicate reductions to income and increases to other comprehensive income (loss).

Reclassifications out of accumulated other comprehensive income (loss) of prior service benefit and actuarial net loss in respect of retirement plans and post retirement pension plans are included in the computation of net periodic cost (see Note 13, "Retirement Plans and Post Retirement Pension Plans").

18. SEGMENT INFORMATION

Description of segments. We are a global leader in life sciences, diagnostics and applied chemical markets, providing application focused solutions that include instruments, software, services and consumables for the entire laboratory workflow. Agilent has three business segments comprised of the life sciences and applied markets business, diagnostics and genomics business and the Agilent CrossLab business each of which comprises a reportable segment. The three operating segments were determined based primarily on how the chief operating decision maker views and evaluates our operations. Operating results are regularly reviewed by the chief operating decision maker to make decisions about resources to be allocated to the segment and to assess its performance. Other factors, including market separation and customer specific applications, go-to-market channels, products and services and manufacturing are considered in determining the formation of these operating segments.

A description of our three reportable segments is as follows:

Our life sciences and applied markets business provides application-focused solutions that include instruments and software that enable customers to identify, quantify and analyze the physical and biological properties of substances and products, as well as enable customers in the clinical and life sciences research areas to interrogate samples at the molecular and cellular level. Key product categories include: liquid chromatography ("LC") systems and components; liquid chromatography mass spectrometry ("LCMS") systems; gas chromatography ("GC") systems and components; gas chromatography mass spectrometry ("GCMS") systems; inductively coupled plasma mass spectrometry ("ICP-MS") instruments; atomic absorption ("AA") instruments; microwave plasma-atomic emission spectrometry ("MP-AES") instruments; inductively coupled plasma optical emission spectrometry ("ICP-OES") instruments; raman spectroscopy; cell analysis plate based assays; flow cytometer; real-time cell analyzer; cell imaging systems; microplate reader; laboratory software for sample tracking; information management and analytics; laboratory automation and robotic systems; dissolution testing; vacuum pumps and measurement technologies.

Our diagnostics and genomics business is comprised of six areas of activity providing active pharmaceutical ingredients ("APIs") for oligo-based therapeutics as well as solutions that include reagents, instruments, software and consumables, which enable customers in the clinical and life sciences research areas to interrogate samples at the cellular and molecular level. First, our genomics business includes arrays for DNA mutation detection, genotyping, gene copy number determination, identification of gene rearrangements, DNA methylation profiling, gene expression profiling, as well as next generation sequencing ("NGS") target enrichment and genetic data management and interpretation support software. This business also includes solutions that enable clinical labs to identify DNA variants associated with genetic disease and help direct cancer therapy. Second, our nucleic acid solutions business provides equipment and expertise focused on production of synthesized oligonucleotides under pharmaceutical good manufacturing practices ("GMP") conditions for use as API in an emerging class of drugs that utilize nucleic acid molecules for disease therapy. Third, our pathology solutions business is focused on product offerings for cancer diagnostics and anatomic pathology workflows. The broad portfolio of offerings includes immunohistochemistry ("IHC"), in situ hybridization ("ISH"), hematoxylin and eosin ("H&E") staining and special staining. Fourth, we also collaborate with a number of major pharmaceutical companies to develop new potential pharmacodiagnostics, also known as companion diagnostics, which may be used to identify patients most likely to benefit from a specific targeted therapy. Fifth, the reagent partnership business is a provider of reagents used for turbidimetry and flow cytometry. Finally, our biomolecular analysis business provides complete workflow solutions, including instruments, consumables and software, for quality control analysis of nucleic acid samples. Samples are analyzed using quantitative and qualitative techniques to ensure accuracy in further genomics analysis techniques utilized in clinical and life science research applications.

The Agilent CrossLab business spans the entire lab with its extensive consumables and services portfolio, which is designed to improve customer outcomes. Most of the portfolio is vendor neutral, meaning Agilent can serve and supply customers regardless of their instrument purchase choices. Solutions range from chemistries and supplies to services and software helping to connect the entire lab. Key product categories in consumables include GC and LC columns, sample preparation products, custom chemistries, and a large selection of laboratory instrument supplies. Services include startup, operational, training and compliance support, software as a service, as well as asset management and consultative services that help increase customer productivity. Custom service and consumable bundles are tailored to meet the specific application needs of various industries and to keep instruments fully operational and compliant with the respective industry requirements.

A significant portion of the segments' expenses arise from shared services and infrastructure that we have historically provided to the segments in order to realize economies of scale and to efficiently use resources. These expenses, collectively called corporate charges, include legal, accounting, tax, real estate, insurance services, information technology services, treasury, order administration, other corporate infrastructure expenses and costs of centralized research and development. Charges are allocated to the segments, and the allocations have been determined on a basis that we consider to be a reasonable reflection of the utilization of services provided to or benefits received by the segments. In addition, we do not allocate amortization and impairment of acquisition-related intangible assets, transformational initiatives expenses, acquisition and integration costs, some nucleic acid solutions division ("NASD") site costs, special compliance costs and certain other charges to the operating margin for each segment because management does not include this information in its measurement of the performance of the operating segments. Transformational initiatives include expenses associated with targeted cost reduction activities such as manufacturing transfers, site consolidations, legal entity and other business reorganizations and in-sourcing or outsourcing of activities.

The following tables reflect the results of our reportable segments under our management reporting system. The performance of each segment is measured based on several metrics, including segment income from operations. These results are used, in part, by the chief operating decision maker in evaluating the performance of, and in allocating resources to, each of the segments.

The profitability of each of the segments is measured after excluding transformational initiatives, acquisition and integration costs, investment gains and losses, interest income, interest expense, acquisition and integration costs, non-cash amortization, impairment of acquisition-related intangibles and other items as noted in the reconciliations below:

	Three Months Ended July 31, 2020	Three Months Ended July 31, 2019	Nine Months Ended July 31, 2020	Nine Months Ended July 31, 2019
	(in millions)			
Net Revenue:				
Life Sciences and Applied Markets	$ 557	$ 544	$ 1,721	$ 1,680
Diagnostics and Genomics	241	263	753	752
Agilent CrossLab	463	467	1,382	1,364
Total net revenue	$ 1,261	$ 1,274	$ 3,856	$ 3,796
Segment Income From Operations:				
Life Sciences and Applied Markets	$ 126	$ 118	$ 382	$ 384
Diagnostics and Genomics	41	50	132	132
Agilent CrossLab	132	122	373	342
Total segment income from operations	$ 299	$ 290	$ 887	$ 858

The following table reconciles segment income from operations to Agilent’s total enterprise income before taxes:

	Three Months Ended July 31, 2020	Three Months Ended July 31, 2019	Nine Months Ended July 31, 2020	Nine Months Ended July 31, 2019
	(in millions)			
Total segment income from operations	$ 299	$ 290	$ 887	$ 858
Transformational initiatives	(13)	(11)	(41)	(25)
Amortization of intangible assets related to business combinations	(45)	(25)	(139)	(79)
Acquisition and integration costs	(9)	(12)	(33)	(32)
Asset impairment	—	—	(99)	—
Acceleration of share-based compensation expense	(1)	—	(1)	—
NASD site costs	—	(6)	—	(12)
Special compliance costs	—	(1)	—	(2)
Other(1)	(1)	(10)	(27)	(17)
Interest income	1	10	7	30
Interest expense	(19)	(18)	(59)	(53)
Other income (expense), net (2)	7	5	64	20
Income before taxes, as reported	$ 219	$ 222	$ 559	$ 688

(1) The other category primarily includes the legal costs related to a claim we pursued against Twist Bioscience Corporation in addition to other miscellaneous adjustments.
(2) Other income (expense), net for the nine months ended July 31, 2020 includes the settlement of the legal claim against Twist Bioscience Corporation.

The following table reflects segment assets under our management reporting system. Segment assets include allocations of corporate assets, goodwill, net other intangibles and other assets. Unallocated assets primarily consist of cash, cash equivalents, the valuation allowance relating to deferred tax assets and other assets.

	July 31, 2020	October 31, 2019
	(in millions)	
Segment Assets:		
Life Sciences and Applied Markets	$ 3,121	$ 3,202
Diagnostics and Genomics	2,518	2,620
Agilent CrossLab	1,361	1,331
Total segment assets	$ 7,000	$ 7,153

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (UNAUDITED)

The following discussion should be read in conjunction with the condensed consolidated financial statements and notes thereto included elsewhere in this Form 10-Q and our Annual Report on Form 10-K. This report contains forward-looking statements including, without limitation, statements regarding growth opportunities, including for revenue and our end markets, strength and drivers of the markets we sell into, sales funnels, our strategic direction, new product and service introductions and the position of our current products and services, market demand for and adoption of our products, the ability of our products and solutions to address customer needs and meet industry requirements, our focus on differentiating our product solutions, improving our customers' experience and growing our earnings, future financial results, our operating margin, our investments, including in manufacturing infrastructure, research and development and expanding and improving our applications and solutions portfolios, expanding our position in developing countries and emerging markets, our focus on balanced capital allocation, our contributions to our pension and other defined benefit plans, impairment of goodwill and other intangible assets, the impact of foreign currency movements, our hedging programs and other actions to offset the effects of tariffs and foreign currency movements, our future effective tax rate, tax valuation allowance and unrecognized tax benefits, the impact of local government regulations on our ability to pay vendors or conduct operations, our ability to satisfy our liquidity requirements, including through cash generated from operations, indemnification, source and supply of materials used in our products, our sales, our purchase commitments, our capital expenditures, the integration and effects of our acquisitions and other transactions, our stock repurchase program and dividends and the potential or anticipated direct or indirect impact of COVID-19 on our business that involve risks and uncertainties. Our actual results could differ materially from the results contemplated by these forward-looking statements due to various factors, including those discussed in Part II Item 1A and elsewhere in this Form 10-Q.

Basis of Presentation

The financial information presented in this Form 10-Q is not audited and is not necessarily indicative of our future consolidated financial position, results of operations, comprehensive income (loss) or cash flows. Our fiscal year-end is October 31, and our fiscal quarters end on January 31, April 30 and July 31. Unless otherwise stated, these dates refer to our fiscal year and fiscal periods.

Executive Summary

Agilent Technologies, Inc. ("we", "Agilent" or the "company"), incorporated in Delaware in May 1999, is a global leader in life sciences, diagnostics and applied chemical markets, providing application focused solutions that include instruments, software, services and consumables for the entire laboratory workflow.

COVID-19 Pandemic

Both our domestic and international operations have been and continue to be affected by the ongoing global pandemic of a novel strain of coronavirus ("COVID-19") and the resulting volatility and uncertainty it has caused in the U.S. and international markets.

As an essential business throughout the COVID-19 pandemic, we have remained open with our top priority being the health and safety of our employees, customers and community. At every stage of the pandemic, we continue to take decisive and appropriate precautions, including a mandatory work from home policy for all employees with the exception of manufacturing, distribution, and certain laboratory environments, as well as restrictions on all non-essential travel and visitors into our facilities. At this time, our factories continue to operate around the world in accordance with the guidance issued by local, state and national government authorities. Over the last several years, we have refined our digital workplace strategy to focus on providing modern connectivity and collaboration tools to our employees. Our strategic technology investments have enabled us to meet remote working needs as this situation has escalated. We have continued to take proactive measures to ensure the health and safety of our global employee base by designing a multi-phase return-to-office process for the safe return of our employees to our sites. We have developed and implemented rigorous return-to-office protocols to promote a safe work environment in all locations for employees who have been working on-site throughout the pandemic and for employees who will be returning in the future, as well as, for the safety of all customer and vendor interactions.

At this time, the COVID-19 pandemic has not significantly impacted our manufacturing facilities or third parties to whom we outsource certain manufacturing processes, the distribution centers where our inventory is managed or the operations of our logistics and other service providers. We have seen disruptions or delays in shipments of certain materials or components of our products. As a result, we are working with our customers and suppliers to understand the existing and future negative impacts to our delivery and supply chain and take actions in an effort to mitigate such impacts. Despite the challenges in the current economic environment due to the COVID-19 pandemic, we have seen a lower than expected decrease in revenue recognition in the third quarter due primarily to the improvements in routine testing and laboratory access for installation and service in China and in part to COVID-19 related revenue which contributed approximately 2 percentage points.

The majority of the markets we serve, such as the pharmaceutical, biopharmaceutical, food, environmental and diagnostics and clinical markets, have continued to operate at various levels, and we are working closely with our customers to ensure their seamless operations. In the third quarter, revenue from the academia and government markets improved sequentially but continues to be negatively affected by delays in installations due to continued laboratory closures in the Americas and, to a lesser extent, in Europe. Revenue from the chemical and energy markets has also been negatively impacted by the global slowdown in economic activity associated with measures put in place to slow the pandemic. Revenue from the diagnostics and clinical markets declined due to continued reduction in demand for non-COVID testing although we did see some gradual improvement within the third quarter. The revenue decline was also due to limited access to customer laboratories in the genomics research markets. From a customer-facing perspective, we continue leveraging digital demand generation activities, including virtual demonstrations across all regions, remote instrument repairs, virtual sales seminars, online product training, and a rapid acceleration in one-on-one communications over emails, phone and video conferencing.

The COVID-19 pandemic continues to be dynamic and near-term challenges across the economy remain. We are taking a proactive approach to managing through this unpredictability and have implemented a series of cost saving actions that primarily include reductions in travel and non-essential spending.

