

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 APRIL 30, 2019

OR

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

FOR THE TRANSITION PERIOD FROM TO

COMMISSION FILE NUMBER: 001-15405

AGILENT TECHNOLOGIES, INC.

(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE

(State or other jurisdiction of
incorporation or organization)

**5301 STEVENS CREEK BLVD.,
SANTA CLARA, CALIFORNIA**

(Address of principal executive offices)

77-0518772

(IRS Employer
Identification No.)

95051

(Zip Code)

Registrant's telephone number, including area code: **(408) 345-8886**

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

TITLE OF EACH CLASS	TRADING SYMBOL(S)	NAME OF EACH EXCHANGE ON WHICH REGISTERED
COMMON STOCK	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 ☒

Non-accelerated filer ☐

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 May 23, 2019, the registrant had 315,993,352 shares of common stock, \$0.01 par value per share, outstanding.

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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		Six Months Ended	
	April 30,		April 30,	
	2019	2018	2019	2018
Net revenue:				
Products	\$ 921	\$ 918	\$ 1,901	\$ 1,848
Services and other	317	288	621	569
Total net revenue	1,238	1,206	2,522	2,417
Costs and expenses:				
Cost of products	400	403	814	789
Cost of services and other	169	160	332	315
Total costs	569	563	1,146	1,104
Research and development	99	92	201	186
Selling, general and administrative	354	341	709	688
Total costs and expenses	1,022	996	2,056	1,978
Income from operations	216	210	466	439
Interest income	10	10	20	19
Interest expense	(17)	(19)	(35)	(39)
Other income (expense), net	9	26	15	41
Income before taxes	218	227	466	460
Provision (benefit) for income taxes	36	22	(220)	575
Net income (loss)	\$ 182	\$ 205	\$ 686	\$ (115)
Net income (loss) per share:				
Basic	\$ 0.57	\$ 0.64	\$ 2.16	\$ (0.36)
Diluted	\$ 0.57	\$ 0.63	\$ 2.13	\$ (0.36)
Weighted average shares used in computing net income (loss) per share:				
Basic	317	322	318	323
Diluted	321	326	322	323

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 April 30,		Six Months Ended April 30,	
	2019	2018	2019	2018
Net income (loss)	\$ 182	\$ 205	\$ 686	\$ (115)
Other comprehensive income (loss):				
Unrealized gain (loss) on derivative instruments, net of tax expense (benefit) of \$1, \$1, \$(1) and \$(2)	3	4	(1)	(3)
Amounts reclassified into earnings related to derivative instruments, net of tax expense (benefit) of \$0, \$2, \$(1) and \$2	—	3	(4)	3
Foreign currency translation, net of tax expense (benefit) of \$0, \$0, \$(9) and \$0	(25)	(53)	13	26
Net defined benefit pension cost and post retirement plan costs:				
Change in actuarial net loss, net of tax expense of \$2, \$3, \$6 and \$5	6	7	12	13
Change in net prior service benefit, net of tax benefit of \$(1), \$0, \$(1) and \$(1)	(1)	(2)	(3)	(3)
Other comprehensive income (loss)	(17)	(41)	17	36
Total comprehensive income (loss)	\$ 165	\$ 164	\$ 703	\$ (79)

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)

	April 30, 2019	October 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 2,155	\$ 2,247
Accounts receivable, net	819	776
Inventory	657	638
Other current assets	181	187
Total current assets	3,812	3,848
Property, plant and equipment, net	827	822
Goodwill	3,112	2,973
Other intangible assets, net	538	491
Long-term investments	96	68
Other assets	637	339
Total assets	\$ 9,022	\$ 8,541
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	\$ 314	\$ 340
Employee compensation and benefits	292	304
Deferred revenue	347	324
Other accrued liabilities	165	203
Total current liabilities	1,118	1,171
Long-term debt	1,798	1,799
Retirement and post-retirement benefits	229	239
Other long-term liabilities	752	761
Total liabilities	3,897	3,970
Commitments and contingencies (Note 12)		
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; 317 million shares at April 30, 2019 and 318 million shares at October 31, 2018 issued	3	3
Treasury stock at cost; 9 thousand shares at April 30, 2019 and zero shares at October 31, 2018	(1)	—
Additional paid-in-capital	5,343	5,308
Retained earnings (accumulated deficit)	178	(336)
Accumulated other comprehensive loss	(398)	(408)
Total stockholders' equity	5,125	4,567
Non-controlling interest	—	4
Total equity	5,125	4,571
Total liabilities and equity	\$ 9,022	\$ 8,541

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)

	Six Months Ended April 30,	
	2019	2018
Net income (loss)	\$ 686	\$ (115)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation and amortization	107	101
Share-based compensation	40	43
Deferred taxes	(272)	(13)
Excess and obsolete inventory related charges	7	17
Other non-cash expense, net	2	2
Changes in assets and liabilities:		
Accounts receivable	(17)	(21)
Inventory	(21)	(34)
Accounts payable	(8)	(14)
Employee compensation and benefits	(13)	(7)
Change in assets and liabilities due to Tax Act	—	533
Other assets and liabilities	(46)	26
Net cash provided by operating activities	465	518
Cash flows from investing activities:		
Investments in property, plant and equipment	(78)	(108)
Payment to acquire fair value investments	(18)	(1)
Payment in exchange for convertible note	(2)	(2)
Acquisitions of businesses and intangible assets, net of cash acquired	(248)	(7)
Net cash used in investing activities	(346)	(118)
Cash flows from financing activities:		
Issuance of common stock under employee stock plans	33	36
Payment of taxes related to net share settlement of equity awards	(14)	(29)
Payment of dividends	(104)	(96)
Purchase of non-controlling interest	(4)	—
Proceeds from revolving credit facility	—	356
Repayment of debt and revolving credit facility	—	(251)
Treasury stock repurchases	(125)	(93)
Net cash used in financing activities	(214)	(77)
Effect of exchange rate movements	2	9
Net increase (decrease) in cash, cash equivalents and restricted cash	(93)	332
Cash, cash equivalents and restricted cash at beginning of period	2,254	2,686
Cash, cash equivalents and restricted cash at end of period	\$ 2,161	\$ 3,018
Supplemental cash flow information:		
Income tax paid, net	\$ 104	\$ 48
Interest payments	\$ 36	\$ 43
Non-cash changes in investments in property, plant and equipment - increase (decrease)	\$ (23)	\$ (21)

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		Retained Earnings (Accumulated Deficit)	Accumulated Other Comprehensive Income/(Loss)	Total Stockholders' Equity	Non-Controlling Interest	Total Equity
	Number of Shares	Par Value	Additional Paid-in Capital	Number of Shares	Treasury Stock at Cost					
Three Months Ended April 30, 2019										
Balance as of January 31, 2019	317,533	\$ 3	\$ 5,324	—	\$ —	90	\$ (381)	\$ 5,036	\$ —	\$ 5,036
Components of comprehensive income, net of tax:										
Net income	—	—	—	—	—	182	—	182	—	182
Other comprehensive loss	—	—	—	—	—	—	(17)	(17)	—	(17)
Total comprehensive income								165		165
Cash dividends declared (\$0.164 per common share)	—	—	—	—	—	(52)	—	(52)	—	(52)
Share-based awards issued, net of tax	381	—	10	—	—	—	—	10	—	10
Repurchase of common stock	—	—	—	(638)	(50)	—	—	(50)	—	(50)
Retirement of treasury stock	(629)	—	(7)	629	49	(42)	—	—	—	—
Share-based compensation	—	—	16	—	—	—	—	16	—	16
Balance as of April 30, 2019	317,285	\$ 3	\$ 5,343	(9)	\$ (1)	\$ 178	\$ (398)	\$ 5,125	\$ —	\$ 5,125

	Common Stock			Treasury Stock		Retained Earnings (Accumulated Deficit)	Accumulated Other Comprehensive Income/(Loss)	Total Stockholders' Equity	Non-Controlling Interest	Total Equity
	Number of Shares	Par Value	Additional Paid-in Capital	Number of Shares	Treasury Stock at Cost					
Six Months Ended April 30, 2019										
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	—	—	—	—	—	686	—	686	—	686
Other comprehensive income	—	—	—	—	—	—	17	17	—	17
Total comprehensive income								703		703
Change in non-controlling interest	—	—	—	—	—	—	—	—	(4)	(4)
Cash dividends declared (\$0.328 per common share)	—	—	—	—	—	(104)	—	(104)	—	(104)
Share-based awards issued, net of tax	1,327	—	18	—	—	—	—	18	—	18
Repurchase of common stock	—	—	—	(1,766)	(125)	—	—	(125)	—	(125)
Retirement of treasury stock	(1,757)	—	(23)	1,757	124	(101)	—	—	—	—
Share-based compensation	—	—	40	—	—	—	—	40	—	40
Balance as of April 30, 2019	317,285	\$ 3	\$ 5,343	(9)	\$ (1)	\$ 178	\$ (398)	\$ 5,125	\$ —	\$ 5,125

	Common Stock			Treasury Stock		Retained Earnings (Accumulated Deficit)	Accumulated Other Comprehensive Income/(Loss)	Total Stockholders' Equity	Non-Controlling Interest	Total Equity
	Number of Shares	Par Value	Additional Paid-in Capital	Number of Shares	Treasury Stock at Cost					
Three Months Ended April 30, 2018										
Balance as of January 31, 2018	322,684	\$ 3	\$ 5,320	(37)	\$ (3)	\$ (529)	\$ (269)	\$ 4,522	\$ 4	\$ 4,526
Components of comprehensive income, net of tax:										
Net income	—	—	—	—	—	205	—	205	—	205
Other comprehensive loss	—	—	—	—	—	—	(41)	(41)	—	(41)
Total comprehensive income								164		164
Cash dividends declared (\$0.149 per common share)	—	—	—	—	—	(48)	—	(48)	—	(48)
Share-based awards issued, net of tax	342	—	9	—	—	—	—	9	—	9
Repurchase of common stock	—	—	—	(674)	(46)	—	—	(46)	—	(46)
Retirement of treasury stock	(711)	—	(9)	711	49	(40)	—	—	—	—
Share-based compensation	—	—	12	—	—	—	—	12	—	12
Balance as of April 30, 2018	322,315	\$ 3	\$ 5,332	—	\$ —	\$ (412)	\$ (310)	\$ 4,613	\$ 4	\$ 4,617

	Common Stock			Treasury Stock		Retained Earnings (Accumulated Deficit)	Accumulated Other Comprehensive Income/(Loss)	Total Stockholders' Equity	Non-Controlling Interest	Total Equity
	Number of Shares	Par Value	Additional Paid-in Capital	Number of Shares	Treasury Stock at Cost					
Six Months Ended April 30, 2018										
Balance as of October 31, 2017	321,975	\$ 3	\$ 5,300	—	\$ —	\$ (126)	\$ (346)	\$ 4,831	\$ 4	\$ 4,835
Components of comprehensive income, net of tax:										
Net loss	—	—	—	—	—	(115)	—	(115)	—	(115)
Other comprehensive income	—	—	—	—	—	—	36	36	—	36
Total comprehensive loss								(79)		(79)
Cash dividends declared (\$0.298 per common share)	—	—	—	—	—	(96)	—	(96)	—	(96)
Share-based awards issued, net of tax	1,688	—	7	—	—	—	—	7	—	7
Repurchase of common stock	—	—	—	(1,348)	(93)	—	—	(93)	—	(93)
Retirement of treasury stock	(1,348)	—	(18)	1,348	93	(75)	—	—	—	—
Share-based compensation	—	—	43	—	—	—	—	43	—	43
Balance as of April 30, 2018	322,315	\$ 3	\$ 5,332	—	\$ —	\$ (412)	\$ (310)	\$ 4,613	\$ 4	\$ 4,617

The accompanying notes are an integral part of these 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 six months ended April 30, 2019 and 2018 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, 2018 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, 2018.

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 April 30, 2019 and October 31, 2018, condensed consolidated statement of comprehensive income (loss) for the three and six months ended April 30, 2019 and 2018, condensed consolidated statement of operations for the three and six months ended April 30, 2019 and 2018, condensed consolidated statement of cash flows for the six months ended April 30, 2019 and 2018 and condensed consolidated statement of equity for the three and six months ended April 30, 2019 and 2018.