2030 Senior Notes

On June 4, 2020, we issued an aggregate principal amount of $500 million in senior notes ("2030 senior notes"). The 2030 senior notes were issued at 99.812% of their principal amount. The 2030 senior notes will mature on June 4, 2030, and bear interest at a fixed rate of 2.10% per annum. The interest is payable semi-annually on June 4th and December 4th of each year and payments commence on December 4, 2020.

Actual Results

Net revenue of $1,261 million and $3,856 million for the three and nine months ended July 31, 2020 decreased 1 percent and increased 2 percent, respectively, when compared to the same periods last year. Foreign currency movements for the three and nine months ended July 31, 2020 had an overall unfavorable impact on revenue of 1 percentage point for both periods when compared to the same periods last year. Revenue from our most recent acquisition contributed 3 percentage points in both the three and nine months ended July 31, 2020. Revenue generated by our life sciences and applied markets business increased 2 percent for both the three and nine months ended July 31, 2020 when compared to the same periods last year. Foreign currency movements for the three and nine months ended July 31, 2020 had an overall unfavorable impact on revenue of 2 percentage points and 1 percentage point, respectively, when compared to the same periods last year. Revenue from our most recent acquisition contributed approximately 8 percentage points to our life sciences and applied markets business revenue growth in both the three and nine months ended July 31, 2020. Revenue generated by our diagnostics and genomics business for the three and nine months ended July 31, 2020 decreased 8 percent and was flat, respectively, when compared to the same periods last year. Foreign currency movements for the three and nine months ended July 31, 2020 had no impact on revenue and had an overall unfavorable 1 percentage point impact, respectively, when compared to the same periods last year. Revenue generated by our Agilent CrossLab business in the three and nine months ended July 31, 2020 decreased 1 percent and increased 1 percent, respectively, when compared to the same periods last year. Foreign currency movements for both the three and nine months ended July 31, 2020 had an overall unfavorable impact on revenue of 2 percentage points when compared to the same periods last year.

Net income for the three months ended July 31, 2020 was $199 million compared to net income of $191 million for the corresponding period last year. Net income for the nine months ended July 31, 2020 was $497 million compared to net income of $877 million for the corresponding period last year. Net income for the nine months ended July 31, 2019 was impacted by a discrete tax benefit of $299 million related to the extension of the company's tax incentive in Singapore. In the nine months ended July 31, 2020, cash provided by operations was $544 million which includes a one-time tax outflow of $226 million related to a transfer of intangibles compared to cash generated from operations of $707 million in the same period last year.

For the nine months ended July 31, 2020 and 2019, we paid cash dividends on the company's outstanding common stock of $167 million and $155 million, respectively.

On November 19, 2018 we announced that our board of directors had approved a new share repurchase program (the "2019 repurchase program") designed, among other things, to reduce or eliminate dilution resulting from issuance of stock under the company's employee equity incentive programs. The 2019 repurchase program authorizes the purchase of up to $1.75 billion of our common stock at the company's discretion and has no fixed termination date. The 2019 repurchase program does not require the company to acquire a specific number of shares and may be suspended, amended or discontinued at any time.

During the three months ended July 31, 2020, we resumed stock repurchases after suspending them on March 23, 2020. During the three and nine months ended July 31, 2020, we repurchased and retired approximately 362,000 shares for $33 million and 2.8 million shares for $219 million, respectively, under this authorization. During the three and nine months ended July 31, 2019, we repurchased and retired approximately 8.0 million shares for $549 million and 9.8 million shares for $674 million, respectively, under this authorization. As of July 31, 2020, we had remaining authorization to repurchase up to $808 million of our common stock under this program.

Looking forward, our top priority has been and will always be the health and safety of our employees, customers and community, as well as supporting our customers' operations. We remain open for business with the majority of our employees still working from home and those employees that work at our manufacturing facilities adhering to rigorous health and safety protocols. In addition, we remain focused on improving our customers' experience, differentiating product solutions and productivity. We also continue to focus on meeting our customers' needs as we support several aspects of the COVID-19 research and testing along with therapeutic and vaccine development. In the third quarter, we saw a rebound in China as the country continued to re-open their economy. In the fourth quarter, we expect the gradual improvement in business results to continue across all regions. However, the pace and the extent of the recovery depend in part on the rate at which medical providers resume patient care and testing that is not COVID- 19 related and the timing of when research performed by laboratories and other institutions return to normal levels, which remain uncertain.

Critical Accounting Policies and Estimates

Management's Discussion and Analysis of Financial Condition and Results of Operations is based upon our condensed consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles ("GAAP") in the U.S. The preparation of condensed consolidated financial statements in conformity with GAAP in the U.S. requires management to make estimates, judgments and assumptions that affect the amounts reported in our condensed consolidated financial statements and accompanying notes. Our critical accounting policies are those that affect our financial statements materially and involve difficult, subjective or complex judgments by management. Those policies are revenue recognition, inventory valuation, share-based compensation, retirement and post-retirement benefit plan assumptions, goodwill and purchased intangible assets and accounting for income taxes. There have been no significant changes to our critical accounting policies as described in our Annual Report on Form 10-K for the fiscal year ended October 31, 2019. Management bases its estimates on historical experience and various other assumptions believed to be reasonable. Although these estimates are based on management's best knowledge of current events and actions that may impact the company in the future, actual results may be different from the estimates.

An accounting policy is deemed to be critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made and if different estimates that reasonably could have been used or changes in the accounting estimate that are reasonably likely to occur could materially change the financial statements.

Adoption of New Pronouncements

See Note 2, "New Accounting Pronouncements," to the condensed consolidated financial statements for a description of new accounting pronouncements.

Foreign Currency

Our revenues, costs and expenses, and monetary assets and liabilities and equity are exposed to changes in foreign currency exchange rates as a result of our global operating and financing activities. Foreign currency movements for the nine months ended July 31, 2020 had an overall unfavorable impact on revenue of 1 percentage point when compared to the same period last year. When movements in foreign currency exchange rates have a negative impact on revenue, they will also have a positive impact by reducing our costs and expenses. We calculate the impact of foreign currency exchange rate movements by applying the actual foreign currency exchange rates in effect during the last month of each quarter of the current year to both the applicable current and prior year periods. We hedge revenues, expenses and balance sheet exposures that are not denominated in the functional currencies of our subsidiaries on a short term and anticipated basis. We do experience some fluctuations within individual lines of the condensed consolidated statement of operations and balance sheet because our hedging program is not designed to offset the currency movements in each category of revenues, expenses, monetary assets and liabilities. Our hedging program is designed to hedge currency movements on a relatively short-term basis (up to a rolling twelve-month period). We may also hedge equity balances denominated in foreign currency on a long-term basis. To the extent that we are required to pay for all, or portions, of an acquisition price in foreign currencies, we may enter into foreign exchange contracts to reduce the risk that currency movements will impact the U.S. dollar cost of the transaction.

Results from Operations

Net Revenue

	Three Months Ended July 31, 2020	Three Months Ended July 31, 2019	Nine Months Ended July 31, 2020	Nine Months Ended July 31, 2019	Year over Year Change Three Months	Year over Year Change Nine Months
	(in millions)					
Net revenue:						
Products	$ 932	$ 949	$ 2,878	$ 2,850	(2)%	1%
Services and other	329	325	978	946	1%	3%
Total net revenue	$ 1,261	$ 1,274	$ 3,856	$ 3,796	(1)%	2%

Net revenue of $1,261 million and $3,856 million for the three and nine months ended July 31, 2020 decreased 1 percent and increased 2 percent, respectively, when compared to the same periods last year. Foreign currency movements for both the three and nine months ended July 31, 2020 had a 1 percentage point unfavorable impact on revenue when compared to the same periods last year. Revenue from our most recent acquisition contributed approximately 3 percentage points to our revenue growth in both the three and nine months ended July 31, 2020. In the three and nine months ended July 31, 2020, net revenue was negatively impacted due to the COVID-19 pandemic. We experienced a decline in revenue due to continued limited access to customer sites for installation, primarily in the Americas and European regions, due to COVID-19. At the same time, we saw an increase in revenue in China primarily due to improvements in routine testing and laboratory access for installation and service.

Revenue from products decreased 2 percent and increased 1 percent for the three and nine months ended July 31, 2020 when compared to the same periods last year. For the three and nine months ended July 31, 2020, revenue declined in most of our product lines as customers curtailed equipment spending except in our cell analysis business, automation products within our mass spectrometry business and our nucleic acid solutions business. The increase in the cell analysis business is primarily due to the contributions from our most recent acquisition. The increase was also due to the recent demand for our products for use in COVID-19 testing and vaccine research.

Services and other revenue increased 1 percent and 3 percent for the three and nine months ended July 31, 2020, respectively, when compared to the same periods last year. Services and other revenue consist of revenue generated from our three business segments: Agilent CrossLab, diagnostics and genomics and our life science and applied markets businesses. Some of the prominent services in the Agilent CrossLab business include repair and maintenance on multi-vendor instruments, compliance services and installation services. Services in the diagnostics and genomics business include consulting services related to the companion diagnostics and nucleic acid businesses. Services in the life science and applied markets business include repair and maintenance and installation services.

For the three months ended July 31, 2020, the service revenue from the Agilent CrossLab business was flat when compared to the same period last year, with a 2 percentage point unfavorable currency impact. Service revenue for the three months ended July 31, 2020 reflected the resilience of the service business (especially in Asia) despite the headwinds of the COVID-19 pandemic limiting lab access and customer capacity. For the nine months ended July 31, 2020, the service revenue from the Agilent CrossLab business increased 2 percent when compared to the same period last year, with a 2 percentage point unfavorable currency impact. This growth for the nine months ended July 31, 2020 is reflective of the solid growth that the overall service business experienced before the COVID-19 pandemic and the strength and predictability of the contracted service business during the pandemic.

For the three months ended July 31, 2020, the service revenue from the diagnostics and genomics business decreased by 5 percent, when compared to the same period last year. The decrease in service revenue was driven by a decrease in the genomics service business and was partly offset by strong growth in the pathology service business. For the nine months ended July 31, 2020, the service revenue from the diagnostics and genomics business remained flat, when compared to the same period last year. Service revenue was driven by an increase in the pathology and companion diagnostics service businesses which was offset by a decline in the genomics service business.

For the three and nine months ended July 31, 2020, the service revenue from the life sciences and applied markets business increased 27 percent and 36 percent, respectively, when compared to the same periods last year. The increase in life sciences and applied markets service revenue is due to the additional service revenue within the cell analysis business due to our recent acquisitions.

Net Revenue By Segment

	Three Months Ended July 31,		Nine Months Ended July 31,		Year over Year Change	
	2020	2019	2020	2019	Three Months	Nine Months
	(in millions)					
Net revenue by segment:						
Life sciences and applied markets	$ 557	$ 544	$ 1,721	$ 1,680	2%	2%
Diagnostics and genomics	241	263	753	752	(8)%	—
Agilent CrossLab	463	467	1,382	1,364	(1)%	1%
Total net revenue	$ 1,261	$ 1,274	$ 3,856	$ 3,796	(1)%	2%

Revenue in the life sciences and applied markets business for the three and nine months ended July 31, 2020, increased 2 percent in both periods when compared to the same periods last year. Foreign currency movements for the three and nine months ended July 31, 2020 had an overall unfavorable impact on revenue of 2 percentage points and 1 percentage point, respectively, when compared to the same periods last year. Revenue from our most recent acquisition contributed approximately 8 percentage points to our revenue growth in both the three and nine months ended July 31, 2020. For the three months ended July 31, 2020, revenue growth within the academia and government markets was strong with moderate growth from the pharmaceutical and food markets which was partially offset by significant declines in chemical and energy and moderate declines in environmental and forensics markets when compared to the same period last year. For the nine months ended July 31, 2020 revenue growth within the academia and government markets was strong with moderate revenue increase within the pharmaceutical and the diagnostics and clinical markets. The increase in revenue was partially offset by declines in revenue within the chemical and energy and forensics markets. For the three and nine months ended July 31, 2020, the increase in revenue within the academia and government markets was entirely due to the contributions from our most recent acquisition.

Revenue in the diagnostics and genomics business for the three and nine months ended July 31, 2020, decreased 8 percent and was flat, respectively, when compared to the same periods last year. Foreign currency movements for the three and nine months ended July 31, 2020 had no overall impact on revenue and had an overall unfavorable impact on revenue of 1 percentage point, respectively, when compared to the same periods last year. For the three months ended July 31, 2020 within the diagnostics and clinical markets, revenue significantly declined in our pathology and diagnostics and genomics businesses which was partially offset by strong revenue growth in our nucleic acid solutions business. For the nine months ended July 31, 2020 within the diagnostics and clinical market, revenue significantly declined in our pathology and diagnostics and genomics businesses which was fully offset by strong revenue growth in our nucleic acid solutions business.

Revenue generated by Agilent CrossLab in the three and nine months ended July 31, 2020, decreased 1 percent and increased 1 percent, respectively, when compared to the same periods last year. Foreign currency movements for the three and nine months ended July 31, 2020 had an overall unfavorable impact on revenue of 2 percentage points in both periods when compared to the same periods last year. For the three months ended July 31, 2020, revenue declines in the academia and government and chemical and energy markets were partially offset by strong revenue growth within the pharmaceutical market and moderate growth in the food market. For the nine months ended July 31, 2020, revenue growth was strong within the pharmaceutical and food markets which was partially offset by declines in the chemical and energy and academia and government markets.