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, share-based compensation, retirement and post-retirement benefit plan assumptions, goodwill and purchased intangible assets and accounting for income taxes.

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 \$27 million and is lower than the carrying value by approximately \$15 million as of April 30, 2019 and October 31, 2018, respectively. The change in the fair value over carrying value in the six months ended April 30, 2019 is primarily due to fluctuations in 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 9, "Fair Value Measurements" for additional information on the fair value of financial instruments.

Revenue Recognition. We enter into agreements to sell products (hardware and/or software), services and other arrangements (multiple element arrangements) that include combinations of products and services.

We derive revenue primarily from the sale of analytical and diagnostics products and services. A performance obligation is a promise in a contract to transfer a distinct product or service to a customer and is the unit of account under Accounting Standard Codification Topic 606, *Revenue from Contracts with Customers* ("ASC 606"). See also Note 2, "New Accounting Pronouncements" and Note 3, "Revenue" for additional information on revenue recognition.

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

Revenue is recognized when control of the promised products or services is transferred to our customers and the performance obligation is fulfilled in an amount that reflects the consideration that we expect to be entitled to in exchange for those products or services, the transaction price. For equipment, consumables, and most software licenses sold by us, control transfers to the customer at a point in time. We use present right to payment, legal title, physical possession of the asset, and risks and rewards of ownership as indicators to determine the transfer of control to the customer. Where acceptance is not a formality, the customer must have documented their acceptance of the product or service. For products that include installation, if the installation meets the criteria to be considered a separate performance obligation, product revenue is recognized when control has passed to the customer, and recognition of installation revenue occurs once completed. Product revenue, including sales to resellers and distributors is reduced for provisions for warranties, returns, and other adjustments in the period the related sales are recorded.

Revenue from services includes extended warranty, customer and software support including: Software as a Service, post contract support, consulting including companion diagnostics, and training and education. Instrument service contracts and software maintenance contracts are typically annual contracts, which are billed at the beginning of the contract or maintenance period. These contracts are recognized on a straight-line basis to revenue over the service period, as a time-based measure of progress best reflects our performance in satisfying this obligation. There are no deferred costs associated with the service contract, as the cost of the service is recorded when the service is performed. Service calls are recognized to revenue at the time a service is performed.

We have sales from standalone software. These arrangements typically include software licenses and maintenance contracts, both of which we have determined are distinct performance obligations. We determine the amount of the transaction price to allocate to the license and maintenance contract based on the relative standalone selling price of each performance obligation. Software license revenue is recognized at the point in time when control has been transferred to the customer. The revenue allocated to the software maintenance contract is recognized on a straight-line basis over the maintenance period, which is the contractual term of the contract, as a time-based measure of progress best reflects our performance in satisfying this obligation. Unspecified rights to software upgrades are typically sold as part of the maintenance contract on a when-and-if-available basis.

Our multiple-element arrangements are generally comprised of a combination of instruments, installation or other start-up services, and/or software, and/or support or services. Hardware and software elements are typically delivered at the same time and revenue is recognized when control passes to the customer. Service revenue is deferred and recognized over the contractual period or as services are rendered and accepted by the customer. Our arrangements generally do not include any provisions for cancellation, termination, or refunds that would significantly impact recognized revenue.

For contracts with multiple performance obligations, we allocate the consideration to which we expect to be entitled to each performance obligation based on relative standalone selling prices and recognize the related revenue when or as control of each individual performance obligation is transferred to customers. We estimate the standalone selling price by calculating the average historical selling price of our products and services per country for each performance obligation. Stand-alone selling prices are determined at contract inception for each distinct good or service in the contract and then we allocate the transaction price in proportion to those standalone selling prices by performance obligations.

Certain of our revenue relate to lease arrangements. Standalone lease arrangements are outside the scope of ASC 606 and are therefore accounted for in accordance with ASC 840, 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.

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, 2018 except for the following:

In February 2016, the Financial Accounting Standards Board ("FASB") issued guidance which amends the existing accounting standards for leases. Consistent with existing guidance, the recognition, measurement, and presentation of expenses and cash flows arising from a lease by a lessee primarily will depend on its classification. Under the new guidance, a lessee will be required to recognize right-of-use assets and lease liabilities on the balance sheet. In July 2018, the FASB clarified two requirements in the new leases standard. The FASB decided to provide another transition method by allowing companies to initially apply the new leases standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. In addition, the FASB decided to provide lessors with a practical expedient to not separate nonlease components from the associated lease component, similar to the expedient provided for lessees. In December 2018, the

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

FASB update clarified application of Accounting Standard Codification ("ASC") Topic 842, Leases. The new guidance is effective for us beginning November 1, 2019, and for interim periods within that year. Early adoption is permitted, and we will be required to adopt using a modified retrospective approach. We are evaluating the impact of this guidance on our consolidated financial statements and disclosures.

Recently Adopted Accounting Pronouncements

In May 2014, the FASB issued new revenue recognition guidance, ASC Topic 606, which provides a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and will supersede most current revenue recognition guidance. The objective of the new revenue standard is to significantly enhance comparability and clarify principles of revenue recognition practices across entities, industries, jurisdictions and capital markets. Under the new guidance, there are specific criteria to determine if a performance obligation should be recognized over time or at a point in time.

On November 1, 2018, we adopted ASC 606 using the modified retrospective approach only to contracts not completed as of this date. Results for reporting periods after November 1, 2018 are presented under ASC 606, while prior period amounts were not adjusted and continue to be reported in accordance with ASC Topic 605, *Revenue Recognition*.

We recorded a net increase to beginning retained earnings of \$23 million as of November 1, 2018 due to the cumulative impact of adopting ASC 606. The impact to beginning retained earnings is primarily due to an increase in contract assets (unbilled accounts receivable), a reduction in inventory and a reduction in contract liabilities (deferred revenue). The net increase in retained earnings and resulting changes in assets and liabilities was mainly driven by the change in timing of the recognition of revenue from the fulfillment of separate performance obligations as control transfers to the customer.

Had we continued to use the revenue recognition guidance in effect prior to 2018, no material changes would have resulted to the consolidated statements of income, comprehensive income, or cash flows for the three and six months ended April 30, 2019. Refer to Note 1, for a description of the company's revenue recognition policies and Note 3, "Revenue" for the disclosures required by the standard.

As of November 1, 2018, we elected to early adopt new accounting guidance which amends reporting comprehensive income to allow a reclassification from accumulated other comprehensive income ("AOCI") to retained earnings for the deferred taxes previously recorded in AOCI that exceed the current federal tax rate of 21 percent resulting from the enacted corporate tax rate in the U.S. Tax Cuts and Jobs Act ("the Tax Act"). The adoption of this guidance resulted in a reclassification of \$7 million from AOCI to beginning retained earnings on our condensed consolidated balance sheet.

As of November 1, 2018, we adopted new accounting guidance which eliminates the exception in ASC 740, *Income Taxes* against immediate recognition of income tax consequences of intra-entity transfers of assets other than inventory. The amendment in this update should be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of period of adoption. We recorded a net decrease in beginning retained earnings of \$2 million as of November 1, 2018 due to removing unamortized tax expense previously deferred.

As of November 1, 2018, we adopted new accounting guidance which addresses certain aspects of recognition, measurement, presentation and disclosure of financial instruments and also the related guidance which addresses technical corrections and improvements to this guidance. The guidance requires entities to measure equity investments that do not result in consolidation and are not accounted for under the equity method at fair value and recognize any changes in fair value in net income. The total impact of adoption to our condensed consolidated balance sheet was an increase of \$7 million to long-term investments and a net increase of \$5 million to beginning retained earnings.

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

The following table summarizes the impacts of recently adopted accounting pronouncements on our condensed consolidated balance sheet as of November 1, 2018:

	October 31, 2018		Impact of Adopting New				November 1, 2018	
	As Reported	Revenue Recognition Guidance	Tax Effects on Items in AOCI Guidance	Intra-Entity Tax Guidance	Investments Valuation Guidance		As Adopted	
(in millions)								
ASSETS								
Current assets:								
Cash and cash equivalents	\$ 2,247	\$ —	\$ —	\$ —	\$ —		\$ 2,247	
Accounts receivable, net	776	24	—	—	—		800	
Inventory	638	(10)	—	—	—		628	
Other current assets	187	3	—	—	—		190	
Total current assets	3,848	17	—	—	—		3,865	
Property, plant and equipment, net	822	—	—	—	—		822	
Goodwill	2,973	—	—	—	—		2,973	
Other intangible assets, net	491	—	—	—	—		491	
Long-term investments	68	—	—	—	7		75	
Other assets	339	(3)	—	(2)	(2)		332	
Total assets	\$ 8,541	\$ 14	\$ —	\$ (2)	\$ 5		\$ 8,558	
LIABILITIES AND EQUITY								
Current liabilities:								
Accounts payable	\$ 340	\$ —	\$ —	\$ —	\$ —		\$ 340	
Employee compensation and benefits	304	—	—	—	—		304	
Deferred revenue	324	(11)	—	—	—		313	
Other accrued liabilities	203	—	—	—	—		203	
Total current liabilities	1,171	(11)	—	—	—		1,160	
Long-term debt	1,799	—	—	—	—		1,799	
Retirement and post-retirement benefits	239	—	—	—	—		239	
Other long-term liabilities	761	2	—	—	—		763	
Total liabilities	3,970	(9)	—	—	—		3,961	
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; 318 million shares at October 31, 2018 issued	3	—	—	—	—		3	
Additional paid-in-capital	5,308	—	—	—	—		5,308	
Accumulated deficit	(336)	23	7	(2)	5		(303)	
Accumulated other comprehensive loss	(408)	—	(7)	—	—		(415)	
Total stockholders' equity	4,567	23	—	(2)	5		4,593	
Non-controlling interest	4	—	—	—	—		4	
Total equity	4,571	23	—	(2)	5		4,597	
Total liabilities and equity	\$ 8,541	\$ 14	\$ —	\$ (2)	\$ 5		\$ 8,558	

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

As of November 1, 2018, we adopted new accounting guidance which requires amounts generally described as restricted cash and restricted cash equivalents to be 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:

	April 30, 2019	October 31 2018
	(in millions)	
Cash and cash equivalents	\$ 2,155	\$ 2,247
Restricted cash included in other assets	6	7
Total cash, cash equivalents and restricted cash	<u>\$ 2,161</u>	<u>\$ 2,254</u>

As of November 1, 2018, we adopted new accounting guidance which requires employers that present a measure of operating income in their statements of operations to include only the service cost component of net periodic postretirement benefit cost in operating expenses. The service cost component of net periodic pension and postretirement benefit cost should be presented in the same operating expense line items as other employee compensation costs arising from services rendered during the period. The other components of net periodic pension and postretirement benefit costs, including interest costs, expected return on assets, amortization of prior service cost/credit and actuarial gains/losses, and settlement and curtailment effects, are to be included separately and outside of any subtotal of operating income. The adoption of this guidance resulted in a reclassification of income from our income from operations to other income (expense) on our consolidated statement of operations of approximately \$3 million and \$5 million in the three and six months ended April 30, 2019, respectively and approximately \$5 million and \$15 million in the three and six months ended April 30, 2018, respectively. As adoption is required to be on a retrospective basis, we have recast our historical condensed consolidated statements of operations and segment information to conform to current year presentation.

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 consolidated financial statements upon adoption.

3. REVENUE

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

Three Months Ended April 30, 2019				
	Life Sciences and Applied Markets	Diagnostics and Genomics	Agilent CrossLab	Total
	(in millions)			
Revenue by Region				
Americas	\$ 145	\$ 120	\$ 168	\$ 433
Europe	125	97	132	354
Asia Pacific	259	37	155	451
Total	<u>\$ 529</u>	<u>\$ 254</u>	<u>\$ 455</u>	<u>\$ 1,238</u>

Six Months Ended April 30, 2019				
	Life Sciences and Applied Markets	Diagnostics and Genomics	Agilent CrossLab	Total
	(in millions)			
Revenue by Region				
Americas	\$ 313	\$ 229	\$ 324	\$ 866
Europe	289	188	260	737
Asia Pacific	534	72	313	919
Total	<u>\$ 1,136</u>	<u>\$ 489</u>	<u>\$ 897</u>	<u>\$ 2,522</u>

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

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

	Three Months Ended April 30, 2019	Six Months Ended April 30, 2019
	(in millions)	
<u>Revenue by End Markets</u>		
Pharmaceutical and Biotechnology	\$ 371	\$ 762
Chemical and Energy	300	608
Diagnostics and Clinical	193	380
Food	114	243
Academia and Government	114	230
Environmental and Forensics	146	299
Total	\$ 1,238	\$ 2,522
<u>Revenue by Type</u>		
Instrumentation	\$ 491	\$ 1,058
Non-instrumentation and other	747	1,464
Total	\$ 1,238	\$ 2,522

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 includes 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. Contracts assets are generally classified as current assets and are included in "Accounts receivable, net" in the condensed consolidated balance sheet.

The balance of contract assets as of April 30, 2019 and as of the date of adoption of ASC 606 were \$86 million and \$57 million, respectively. The increase in unbilled receivables during the six months ended April 30, 2019 is a result of recognition of revenue upon the transfer of the control to the customer. In some instances transfer of control is prior to invoicing the customers and excluding amounts transferred to trade receivables during the period amounted to \$29 million.

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

Contract Liabilities

The following table provides information about contract liabilities (deferred revenue) and the significant changes in the balances during the six months ended April 30, 2019:

	Contract Liabilities
	(in millions)
Ending balance as of October 31, 2018	\$ 367
Impact of adoption of new revenue recognition guidance	(11)
Net revenue deferred in the period	224
Revenue recognized that was included in the contract liability balance at the beginning of the period	(191)
Change in deferrals from customer cash advances, net of revenue recognized	2
Contract liabilities acquired in business combinations	2
Currency translation and other adjustments	1
Ending balance as of April 30, 2019	\$ 394

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 it expects 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 period 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 April 30, 2019, was \$174 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.

4. 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 ("ESPP") and performance share awards granted to selected members of our senior management under the long-term performance plan ("LTPP") based on estimated fair values.

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

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

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 zero to 200 percent of the target award. The maximum award value for awards granted in 2017 cannot exceed 300 percent of the grant date target value. 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 four years from the date of grant.

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

	Three Months Ended		Six Months Ended	
	April 30,		April 30,	
	2019	2018	2019	2018
	(in millions)			
Cost of products and services	\$ 4	\$ 3	\$ 9	\$ 10
Research and development	2	1	4	4
Selling, general and administrative	10	8	27	29
Total share-based compensation expense	\$ 16	\$ 12	\$ 40	\$ 43

At April 30, 2019 and October 31, 2018, 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		Six Months Ended	
	April 30,		April 30,	
	2019	2018	2019	2018
LTPP:				
Volatility of Agilent shares	22%	21%	22%	21%
Volatility of selected peer-company shares	15%-66%	14%-66%	15%-66%	14%-66%
Pair-wise correlation with selected peers	30%	32%	30%	32%
Post-vest holding restriction discount for all executive awards	5.0%	4.8%	5.0%	4.8%

Shares granted under the LTPP (TSR) were valued using a Monte Carlo simulations 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 in 2016 and thereafter 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 (see table above). The model calculates the potential lost value if the employee 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 simulations model and an expected dividend yield to compute the discount.

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

5. INCOME TAXES

For the three and six months ended April 30, 2019, the company's income tax expense was \$36 million with an effective tax rate of 16.5 percent and an income tax benefit of \$220 million with an effective tax rate of (47.2) percent, respectively. For the six months ended April 30, 2019, our effective tax rate and the resulting provision for income taxes were significantly impacted by the discrete benefit of \$299 million related to the restructuring and extension of the company's tax incentive in Singapore. The income tax provision for the three and six months ended April 30, 2019 also includes the excess tax benefits from stock-based compensation of \$3 million and \$7 million, respectively.

For the three and six months ended April 30, 2018, the company's income tax expense was \$22 million with an effective tax rate of 9.7 percent and \$575 million with an effective tax rate of 125.0 percent, respectively. The effective tax rate and the provision for income taxes were significantly impacted by a discrete charge of \$533 million related to the enactment of the Tax Act. The income taxes provision for the three and six months ended April 30, 2018 also included the excess tax benefits from stock-based compensation of \$7 million and \$18 million, respectively.

2017 U.S. Tax Reform - Tax Cuts and Jobs Act

On December 22, 2017, the Tax Act was enacted into law. The Tax Act enacted significant changes affecting our fiscal year 2018, including, but not limited to, (1) reducing the U.S. federal corporate tax rate and (2) imposing a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries that had not been previously taxed in the U.S.

The Tax Act also establishes new tax provisions affecting our fiscal year 2019, including, but not limited to, (1) creating a new provision designed to tax global intangible low-tax income ("GILTI"); (2) generally eliminating U.S. federal taxes on dividends from foreign subsidiaries; (3) eliminating the corporate alternative minimum tax ("AMT"); (4) creating the base erosion anti-abuse tax ("BEAT"); (5) establishing a deduction for foreign derived intangible income ("FDII"); (6) repealing the domestic production activity deduction; and (7) establishing new limitations on deductible interest expense and certain executive compensation.

GILTI: The Tax Act subjects a U.S. corporation to tax on its GILTI. U.S. GAAP allows companies to make an accounting policy election to either (1) treat taxes due on future GILTI inclusions in the U.S. taxable income as a current-period expense when incurred ("period cost method") or (2) factoring such amounts into a company's measurement of its deferred taxes ("deferred method"). We have completed our analysis and elected to treat GILTI as a "current period cost".

In the U.S., tax years remain open back to the year 2015 for federal income tax purposes and the year 2000 for significant states. In other major jurisdictions where the company conducts business, the tax years generally remain open back to the year 2001. There were no substantial changes from our 2018 Annual Report on Form 10-K to the status of the open tax years in the first six months of fiscal year 2019.

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 the 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.

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

6. 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		Six Months Ended	
	April 30,		April 30,	
	2019	2018	2019	2018
	(in millions)			
Numerator:				
Net income (loss)	\$ 182	\$ 205	\$ 686	\$ (115)
Denominator:				
Basic weighted-average shares	317	322	318	323
Potential common shares— stock options and other employee stock plans	4	4	4	—
Diluted weighted-average shares	321	326	322	323

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 six months ended April 30, 2019, no potential common shares were excluded from the calculation of diluted earnings per share. For the three months ended April 30, 2018, 96,800 potential common shares outstanding were excluded from the calculation of diluted earnings per share. For the six months ended April 30, 2018, the diluted net loss per share was the same as basic net loss per share as the effects of all 6.6 million potential common shares outstanding would have been anti-dilutive.

7. INVENTORY

	April 30, 2019	October 31, 2018
	(in millions)	
Finished goods	\$ 401	\$ 386
Purchased parts and fabricated assemblies	256	252
Inventory	\$ 657	\$ 638

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

8. GOODWILL AND OTHER INTANGIBLE ASSETS

The following table presents goodwill balances and the movements for each of our reportable segments during the six months ended April 30, 2019:

	Life Sciences and Applied Markets	Diagnostics and Genomics	Agilent CrossLab	Total
	(in millions)			
Goodwill as of October 31, 2018	\$ 803	\$ 1,607	\$ 563	\$ 2,973
Foreign currency translation impact	—	(2)	(1)	(3)
Goodwill arising from acquisitions and adjustments	153	(11)	—	142
Goodwill as of April 30, 2019	<u>\$ 956</u>	<u>\$ 1,594</u>	<u>\$ 562</u>	<u>\$ 3,112</u>

The components of other intangible assets as of April 30, 2019 and October 31, 2018 are shown in the table below:

	Purchased Other Intangible Assets		
	Gross Carrying Amount	Accumulated Amortization and Impairments	Net Book Value
	(in millions)		
As of October 31, 2018			
Purchased technology	\$ 947	\$ 683	\$ 264
Trademark/Tradename	151	88	63
Customer relationships	107	63	44
Third-party technology and licenses	28	19	9
Total amortizable intangible assets	1,233	853	380
In-Process R&D	111	—	111
Total	<u>\$ 1,344</u>	<u>\$ 853</u>	<u>\$ 491</u>
As of April 30, 2019			
Purchased technology	\$ 1,026	\$ 720	\$ 306
Trademark/Tradename	153	95	58
Customer relationships	127	71	56
Third-party technology and licenses	28	21	7
Total amortizable intangible assets	1,334	907	427
In-Process R&D	111	—	111
Total	<u>\$ 1,445</u>	<u>\$ 907</u>	<u>\$ 538</u>

On November 14, 2018, we acquired 100 percent of the stock of ACEA Biosciences (“ACEA”), a developer of cell analysis tools, for approximately \$250 million in cash. The financial results of ACEA have been included within our financial results from the date of the close. The purchase accounting for this acquisition is substantially complete and will be finalized during 2019, as we assess the tax impact and finalize the intangibles valuation of the acquisition.

During the six months ended April 30, 2019, we recorded additions to goodwill of \$153 million related primarily to the ACEA acquisition within the life sciences and applied markets business. In the second quarter of fiscal year 2019, we recorded a measurement period adjustment to goodwill of \$11 million for deferred tax assets related to pre-acquisition net operating losses of Advanced Analytical Technologies, Inc. During the six months ended April 30, 2019, we recorded additions to other intangible assets of \$102 million related to the ACEA acquisition.

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. There were no indicators of impairments of indefinite-lived intangible assets or goodwill during the three and six months ended April 30, 2019 and 2018, respectively.

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

Amortization expense of intangible assets was \$26 million and \$55 million for the three and six months ended April 30, 2019, respectively. Amortization expense of intangible assets was \$26 million and \$52 million for the three and six months ended April 30, 2018, respectively.

Future amortization expense related to existing finite-lived purchased intangible assets for the remainder of fiscal year 2019 and for each of the five succeeding fiscal years and thereafter is estimated below:

Estimated future amortization expense:

(in millions)

Remainder of 2019	\$	53
2020	\$	94
2021	\$	81
2022	\$	65
2023	\$	55
2024	\$	46
Thereafter	\$	33

9. 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.

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

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 April 30, 2019 were as follows:

	April 30, 2019	Fair Value Measurement at April 30, 2019 Using		
		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)	\$ 1,229	\$ 1,229	\$ —	\$ —
Derivative instruments (foreign exchange contracts)	6	—	6	—
Long-term				
Trading securities	31	31	—	—
Other investments	24	—	24	—
Total assets measured at fair value	<u>\$ 1,290</u>	<u>\$ 1,260</u>	<u>\$ 30</u>	<u>\$ —</u>
Liabilities:				
Short-term				
Derivative instruments (foreign exchange contracts)	\$ 2	\$ —	\$ 2	\$ —
Long-term				
Deferred compensation liability	31	—	31	—
Total liabilities measured at fair value	<u>\$ 33</u>	<u>\$ —</u>	<u>\$ 33</u>	<u>\$ —</u>

Financial assets and liabilities measured at fair value on a recurring basis as of October 31, 2018 were as follows:

	Fair Value Measurement at October 31, 2018 Using				
	October 31, 2018	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)	\$ 1,355	\$ 1,355	\$ —	\$ —	—
Derivative instruments (foreign exchange contracts)	16	—	16	—	—
Long-term					
Trading securities	30	30	—	—	—
Total assets measured at fair value	\$ 1,401	\$ 1,385	\$ 16	\$ —	—
Liabilities:					
Short-term					
Derivative instruments (foreign exchange contracts)	\$ 5	\$ —	\$ 5	\$ —	—
Long-term					
Deferred compensation liability	30	—	30	—	—
Total liabilities measured at fair value	\$ 35	\$ —	\$ 35	\$ —	—

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

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

are 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 six months ended April 30, 2019 and 2018.

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

For the three and six months ended April 30, 2019 and 2018, there were no impairments of long-lived assets held and used or long-lived assets held for sale. For the three and six months ended April 30, 2019, there were no impairment or material change in fair value of non-marketable securities. As of April 30, 2019 and October 31, 2018, the carrying amount of non-marketable equity securities without readily determinable fair values was \$42 million and \$23 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.