Operating Results

(in millions, except margin data)	Three Months Ended July 31, 2020	Three Months Ended July 31, 2019	Nine Months Ended July 31, 2020	Nine Months Ended July 31, 2019	Year over Year Change Three Months	Year over Year Change Nine Months
Total gross margin	53.1%	54.3%	53.1%	54.5%	(1) ppt	(1) ppt
Research and development	$ 92	$ 101	$ 393	$ 302	(10)%	30%
Selling, general and administrative	$ 347	$ 366	$ 1,109	$ 1,075	(5)%	3%
Operating margin	18.2%	17.6%	14.2%	18.2%	1 ppt	(4) ppts
Income from operations	$ 230	$ 225	$ 547	$ 691	2%	(21)%

Total gross margin for both the three and nine months ended July 31, 2020 decreased 1 percentage point when compared to the same periods last year. Gross margin for the three and nine months ended July 31, 2020 declined due to the impacts of pricing pressure, unfavorable product mix, higher intangible amortization expense, higher wages and variable pay, unfavorable currency impact and higher fixed costs related to the new manufacturing facility in Frederick, Colorado, partially offset by lower period and travel costs.

Research and development expenses for the three and nine months ended July 31, 2020 decreased 10 percent and increased 30 percent, respectively, when compared to the same periods last year. Research and development expenses for the three months ended July 31, 2020 decreased 10 percent primarily due to the shut-down of our sequencer development program and the impact of discretionary spending reductions including lower travel costs which was partially offset by higher wages and variable pay and additional expenses related to recent acquisitions. Research and development expenses for the nine months ended July 31, 2020 increased primarily due to intangible and other asset impairments of $97 million related to the shut-down of our sequencer development program. The increase is also due to higher wages and additional expenses related to recent acquisitions partially offset by the impact of discretionary spending reductions including lower travel costs, lower variable pay and favorable currency impact.

Selling, general and administrative expenses for the three and nine months ended July 31, 2020 decreased 5 percent and increased 3 percent, respectively, when compared to the same periods last year. The decrease in selling, general and administrative expenses for the three months ended July 31, 2020 was due to the impact of discretionary spending reductions including lower travel costs and lower acquisition and integration costs which was partially offset by higher wages and variable pay, higher intangible amortization expense, and higher transformational initiative expenses. The increase in selling, general and administrative expenses for the nine months ended July 31, 2020 was due to higher wages, higher intangible amortization expense, higher transformational initiative expenses and higher legal costs in connection with our claim against Twist Bioscience Corporation which was partially offset by the impact of discretionary spending reductions including lower travel costs, lower variable pay and favorable currency impact.

Total operating margin for the three and nine months ended July 31, 2020 increased 1 percentage point and decreased 4 percentage points, respectively, when compared to the same periods last year. Operating margin for the three months ended July 31, 2020 increased due to the impact of discretionary spending reductions including lower travel costs which was partially offset by higher wages and variable pay and higher intangible amortization expense. Operating margin for the nine months ended July 31, 2020 declined due to intangible and other asset impairments, higher wages, higher intangible amortization expense, higher transformational initiative expenses and increased legal costs associated with our claim against Twist Bioscience Corporation.

Income from operations for the three and nine months ended July 31, 2020 increased $5 million or 2 percent and decreased $144 million or 21 percent, respectively, on a corresponding revenue decrease of $13 million and revenue increase of $60 million, respectively.

At July 31, 2020, our headcount was approximately 16,300 as compared to approximately 15,700 at July 31, 2019.

Other income (expense), net

In the three and nine months ended July 31, 2020 and 2019 other income and expense, net includes income of $3 million and $9 million, respectively, in both periods related to the provision of site service costs to, and lease income from Keysight Technologies, Inc. The costs associated with these services are reported within income from operations. In the nine months ended July 31, 2020, other income (expense), net includes net gains on the fair value of equity investments of approximately $26 million and income of $22 million related to the settlement of our legal claim against Twist Bioscience Corporation.

Income Taxes

For the three and nine months ended July 31, 2020, the company's income tax expense was $20 million with an effective tax rate of 9.1 percent and $62 million with an effective tax rate of 11.1 percent, respectively. For the three and nine months ended July 31, 2020, our effective tax rate and the resulting provision for income taxes were impacted by the expiration of the U.S. statute of limitations in July 2020 for fiscal year 2016, which resulted in the recognition of previously unrecognized tax benefits of $16 million. For the nine months ended July 31, 2020, our effective tax rate and the resulting provision for income taxes were also impacted by the excess tax benefits from stock-based compensation of $15 million.

Our calculation of income tax expense for the three and nine months ended July 31, 2020 is dependent in part on forecasts of full year results. The impact of the COVID-19 outbreak on the economic environment is uncertain and may change these forecasts, which could impact tax expense.

For the three and nine months ended July 31, 2019, the company's income tax expense was $31 million with an effective tax rate of 14.0 percent and an income tax benefit of $189 million with an effective tax rate of (27.5) percent, respectively. For the nine months ended July 31, 2019, our effective tax rate and the resulting provision for income taxes were significantly impacted by a discrete benefit of $299 million related to the extension of the company’s tax incentive in Singapore.

In the U.S., tax years remain open back to the year 2017 for federal income tax purposes and the year 2015 for significant states. In other major jurisdictions where the company conducts business, the tax years generally remain open back to the year 2009.

It is reasonably possible there could be significant changes to our unrecognized tax benefits in the next twelve months due to either the expiration of a statute of limitation or a tax audit settlement. Given the number of years and numerous matters that remain subject to examination in various tax jurisdictions, management is unable to estimate the range of possible changes to the balance of our unrecognized tax benefits. The company will continue to assess the impact of further guidance from federal and state tax authorities on its business and consolidated financial statements. Any future adjustments will be recognized as discrete income tax expense or benefit in the period the adjustments are determined.

Segment Overview

We continue to have three business segments comprised of the life sciences and applied markets business, diagnostics and genomics business and the Agilent CrossLab business.

Life Sciences and Applied Markets

Our life sciences and applied markets business provides application-focused solutions that include instruments and software that enable customers to identify, quantify and analyze the physical and biological properties of substances and products, as well as enable customers in the clinical and life sciences research areas to interrogate samples at the molecular and cellular level. Key product categories include: liquid chromatography ("LC") systems and components; liquid chromatography mass spectrometry ("LCMS") systems; gas chromatography ("GC") systems and components; gas chromatography mass spectrometry ("GCMS") systems; inductively coupled plasma mass spectrometry ("ICP-MS") instruments; atomic absorption ("AA") instruments; microwave plasma-atomic emission spectrometry ("MP-AES") instruments; inductively coupled plasma optical emission spectrometry ("ICP-OES") instruments; raman spectroscopy; cell analysis plate based assays; flow cytometer; real-time cell analyzer; cell imaging systems; microplate reader; laboratory software for sample tracking; information management and analytics; laboratory automation and robotic systems; dissolution testing; vacuum pumps and measurement technologies.

Net Revenue

	Three Months Ended July 31,		Nine Months Ended July 31,		Year over Year Change	
	2020	2019	2020	2019	Three Months	Nine Months
	(in millions)					
Net revenue	$ 557	$ 544	$ 1,721	$ 1,680	2%	2%

Life sciences and applied markets business revenue for the three and nine months ended July 31, 2020 increased 2 percent in both periods when compared to the same periods last year. Overall, foreign currency movements for the three and nine months ended July 31, 2020 had an unfavorable impact on revenue of 2 percentage points and 1 percentage point, respectively, when compared to the same periods last year. Revenue from our acquisitions in fiscal year 2019 contributed approximately 8 percentage points to our revenue growth in both the three and nine months ended July 31, 2020.

Geographically, revenue increased 8 percent in the Americas with a 1 percentage point unfavorable currency impact, decreased 6 percent in Europe with a 1 percentage point unfavorable currency impact and increased 2 percent in Asia Pacific with a 2 percentage point unfavorable currency impact for the three months ended July 31, 2020 compared to the same period last year. Revenue increased 16 percent in the Americas with a 1 percentage point unfavorable currency impact, decreased 4 percent in Europe with a 1 percentage point unfavorable currency impact and decreased 2 percent in Asia Pacific with no currency impact for the nine months ended July 31, 2020 compared to the same period last year. For both the three and nine months ended July 31, 2020, revenue increases in our liquid chromatography mass spectrometry and cell analysis products from our most recent acquisition, primarily in the Americas, were partially offset by weaker sales across our other product lines when compared to the same periods last year.

For the three months ended July 31, 2020, revenue growth by end markets was mixed with academia and government markets delivering strong growth and pharmaceutical and food markets delivering moderate growth which was partially offset by significant declines in chemical and energy, diagnostics and clinical, environmental and forensics markets. For the nine months ended July 31, 2020, revenue growth by end markets was mixed with academia and government and diagnostics and clinical markets delivering strong growth and the pharmaceutical market delivering moderate growth which was partially offset by chemical and energy and forensics markets. In both periods, despite unfavorable impact from COVID-19, revenue growth in the academia and government and pharmaceutical and diagnostics and clinical markets was primarily driven by strong performance of our cell analysis products from the Lionheart Technologies LLC ("BioTek") acquisition. The growth in the diagnostics and clinical business was also due to the strength in liquid phase mass spectrometry products.

Looking forward, despite short term uncertainties and the adverse effects of the COVID-19 pandemic, we are optimistic about our long-term growth opportunities in the life sciences and applied markets as our broad portfolio of products and solutions are well suited to address customer needs. We anticipate growth from our new product introductions and recent acquisitions as we continue to invest in expanding and improving our applications and solutions portfolio. While we anticipate volatility in our markets, we expect continued growth across most end markets in the long term.

Operating Results

	Three Months Ended July 31,		Nine Months Ended July 31,		Year over Year Change	
(in millions, except margin data)	2020	2019	2020	2019	Three Months	Nine Months
Gross margin	59.3%	60.5%	59.3%	61.1%	(1) ppt	(2) ppts
Research and development	$ 53	$ 52	$ 161	$ 162	1%	(1)%
Selling, general and administrative	$ 152	$ 159	$ 477	$ 480	(4)%	(1)%
Operating margin	22.6%	21.7%	22.2%	22.9%	1 ppt	(1) ppt
Income from operations	$ 126	$ 118	$ 382	$ 384	7%	(1)%

Gross margin for products and services for the three and nine months ended July 31, 2020, decreased 1 percentage point and 2 percentage points, respectively, when compared to the same periods last year. Gross margin for the three and nine months ended July 31, 2020 declined due to the increased impact of pricing pressures, unfavorable product mix and unfavorable currency impact.

Research and development expenses for the three and nine months ended July 31, 2020, increased 1 percent and decreased 1 percent, respectively, when compared to the same periods last year. Research and development expenses for the three months ended July 31, 2020 increased due to additional expenses related to our recent acquisitions as well as higher wages and variable pay partially offset by the impact of discretionary spending reductions including lower travel costs and favorable currency impact.
Research and development expenses for the nine months ended July 31, 2020 decreased due to the impact of discretionary spending reductions including lower travel costs, lower variable pay and favorable currency impact partially offset by additional expenses related to our recent acquisitions as well as higher wages.

Selling, general and administrative expenses for the three and nine months ended July 31, 2020, decreased 4 percent and 1 percent, respectively, when compared to the same periods last year. Selling, general and administrative expenses for the three months ended July 31, 2020 decreased due to lower sales commissions, the impact of discretionary spending reductions including lower travel costs and favorable currency impact partially offset by additional expenses related to our recent acquisitions as well as higher wages and variable pay. Selling, general and administrative expenses for the nine months ended July 31, 2020 decreased due to lower sales commissions, the impact of discretionary spending reductions including lower travel costs, lower variable pay and favorable currency impact partially offset by additional expenses related to our recent acquisitions as well as higher wages.

Operating margin for products and services for the three and nine months ended July 31, 2020 increased 1 percentage point and decreased 1 percentage point, respectively, when compared to the same periods last year. Operating margin for the three months ended July 31, 2020 increased due to lower selling, general and administrative expenses partially offset by higher research and development expenses and unfavorable gross margin due to pricing pressures and product mix. Operating margin for the nine months ended July 31, 2020 declined due to additional expenses related to our recent acquisitions and unfavorable margin due to pricing pressures.

Income from operations for the three and nine months ended July 31, 2020, increased $8 million or 7 percent and decreased $2 million or 1 percent, respectively, on a corresponding revenue increase of $13 million and $41 million, respectively.

Diagnostics and Genomics

Our diagnostics and genomics business includes the genomics, nucleic acid contract manufacturing and research and development, pathology, companion diagnostics, reagent partnership and biomolecular analysis businesses.