10. 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, purchased options to hedge economic and/or accounting exposures resulting from changes in foreign currency exchange rates.

Fair Value Hedges

We are 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 at fixed interest rates based on the market conditions at the time of financing. The fair value of our fixed rate debt changes when the underlying market rates of interest change, and, in the past, we have used interest rate swaps to change our fixed interest rate payments to U.S. dollar LIBOR-based variable interest expense to match the floating interest income from our cash, cash equivalents and other short-term investments. As of April 30, 2019, all interest rate swap contracts had either been terminated or had expired.

On August 9, 2011, we terminated five interest rate swap contracts related to our 2020 senior notes that represented the notional amount of \$500 million. The remaining gain to be amortized at April 30, 2019 was \$5 million. All deferred gains from terminated interest rate swaps are being amortized over the remaining life of the 2020 senior notes.

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 April 30, 2019 and entered into prior to November 1, 2018, 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 each period. For open contracts as of April 30, 2019 and entered into on or after November 1, 2018, 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).

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

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 six months ended April 30, 2019 and 2018 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 April 30, 2019 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 April 30, 2019 was \$7 million.

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 April 30, 2019, was \$1 million. The credit-risk-related contingent features underlying these agreements had not been triggered as of April 30, 2019.

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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) - (Continued)

There were 276 foreign exchange forward contracts open as of April 30, 2019 and designated as cash flow hedges. There were 145 foreign exchange forward contracts open as of April 30, 2019 not designated as hedging instruments. The aggregated notional amounts by currency and designation as of April 30, 2019 were as follows:

Currency	Derivatives Designated as Cash Flow Hedges		Derivatives Not Designated as Hedging Instruments	
	Forward Contracts USD		Forward Contracts USD	
	Buy/(Sell)		Buy/(Sell)	
	(in millions)			
Euro	\$	(57)	\$	33
British Pound		(56)		7
Canadian Dollar		(30)		(4)
Australian Dollar		5		4
Malaysian Ringgit		—		(2)
Japanese Yen		(97)		14
Danish Krone		—		(4)
Korean Won		(50)		(31)
Singapore Dollar		17		(5)
Swiss Franc		—		(7)
Chinese Yuan Renminbi		(57)		(33)
Polish Zloty		—		(3)
Swedish Krona		—		(9)
Other		—		(9)
Totals	\$	(325)	\$	(49)

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 April 30, 2019 and October 31, 2018 were as follows:

Fair Values of Derivative Instruments					
Asset Derivatives			Liability Derivatives		
Balance Sheet Location	Fair Value		Balance Sheet Location	Fair Value	
	April 30, 2019	October 31, 2018		April 30, 2019	October 31, 2018
(in millions)					
Derivatives designated as hedging instruments:					
Cash flow hedges					
Foreign exchange contracts					
Other current assets	\$ 4	\$ 11	Other accrued liabilities	\$ 1	\$ 1
Derivatives not designated as hedging instruments:					
Foreign exchange contracts					
Other current assets	\$ 2	\$ 5	Other accrued liabilities	\$ 1	\$ 4
Total derivatives	\$ 6	\$ 16		\$ 2	\$ 5

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

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 April 30,		Six Months Ended April 30,	
	2019	2018	2019	2018
(in millions)				
Derivatives designated as hedging instruments:				
<i>Cash Flow Hedges</i>				
Foreign exchange contracts:				
Gain (loss) recognized in accumulated other comprehensive income (loss)	\$ 4	\$ 5	\$ (2)	\$ (5)
Gain (loss) reclassified from accumulated other comprehensive income (loss) into cost of sales	\$ —	\$ (5)	\$ 5	\$ (5)
Gain on time value of forward contracts recorded in cost of sales	\$ 1	\$ —	\$ 2	\$ —
Derivatives not designated as hedging instruments:				
Gain (loss) recognized in other income (expense)	\$ 1	\$ (5)	\$ (2)	\$ 1

At April 30, 2019, the estimated amount of existing net gain that is expected to be reclassified from accumulated other comprehensive loss to cost of sales within the next twelve months is \$5 million.

11. RETIREMENT PLANS AND POST RETIREMENT PENSION PLANS

Components of net periodic costs. For the three and six months ended April 30, 2019 and 2018, our net pension and post retirement benefit costs were comprised of the following:

	Three Months Ended April 30,					
	U.S. Pension Plans		Non-U.S. Pension Plans		U.S. Post Retirement Benefit Plans	
	2019	2018	2019	2018	2019	2018
(in millions)						
Service cost—benefits earned during the period	\$ —	\$ —	\$ 4	\$ 4	\$ —	\$ —
Interest cost on benefit obligation	5	4	3	3	1	1
Expected return on plan assets	(7)	(7)	(11)	(12)	(1)	(2)
Amortization:						
Actuarial losses	—	—	9	8	1	2
Prior service credits	—	—	—	—	(2)	(2)
Total net plan costs	\$ (2)	\$ (3)	\$ 5	\$ 3	\$ (1)	\$ (1)

	Six Months Ended April 30,					
	U.S. Pension Plans		Non-U.S. Pension Plans		U.S. Post Retirement Benefit Plans	
	2019	2018	2019	2018	2019	2018
(in millions)						
Service cost—benefits earned during the period	\$ —	\$ —	\$ 10	\$ 10	\$ —	\$ —
Interest cost on benefit obligation	10	8	6	6	1	2
Expected return on plan assets	(14)	(14)	(22)	(23)	(2)	(4)
Amortization:						
Actuarial losses	—	—	18	15	2	4
Prior service credits	—	—	—	—	(4)	(4)
Total net plan costs	\$ (4)	\$ (6)	\$ 12	\$ 8	\$ (3)	\$ (2)
Settlements gains	\$ —	\$ —	\$ —	\$ (5)	\$ —	\$ —

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.

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

We made no contributions to our U.S. defined benefit plans during the three and six months ended April 30, 2019, respectively. We contributed \$5 million and \$11 million to our non-U.S. defined benefit plans during the three and six months ended April 30, 2019, respectively.

We made no contributions to our U.S. defined benefit plans during the three and six months ended April 30, 2018, respectively. We contributed \$5 million and \$11 million to our non-U.S. defined benefit plans during the three and six months ended April 30, 2018.

We do not expect to contribute to our U.S. defined benefit plans during the remainder of 2019 and we expect to contribute \$15 million to our non-U.S. defined benefit plans during the remainder of 2019.

Japanese Welfare Pension Insurance Law. In Japan, Agilent has employees' pension fund plans, which are defined benefit pension plans established under the Japanese Welfare Pension Insurance Law ("JWPIL"). The plans are composed of (a) a substitutional portion based on the pay-related part of the old-age pension benefits prescribed by JWPIL (similar to social security benefits in the United States) and (b) a corporate portion based on a contributory defined benefit pension arrangement established at the discretion of the company. During the three months ended January 31, 2017, Agilent received government approval and returned the substitutional portion of Japan's pension plan to the Japanese government, as allowed by the JWPIL. The initial transfer resulted in a net gain of \$32 million. In the first quarter of fiscal year 2018, after the Japanese government's final review of our initial payment, we received a refund of \$5 million which was recorded as a settlement gain.

12. 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:

	Six Months Ended	
	April 30,	
	2019	2018
	(in millions)	
Beginning balance as of November 1,	\$ 35	\$ 34
Accruals for warranties including change in estimate	27	25
Settlements made during the period	(30)	(26)
Ending balance as of April 30,	\$ 32	\$ 33
Accruals for warranties due within one year	\$ 32	\$ 33

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.

13. SHORT-TERM DEBT

Credit Facilities

On March 13, 2019, Agilent entered into a credit agreement with a group of financial institutions which provides for a \$1 billion five-year unsecured credit facility that will expire on March 13, 2024. The credit facility replaces the existing credit facility which was terminated on the closing date of the new facility. As of April 30, 2019, the company had no borrowings outstanding.

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

under the credit facility. We were in compliance with the covenants for all the credit facilities during the three and six months ended April 30, 2019.

14. LONG-TERM DEBT

Senior Notes

The following table summarizes the company's long-term senior notes and the related interest rate swaps:

	April 30, 2019			October 31, 2018		
	Amortized Principal	Swap	Total	Amortized Principal	Swap	Total
	(in millions)					
2020 Senior Notes	499	5	504	499	7	506
2022 Senior Notes	399	—	399	399	—	399
2023 Senior Notes	597	—	597	597	—	597
2026 Senior Notes	298	—	298	297	—	297
Total	\$ 1,793	\$ 5	\$ 1,798	\$ 1,792	\$ 7	\$ 1,799

All outstanding notes listed above are unsecured and rank equally in right of payment with all of Agilent's other senior unsecured indebtedness. There have been no changes to the principal, maturity, interest rates and interest payment terms of the Agilent senior notes, detailed in the table above, in the six months ended April 30, 2019 as compared to the senior notes described in our Annual Report on Form 10-K for the fiscal year ended October 31, 2018. All interest rate swap contracts have been terminated and amounts to be amortized over the remaining life of the senior notes as of April 30, 2019 and October 31, 2018 are detailed above.

15. 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 and six months ended April 30, 2019, we repurchased approximately 638,000 shares for \$50 million and 1.766 million shares for \$125 million, respectively, under this authorization. During the three and six months ended April 30, 2019, we retired approximately 629,000 shares for \$49 million and 1.757 million shares for \$124 million, respectively. The remaining 9,000 treasury shares were retired on May 1, 2019. As of April 30, 2019, we had remaining authorization to repurchase up to \$1.625 billion of our common stock under this program.

On May 28, 2015, we announced that our board of directors had approved a new share repurchase program (the "2015 repurchase program"). The 2015 repurchase program authorized the purchase of up to \$1.14 billion of our common stock at the company's discretion through and including November 1, 2018. The 2015 repurchase program did not require the company to acquire a specific number of shares and could have been suspended or discontinued at any time. During the three and six months ended April 30, 2018, we repurchased 674,000 shares for \$46 million and 1.3 million shares for \$93 million, respectively, under this authorization. During the three and six months ended April 30, 2018, we retired approximately 711,000 treasury shares for \$49 million and 1.3 million treasury shares for \$93 million, respectively. On November 1, 2018, the remaining authorization of \$188 million under this repurchase program expired.

Cash Dividends on Shares of Common Stock

During the three and six months ended April 30, 2019, we paid cash dividends of \$0.164 per common share or \$52 million and \$0.328 per common share or \$104 million, respectively, on the company's common stock. During the three and six months ended April 30, 2018, we paid cash dividends of \$0.149 per common share or \$48 million and \$0.298 per common share or \$96 million on the company's common stock.

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

On May 22, 2019, our board of directors declared a quarterly dividend of \$0.164 per share of common stock or approximately \$53 million which will be paid on July 24, 2019 to all shareholders of record at close of business on July 2, 2019. The timing and amounts of any future dividends are subject to determination and approval by our board of directors.

Accumulated Other Comprehensive Income (Loss)

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

Three Months Ended April 30, 2019	Foreign currency translation	Net defined benefit pension cost and post retirement plan costs		Unrealized gains (losses) on derivatives	Total
		Prior service credits	Actuarial Losses		
(in millions)					
As of January 31, 2019	\$ (176)	\$ 135	\$ (338)	\$ (2)	\$ (381)
Other comprehensive income (loss) before reclassifications	(25)	—	(2)	4	(23)
Amounts reclassified out of accumulated other comprehensive income (loss)	—	(2)	10	—	8
Tax (expense) benefit	—	1	(2)	(1)	(2)
Other comprehensive income (loss)	(25)	(1)	6	3	(17)
As of April 30, 2019	<u>\$ (201)</u>	<u>\$ 134</u>	<u>\$ (332)</u>	<u>\$ 1</u>	<u>\$ (398)</u>
Six Months Ended April 30, 2019					
As of October 31, 2018	\$ (214)	\$ 134	\$ (335)	\$ 7	\$ (408)
Impact of adoption of new guidance on tax effects in accumulated other comprehensive income (loss)	—	3	(9)	(1)	(7)
	(214)	137	(344)	6	(415)
Other comprehensive income (loss) before reclassifications	4	—	(2)	(2)	—
Amounts reclassified out of accumulated other comprehensive income (loss)	—	(4)	20	(5)	11
Tax (expense) benefit	9	1	(6)	2	6
Other comprehensive income (loss)	13	(3)	12	(5)	17
As of April 30, 2019	<u>\$ (201)</u>	<u>\$ 134</u>	<u>\$ (332)</u>	<u>\$ 1</u>	<u>\$ (398)</u>

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

Reclassifications out of accumulated other comprehensive income (loss) for the three and six months ended April 30, 2019 and 2018 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		Six Months Ended		
	April 30,		April 30,		
	2019	2018	2019	2018	
Unrealized gain (loss) on derivatives	\$ —	\$ (5)	\$ 5	\$ (5)	Cost of products
	—	(5)	5	(5)	Total before income tax
	—	2	(1)	2	(Provision) benefit for income tax
	—	(3)	4	(3)	Total net of income tax
Net defined benefit pension cost and post retirement plan costs:					
Actuarial net loss	(10)	(10)	(20)	(19)	
Prior service benefit	2	2	4	4	
	(8)	(8)	(16)	(15)	Total before income tax
	1	3	5	4	Benefit for income tax
	(7)	(5)	(11)	(11)	Total net of income tax
Total reclassifications for the period	\$ (7)	\$ (8)	\$ (7)	\$ (14)	

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 together with curtailments and settlements (see Note 11, "Retirement Plans and Post Retirement Pension Plans").

16. 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.

In 2019, we adopted new guidance related to the presentation of the net periodic pension and postretirement benefit cost. See Note 2, "New Accounting Pronouncements" for more information. As a result, we have recast our historical segment results to conform to this new presentation required under this guidance. Also, in the third quarter of 2018, we re-organized our operating segments and moved the microfluidics business from our life sciences and applied markets operating segment to our diagnostics and genomics operating segment. Following this re-organization, 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. All historical financial segment information for both the life sciences and applied markets segment and the diagnostics and genomics segment has been recast to reflect this reorganization in our financial statements.

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

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; 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, special compliance costs, some nucleic acid solutions division ("NASD") site 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.

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

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

	Three Months Ended		Six Months Ended	
	April 30,		April 30,	
	2019	2018	2019	2018
	(in millions)			
Net Revenue:				
Life Sciences and Applied Markets	\$ 529	\$ 537	\$ 1,136	\$ 1,133
Diagnostics and Genomics	254	243	489	450
Agilent CrossLab	455	426	897	834
Total net revenue	\$ 1,238	\$ 1,206	\$ 2,522	\$ 2,417

Segment Income From Operations:				
Life Sciences and Applied Markets	\$ 107	\$ 113	\$ 266	\$ 267
Diagnostics and Genomics	49	48	82	72
Agilent CrossLab	115	96	220	183
Total segment income from operations	<u>\$ 271</u>	<u>\$ 257</u>	<u>\$ 568</u>	<u>\$ 522</u>

The following table reconciles reportable segments' income from operations to Agilent's total enterprise income before taxes:

	Three Months Ended		Six Months Ended	
	April 30,		April 30,	
	2019	2018	2019	2018
	(in millions)			
Total reportable segments' income from operations	\$ 271	\$ 257	\$ 568	\$ 522
Transformational initiatives	(9)	(5)	(14)	(9)
Amortization of intangible assets related to business combinations	(26)	(25)	(54)	(50)
Acquisition and integration costs	(10)	(4)	(20)	(7)
Business exit and divestiture costs	—	(8)	—	(8)
NASD site costs	(4)	(2)	(6)	(4)
Special compliance costs	(1)	(1)	(1)	(2)
Other	(5)	(2)	(7)	(3)
Interest income	10	10	20	19
Interest expense	(17)	(19)	(35)	(39)
Other income (expense), net	9	26	15	41
Income before taxes, as reported	<u>\$ 218</u>	<u>\$ 227</u>	<u>\$ 466</u>	<u>\$ 460</u>

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.

	April 30, 2019	October 31, 2018
	(in millions)	
Segment Assets:		
Life Sciences and Applied Markets	\$ 2,023	\$ 1,744
Diagnostics and Genomics	2,617	2,679
Agilent CrossLab	1,307	1,267
Total segment assets	\$ 5,947	\$ 5,690

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, mix, 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 effect of the U.S. Tax Cuts and Jobs Act of 2017 (the "Tax Act") and U.S. and other tariffs, 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, the potential impact of adopting new accounting pronouncements, 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, 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.

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

On March 13, 2019, Agilent entered into a credit agreement with a group of financial institutions which provides for a \$1 billion five-year unsecured credit facility that will expire on March 13, 2024. The credit facility replaces the existing credit facility which was terminated on the closing date of the new facility. As of April 30, 2019, the company had no borrowings outstanding under the credit facility.

Net revenue of \$1,238 million and \$2,522 million for the three and six months ended April 30, 2019 increased 3 percent and 4 percent, respectively, when compared to the same periods last year. Foreign currency movements for the three and six months ended April 30, 2019 had an overall unfavorable impact on revenue of approximately 3 percentage points for both periods when compared to the same periods last year. Revenue in the life sciences and applied markets business for the three and six months ended April 30, 2019, decreased 1 percent and was flat, respectively, when compared to the same periods last year. Foreign currency movements for the three and six months ended April 30, 2019 had an overall unfavorable impact on revenue of 2 percentage points for both periods when compared to the same periods last year. Revenue in the diagnostics and genomics business for the three and six months ended April 30, 2019, increased 5 percent and 9 percent, respectively, when compared to the same periods last year. Foreign currency movements for the three and six months ended April 30, 2019 had an overall unfavorable impact on revenue of 3 percentage points and 2 percentage points, respectively, when compared to the same periods last year. Revenue generated by Agilent CrossLab in the three and six months ended April 30, 2019, increased 7 percent and 8 percent, respectively, when compared to the same periods last year. Foreign currency movements for the three and six months ended April 30, 2019 had an overall unfavorable impact on revenue of 4 percentage points and 3 percentage points, respectively, when compared to the same periods last year.

Net income for the three months ended April 30, 2019 was \$182 million compared to net income of \$205 million for the corresponding period last year. Net income for the six months ended April 30, 2019 was \$686 million compared to net loss of \$115 million for the corresponding period last year. Net income for the six months ended April 30, 2019 was impacted by a discrete tax benefit of \$299 million related to the restructuring and extension of the company's tax incentive in Singapore. Net loss for the six months ended April 30, 2018 was impacted by a discrete tax charge of \$533 million related to the enactment of the Tax Act. See Note 5, "Income Taxes" for more details. In the six months ended April 30, 2019, cash generated from operations was \$465 million compared to \$518 million in the same period last year.

For the six months ended April 30, 2019 and 2018, cash dividends of \$104 million and \$96 million, respectively, were paid on the company's outstanding common stock.

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 and six months ended April 30, 2019, we repurchased approximately 638,000 shares for \$50 million and 1.766 million shares for \$125 million, respectively, under this authorization. During the three and six months ended April 30, 2019, we retired approximately 629,000 shares for \$49 million and 1.757 million shares for \$124 million, respectively. The remaining 9,000 treasury shares were retired on May 1, 2019. As of April 30, 2019, we had remaining authorization to repurchase up to \$1.625 billion of our common stock under this program.

On May 28, 2015, we announced that our board of directors had approved a new share repurchase program (the "2015 repurchase program"). The 2015 repurchase program authorized the purchase of up to \$1.14 billion of our common stock at the company's discretion through and including November 1, 2018. The 2015 repurchase program did not require the company to acquire a specific number of shares and could have been suspended or discontinued at any time. During the three and six months ended April 30, 2018, we repurchased 674,000 shares for \$46 million and 1.3 million shares for \$93 million, respectively, under this authorization. During the three and six months ended April 30, 2018, we retired approximately 711,000 treasury shares for \$49 million and 1.3 million treasury shares for \$93 million, respectively. On November 1, 2018, the remaining authorization of \$188 million under this repurchase program expired.

Looking forward, despite challenging market conditions, we continue to focus on differentiating product solutions, improving our customers' experience and growing our earnings. In addition, we remain focused on a balanced capital allocation through our dividend and share repurchase programs. We expect foreign currency to negatively impact revenue for the rest of 2019 but we also anticipate the contribution from our several acquisitions in the past year to partially offset the currency impact.

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. Other than accounting for revenue recognition and income taxes as described below, 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, 2018. 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.

Revenue Recognition. On November 1, 2018, we adopted Accounting Standard Codification Topic 606, *Revenue from Contracts with Customers* ("ASC 606").

We enter into agreements to sell products (hardware and/or software), services and other arrangements (multiple element arrangements) that include combinations of products and services.

We derive revenue primarily from the sale of analytical and diagnostics products and services. A performance obligation is a promise in a contract to transfer a distinct product or service to a customer and is the unit of account under ASC 606. Revenue is recognized when control of the promised products or services is transferred to our customers and the performance obligation is fulfilled in an amount that reflects the consideration that we expect to be entitled to in exchange for those products or services, the transaction price. For equipment, consumables, and most software licenses sold by us, control transfers to the customer at a point in time. We use present right to payment, legal title, physical possession of the asset, and risks and rewards of ownership as indicators to determine the transfer of control to the customer. Where acceptance is not a formality, the customer must have documented their acceptance of the product or service. For products that include installation, if the installation meets the criteria to be considered a separate performance obligation, product revenue is recognized when control has passed to the customer, and recognition of installation revenue occurs once completed. Product revenue, including sales to resellers and distributors is reduced for provisions for warranties, returns, and other adjustments in the period the related sales are recorded.

Revenue from services includes extended warranty, customer and software support including: Software as a Service, post contract support, consulting including companion diagnostics, and training and education. Instrument service contracts and software maintenance contracts are typically annual contracts, which are billed at the beginning of the contract or maintenance period. These contracts are recognized on a straight-line basis to revenue over the service period, as a time-based measure of progress best reflects our performance in satisfying this obligation. There are no deferred costs associated with the service contract, as the cost of the service is recorded when the service is performed. Service calls are recognized to revenue at the time a service is performed.

We have sales from standalone software. These arrangements typically include software licenses and maintenance contracts, both of which we have determined are distinct performance obligations. We determine the amount of the transaction price to allocate to the license and maintenance contract based on the relative standalone selling price of each performance obligation. Software license revenue is recognized at the point in time when control has been transferred to the customer. The revenue allocated to the software maintenance contract is recognized on a straight-line basis over the maintenance period, which is the contractual term of the contract, as a time-based measure of progress best reflects our performance in satisfying this obligation. Unspecified rights to software upgrades are typically sold as part of the maintenance contract on a when-and-if-available basis.

Our multiple-element arrangements are generally comprised of a combination of instruments, installation or other start-up services, and/or software, and/or support or services. Hardware and software elements are typically delivered at the same time and revenue is recognized when control passes to the customer. Service revenue is deferred and recognized over the contractual period or as services are rendered and accepted by the customer. Our arrangements generally do not include any provisions for cancellation, termination, or refunds that would significantly impact recognized revenue.

For contracts with multiple performance obligations, we allocate the consideration to which we expect to be entitled to each performance obligation based on relative standalone selling prices and recognize the related revenue when or as control of each individual performance obligation is transferred to customers. We estimate the standalone selling price by calculating the average historical selling price of our products and services per country for each performance obligation. Stand-alone selling prices are determined at contract inception for each distinct good or service in the contract and then we allocate the transaction price in proportion to those standalone selling prices by performance obligations.

Certain of our revenue relate to lease arrangements. Standalone lease arrangements are outside the scope of ASC 606 and are therefore accounted for in accordance with ASC 840, 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.