Our diagnostics and genomics business is comprised of six areas of activity providing active pharmaceutical ingredients ("APIs") for oligo-based therapeutics as well as solutions that include reagents, instruments, software and consumables, which enable customers in the clinical and life sciences research areas to interrogate samples at the cellular and molecular level. First, our genomics business includes arrays for DNA mutation detection, genotyping, gene copy number determination, identification of gene rearrangements, DNA methylation profiling, gene expression profiling, as well as next generation sequencing ("NGS") target enrichment and genetic data management and interpretation support software. This business also includes solutions that enable clinical labs to identify DNA variants associated with genetic disease and help direct cancer therapy. Second, our nucleic acid solutions business provides equipment and expertise focused on production of synthesized oligonucleotides under pharmaceutical good manufacturing practices ("GMP") conditions for use as API in an emerging class of drugs that utilize nucleic acid molecules for disease therapy. Third, our pathology solutions business is focused on product offerings for cancer diagnostics and anatomic pathology workflows. The broad portfolio of offerings includes immunohistochemistry ("IHC"), in situ hybridization ("ISH"), hematoxylin and eosin ("H&E") staining and special staining. Fourth, we also collaborate with a number of major pharmaceutical companies to develop new potential pharmacodiagnostics, also known as companion diagnostics, which may be used to identify patients most likely to benefit from a specific targeted therapy. Fifth, the reagent partnership business is a provider of reagents used for turbidimetry and flow cytometry. Finally, our biomolecular analysis business provides complete workflow solutions, including instruments, consumables and software, for quality control analysis of nucleic acid samples. Samples are analyzed using quantitative and qualitative techniques to ensure accuracy in further genomics analysis techniques utilized in clinical and life science research applications.

Net Revenue

	Three Months Ended July 31,		Nine Months Ended July 31,		Year over Year Change	
	2020	2019	2020	2019	Three Months	Nine Months
	(in millions)					
Net revenue	$ 241	$ 263	$ 753	$ 752	(8)%	—

Diagnostics and genomics business revenue for the three and nine months ended July 31, 2020 decreased 8 percent and was flat, respectively, when compared to the same periods last year. Foreign currency movements for the three and nine months ended July 31, 2020 had no impact on revenue and had an overall unfavorable impact of 1 percentage point, respectively, when compared to the same periods last year.

Geographically, revenue decreased 13 percent in the Americas with no currency impact, decreased 7 percent in Europe with a 1 percentage point unfavorable currency impact and increased 7 percent in Asia Pacific with no currency impact for the three months ended July 31, 2020 compared to the same period last year. For the three months ended July 31, 2020, Americas saw ongoing strong performance in the nucleic acid solutions business. This was more than offset by a COVID-19 related significant reduction in routine and cancer testing, as well as the closure of most academic and research labs. In Europe, where we also faced the aforementioned COVID-19 headwinds, the negative impact was partly offset by a strong performance in the biomolecular analysis, companion diagnostics and reagent partnership businesses. The Asia Pacific growth was driven by the pathology and biomolecular analysis businesses. Revenue decreased 1 percent in the Americas with a 1 percentage point unfavorable currency impact, decreased 4 percent in Europe with a 2 percentage point unfavorable currency impact and increased 13 percent in Asia Pacific with no currency impact for the nine months ended July 31, 2020 compared to the same period last year. The decline in the Americas was due to COVID-19 related significant reduction in routine and cancer testing, as well as the closure of most academic and research labs, which also affected Europe negatively. In the Americas, this was partially offset by strong performance in the nucleic acid solutions, reagent partnership and companion diagnostics businesses. Asia Pacific growth was driven by the pathology and biomolecular analysis businesses.

For the three months ended July 31, 2020, revenue performance in the diagnostics and genomics business was led by strong revenue growth in the nucleic acid solutions and reagent partnership businesses. This was more than offset by a COVID-19 related significant reduction in routine and cancer testing, as well as the closure of most academic and research labs. For the nine months ended July 31, 2020, revenue performance in the diagnostics and genomics business was led by strong revenue growth in the nucleic acid solutions, companion diagnostics and biomolecular analyses businesses. This was fully offset by a COVID-19 related significant reduction in routine and cancer testing, as well as the closure of most academic and research labs. The diagnostics and clinical research end markets remain strong long-term and growing driven by an aging population and lifestyle developments such as poor diet and physical inactivity.

Looking forward, although we see short-term impacts to routine and cancer testing due to COVID-19, we are optimistic about our long-term growth opportunities in our end markets and continue to invest in expanding and improving our applications and solutions portfolio. We remain positive about our growth in our end markets as our product portfolio around OMNIS, PD-L1 assays and SureFISH continue to gain strength with our customers in clinical oncology applications, and our next generation sequencing target enrichment solutions continue to be adopted. Market demand in the nucleic acid solutions business related to therapeutic oligo programs continues, and with our newly opened and planned extension of our nucleic acid solutions production facility in Frederick, Colorado, we are well positioned to serve more of the market demand. We will continue to invest in research and development and seek to expand our position in developing countries and emerging markets.

Operating Results

	Three Months Ended July 31,		Nine Months Ended July 31,		Year over Year Change	
	2020	2019	2020	2019	Three Months	Nine Months
(in millions, except margin data)						
Gross margin	49.8%	55.7%	52.3%	54.9%	(6) ppts	(3) ppts
Research and development	$ 24	$ 33	$ 86	$ 93	(26)%	(8)%
Selling, general and administrative	$ 55	$ 64	$ 176	$ 188	(15)%	(6)%
Operating margin	17.2%	19.1%	17.5%	17.6%	(2) ppts	—
Income from operations	$ 41	$ 50	$ 132	$ 132	(18)%	—

Gross margin for products and services for the three and nine months ended July 31, 2020, decreased 6 percentage points and 3 percentage points, respectively, when compared to the same periods last year. Gross margin in the three and nine months ended July 31, 2020 was impacted by unfavorable product mix and higher fixed costs related to the new manufacturing facility in Frederick, Colorado and benefited from lower period and travel costs.

Research and development expenses for the three and nine months ended July 31, 2020, decreased 26 percent and 8 percent, respectively, when compared to the same periods last year. Research and development expenses for the three and nine months ended July 31, 2020 decreased due to the shut-down of our sequencer development program.

Selling, general and administrative expenses for the three and nine months ended July 31, 2020, decreased 15 percent and 6 percent, respectively, when compared to the same periods last year. Selling, general and administrative expenses for the three months ended July 31, 2020 decreased due to the impact of discretionary spending reductions including travel costs partly offset by an increase in wages and variable pay. Selling, general and administrative expenses for the nine months ended July 31, 2020 decreased due to the impact of discretionary spending reductions including travel costs and lower variable pay, partly offset by an increase in wages.

Operating margin for products and services for the three and nine months ended July 31, 2020 decreased 2 percentage points and was flat, respectively, when compared to the same periods last year. Operating margin for the three and nine months ended July 31, 2020 was negatively impacted by the COVID-19 driven revenue decline in the genomics and pathology businesses.

Income from operations for the three and nine months ended July 31, 2020 decreased $9 million or 18 percent and was flat, respectively, on a corresponding revenue decrease of $22 million and an increase of $1 million, respectively.

Agilent CrossLab

The Agilent CrossLab business spans the entire lab with its extensive consumables and services portfolio, which is designed to improve customer outcomes. Most of the portfolio is vendor neutral, meaning Agilent can serve and supply customers regardless of their instrument purchase choices. Solutions range from chemistries and supplies to services and software helping to connect the entire lab. Key product categories in consumables include GC and LC columns, sample preparation products, custom chemistries, and a large selection of laboratory instrument supplies. Services include startup, operational, training and compliance support, software as a service, as well as asset management and consultative services that help increase customer productivity. Custom service and consumable bundles are tailored to meet the specific application needs of various industries and to keep instruments fully operational and compliant with the respective industry requirements.

Net Revenue

	Three Months Ended July 31,		Nine Months Ended July 31,		Year over Year Change	
	2020	2019	2020	2019	Three Months	Nine Months
	(in millions)					
Net revenue	$ 463	$ 467	$ 1,382	$ 1,364	(1)%	1%

Agilent CrossLab business revenue for the three and nine months ended July 31, 2020 decreased 1 percent and increased 1 percent, respectively, when compared to the same periods last year. Foreign currency movements for the three and nine months ended July 31, 2020 had an overall unfavorable impact on revenue of 2 percentage points in both periods when compared to the same periods last year.

Geographically, revenue decreased 7 percent in the Americas with a 1 percentage point unfavorable currency impact, decreased 2 percent in Europe with a 1 percentage point unfavorable currency impact and increased 7 percent in Asia Pacific with a 2 percentage point unfavorable currency impact for the three months ended July 31, 2020 compared to the same period last year. During the three months ended July 31, 2020, revenues in the Americas from consumables, on-demand services and parts were heavily impacted by the COVID-19 pandemic in the first two months of the quarter. That decline was partially offset by revenue growth from contracted services in all regions and consumable sales in China. Revenue decreased 2 percent in the Americas with a 1 percentage point unfavorable currency impact, was flat in Europe with a 2 percentage point unfavorable currency impact and increased 5 percent in Asia Pacific with a 2 percentage point unfavorable currency impact for the nine months ended July 31, 2020 compared to the same period last year. During the nine months ended July 31, 2020, revenue growth was driven mainly by contracted services in all regions and consumables sales in China.

For the three and nine months ended July 31, 2020, the Agilent CrossLab business saw the strongest growth coming from the pharmaceutical and food markets. The temporary closure of many research laboratories due to COVID-19 has led to a notable decline in the academia and government market. Demand from customers in the chemical and energy markets remains weak, stemming from low consumption of their products in the transportation and industrial sectors.

Looking forward, the Agilent CrossLab portfolio of products and services capabilities is well positioned to succeed in our key end markets. With less predictable access to customer sites during the global COVID-19 pandemic, the business is taking advantage of digital and remote capabilities to offer services and consumables to customers. Despite the current COVID-19 impact, we remain confident about the long-term growth opportunities as customer feedback remains very positive on the value Agilent CrossLab brings to customer labs. Geographically, the business is well diversified across all regions to take advantage of local market opportunities as they reopen to commerce.

Operating Results

	Three Months Ended July 31,		Nine Months Ended July 31,		Year over Year Change	
(in millions, except margin data)	2020	2019	2020	2019	Three Months	Nine Months
Gross margin	52.6%	52.1%	52.3%	51.6%	1 ppt	1 ppt
Research and development	$ 14	$ 15	$ 43	$ 44	(5)%	(1)%
Selling, general and administrative	$ 98	$ 106	$ 307	$ 318	(8)%	(3)%
Operating margin	28.4%	26.2%	27.0%	25.1%	2 ppts	2 ppts
Income from operations	$ 132	$ 122	$ 373	$ 342	8%	9%

Gross margin for products and services for the three and nine months ended July 31, 2020 increased 1 percentage point in both periods when compared to the same periods last year. The increase in both periods was primarily due to lower service delivery costs which includes travel, parts and labor and due to improved productivity in consumables manufacturing.

Research and development expenses for the three and nine months ended July 31, 2020 decreased 5 percent and 1 percent, respectively, when compared to the same periods last year. The decrease for the three months ended July 31, 2020 was driven by lower headcount and the impact of discretionary spending reductions including lower travel costs which was partially offset by higher wages and variable pay. The decrease for the nine months ended July 31, 2020 was driven by the impact of discretionary spending reductions including lower travel costs and lower variable pay that were partially offset by higher wages.

Selling, general and administrative expenses for the three and nine months ended July 31, 2020 decreased 8 percent and 3 percent, respectively, when compared to the same periods last year. The decrease for the three months ended July 31, 2020 was primarily due to lower selling costs, the impact of discretionary spending reductions including lower travel costs and favorable currency impact which was partially offset by higher wages and variable pay. The decrease for the nine months ended July 31, 2020 was primarily due to lower selling costs, lower variable pay, favorable currency impact and the impact of discretionary spending reductions including lower travel costs which was partially offset by higher wages.

Operating margin for products and services for the three and nine months ended July 31, 2020 increased 2 percentage points in both periods when compared to the same periods last year. The increase for both periods was primarily due to lower service delivery costs, lower selling costs and the impact of discretionary spending reductions including travel costs across the business.

Income from Operations

Income from operations for the three and nine months ended July 31, 2020 increased $10 million or 8 percent and $31 million or 9 percent, respectively, on a corresponding revenue decrease of $4 million and revenue increase of $18 million, respectively.

FINANCIAL CONDITION

Liquidity and Capital Resources

We believe our cash and cash equivalents, cash generated from operations, and ability to access capital markets and credit lines will satisfy, for at least the next twelve months, our liquidity requirements, both globally and domestically, including the following: working capital needs, capital expenditures, business acquisitions, stock repurchases, cash dividends, contractual obligations, commitments, principal and interest payments on debt, and other liquidity requirements associated with our operations. Our sources and uses of cash were not materially impacted by COVID-19 to date. We have not identified any material liquidity concerns as a result of the COVID-19 pandemic. We will continue to monitor and assess the impact COVID-19 may have on our business and financial results.

Economic stimulus legislation was passed in many countries in response to COVID-19. In March in the U.S., the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act") was enacted to provide for tax relief and government loans, subsidies and other relief for entities in affected industries. As of July 31, 2020, the CARES Act and other government benefits outside the U.S. did not have a material impact on our condensed consolidated financial statements and related disclosures.

Our financial position as of July 31, 2020 consisted of cash and cash equivalents of $1,358 million as compared to $1,382 million as of October 31, 2019.

As of July 31, 2020, $1,285 million of our cash and cash equivalents is held outside of the U.S. by our foreign subsidiaries and can be repatriated to the U.S. as local working capital and other regulatory conditions permit. We utilize a variety of funding strategies to ensure that our worldwide cash is available in the locations in which it is needed.

Net Cash Provided by Operating Activities

Net cash inflow from operating activities was $544 million for the nine months ended July 31, 2020 compared to cash inflow of $707 million for the same period in 2019. In the nine months ended July 31, 2020 and 2019, we paid approximately $79 million and $118 million, respectively, under our variable and incentive pay programs. Net cash paid for income taxes in the nine months ended July 31, 2020 was approximately $325 million which included a one-time payment of $226 million related to the transfer of intellectual property compared to income taxes paid of $108 million in the prior year. For the nine months ended July 31, 2020, deferred tax cash outflows were $1 million compared to cash outflows of $267 million in the prior year. Deferred tax outflows in 2019 included $266 million related to the extension of the company's tax incentive in Singapore. For the nine months ended July 31, 2020, there was a net unrealized gain on the fair value of an equity investment of $26 million. For the nine months ended July 31, 2020, there was an asset impairment charge of $99 million related to the closure of a business in our diagnostics and genomics group. For the nine months ended July 31, 2020, other assets and liabilities had cash outflow of $192 million compared to cash outflow of $14 million for the same period in 2019. Cash outflow in the nine months ended July 31, 2020 was largely the result of increased income tax payments, increased interest payments on senior notes and changes in deferred revenue.

Cash outflow for the nine months ended July 31, 2019 in other assets and liabilities was related to income tax payments and interest payments on senior notes.

In the nine months ended July 31, 2020, accounts receivable provided cash of $1 million compared to cash used of $58 million for the same period in 2019. Days' sales outstanding as of July 31, 2020 and 2019 was 66 days and 60 days, respectively. Cash used for inventory was $86 million for the nine months ended July 31, 2020 compared to cash used of $31 million for the same period in 2019. Inventory days on-hand was 113 days as of July 31, 2020 compared to 102 days as of July 31, 2019. In the nine months ended July 31, 2020, we increased our inventory levels to meet our customer needs in response to the COVID-19 pandemic. In the nine months ended July 31, 2020, accounts payable used cash of $35 million compared to cash used of less than $1 million for the same period in 2019.

We contributed approximately $28 million and $16 million to our defined benefit plans in the nine months ended July 31, 2020 and 2019, respectively. Our annual contributions are highly dependent on the relative performance of our assets versus our projected liabilities, among other factors. We expect to contribute approximately $9 million to our defined benefit plans during the remainder of 2020.

Net Cash Used in Investing Activities

Net cash used in investing activities was $120 million for the nine months ended July 31, 2020 as compared to net cash used in investing activities of $397 million in the same period of 2019. Investments in property, plant and equipment were $92 million for the nine months ended July 31, 2020 compared to $125 million in the same period of 2019. We expect that total capital expenditures for the current year will be approximately $120 million. Cash used to purchase fair value investments for the nine months ended July 31, 2020 was $20 million and in the same period of 2019 was $21 million. In the nine months ended July 31, 2019, we invested $248 million in our acquisition of ACEA.

Net Cash Used in Financing Activities

Net cash used in financing activities for the nine months ended July 31, 2020 was $448 million compared to net cash used in financing activities of $796 million for the same period of 2019.

Treasury Stock Repurchases

On November 19, 2018 we announced that our board of directors had approved a new share repurchase program (the "2019 repurchase program") designed, among other things, to reduce or eliminate dilution resulting from issuance of stock under the company's employee equity incentive programs. The 2019 repurchase program authorizes the purchase of up to $1.75 billion of our common stock at the company's discretion and has no fixed termination date. The 2019 repurchase program does not require the company to acquire a specific number of shares and may be suspended, amended or discontinued at any time.

During the three months ended July 31, 2020, we resumed stock repurchases after suspending them on March 23, 2020. During the three and nine months ended July 31, 2020, we repurchased and retired approximately 362,000 shares for $33 million and 2.8 million shares for $219 million, respectively, under this authorization. During the three and nine months ended July 31, 2019, we repurchased and retired approximately 8.0 million shares for $549 million and 9.8 million shares for $674 million, respectively, under this authorization. As of July 31, 2020, we had remaining authorization to repurchase up to $808 million of our common stock under this program.

Dividends

During the nine months ended July 31, 2020 and 2019, we paid cash dividends of $0.540 per common share or $167 million, and $0.492 per common share or $155 million, respectively, on the company's common stock. The timing and amounts of any future dividends are subject to determination and approval by our board of directors.

Credit Facilities and Short-Term Debt

On March 13, 2019, we entered into a credit agreement with a group of financial institutions which provided for a $1 billion five-year unsecured credit facility that will expire on March 13, 2024. During the nine months ended July 31, 2020, we borrowed $798 million and repaid $913 million under the credit facility. As of July 31, 2020, we had no borrowings outstanding under the credit facility. We were in compliance with the covenants for the credit facility during the nine months ended July 31, 2020. On August 7, 2019, we entered into an amendment to the credit agreement, which provided for a $500 million short-term loan facility that was used in full to complete the BioTek acquisition and which was repaid in full as of July 31, 2020. On October 21, 2019, we entered into a second amendment to the credit agreement, which refreshed the amount available for additional incremental term loan facilities under the credit agreement to permit additional incremental facilities of up to $500 million. We had no borrowings under the additional incremental loan facilities as of July 31, 2020. On April 17, 2020, we entered into a third amendment to the credit agreement which provides the company with the option to request the consent of the applicable class of lenders to extend the maturity date of revolving borrowings and swingline loans for an additional period of one year and of the 2019 incremental term loans for an additional period of up to 364 days.

Commercial Paper

In May 2020, we established a U.S. commercial paper program, under which the company may issue and sell unsecured, short-term promissory notes in the aggregate principal amount not to exceed $1.0 billion with up to 397-day maturities. At any point in time, the company intends to maintain available commitments under its revolving credit facility in an amount at least equal to the amount of the commercial paper notes outstanding. Amounts available under the program may be borrowed, repaid and re-borrowed from time to time. The proceeds from issuances under the program may be used for general corporate purposes. As of July 31, 2020, borrowings outstanding under our U.S. commercial paper program had a weighted average annual interest rate of 0.23 percent and a weighted average remaining maturity of approximately 3 days. We had borrowings of $40 million outstanding under the U.S. commercial paper program as of July 31, 2020.

Long-Term Debt

2030 Senior Notes

On June 4, 2020, we issued an aggregate principal amount of $500 million in senior notes ("2030 senior notes"). The 2030 senior notes were issued at 99.812% of their principal amount. The 2030 senior notes will mature on June 4, 2030, and bear interest at a fixed rate of 2.10% per annum. The interest is payable semi-annually on June 4th and December 4th of each year and payments commence on December 4, 2020.

Other than the issuance of the 2030 senior notes, there have been no other changes to the principal, maturity, interest rates and interest payment terms of the Agilent outstanding senior notes in the nine months ended July 31, 2020 as compared to the senior notes as described in our Annual Report on Form 10-K for the fiscal year ended October 31, 2019.

Other

There were no other substantial changes from our Annual Report on Form 10-K for the fiscal year ended October 31, 2019 to our contractual commitments in the first nine months of fiscal 2020. We have contractual commitments for non-cancelable operating leases. See Note 9, "Leases" for more information. We have no other material non-cancelable guarantees or commitments.

Other long-term liabilities as of July 31, 2020 and October 31, 2019 include $321 million and $328 million, respectively, related to long-term income tax liabilities. Of these amounts, $192 million and $199 million related to uncertain tax positions of continuing operations as of July 31, 2020 and October 31, 2019, respectively. We are unable to accurately predict when these amounts will be realized or released. However, it is reasonably possible that there could be significant changes to our unrecognized tax benefits in the next twelve months due to either the expiration of a statute of limitations or a tax audit settlement. The remaining $129 million in other long-term liabilities relates to the one-time transition tax payable.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to foreign currency exchange rate risks inherent in our sales commitments, anticipated sales, and assets and liabilities and equity denominated in currencies other than the functional currency of our subsidiaries. We hedge future cash flows denominated in currencies other than the functional currency using sales forecasts up to twelve months in advance. Our exposure to exchange rate risks is mainly managed on an enterprise-wide basis. This strategy utilizes derivative financial instruments, including option and forward contracts, to hedge certain foreign currency exposures with the intent of offsetting gains and losses that occur on the underlying exposures with gains and losses on the derivative contracts hedging them. We may also hedge equity balances denominated in foreign currency on a long-term basis. We do not currently and do not intend to utilize derivative financial instruments for speculative trading purposes. To the extent that we are required to pay for all, or portions, of an acquisition price in foreign currencies, we may enter into foreign exchange contracts to reduce the risk that currency movements will impact the cost of the transaction.

Our operations generate non-functional currency cash flows such as revenues, third party vendor payments and inter-company payments. In anticipation of these foreign currency cash flows and in view of volatility of the currency market, we enter into such foreign exchange contracts as are described above to manage our currency risk. Approximately 51 percent and 50 percent of our revenue was generated in U.S. dollars during the nine months ended July 31, 2020 and 2019, respectively. The overall unfavorable effects of changes in foreign currency exchange rates, principally as a result of the strength of the U.S. dollar, has decreased revenue by 1 percentage point in the nine months ended July 31, 2020. We calculate the impact of movements in our foreign currency exchange rates by applying the actual foreign currency exchange rates in effect during the last month of each quarter of the current year to both the applicable current and prior year periods.

We performed a sensitivity analysis assuming a hypothetical 10 percent adverse movement in foreign exchange rates to the hedging contracts and the underlying exposures described above. As of July 31, 2020, the analysis indicated that these hypothetical market movements would not have a material effect on our condensed consolidated financial position, results of operations, statement of comprehensive income or cash flows.

We are also exposed to interest rate risk due to the mismatch between the interest expense we pay on our loans at fixed rates and the variable rates of interest we receive from cash, cash equivalents and other short-term investments. We have issued long-term debt in U.S. dollars or foreign currencies at fixed interest rates based on the market conditions at the time of financing. We believe that the fair value of our fixed rate debt changes when the underlying market rates of interest change, and we may use interest rate swaps to modify such market risk.

We performed a sensitivity analysis assuming a hypothetical 10 percent adverse movement in interest rates relating to the underlying fair value of our fixed rate debt. As of July 31, 2020, the sensitivity analyses indicated that a hypothetical 10 percent adverse movement in interest rates would result in an immaterial impact to the fair value of our fixed interest rate debt.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including the Chief Executive Officer and Chief Financial Officer, we have evaluated the effectiveness of our disclosure controls and procedures as required by the Securities Exchange Act of 1934 (the "Exchange Act") Rule 13a-15(b) as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that these disclosure controls and procedures are effective at ensuring that information is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding such required disclosure to the SEC.

Changes in Internal Control over Financial Reporting

We have not experienced any material impact to our internal controls over financial reporting despite the fact that many of our employees are working remotely due to the COVID-19 pandemic. There were no changes in our internal control over financial reporting during the quarter ended July 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. We are continually monitoring and assessing the effect of the COVID-19 situation on our internal controls to minimize the impact on their design and operating effectiveness.

PART II — OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

We are involved in lawsuits, claims, investigations and proceedings, including, but not limited to, intellectual property, commercial, real estate, environmental and employment matters, which arise in the ordinary course of business. There are no matters pending that we currently believe are probable or reasonably possible of having a material impact to our business, consolidated financial condition, results of operations or cash flows.

ITEM 1A. RISK FACTORS

Risks, Uncertainties and Other Factors That May Affect Future Results

The COVID-19 pandemic has adversely impacted, and continues to pose risks to, our business, results of operations and financial condition, the nature and extent of which are highly uncertain and unpredictable.

Our global operations expose us to risks associated with public health crises, including epidemics and pandemics such as COVID-19. The global spread of COVID-19 has had, and continues to have, an adverse impact on our operations, sales and delivery and supply chains. Many countries including the United States have implemented measures such as quarantine, shelter-in-place, curfew, travel and activity restrictions and similar isolation measures, including government orders and other restrictions on the conduct of business operations. Due to these measures, we have experienced, and will continue to experience, significant and unpredictable reductions or increases in demand for certain of our products. Moreover, these measures have caused delays in installations and significantly impacted our ability to service our customers on site. If the COVID-19 pandemic continues, we will continue to experience a decline in sales activities and customer orders in certain of our businesses, and it remains uncertain what impact these declines will have on future sales and customer orders once conditions begin to improve. In addition to existing travel restrictions, countries may continue to close or decline to open borders, impose prolonged quarantines or other government orders, and further restrict travel, which would significantly impact our ability to support our sites and service customers in those locations. The COVID-19 pandemic has also impacted our supply chain as we have experienced disruptions or delays in shipments of certain materials or components of our products. If the pandemic continues or worsens, our manufacturing facilities, our distribution centers where inventory is managed and the operations of our logistics and other service providers may be significantly impacted. Accordingly, COVID-19 has negatively affected our revenue growth in certain of our businesses. It is uncertain how materially COVID-19 will affect our global operations generally if these impacts persist, worsen or re-emerge over an extended period of time. The extent and duration of these impacts are dependent in part on customers returning to work and economic activity ramping up. The impact on our business also depends in part on the pace at which our customers resume non-COVID-19 related patient care and testing, as well as the timing of when research performed by laboratories and other institutions returns to normal levels.

Additionally, the COVID-19 pandemic caused significant volatility and uncertainty in U.S. and international markets, which may result in a prolonged economic downturn. A disruption of global financial markets may reduce our ability to incur debt or access capital and increase the cost of doing so. There are no assurances that the credit markets or the capital markets will be available to us in the future or that the lenders participating in our credit facilities will be able to provide financing in accordance with their contractual obligations.