Accounting for Income Taxes. We must make certain estimates and judgments in determining income tax expense for financial statement purposes. These estimates and judgments occur in the calculation of tax credits, benefits and deductions, and in the calculation of certain tax assets and liabilities which arise from differences in the timing of recognition of revenue and expense for tax and financial statement purposes, as well as interest and penalties related to uncertain tax positions. Significant changes to these estimates may result in an increase or decrease to our tax provision in a subsequent period. On a quarterly basis, we provide for income taxes based upon an estimated annual effective tax rate. The effective tax rate is highly dependent upon the geographic composition of worldwide earnings, tax regulations governing each region, availability of tax credits and the effectiveness of our tax planning strategies. We monitor the changes in many factors and adjust our effective income tax rate on a timely basis. If actual results differ from these estimates, this could have a material effect on our financial condition and results of operations.

Significant management judgment is also required in determining whether deferred tax assets will be realized in full or in part. When it is more-likely-than-not that all or some portion of deferred tax assets may not be realized, a valuation allowance must be established against such deferred tax assets. We consider all available positive and negative evidence on a jurisdiction-by-jurisdiction basis when assessing whether it is more likely than not that deferred tax assets are recoverable. We consider evidence such as our past operating results, the existence of losses in recent years and our forecast of future taxable income. At April 30, 2019, we continue to recognize a valuation allowance for certain U.S. and U.S. state and foreign deferred tax assets. We intend to maintain a valuation allowance in these jurisdictions until sufficient positive evidence exists to support its reversal.

The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax law and regulations in a multitude of jurisdictions. Although the guidance on the accounting for uncertainty in income taxes prescribes the use of a recognition and measurement model, the determination of whether an uncertain tax position has met those thresholds will continue to require significant judgment by management. In accordance with the guidance on the accounting for uncertainty in income taxes, for all U.S. and other tax jurisdictions, we recognize potential liabilities for anticipated tax audit issues based on our estimate of whether, and the extent to which, additional taxes and interest will be due. The ultimate resolution of tax uncertainties may differ from what is currently estimated, which could result in a material impact on income tax expense. If our estimate of income tax liabilities proves to be less than the ultimate assessment, a further charge to expense would be required. If events occur and the payment of these amounts ultimately proves to be unnecessary, the reversal of the liabilities would result in tax benefits being recognized in the period when we determine the liabilities are no longer necessary. We include interest and penalties related to unrecognized tax benefits within the provision for income taxes on the consolidated statements of operations.

On December 22, 2017, the Tax Act was enacted into law. The Tax Act significantly changes the existing U.S. tax law and includes numerous provisions that affect our business. There were no substantial changes from our 2018 Annual Report on Form 10-K to the transition tax expenses amount. The company will continue to assess the impact of the 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. We have completed our analysis and elected to treat global intangible low-tax income ("GILTI") as "current period cost". See Note 5, "Income Taxes" for more details.

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 are exposed to changes in foreign currency exchange rates as a result of our global operating and financing activities. The unfavorable effects of changes in foreign currency exchange rates has decreased revenue by approximately 3 percentage points in the six months ended April 30, 2019. When movements in foreign currency exchange rates have a negative impact on revenue it will also have a positive impact on our costs and expenses. We calculate the impact of foreign currency exchange rates 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). Therefore, we are exposed to currency fluctuations over the longer term. 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		Six Months Ended		Year over Year Change	
	April 30,		April 30,		Three	Six
	2019	2018	2019	2018	Months	Months
(in millions)						
Net revenue:						
Products	\$ 921	\$ 918	\$ 1,901	\$ 1,848	—	3%
Services and other	317	288	621	569	10%	9%
Total net revenue	<u>\$ 1,238</u>	<u>\$ 1,206</u>	<u>\$ 2,522</u>	<u>\$ 2,417</u>	3%	4%

Net revenue of \$1,238 million for the three months ended April 30, 2019 increased 3 percent when compared to the same period last year. Net revenue of \$2,522 million for the six months ended April 30, 2019 increased 4 percent when compared to the same period last year. Foreign currency movements for the three and six months ended April 30, 2019 had an unfavorable impact on revenue of approximately 3 percentage points in both periods when compared to the same periods last year.

Services and other revenue increased 10 percent and 9 percent for the three and six months ended April 30, 2019, respectively, when compared to the same periods last year. Services and other revenue primarily consists of revenue generated from Agilent CrossLab services and services in the diagnostics and genomics business. Some of the prominent services in the Agilent CrossLab business include repair and maintenance on multi-vendor instruments, compliance services and installation services. Some of the prominent services in the diagnostics and genomics business include consulting services related to the companion diagnostics and nucleic acid businesses.

For the three and six months ended April 30, 2019, the service revenue from the Agilent CrossLab business increased 7 percent in both periods with a 4 percentage point unfavorable currency impact in both periods when compared to the same periods last year. The growth in the service revenue from the Agilent CrossLab business for both periods were driven by the improving connect service rate on current installed instrument base, as well as increase in higher value service offerings. For the three and six months ended April 30, 2019, the service revenue from the diagnostics and genomics business increased 26 percent and 22 percent, respectively when compared to the same periods last year. The increase in diagnostics and genomics service revenue reflects strong growth in both periods throughout the entire portfolio.

Net Revenue By Segment

	Three Months Ended		Six Months Ended		Year over Year Change	
	April 30,		April 30,		Three	Six
	2019	2018	2019	2018	Months	Months
(in millions)						
Net revenue by segment:						
Life sciences and applied markets	\$ 529	\$ 537	\$ 1,136	\$ 1,133	(1)%	—
Diagnostics and genomics	254	243	489	450	5%	9%
Agilent CrossLab	455	426	897	834	7%	8%
Total net revenue	<u>\$ 1,238</u>	<u>\$ 1,206</u>	<u>\$ 2,522</u>	<u>\$ 2,417</u>	3%	4%

Revenue in the life sciences and applied markets business for the three and six months ended April 30, 2019, decreased 1 percent and was flat, respectively, when compared to the same periods last year. Foreign currency movements for the three and six months ended April 30, 2019 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 April 30, 2019, revenue growth within the academia and government and forensics markets was strong but was more than offset by weaker revenue from the food market and to a lesser extent from the pharmaceutical and chemical and energy markets when compared to the same period last year. For the six months ended April 30, 2019, revenue growth within the academia and government and forensics markets was strong with modest revenue growth within the pharmaceutical market that was fully offset by weaker revenue from the food market and to a lesser extent from the chemical and energy market when compared to the same period last year.

Revenue in the diagnostics and genomics business for the three and six months ended April 30, 2019, increased 5 percent and 9 percent, respectively, when compared to the same periods last year. Foreign currency movements for the three and six months ended April 30, 2019 had an overall unfavorable impact on revenue of 3 percentage points and 2 percentage points, respectively, when compared to the same periods last year. For the three and six months ended April 30, 2019, revenue growth within the diagnostics and clinical market continued to be strong led by performance from our nucleic acid solutions and biomolecular analysis businesses.

Revenue generated by Agilent CrossLab in the three and six months ended April 30, 2019, increased 7 percent and 8 percent, respectively, when compared to the same periods last year. Foreign currency movements for the three and six months ended April 30, 2019 had an overall unfavorable impact on revenue of 4 percentage points and 3 percentage points, respectively, when compared to the same periods last year. For the three and six months ended April 30, 2019, revenue grew across all key end markets with strong growth in the food and academia and government markets. Revenue growth was driven broadly by our entire service and supplies portfolio.

Operating Results

	Three Months Ended		Six Months Ended		Year over Year Change	
	April 30,		April 30,		Three	Six
	2019	2018	2019	2018	Months	Months
(in millions, except margin data)						
Total gross margin	54.1%	53.3%	54.6%	54.3%	1 ppt	—
Research and development	\$ 99	\$ 92	\$ 201	\$ 186	8%	8%
Selling, general and administrative	\$ 354	\$ 341	\$ 709	\$ 688	4%	3%
Operating margin	17.4%	17.4%	18.5%	18.2%	—	—

Total gross margin for the three and six months ended April 30, 2019 increased 1 percentage point and was relatively flat, respectively, when compared to the same periods last year. Gross margin for the three and six months ended April 30, 2019 reflects the impact of lower inventory charges, lower materials costs and favorable currency impact on costs offset by increased wages, higher expenses related to tariffs and higher amortization expense of intangible assets.

Research and development expenses in the three and six months ended April 30, 2019 increased 8 percent in both periods when compared to the same periods last year. Research and development expenses increased due to increased program spending on new products related to all of our businesses in addition to higher wages and additional expenses related to acquired businesses when compared to spending in the same period last year.

Selling, general and administrative expenses increased 4 percent and 3 percent in the three and six months ended April 30, 2019, respectively, when compared to the same periods last year. The increase in selling, general and administrative expenses for the three months ended April 30, 2019 was due to increased wages, higher share-based compensation expense and higher acquisition and integration costs partially offset by operational efficiencies and savings and favorable currency impact. The increase in selling, general and administrative expenses for the six months ended April 30, 2019 was due to increased wages and higher acquisition and integration costs partially offset by operational efficiencies and savings and favorable currency impact.

Total operating margin for the three and six months ended April 30, 2019 was relatively flat in both periods when compared to the same periods last year. Operating margin for the three and six months ended April 30, 2019 was impacted by increased wages, higher acquisition and integration costs, higher expenses related to tariffs and higher amortization expense of intangible assets offset by lower spending and planned operational savings and favorable currency impact.

At April 30, 2019, our headcount was approximately 15,550 as compared to approximately 14,000 at April 30, 2018. The increase in headcount is mainly due to the acquisition of several businesses and employees in our service business.

Other income (expense), net

In the three and six months ended April 30, 2019 and 2018, other income (expense), net, includes \$3 million and \$6 million, respectively, of income 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. Also included in other income (expense), net for the six months ended April 30, 2018 is approximately \$15 million of income related to a special one-time settlement with a third-party and a \$5 million pension settlement gain related to the substitutional portion of the defined benefit pension plans established under the Japanese Welfare Pension Insurance Law.

Income Taxes

For the three and six months ended April 30, 2019, the company's income tax expense was \$36 million with an effective tax rate of 16.5 percent and an income tax benefit of \$220 million with an effective tax rate of (47.2) percent, respectively. For the six months ended April 30, 2019, our effective tax rate and the resulting provision for income taxes were significantly impacted by the discrete benefit of \$299 million related to the restructuring and extension of the company's tax incentive in Singapore. The income tax provision for the three and six months ended April 30, 2019 also includes the excess tax benefits from stock-based compensation of \$3 million and \$7 million, respectively.

For the three and six months ended April 30, 2018, the company's income tax expense was \$22 million with an effective tax rate of 9.7 percent and \$575 million with an effective tax rate of 125.0 percent, respectively. The effective tax rate and the provision for income taxes were significantly impacted by a discrete charge of \$533 million related to the enactment of the Tax Act. The income taxes provision for the three and six months ended April 30, 2018 also included the excess tax benefits from stock-based compensation of \$7 million and \$18 million, respectively.

2017 U.S. Tax Reform - Tax Cuts and Jobs Act

On December 22, 2017, the Tax Act was enacted into law. The Tax Act enacted significant changes affecting our fiscal year 2018, including, but not limited to, (1) reducing the U.S. federal corporate tax rate and (2) imposing a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries that had not been previously taxed in the U.S.

The Tax Act also establishes new tax provisions affecting our fiscal year 2019, including, but not limited to, (1) creating a new provision designed to tax global intangible low-tax income ("GILTI"); (2) generally eliminating U.S. federal taxes on dividends from foreign subsidiaries; (3) eliminating the corporate alternative minimum tax ("AMT"); (4) creating the base erosion anti-abuse tax ("BEAT"); (5) establishing a deduction for foreign derived intangible income ("FDII"); (6) repealing the domestic production activity deduction; and (7) establishing new limitations on deductible interest expense and certain executive compensation.

GILTI: The Tax Act subjects a U.S. corporation to tax on its GILTI. U.S. GAAP allows companies to make an accounting policy election to either (1) treat taxes due on future GILTI inclusions in the U.S. taxable income as a current-period expense when incurred ("period cost method") or (2) factoring such amounts into a company's measurement of its deferred taxes ("deferred method"). We have completed our analysis and elected to treat GILTI as a "current period cost".