We cannot reasonably estimate the length or severity of the COVID-19 pandemic or the related response, or the extent to which the disruption may continue to impact our business, financial position, results of operations and cash flows. Ultimately, the COVID-19 pandemic could have a material adverse impact on our business, financial position, results of operations and cash flows. To the extent COVID-19 conditions begin to improve, the duration and sustainability of any such improvements will be uncertain and continuing adverse impacts and/or the degree of improvement may vary dramatically by geography and by business. The actions we take in response to any improvements in conditions may also vary widely by geography and by business and will likely be made with incomplete information; pose the risk that such actions may prove to be premature, incorrect or insufficient; and could have a material, adverse impact on our business and results of operations.

Our operating results and financial condition could be harmed if the markets into which we sell our products decline or do not grow as anticipated.

Visibility into our markets is limited. Our quarterly sales and operating results are highly dependent on the volume and timing of orders received during the fiscal quarter, which are difficult to forecast and may be cancelled by our customers. In addition, our revenue and earnings forecasts for future fiscal quarters are often based on the expected seasonality of our markets. However, the markets we serve do not always experience the seasonality that we expect as customer spending policies and budget allocations, particularly for capital items, may change. Any decline in our customers' markets or in general economic conditions would likely result in a reduction in demand for our products and services. Also, if our customers' markets decline, we may not be able to collect on outstanding amounts due to us. Such declines could harm our consolidated financial position, results of operations, cash flows and stock price, and could limit our profitability. Also, in such an environment, pricing pressures could intensify. Since a significant portion of our operating expenses is relatively fixed in nature due to sales, research and development and manufacturing costs, if we were unable to respond quickly enough these pricing pressures could further reduce our operating margins.

If we do not introduce successful new products and services in a timely manner to address increased competition through frequent new product and service introductions, rapid technological changes and changing industry standards, our products and services may become obsolete, and our operating results may suffer.

We generally sell our products in industries that are characterized by increased competition through frequent new product and service introductions, rapid technological changes and changing industry standards. Without the timely introduction of new products, services and enhancements, our products and services may become technologically obsolete over time, in which case our revenue and operating results could suffer. The success of our new products and services will depend on several factors, including our ability to:

- properly identify customer needs and predict future needs;
- innovate and develop new technologies, services and applications;
- appropriately allocate our research and development spending to products and services with higher growth prospects;
- successfully commercialize new technologies in a timely manner;
- manufacture and deliver new products in sufficient volumes and on time;
- differentiate our offerings from our competitors' offerings;
- price our products competitively;
- anticipate our competitors' development of new products, services or technological innovations; and
- control product quality in our manufacturing process.

In addition, if we fail to accurately predict future customer needs and preferences or fail to produce viable technologies, we may invest in research and development of products and services that do not lead to significant revenue, which would adversely affect our profitability. Even if we successfully innovate and develop new and enhanced products and services, we may incur substantial costs in doing so, and our operating results may suffer. In addition, promising new products may fail to reach the market or realize only limited commercial success because of real or perceived concerns of our customers. Furthermore, as we collaborate with pharmaceutical customers to develop drugs such as companion diagnostics assays or provide drug components like active pharmaceutical ingredients, we face risks that those drug programs may be cancelled upon clinical trial failures.

General economic conditions may adversely affect our operating results and financial condition.

Our business is sensitive to negative changes in general economic conditions, both inside and outside the United States. Slower global economic growth and uncertainty in the markets in which we operate may adversely impact our business resulting in:

- reduced demand for our products, delays in the shipment of orders, or increases in order cancellations;
- increased risk of excess and obsolete inventories;
- increased price pressure for our products and services; and
- greater risk of impairment to the value, and a detriment to the liquidity, of our investment portfolio.

Failure to adjust our purchases due to changing market conditions or failure to accurately estimate our customers' demand could adversely affect our income.

Our income could be harmed if we are unable to adjust our purchases to reflect market fluctuations, including those caused by the seasonal nature of the markets in which we operate. The sale of our products and services are dependent, to a large degree, on customers whose industries are subject to seasonal trends in the demand for their products. During a market upturn, we may not be able to purchase sufficient supplies or components to meet increasing product demand, which could materially affect our results. In the past, we have experienced a shortage of parts for some of our products. In addition, some of the parts that require custom design are not readily available from alternate suppliers due to their unique design or the length of time necessary for design work. Should a supplier cease manufacturing such a component, we would be forced to reengineer our product. In addition to discontinuing parts, suppliers may also extend lead times, limit supplies or increase prices due to capacity constraints or other factors. In order to secure components for the production of products, we may continue to enter into non-cancelable purchase commitments with vendors, or at times make advance payments to suppliers, which could impact our ability to adjust our inventory to declining market demands. If demand for our products is less than we expect, we may experience additional excess and obsolete inventories and be forced to incur additional expenses.

Demand for some of our products and services depends on the capital spending policies of our customers, research and development budgets and on government funding policies.

Our customers include pharmaceutical companies, laboratories, universities, healthcare providers, government agencies and public and private research institutions. Many factors, including public policy spending priorities, available resources, mergers and consolidations, institutional and governmental budgetary policies and spending priorities, and product and economic cycles, have a significant effect on the capital spending policies of these entities. Fluctuations in the research and development budgets at these organizations could have a significant effect on the demand for our products and services. Research and development budgets fluctuate due to changes in available resources, consolidation, spending priorities, general economic conditions and institutional and governmental budgetary policies. The timing and amount of revenue from customers that rely on government funding or research may vary significantly due to factors that can be difficult to forecast, including changes in spending authorizations and budgetary priorities for our products and services. If demand for our products and services is adversely affected, our revenue and operating results would suffer.

Economic, political, foreign currency and other risks associated with international sales and operations could adversely affect our results of operations.

Because we sell our products worldwide, our business is subject to risks associated with doing business internationally. We anticipate that revenue from international operations will continue to represent a majority of our total revenue. International revenue and costs are subject to the risk that fluctuations in foreign currency exchange rates could adversely affect our financial results when translated into U.S. dollars for financial reporting purposes. Foreign currency movements for the nine months ended July 31, 2020 had an overall unfavorable impact on revenue of 1 percentage point when compared to the same period last year. When movements in foreign currency exchange rates have a negative impact on revenue, they will also have a positive impact by reducing our costs and expenses. In addition, many of our employees, contract manufacturers, suppliers, job functions, outsourcing activities and manufacturing facilities are located outside the United States. Accordingly, our future results could be harmed by a variety of factors, including:

- interruption to transportation flows for delivery of parts to us and finished goods to our customers;
- changes in a specific country's or region's political, economic or other conditions;
- changes in diplomatic and trade relationships, such as the United Kingdom's exit from the European Union and the increased uncertainty around its implementation caused by COVID-19, as well as, new tariffs, trade protection measures, import or export licensing requirements, new or different customs duties, trade embargoes and sanctions and other trade barriers;
- tariffs imposed by the U.S. on goods from other countries and tariffs imposed by other countries on U.S. goods, including the tariffs enacted and proposed by the U.S. government on various imports from China and by the Chinese government on certain U.S. goods;
- negative consequences from changes in or differing interpretations of laws and regulations, including those related to tax and import/export;
- difficulty in staffing and managing widespread operations;
- differing labor regulations;
- differing protection of intellectual property;
- unexpected changes in regulatory requirements;
- geopolitical uncertainty or turmoil, terrorism and war; and
- impact of public health crises, including pandemics and epidemics, such as COVID-19 on the global economy.

We sell our products into many countries and we also source many components and materials for our products from and manufacture our products in various countries. Future tariffs and tariffs already implemented could have negative impact on our business, results of operations and financial condition. It may be time-consuming and expensive for us to alter our business operations in order to adapt to any such change. Further, additional tariffs, the scope and duration of which, if implemented, remains uncertain, which have been proposed or threatened and the potential escalation of a trade war and retaliatory measures could have a material adverse effect on our business, results of operations and financial condition.

Most of our accounting and tax processes including general accounting, cost accounting, accounts payable, accounts receivables and tax functions are centralized at locations in India and Malaysia. If conditions change in those countries, it may adversely affect operations, including impairing our ability to pay our suppliers and collect our receivables. Our results of operations, as well as our liquidity, may be adversely affected and possible delays may occur in reporting financial results.

In addition, although the majority of our products are priced and paid for in U.S. dollars, a significant amount of certain types of expenses, such as payroll, utilities, tax, and marketing expenses, are paid in local currencies. Our hedging programs reduce, but do not always entirely eliminate, within any given twelve-month period, the impact of currency exchange rate movements, and therefore fluctuations in exchange rates, including those caused by currency controls, could impact our business, operating results and financial condition by resulting in lower revenue or increased expenses. For expenses beyond that twelve-month period, our hedging strategy does not mitigate our exposure. In addition, our currency hedging programs involve third-party financial institutions as counterparties. The weakening or failure of financial institution counterparties may adversely affect our hedging programs and our financial condition through, among other things, a reduction in available counterparties, increasingly unfavorable terms, and the failure of the counterparties to perform under hedging contracts.

Our strategic initiatives to adjust our cost structure could have long-term adverse effects on our business, and we may not realize the operational or financial benefits from such actions.

We have implemented multiple strategic initiatives across our businesses to adjust our cost structure, and we may engage in similar activities in the future. These strategic initiatives and our regular ongoing cost reduction activities may distract management, could slow improvements in our products and services and limit our ability to increase production quickly if demand for our products increases. In addition, delays in implementing our strategic initiatives, unexpected costs or failure to meet targeted improvements may diminish the operational and financial benefits we realize from such actions. Any of the above circumstances could have an adverse effect on our business and operating results and financial condition.

Our business will suffer if we are not able to retain and hire key personnel.

Our future success depends partly on the continued service of our key research, engineering, sales, marketing, manufacturing, executive and administrative personnel. If we fail to retain and hire a sufficient number of these personnel, we will not be able to maintain or expand our business. The markets in which we operate are very dynamic, and our businesses continue to respond with reorganizations, workforce reductions and site closures. We believe our pay levels are very competitive within the regions that we operate. However, there is intense competition for certain highly technical specialties in geographic areas where we continue to recruit, and it may become more difficult to hire and retain our key employees.

Our acquisitions, strategic investments and alliances, joint ventures, exiting of businesses and divestitures may result in financial results that are different than expected.

In the normal course of business, we frequently engage in discussions with third parties relating to possible acquisitions, strategic investments and alliances, joint ventures and divestitures, and generally expect to complete several transactions per year. In addition, we may decide to exit a particular business within our product portfolio. As a result of such transactions, our financial results may differ from our own or the investment community's expectations in a given fiscal quarter or over the long term. We may have difficulty developing, manufacturing and marketing the products of a newly acquired company in a way that enhances the performance of our combined businesses or product lines. Acquired businesses may also expose us to new risks and new markets, and we may have difficulty addressing these risks in a cost effective and timely manner. Transactions such as acquisitions have resulted, and may in the future result in, unexpected significant costs and expenses. In the future, we may be required to record charges to earnings during the period if we determine there is an impairment of goodwill or intangible assets, up to the full amount of the value of the assets, or, in the case of strategic investments and alliances, consolidate results, including losses, of third parties or write down investment values or loans and convertible notes related to the strategic investment.

Integrating the operations of acquired businesses within Agilent could be a difficult, costly and time-consuming process that involves a number of risks. Acquisitions and strategic investments and alliances may require us to integrate and collaborate with a different company culture, management team, business model, business infrastructure and sales and distribution methodology and assimilate and retain geographically dispersed, decentralized operations and personnel. Depending on the size and complexity of an acquisition, our successful integration of the entity depends on a variety of factors, including introducing new products and meeting revenue targets as expected, the retention of key employees and key customers, increased exposure to certain governmental regulations and compliance requirements and increased costs and use of resources. Further, the integration of acquired businesses is likely to result in our systems and internal controls becoming increasingly complex and more difficult to manage. Any difficulties in the assimilation of acquired businesses into our control system could harm our operating results or cause us to fail to meet our financial reporting obligations.

Even if we are able to successfully integrate acquired businesses within Agilent, we may not be able to realize the revenue and other synergies and growth that we anticipated from the acquisition in the time frame that we expected, and the costs of achieving these benefits may be higher than what we expected. As a result, the acquisition and integration of acquired businesses may not contribute to our earnings as expected, we may not achieve our operating margin targets when expected, or at all, and we may not achieve the other anticipated strategic and financial benefits of such transactions.

A successful divestiture depends on various factors, including our ability to effectively transfer liabilities, contracts, facilities and employees to the purchaser, identify and separate the intellectual property to be divested from the intellectual property that we wish to keep and reduce fixed costs previously associated with the divested assets or business. In addition, if customers of the divested business do not receive the same level of service from the new owners, this may adversely affect our other businesses to the extent that these customers also purchase other Agilent products. In exiting a business, we may still retain liabilities associated with the support and warranty of those businesses and other indemnification obligations. All of these efforts require varying levels of management resources, which may divert our attention from other business operations. If we do not realize the expected benefits or synergies of such transactions, our consolidated financial position, results of operations, cash flows and stock price could be negatively impacted.

If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results, which could lead to a loss of investor confidence in our financial statements and have an adverse effect on our stock price.

Effective internal controls are necessary for us to provide reliable and accurate financial statements and to effectively prevent fraud. We devote significant resources and time to comply with the internal control over financial reporting requirements of the Sarbanes Oxley Act of 2002 and continue to enhance our controls. However, we cannot be certain that we will be able to prevent future significant deficiencies or material weaknesses. Inadequate internal controls could cause investors to lose confidence in our reported financial information, which could have a negative effect on investor confidence in our financial statements, the trading price of our stock and our access to capital.

Our customers and we are subject to various governmental regulations. Compliance with or changes in such regulations may cause us to incur significant expenses, and if we fail to maintain satisfactory compliance with certain regulations, we may be forced to recall products and cease their manufacture and distribution, and we could be subject to civil or criminal penalties.

Our customers and we are subject to various significant international, federal, state and local regulations, including but not limited to regulations in the areas of health and safety, packaging, product content, employment, labor and immigration, import/export controls, trade restrictions and anti-competition. In addition, as a global organization, we are subject to data privacy and security laws, regulations, and customer-imposed controls in numerous jurisdictions as a result of having access to and processing confidential, personal, sensitive and/or patient health data in the course of our business. The EU's General Data Protection Regulation ("GDPR"), which became effective in May 2018, applies to all of our activities related to products and services that we offer to EU customers and workers. The GDPR established new requirements regarding the handling of personal data and includes significant penalties for non-compliance (including possible fines of up to 4 percent of total company revenue). Other governmental authorities around the world have passed or are considering similar types of legislative and regulatory proposals concerning data protection. Each of these privacy, security and data protection laws and regulations could impose significant limitations and increase our cost of providing our products and services where we process end user personal data and could harm our results of operations and expose us to significant fines, penalties and other damages.

We must also comply with complex foreign and U.S. laws and regulations, such as the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act, and other local laws prohibiting corrupt payments to governmental officials, anti-competition regulations and sanctions imposed by the U.S. Office of Foreign Assets Control and other similar laws and regulations. Violations of these laws and regulations could result in fines and penalties, criminal sanctions, restrictions on our business conduct and on our ability to offer our products in one or more countries, and could also materially affect our brand, our ability to attract and retain employees, our international operations, our business and our operating results. Although we have implemented policies and procedures designed to ensure compliance with these laws and regulations, there can be no assurance that our employees, contractors, or agents will not violate our policies.

These regulations are complex, change frequently and have tended to become more stringent over time. We may be required to incur significant expenses to comply with these regulations or to remedy any violations of these regulations. Any failure by us to comply with applicable government regulations could also result in the cessation of our operations or portions of our operations, product recalls or impositions of fines and restrictions on our ability to carry on or expand our operations. In addition, because many of our products are regulated or sold into regulated industries, we must comply with additional regulations in marketing our products. We develop, configure and market our products to meet customer needs created by these regulations. Any significant change in these regulations could reduce demand for our products, force us to modify our products to comply with new regulations or increase our costs of producing these products. If demand for our products is adversely affected or our costs increase, our operating results and business would suffer.

Our products and operations are also often subject to the rules of industrial standards bodies, like the International Standards Organization, as well as regulation by other agencies such as the FDA. We also must comply with work safety rules. If we fail to adequately address any of these regulations, our businesses could be harmed.

We are subject to extensive regulation by the FDA and certain similar foreign regulatory agencies, and failure to comply with such regulations could harm our reputation, business, financial condition and results of operations.

A number of our products are subject to regulation by the FDA and certain similar foreign regulatory agencies. In addition, a number of our products may in the future be subject to regulation by the FDA and certain similar foreign regulatory agencies. These regulations govern a wide variety of product-related activities, from quality management, design and development to labeling, manufacturing, promotion, sales and distribution. If we or any of our suppliers or distributors fail to comply with FDA and other applicable regulatory requirements or are perceived to potentially have failed to comply, we may face, among other things, warning letters; adverse publicity affecting both us and our customers; investigations or notices of non-compliance, fines, injunctions, and civil penalties; import or export restrictions; partial suspensions or total shutdown of production facilities or the imposition of operating restrictions; increased difficulty in obtaining required FDA clearances or approvals or foreign equivalents; seizures or recalls of our products or those of our customers; or the inability to sell our products. Any such FDA or other regulatory agency actions could disrupt our business and operations, lead to significant remedial costs and have a material adverse impact on our financial position and results of operations. In addition, the global regulatory environment has become increasingly stringent. For example, the EU has adopted the EU In Vitro Diagnostic Regulation (the “EU IVDR”), which imposes stricter requirements for the marketing and sale of medical devices, including in the area of clinical evaluation requirements, quality systems and post-market surveillance. Manufacturers will have until May 2022 to meet the EU IVDR requirements for in vitro diagnostic medical devices currently on the market. Failure to meet these requirements could adversely impact our business in the EU and other regions that tie their product registrations to the EU requirements.

Some of our products are subject to particularly complex regulations such as regulations of toxic substances, and failure to comply with such regulations could harm our business.

Some of our products and related consumables are used in conjunction with chemicals whose manufacture, processing, distribution and notification requirements are regulated by the U.S. Environmental Protection Agency (“EPA”) under the Toxic Substances Control Act and by regulatory bodies in other countries under similar laws. The Toxic Substances Control Act regulations govern, among other things, the testing, manufacture, processing and distribution of chemicals, the testing of regulated chemicals for their effects on human health and safety and the import and export of chemicals. The Toxic Substances Control Act prohibits persons from manufacturing any chemical in the United States that has not been reviewed by the EPA for its effect on health and safety and placed on an EPA inventory of chemical substances. We must ensure conformance of the manufacturing, processing, distribution of and notification about these chemicals to these laws and adapt to regulatory requirements in all applicable countries as these requirements change. If we fail to comply with the notification, record-keeping and other requirements in the manufacture or distribution of our products, then we could be subject to civil penalties, criminal prosecution and, in some cases, prohibition from distributing or marketing our products until the products or component substances are brought into compliance.

Our business may suffer if we fail to comply with government contracting laws and regulations.

We derive a portion of our revenue from direct and indirect sales to U.S. federal, state, local, and foreign governments and their respective agencies. Such contracts are subject to various procurement laws and regulations and contract provisions relating to their formation, administration and performance. Failure to comply with these laws, regulations or provisions in our government contracts could result in the imposition of various civil and criminal penalties, termination of contracts, forfeiture of profits, suspension of payments, increased pricing pressure or suspension from future government contracting. If our government contracts are terminated, if we are suspended from government work, or if our ability to compete for new contracts is adversely affected, our business could suffer.

Our reputation, ability to do business and financial statements may be harmed by improper conduct by any of our employees, agents or business partners.

We cannot provide assurance that our internal controls and compliance systems will always protect us from acts committed by employees, agents or business partners of ours (or of businesses we acquire or partner with) that would violate U.S. and/or non-U.S. laws, including the laws governing payments to government officials, bribery, fraud, kickbacks and false claims, pricing, sales and marketing practices, conflicts of interest, competition, employment practices and workplace behavior, export and import compliance, money laundering and data privacy. In particular, the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and similar anti-bribery laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to government officials for the purpose of obtaining or retaining business, and we operate in many parts of the world that have experienced governmental corruption to some degree. Any such improper actions or allegations of such acts could damage our reputation and subject us to civil or criminal investigations in the United States and in other jurisdictions, and related shareholder lawsuits could lead to substantial civil and criminal, monetary and non-monetary penalties and could cause us to incur significant legal and investigatory fees. In addition, the government may seek to hold us liable as a successor for violations committed by companies in which we invest or that we acquire. We also rely on our suppliers to adhere to our supplier standards of conduct, and material violations of such standards of conduct could occur that could have a material effect on our business, reputation and financial statements.

Our retirement and post retirement pension plans are subject to financial market risks that could adversely affect our future results of operations and cash flows.

We have significant retirement and post retirement pension plan assets and obligations. The performance of the financial markets and interest rates impact our plan expenses and funding obligations. Significant decreases in market interest rates, decreases in the fair value of plan assets and investment losses on plan assets will increase our funding obligations and adversely impact our results of operations and cash flows.

The impact of consolidation and acquisitions of competitors is difficult to predict and may harm our business.

The life sciences industry is intensely competitive and has been subject to increasing consolidation. Consolidation in our industries could result in existing competitors increasing their market share through business combinations and result in stronger competitors, which could have a material adverse effect on our business, financial condition and results of operations. We may not be able to compete successfully in increasingly consolidated industries and cannot predict with certainty how industry consolidation will affect our competitors or us.

If we are unable to successfully manage the consolidation and streamlining of our manufacturing operations, we may not achieve desired efficiencies, and our ability to deliver products to our customers could be disrupted.

Although we utilize manufacturing facilities throughout the world, we have consolidated, and may further consolidate, our manufacturing operations to certain of our plants to achieve efficiencies and gross margin improvements. Additionally, we typically consolidate the production of products from our acquisitions into our supply chain and manufacturing processes, which are technically complex and require expertise to operate. If we are unable to establish processes to efficiently and effectively produce high quality products in the consolidated locations, we may not achieve the anticipated synergies and production may be disrupted, which could adversely affect our business and operating results.

Our operating results may suffer if our manufacturing capacity does not match the demand for our products.

Because we cannot immediately adapt our production capacity and related cost structures to rapidly changing market conditions, when demand does not meet our expectations, our manufacturing capacity may exceed our production requirements. If during an economic downturn we had excess manufacturing capacity, then our fixed costs associated with excess manufacturing capacity would adversely affect our gross margins and operating results. If, during a general market upturn or an upturn in one of our segments, we cannot increase our manufacturing capacity to meet product demand, we may not be able to fulfill orders in a timely manner which could lead to order cancellations, contract breaches or indemnification obligations. This inability could materially and adversely limit our ability to improve our results.

Dependence on contract manufacturing and outsourcing other portions of our supply chain, including logistics and third-party package delivery services, may adversely affect our ability to bring products to market and damage our reputation. Dependence on outsourced information technology and other administrative functions may impair our ability to operate effectively.

As part of our efforts to streamline operations and to manage costs, we outsource aspects of our manufacturing processes and other functions and continue to evaluate additional outsourcing. If our contract manufacturers or other outsourcers fail to perform their obligations in a timely manner or at satisfactory quality levels, our ability to bring products to market and our reputation could suffer. For example, during a market upturn, our contract manufacturers may be unable to meet our demand requirements, which may preclude us from fulfilling our customers' orders on a timely basis. The ability of these manufacturers to perform is largely outside of our control. If one or more of the third-party package delivery providers experiences a significant disruption in services or institutes a significant price increase, we may have to seek alternative providers, our costs could increase and the delivery of our products could be prevented or delayed. Additionally, changing or replacing our contract manufacturers, logistics providers or other outsourcers could cause disruptions or delays. In addition, we outsource significant portions of our information technology ("IT") and other administrative functions. Since IT is critical to our operations, any failure to perform on the part of our IT providers could impair our ability to operate effectively. In addition to the risks outlined above, problems with manufacturing or IT outsourcing could result in lower revenue and unexecuted efficiencies and impact our results of operations and our stock price.

Environmental contamination from past and ongoing operations could subject us to substantial liabilities.

Certain properties we have previously owned or leased are undergoing remediation for subsurface contamination. Although we are indemnified for liability relating to the required remediation at some of those properties, we may be subject to liability if these indemnification obligations are not fulfilled. In other cases, we have agreed to indemnify the current owners of certain properties for liabilities related to contamination, including companies with which we have previously been affiliated such as HP, Inc., Hewlett-Packard Enterprise (formerly Hewlett-Packard Company) and Varian Medical Systems, Inc. Further, other properties we have previously owned or leased at which we have operated in the past, or for which we have otherwise contractually assumed, or provided indemnities for, certain actual or contingent environmental liabilities may or do require remediation. While we are not aware of any material liabilities associated with any potential environmental contamination at any of those properties or facilities, we may be exposed to material liability if environmental contamination at material levels is found to exist. In addition, in connection with the acquisition of certain companies, we have assumed other costs and potential or contingent liabilities for environmental matters. Any significant costs or liabilities could have an adverse effect on results of operations.

Our current and historical manufacturing processes and operations involve, or have involved, the use of certain substances regulated under various foreign, federal, state and local environment protection and health and safety laws and regulations. As a result, we may become subject to liabilities for environmental contamination, and these liabilities may be substantial. Although our policy is to apply strict standards for environmental protection and health and safety at our sites inside and outside the United States, we may not be aware of all conditions that could subject us to liability. Further, in the event that any future climate change legislation would require that stricter standards be imposed by domestic or international environmental regulatory authorities, we may be required to make certain changes and adaptations to our manufacturing processes. Failure to comply with these environmental protection and health and safety laws and regulations could result in civil, criminal, regulatory, administrative or contractual sanction, including fines, penalties or suspensions. If we have any violations of, or incur liabilities pursuant to these laws or regulations, our financial condition and operating results could be adversely affected.

Third parties may claim that we are infringing their intellectual property, and we could suffer significant litigation or licensing expenses or be prevented from selling products or services.

From time to time, third parties may claim that one or more of our products or services infringe their intellectual property rights. We analyze and take action in response to such claims on a case by case basis. Any dispute or litigation regarding patents or other intellectual property could be costly and time-consuming due to the complexity of our technology and the uncertainty of intellectual property litigation and could divert our management and key personnel from our business operations. A claim of intellectual property infringement could force us to enter into a costly or restrictive license agreement, which might not be available under acceptable terms or at all, could require us to redesign our products, which would be costly and time-consuming, and/or could subject us to significant damages or to an injunction against the development and sale of certain of our products or services. Our intellectual property portfolio may not be useful in asserting a counterclaim, or negotiating a license, in response to a claim of intellectual property infringement. In certain of our businesses, we rely on third-party intellectual property licenses, and we cannot ensure that these licenses will continue to be available to us in the future or can be expanded to cover new products on favorable terms or at all.