In the U.S., tax years remain open back to the year 2015 for federal income tax purposes and the year 2000 for significant states. In other major jurisdictions where the company conducts business, the tax years generally remain open back to the year 2001. There were no substantial changes from our 2018 Annual Report on Form 10-K to the status of the open tax years in the first six months of fiscal year 2019.

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 the 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

In 2019, we adopted new guidance related to the presentation of the net periodic pension and postretirement benefit cost. See Note 2, "New Accounting Pronouncements" for more information. As a result, we have recast our historical segment results

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to conform to this new presentation required under this guidance. Also, in the third quarter of 2018, we re-organized our operating segments and moved the microfluidics business from our life sciences and applied markets operating segment to our diagnostics and genomics operating segment. Following this re-organization, 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. All historical financial segment information for both the life sciences and applied markets segment and the diagnostics and genomics segment has been recast to reflect this reorganization in our financial statements.

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; 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		Six Months Ended		Year over Year Change	
	April 30,		April 30,		Three	Six
	2019	2018	2019	2018	Months	Months
	(in millions)					
Net revenue	\$ 529	\$ 537	\$ 1,136	\$ 1,133	(1)%	—

Life sciences and applied markets business revenue for the three and six months ended April 30, 2019 decreased 1 percent and was flat, respectively, when compared to the same periods last year. Foreign currency movements for the three and six months ended April 30, 2019 had an overall unfavorable impact on revenue of 2 percentage points in both periods when compared to the same periods last year. Revenue from our recent acquisitions in the past year contributed 2 percentage points to our revenue growth in the three months ended April 30, 2019. Geographically, revenue increased 1 percent in the Americas with a 1 percentage point unfavorable currency impact, decreased 3 percent in Europe with a 5 percentage point unfavorable currency impact and decreased 2 percent in Asia Pacific with a 2 percentage point unfavorable currency impact for the three months ended April 30, 2019 compared to the same period last year. The revenue decline during the three months ended April 30, 2019 was driven by a decrease in sales of LC and LCMS products partially offset by strong performance in our cell analysis products and atomic absorption products. Revenue increased 4 percent in the Americas with a 1 percentage point unfavorable currency impact, decreased 5 percent in Europe with a 4 percentage point unfavorable currency impact and increased 1 percent in Asia Pacific with a 2 percentage point unfavorable currency impact for the six months ended April 30, 2019 compared to the same period last year. Flat revenue growth during the six months ended April 30, 2019 was driven by weakness in sales in our LC, LCMS and spectroscopy businesses which was offset by strength in informatics and cell analysis products when compared to the same period last year.

For the three months ended April 30, 2019, revenue results by end markets were mixed with the academia and government and forensics markets delivering strong revenue growth while the food market and to a lesser extent the pharmaceutical and chemical and energy markets delivered weaker results when compared to the same period last year. Revenue growth in the academia and government markets was also strong due to performance of our cell analysis products, which includes products from our recent acquisitions. For the six months ended April 30, 2019, revenue results by end markets were mixed with the academia and government and forensics markets delivering strong revenue growth, pharmaceutical and environmental markets delivering moderate growth while the food and chemical and energy markets delivered weaker results when compared to the same period last year.

Looking forward, despite short term uncertainties, 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 strong sales funnels given new product introductions 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.

Operating Results

	Three Months Ended		Six Months Ended		Year over Year Change	
	April 30,		April 30,		Three	Six
	2019	2018	2019	2018	Months	Months
(in millions, except margin data)						
Gross margin	60.6%	59.7%	61.4%	61.0%	1 ppt	—
Research and development	\$ 54	\$ 54	\$ 110	\$ 108	—	2%
Selling, general and administrative	\$ 159	\$ 154	\$ 321	\$ 316	3%	2%
Operating margin	20.3%	21.0%	23.4%	23.6%	(1) ppt	—

Gross margin for products and services for the three and six months ended April 30, 2019, increased 1 percentage point and was flat, respectively, when compared to the same periods last year. Gross margin for the three months ended April 30, 2019 was impacted by favorable product mix, lower manufacturing material costs and favorable currency impact on costs partially offset by higher expenses related to tariffs and logistics costs. Gross margin for the six months ended April 30, 2019 was impacted by higher expenses related to tariffs and logistics costs which was offset by favorable currency impact and lower manufacturing material costs.

Research and development expenses for the three and six months ended April 30, 2019, was flat and increased 2 percent, respectively, when compared to the same periods last year. Research and development for the three months ended April 30, 2019 was impacted by additional expenses related to our recent acquisitions as well as annual wage and benefit increases offset by favorable currency impact and lower discretionary expenses. The increase in research and development for the six months ended April 30, 2019 was due to additional expenses related to our recent acquisitions as well as annual wage and benefit increases partially offset by favorable currency impact.

Selling, general and administrative expenses for the three and six months ended April 30, 2019, increased 3 percent and 2 percent, respectively, when compared to the same periods last year. Selling, general and administrative expenses for the three months ended April 30, 2019 was impacted by annual wage and benefit increases and additional expenses related to our recent acquisitions partially offset by operational efficiencies and savings and favorable currency impact. Selling, general and administrative expenses for the six months ended April 30, 2019 was impacted by annual wage and benefit increases and additional expenses related to our recent acquisitions offset by lower spending and planned operational savings and favorable currency impact.

Operating margin for product and services for the three and six months ended April 30, 2019 decreased 1 percentage point and was flat, respectively, when compared to the same periods last year. Operating margin for the three months ended April 30, 2019 reflects the slight revenue decline partially offset by the favorable impact of currency on selling, general and administrative expenses. Operating margin for the six months ended April 30, 2019 reflects flat revenue growth partially offset by the favorable impact of currency on selling, general and administrative expenses.

Income from Operations

Income from operations for the three and six months ended April 30, 2019, decreased \$6 million and \$1 million, respectively, on a corresponding revenue decrease of \$8 million and increase of \$3 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 pharmacodiagnosics, 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		Six Months Ended		Year over Year Change	
	April 30,		April 30,		Three	Six
	2019	2018	2019	2018	Months	Months
	(in millions)					
Net revenue	\$ 254	\$ 243	\$ 489	\$ 450	5%	9%

Diagnostics and genomics business revenue for the three and six months ended April 30, 2019 increased 5 percent and 9 percent, respectively, when compared to the same periods last year. Foreign currency movements for the three and six months ended April 30, 2019 had an overall unfavorable impact on revenue of 3 percentage points and 2 percentage points, respectively, when compared to the same periods last year. Geographically, revenue increased 13 percent in the Americas with a 1 percentage point unfavorable currency impact, decreased 1 percent in Europe with a 7 percentage point unfavorable currency impact and decreased 4 percent in Asia Pacific with a 2 percentage point unfavorable currency impact for the three months ended April 30, 2019 compared to the same period last year. For the three months ended April 30, 2019, the growth in Americas was driven by strong growth in our companion diagnostic businesses and continued strength in our nucleic acid solutions, biomolecular analysis and genomics businesses. The performance in Europe was driven by growth in our reagent partnership and companion diagnostics businesses and offset by a decrease in the genomics business. In Asia Pacific the growth was driven by our pathology and biomolecular analysis businesses and negatively impacted by a decrease in the genomics business. Revenue increased 17 percent in the Americas with a 1 percentage point unfavorable currency impact, increased 1 percent in Europe with a 6 percentage point unfavorable currency impact and increased 3 percent in Asia Pacific with a 2 percentage point unfavorable currency impact for the six months ended April 30, 2019 compared to the same period last year. For the six months ended April 30, 2019, the growth in Americas was driven by strong growth in our nucleic acid solutions and companion diagnostic businesses and continued strength in our biomolecular analysis businesses. The performance in Europe was driven by growth in our reagent partnership and biomolecular analysis businesses. In Asia Pacific the growth was driven by our pathology and biomolecular analysis businesses.

For the three months ended April 30, 2019, the diagnostics and genomics business revenue grew by 5 percent. The global growth was led by very strong revenue performance in our companion diagnostics business. The diagnostics and clinical research market remains strong and growing driven by an aging population and unhealthy lifestyle. For the six months ended April 30, 2019, the diagnostics and genomics business revenue grew by 9 percent driven by the same market forces.

Looking forward, we are optimistic about our 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 OMNIS products, 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 to be strong. We are investing in building further capacity in our nucleic acid solutions business to address the future demand for the oligos. 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		Six Months Ended		Year over Year Change	
	April 30,		April 30,		Three	Six
	2019	2018	2019	2018	Months	Months
(in millions, except margin data)						
Gross margin	54.8%	54.8%	54.5%	54.5%	—	—
Research and development	\$ 29	\$ 24	\$ 60	\$ 49	20%	23%
Selling, general and administrative	\$ 61	\$ 61	\$ 124	\$ 124	—	—
Operating margin	19.3%	19.9%	16.8%	16.1%	(1) ppt	1 ppt

Gross margin for products and services for the three and six months ended April 30, 2019, was flat for both periods when compared to the same periods last year. Gross margin in the three and six months ended April 30, 2019 was impacted as gains from higher volumes were mainly offset by an unfavorable product mix.

Research and development expenses for the three and six months ended April 30, 2019, increased 20 percent and 23 percent, respectively, when compared to the same periods last year. The increase in research and development for the three months ended April 30, 2019 was due to additional expenses related to prior year's acquisitions, higher wages and benefits and increased spending around the development of clinical applications and solutions.

Selling, general and administrative expenses for the three and six months ended April 30, 2019, was flat for both periods when compared to the same periods last year. Selling general and administrative expenses in both periods, was impacted by a favorable currency impact, operational efficiencies and savings in field selling costs offset by incremental expenses related to our prior year's acquisitions.

Operating margin for product and services for the three and six months ended April 30, 2019 decreased 1 percentage point and increased 1 percentage point, respectively, when compared to the same periods last year. The decrease in operating margin for the three months ended April 30, 2019 was mainly due to higher research and development investments related to prior year's acquisitions. The increase in operating margin for the six months ended April 30, 2019 was mainly due to higher revenue volumes, more than offsetting the research and development investments related to prior year's acquisitions.

Income from Operations

Income from operations for the three and six months ended April 30, 2019 increased \$1 million and \$10 million, respectively, on a corresponding revenue increase of \$11 million and \$39 million, respectively, due to higher revenue volumes.

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		Six Months Ended		Year over Year Change	
	April 30,		April 30,		Three	Six
	2019	2018	2019	2018	Months	Months
	(in millions)					
Net revenue	\$ 455	\$ 426	\$ 897	\$ 834	7%	8%

Agilent CrossLab business revenue for the three and six months ended April 30, 2019 increased 7 percent and 8 percent, respectively, when compared to the same periods last year. Foreign currency movements for the three and six months ended April 30, 2019 had an overall unfavorable impact on revenue of 4 percentage points and 3 percentage points, respectively, when compared to the same periods last year. Revenue from our recent acquisitions in the past year contributed 2 percentage points to our revenue growth for both the three and six months ended April 30, 2019, when compared to the same periods last year. Geographically, revenue increased 8 percent in the Americas with a 2 percentage point unfavorable currency impact, increased 3 percent in Europe with a 7 percentage point unfavorable currency impact and increased 9 percent in Asia Pacific with a 5 percentage point unfavorable currency impact for the three months ended April 30, 2019 compared to the same period last year. Recent acquisitions contributed 3 percentage points in the Americas and 1 percentage point in Europe for the three months ended April 30, 2019. Revenue increased 8 percent in the Americas with a 2 percentage point unfavorable currency impact, increased 5 percent in Europe with a 6 percentage point unfavorable currency impact and increased 9 percent in Asia Pacific with a 4 percentage point unfavorable currency impact for the six months ended April 30, 2019 compared to the same period last year. Recent acquisitions contributed 3 percentage points in the Americas and 1 percentage point in Europe for the six months ended April 30, 2019. During the three and six months ended April 30, 2019, revenue growth was driven broadly by our entire service and supplies portfolio.

For the three months ended April 30, 2019, the Agilent CrossLab business saw broad-based revenue growth in all key end markets, but the growth was especially strong in the food, academia and government, chemical and energy markets when excluding the impact of recent acquisitions. For the six months ended April 30, 2019, the Agilent CrossLab business saw robust revenue growth across all key end markets.