Third parties may infringe our intellectual property, and we may suffer competitive injury or expend significant resources enforcing our rights.

Our success depends in large part on our proprietary technology, including technology we obtained through acquisitions. We rely on various intellectual property rights, including patents, copyrights, trademarks and trade secrets, as well as confidentiality provisions and licensing arrangements, to establish our proprietary rights. If we do not enforce our intellectual property rights successfully, our competitive position may suffer, which could harm our operating results.

Our pending patent, copyright and trademark registration applications may not be allowed, or competitors may challenge the validity or scope of our patents, copyrights or trademarks. In addition, our patents, copyrights, trademarks and other intellectual property rights may not provide us with a significant competitive advantage.

We may need to spend significant resources monitoring and enforcing our intellectual property rights, and we may not be aware of or able to detect or prove infringement by third parties. Our competitive position may be harmed if we cannot detect infringement and enforce our intellectual property rights quickly or at all. In some circumstances, we may choose to not pursue enforcement because an infringer has a dominant intellectual property position or for other business reasons. In addition, competitors might avoid infringement by designing around our intellectual property rights or by developing non-infringing competing technologies. Intellectual property rights and our ability to enforce them may be unavailable or limited in some countries, which could make it easier for competitors to capture market share and could result in lost revenues. Furthermore, some of our intellectual property is licensed to others which may allow them to compete with us using that intellectual property.

Changes in tax laws, unfavorable resolution of tax examinations, or exposure to additional tax liabilities could have a material adverse effect on our results of operations, financial condition and liquidity.

We are subject to taxes in the U.S., Singapore and various foreign jurisdictions. Governments in the jurisdictions in which we operate implement changes to tax laws and regulations periodically. Any implementation of tax laws that fundamentally change the taxation of corporations in the U.S. or Singapore could materially impact our effective tax rate and could have a significant adverse impact on our financial results.

The U.S. Tax Cuts and Job Act ("the Tax Act") significantly changed the taxation of U.S. based multinational corporations. Our compliance with the Tax Act requires the use of estimates in our financial statements and exercise of significant judgment in accounting for its provisions. The implementation of the Tax Act requires interpretations and implementing regulations by the Internal Revenue Service ("IRS"), as well as state tax authorities. The legislation could be subject to potential amendments and technical corrections, any of which could materially lessen or increase certain adverse impacts of the legislation. As regulations and guidance evolve with respect to the Tax Act, and as we gather information and perform more analysis, our results may differ from previous estimates and may materially affect our financial position.

We are also subject to examinations of our tax returns by tax authorities in various jurisdictions around the world. We regularly assess the likelihood of adverse outcomes resulting from ongoing tax examinations to determine the adequacy of our provision for taxes. These assessments can require a high degree of judgment and estimation. Intercompany transactions associated with the sale of inventory, services, intellectual property and cost share arrangements are complex and affect our tax liabilities. The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax laws and regulations in multiple jurisdictions. There can be no assurance that the outcomes from ongoing tax examinations will not have an adverse effect on our operating results and financial condition. A difference in the ultimate resolution of tax uncertainties from what is currently estimated could have an adverse effect on our financial results and condition.

If tax incentives change or cease to be in effect, our income taxes could increase significantly.

We benefit from tax incentives extended to our foreign subsidiaries to encourage investment or employment. Several jurisdictions have granted us tax incentives which require renewal at various times in the future. The incentives are conditioned on achieving various thresholds of investments and employment or specific types of income. Our taxes could increase if the incentives are not renewed upon expiration. If we cannot or do not wish to satisfy all or parts of the tax incentive conditions, we may lose the related tax incentive and could be required to refund tax incentives previously realized. As a result, our effective tax rate could be higher than it would have been had we maintained the benefits of the tax incentives.

We have outstanding debt and may incur other debt in the future, which could adversely affect our financial condition, liquidity and results of operations.

We are party to a $1 billion five-year unsecured credit facility that will expire on March 13, 2024. As of July 31, 2020, the company had no borrowings outstanding under the credit facility. On August 7, 2019, we entered into an amendment to the credit agreement, which provided for a $500 million short-term loan facility that was used in full to complete the acquisition of BioTek and was repaid in full as of July 31, 2020. On October 21, 2019, we entered into a second amendment to the credit agreement, which refreshed the amount available for additional incremental term loan facilities under the credit agreement to permit additional incremental facilities of up to $500 million. We had no borrowings under the additional incremental loan facilities as of July 31, 2020. On May 1, 2020, we entered into a new $1.0 billion commercial paper program, and we currently have $40 million of commercial paper outstanding. We also currently have outstanding an aggregate principal amount of $2.3 billion in senior unsecured notes. We may borrow additional amounts in the future and use the proceeds from any future borrowing for general corporate purposes, future acquisitions, expansion of our business or repurchases of our outstanding shares of common stock.

Our incurrence of this debt, and increases in our aggregate levels of debt, may adversely affect our operating results and financial condition by, among other things:

- increasing our vulnerability to downturns in our business, to competitive pressures and to adverse economic and industry conditions;
- requiring the dedication of an increased portion of our expected cash flows from operations to service our indebtedness, thereby reducing the amount of expected cash flows available for other purposes, including capital expenditures, acquisitions, stock repurchases and dividends; and
- limiting our flexibility in planning for or reacting to changes in our business and our industry.

Our credit facility imposes restrictions on us, including restrictions on our ability to create liens on our assets and engage in certain types of sale and leaseback transactions and the ability of our subsidiaries to incur indebtedness, and requires us to maintain compliance with specified financial ratios. Our ability to comply with these ratios may be affected by events beyond our control. In addition, the indentures governing our senior notes contain covenants that may adversely affect our ability to incur certain liens or engage in certain types of sale and leaseback transactions. If we breach any of the covenants and do not obtain a waiver from the lenders or noteholders, then, subject to applicable cure periods, our outstanding indebtedness could be declared immediately due and payable.

If we suffer a loss to our factories, facilities or distribution system due to catastrophe, our operations could be seriously harmed.

Our factories, facilities and distribution system are subject to catastrophic loss due to fire, flood, terrorism, public health crises, increasing severity or frequency of extreme weather events, or other natural or man-made disasters. For example, in the first quarter of fiscal year 2020, the outbreak of COVID-19 in China led to an extension of the Lunar New Year holiday, which impacted our business and results, reduced the number of selling days and otherwise impacted our supply chain. As described above, the COVID-19 pandemic continued to impact our business operations, supply chain and financial results and may have a material adverse effect on our business and results of operations. In addition, several of our facilities could be subject to a catastrophic loss caused by earthquake due to their locations. Our production facilities, headquarters and laboratories in California, and our production facilities in Japan, are all located in areas with above-average seismic activity. If any of our facilities were to experience a catastrophic loss, it could disrupt our operations, delay production, shipments and revenue and result in large expenses to repair or replace the facility. If such a disruption were to occur, we could breach agreements, our reputation could be harmed, and our business and operating results could be adversely affected. In addition, because we have consolidated our manufacturing facilities and we may not have redundant manufacturing capability readily available, we are more likely to experience an interruption to our operations in the event of a catastrophe in any one location. Although we carry insurance for property damage and business interruption, we do not carry insurance or financial reserves for interruptions or potential losses arising from earthquakes or terrorism. Also, our third-party insurance coverage will vary from time to time in both type and amount depending on availability, cost and our decisions with respect to risk retention. Economic conditions and uncertainties in global markets may adversely affect the cost and other terms upon which we are able to obtain third-party insurance. If our third-party insurance coverage is adversely affected or to the extent we have elected to self-insure, we may be at a greater risk that our financial condition will be harmed by a catastrophic loss.

If we experience a significant disruption in, or breach in security of, our information technology systems, or if we fail to implement new systems and software successfully, our business could be adversely affected.

We rely on several centralized information technology systems throughout our company to provide products and services, keep financial records, process orders, manage inventory, process shipments to customers and operate other critical functions. Our information technology systems may be susceptible to damage, disruptions or shutdowns due to power outages, hardware failures, computer viruses, attacks by computer hackers, telecommunication failures, user errors, catastrophes or other unforeseen events. Our information technology systems also may experience interruptions, delays or cessations of service or produce errors in connection with system integration, software upgrades or system migration work that takes place from time to time. If we were to experience a prolonged system disruption in the information technology systems that involve our interactions with customers or suppliers, it could result in the loss of sales and customers and significant incremental costs, which could adversely affect our business. In addition, security breaches of our information technology systems could result in the misappropriation or unauthorized disclosure of confidential information belonging to us or to our employees, partners, customers or suppliers, which could result in our suffering significant financial or reputational damage.

Adverse conditions in the global banking industry and credit markets may adversely impact the value of our cash investments or impair our liquidity.

As of July 31, 2020, we had cash and cash equivalents of approximately $1.4 billion invested or held in a mix of money market funds, time deposit accounts and bank demand deposit accounts. Disruptions in the financial markets may, in some cases, result in an inability to access assets such as money market funds that traditionally have been viewed as highly liquid. Any failure of our counterparty financial institutions or funds in which we have invested may adversely impact our cash and cash equivalent positions and, in turn, our operating results and financial condition.

Regulations related to "conflict minerals" may cause us to incur additional expenses and could limit the supply and increase the cost of certain metals used in manufacturing our products.

We are subject to the rules of the SEC which require disclosures by public companies of specified minerals, known as conflict minerals, that are necessary to the functionality or production of products manufactured or contracted to be manufactured. The rule, which requires an annual disclosure report to be filed with the SEC by May 31st of each year, requires companies to perform due diligence, disclose and report whether or not such minerals originate from the Democratic Republic of Congo or an adjoining country. Our ongoing implementation of these rules could affect sourcing at competitive prices and availability in sufficient quantities of certain minerals used in the manufacture of our products, including tin, tantalum, gold and tungsten. The number of suppliers who provide conflict-free minerals may be limited. In addition, there may be material costs associated with complying with the disclosure requirements, such as costs related to the due diligence process of determining the source of certain minerals used in our products, as well as costs of possible changes to products, processes, or sources of supply as a consequence of such verification activities. As our supply chain is complex and we use contract manufacturers for some of our products, we may not be able to sufficiently verify the origins of the relevant minerals used in our products through the due diligence procedures that we implement, which may harm our reputation. We may also encounter challenges to satisfy those customers who require that all of the components of our products be certified as conflict-free, which could place us at a competitive disadvantage if we are unable to do so.

We cannot assure that we will continue to pay dividends on our common stock.

Since the first quarter of fiscal year 2012, we have paid a quarterly dividend on our common stock. The timing, declaration, amount and payment of any future dividends fall within the discretion of our Board of Directors and will depend on many factors, including our available cash, estimated cash needs, earnings, financial condition, operating results, capital requirements, as well as limitations in our contractual agreements, applicable law, regulatory constraints, industry practice and other business considerations that our Board of Directors considers relevant. A change in our dividend program could have an adverse effect on the market price of our common stock.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

ISSUER PURCHASES OF EQUITY SECURITIES

The table below summarizes information about the company's purchases, based on trade date, of its equity securities registered pursuant to Section 12 of the Exchange Act during the quarterly period ended July 31, 2020.

Period	Total Number of Shares of Common Stock Purchased (1)	Weighted Average Price Paid per Share of Common Stock (2)	Total Number of Shares of Common Stock Purchased as Part of Publicly Announced Plans or Programs (1)	Maximum Approximate Dollar Value of Shares of Common Stock that May Yet Be Purchased Under the Plans or Programs (in millions) (1)
	(a)	(b)	(c)	(d)
May 1, 2020 through May 31, 2020	—	$ —	—	$ 841
June 1, 2020 through June 30, 2020	93,102	$ 87.41	93,102	$ 833
July1, 2020 through July 31, 2020	268,789	$ 92.62	268,789	$ 808
Total	361,891	$ 91.28	361,891	$ 808

(1) On November 19, 2018 we announced that our board of directors had approved a new share repurchase program (the "2019 repurchase program") designed, among other things, to reduce or eliminate dilution resulting from issuance of stock under the company's employee equity incentive programs. The 2019 repurchase program authorizes the purchase of up to $1.75 billion of our common stock at the company's discretion and has no fixed termination date. The 2019 repurchase program does not require the company to acquire a specific number of shares and may be suspended, amended or discontinued at any time. As of July 31, 2020, all repurchased shares to date have been retired.

(2) The weighted average price paid per share of common stock does not include the cost of commissions.

ITEM 6. EXHIBITS

(a) Exhibits:

Exhibit Number	Description
4.1	Second Supplemental Indenture, dated as of June 4, 2020, between the Company and U.S. Bank National Association, incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated June 4, 2020.*
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS XBRL	Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH XBRL	Schema Document
101.CAL XBRL	Calculation Linkbase Document
101.LAB XBRL	Labels Linkbase Document
101.PRE XBRL	Presentation Linkbase Document
101.DEF XBRL	Definition Linkbase Document

* Previously filed.

AGILENT TECHNOLOGIES, INC.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Dated:	September 1, 2020	By:	/s/ Robert W. McMahon
			Robert W. McMahon Senior Vice President and Chief Financial Officer (Principal Financial Officer)
Dated:	September 1, 2020	By:	/s/ Rodney Gonsalves
			Rodney Gonsalves Vice President, Corporate Controllership (Principal Accounting Officer)