Looking forward, we anticipate strength in all key end markets will continue to drive our revenue growth in the near term. The Agilent CrossLab portfolio of products and services are well positioned to succeed in changing market conditions in any of our key end markets. Geographically, the business is well diversified across all regions to swiftly take advantage of regional market opportunities and to help hedge against volatility in any one region. Other factors for near term revenue growth include our continuing expansion of our e-commerce sales channel.

Operating Results

	Three Months Ended		Six Months Ended		Year over Year Change	
	April 30,		April 30,		Three	Six
	2019	2018	2019	2018	Months	Months
	(in millions, except margin data)					
Gross margin	51.3%	50.0%	51.3%	50.2%	1 ppt	1 ppt
Research and development	\$ 14	\$ 14	\$ 29	\$ 28	—	3%
Selling, general and administrative	\$ 105	\$ 103	\$ 212	\$ 208	2%	2%
Operating margin	25.2%	22.5%	24.5%	21.9%	3 ppts	3 ppts

Gross margin for products and services for the three and six months ended April 30, 2019 increased 1 percentage point for both periods when compared to the same periods last year primarily due to favorable currency impact on costs. In addition, the gross margin was positively impacted by improvements to the operational efficiency of the service delivery business.

Research and development expenses for the three and six months ended April 30, 2019 was relatively flat when compared to the same periods last year. The slight increase was primarily due to higher wages and additional research and development expenses from recent acquisitions.

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Selling, general and administrative expenses for the three and six months ended April 30, 2019 increased 2 percent for both periods, when compared to the same periods last year. The increase in selling, general and administrative expenses for the three months ended April 30, 2019 was primarily due to additional operating expenses from recent acquisitions, higher wages and higher share-based compensation expense, partially offset by a favorable impact from foreign currency movements. The increase in selling, general and administrative expenses for the six months ended April 30, 2019 was primarily due to additional operating expenses from recent acquisitions and higher wages, partially offset by a favorable impact from foreign currency movements.

Operating margin for product and services for the three and six months ended April 30, 2019 increased approximately 3 percentage points for both periods when compared to the same periods last year. The improvement in the operating margin for both of those periods were driven by strong growth in revenues and gross margins, combined with only a modest growth in operating expenses.

Income from Operations

Income from operations for the three and six months ended April 30, 2019 increased \$19 million and \$37 million, respectively, on a corresponding revenue increase of \$29 million and \$63 million, respectively.

FINANCIAL CONDITION

Liquidity and Capital Resources

Our financial position as of April 30, 2019 consisted of cash and cash equivalents of \$2,155 million as compared to \$2,247 million as of October 31, 2018.

As of April 30, 2019, \$1,686 million of our cash and cash equivalents was held outside of the U.S. in our foreign subsidiaries and can be repatriated to the U.S. as local working capital and other regulatory conditions permit. As a result of the Tax Act, in general our cash and cash equivalents are no longer subjected to U.S. federal tax when repatriated into the U.S. We utilize a variety of funding strategies to ensure that our worldwide cash is available in the locations in which it is needed.

As a result of the Tax Act, we are required to pay a one-time transition tax of \$426 million on deferred foreign income not previously subject to U.S. federal income tax. The first installment of \$36 million was paid in the second quarter of 2019 and the remaining will be paid over the next seven years.

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.

Net Cash Provided by Operating Activities

Net cash inflow from operating activities was \$465 million for the six months ended April 30, 2019 compared to cash inflow of \$518 million for the same period in 2018. In the six months ended April 30, 2019, we paid approximately \$79 million under our variable and incentive pay programs, as compared to a total of \$69 million paid during the same period of 2018. Net cash paid for income taxes was approximately \$104 million and \$48 million in the six months ended April 30, 2019 and 2018, respectively. For the six months ended April 30, 2019, the net change in tax-related assets and liabilities related to the enactment of the Tax Act of zero compared to \$533 million in the same period in the prior year which primarily consisted of an estimated provision of \$480 million of U.S. transition tax on deemed repatriated earnings of non-U.S. subsidiaries as well as an estimated \$53 million associated with the impact of the decreased U.S. corporate income tax rate. For the six months ended April 30, 2019, deferred taxes used cash of \$272 million compared to cash used of \$13 million in the same period in 2018. The change of cash in the six months ended April 30, 2019 primarily related to the restructuring of our operations in Singapore of \$266 million. For the six months ended April 30, 2019, other assets and liabilities had cash outflow of \$46 million compared to cash inflow of \$26 million for the same period in 2018. Cash outflow in the six months ended April 30, 2019 was largely the result of increased income tax payments, interest payments on senior notes and changes in deferred revenue. Cash inflow for the six months ended April 30, 2018 in other assets and liabilities were related to changes in the transaction taxes and deferred revenue.

In the six months ended April 30, 2019, accounts receivable used cash of \$17 million compared to cash used of \$21 million for the same period in 2018. Days' sales outstanding as of April 30, 2019 and 2018 was 59 days and 56 days, respectively. Accounts payable used cash of \$8 million for the six months ended April 30, 2019 compared to cash used of \$14 million in the same period.

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in 2018. Cash used for inventory was \$21 million for the six months ended April 30, 2019 compared to cash used of \$34 million for the same period in 2018. Inventory days on-hand was 104 days as of April 30, 2019 compared to 95 days as of April 30, 2018.

We contributed approximately \$11 million to our defined benefit plans in both the six months ended April 30, 2019 and 2018. 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 \$15 million to our defined benefit plans during the remainder of 2019.

Net Cash Used in Investing Activities

Net cash used in investing activities was \$346 million for the six months ended April 30, 2019 as compared to net cash used in investing activities of \$118 million in the same period of 2018. Investments in property, plant and equipment were \$78 million for the six months ended April 30, 2019 compared to \$108 million in the same period of 2018. We expect that total capital expenditures for the current year will be approximately \$170 million. Cash used to purchase fair value investments for the six months ended April 30, 2019 was \$18 million compared to \$1 million in the same period in 2018. In the six months ended April 30, 2019, we invested \$248 million in our acquisition of ACEA, net of cash acquired, compared to \$7 million in acquisitions in the same period last year.

Net Cash Used in Financing Activities

Net cash used in financing activities for the six months ended April 30, 2019 was \$214 million compared to net cash used in financing activities of \$77 million for the same period of 2018.

Treasury Stock Repurchases

On November 19, 2018 we announced that our board of directors had approved 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 six months ended April 30, 2019, we repurchased 1.766 million shares for \$125 million, under this authorization. During the six months ended April 30, 2019, we retired approximately 1.757 million shares for \$124 million. The remaining 9,000 treasury shares were retired on May 1, 2019. As of April 30, 2019, we had remaining authorization to repurchase up to \$1.625 billion of our common stock under this program. In the third quarter of 2019, we anticipate repurchasing more shares than our typical quarterly repurchases.

On May 28, 2015, we announced that our board of directors had approved a new share repurchase program (the "2015 repurchase program"). The 2015 repurchase program authorized the purchase of up to \$1.14 billion of our common stock at the company's discretion through and including November 1, 2018. The 2015 repurchase program did not require the company to acquire a specific number of shares and could have been suspended or discontinued at any time. During the six months ended April 30, 2018, we repurchased and retired 1.3 million shares for \$93 million under this authorization. On November 1, 2018, the remaining authorization of \$188 million under this repurchase program expired.

Dividends

During the six months ended April 30, 2019 and 2018, we paid cash dividends of \$0.328 per common share or \$104 million and \$0.298 per common share or \$96 million, respectively, on the company's common stock.

On May 22, 2019, our board of directors declared a quarterly dividend of \$0.164 per share of common stock or approximately \$53 million which will be paid on July 24, 2019 to all shareholders of record at close of business on July 2, 2019. The timing and amounts of any future dividends are subject to determination and approval by our board of directors.

Credit Facilities

On March 13, 2019, Agilent entered into a credit agreement with a group of financial institutions which provides for a \$1 billion five-year unsecured credit facility that will expire on March 13, 2024. The credit facility replaces the existing credit facility which was terminated the closing date of the new facility. As of April 30, 2019, the company had no borrowings outstanding under the credit facility. We were in compliance with the covenants for all the credit facilities during the six months ended April 30, 2019.

Long-term debt

There have been no other changes to the principal, maturity, interest rates and interest payment terms of the Agilent outstanding senior notes in the six months ended April 30, 2019 as compared to the senior notes as described in our Annual Report on Form 10-K for the fiscal year ended October 31, 2018.

Other

There were no substantial changes from our 2018 Annual Report on Form 10-K to our contractual commitments in the first six months of fiscal 2019. We have contractual commitments for non-cancelable operating leases. We have no other material non-cancelable guarantees or commitments.

Other long-term liabilities as of April 30, 2019 and October 31, 2018 include \$579 million and \$607 million, respectively, related to long-term income tax liabilities. Of these amounts, \$221 million and \$215 million related to uncertain tax positions of continuing operations as of April 30, 2019 and October 31, 2018, 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.

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 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 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 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 50 percent and 52 percent of our revenue was generated in U.S. dollars during the six months ended April 30, 2019 and 2018, respectively. The 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 approximately 3 percentage points in the six months ended April 30, 2019. We calculate the impact of foreign currency exchange rates 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 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 April 30, 2019, 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 April 30, 2019, 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

There were no changes in our internal control over financial reporting during the quarter ended April 30, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

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

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. The unfavorable effects of changes in foreign currency exchange rates has decreased revenues by approximately 3 percentage points in the six months ended April 30, 2019. When movements in foreign currency exchange rates have a negative impact on revenue it will also have a positive impact on 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, including 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; and
- geopolitical uncertainty or turmoil, including terrorism and war.

We sell our products into many countries and we also source many components and materials for our products from various countries. Tariffs recently announced and implemented could have negative impact on our business, results of operations and financial condition. 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 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.

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., 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, 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, 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 been consolidating, and may continue to 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 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.

On March 13, 2019, Agilent entered into a credit agreement with a group of financial institutions which provides for a \$1 billion five-year unsecured credit facility that will expire on March 13, 2024. The credit facility replaces the existing credit facility which was terminated on the closing date of the new facility. As of April 30, 2019, the company had no borrowings outstanding under the credit facility. We also currently have outstanding an aggregate principal amount of \$1.8 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 indenture governing our senior notes contains 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, increasing severity or frequency of extreme weather events, or other natural or man-made disasters. In particular, 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 April 30, 2019, we had cash and cash equivalents of approximately \$2.2 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 could incur significant liabilities if the distribution of Keysight common stock to our shareholders is determined to be a taxable transaction.

We have received an opinion from outside tax counsel to the effect that the separation and distribution of Keysight qualifies as a transaction that is described in Sections 355(a) and 368(a)(1)(D) of the Internal Revenue Code. The opinion relies on certain facts, assumptions, representations and undertakings from Keysight and us regarding the past and future conduct of the companies' respective businesses and other matters. If any of these facts, assumptions, representations or undertakings are incorrect or not satisfied, our shareholders and we may not be able to rely on the opinion of tax counsel and could be subject to significant tax liabilities. Notwithstanding the opinion of tax counsel, we received, the IRS could determine on audit that the separation is taxable if it determines that any of these facts, assumptions, representations or undertakings are not correct or have been violated or if it disagrees with the conclusions in the opinion. If the separation is determined to be taxable for U.S. federal income tax purposes, our shareholders that are subject to U.S. federal income tax and we could incur significant U.S. federal income tax liabilities.

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 April 30, 2019.

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)
February 1, 2019 through February 28, 2019	217,763	\$ 77.28	217,763	\$ 1,658
March 1, 2019 through March 31, 2019	233,481	\$ 80.06	233,481	\$ 1,640
April 1, 2019 through April 30, 2019	186,685	\$ 79.47	186,685	\$ 1,625
Total	637,929	\$ 78.94	637,929	\$ 1,625

(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 April 30, 2019, all repurchased shares except for 9,000 shares 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
10.1	<u>Credit Agreement, dated March 13, 2019, by and among the Company, the Lenders party thereto and BNP Paribas, as Administrative Agent, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated March 13, 2019.*</u>
31.1	<u>Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>
31.2	<u>Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>
32.1	<u>Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
32.2	<u>Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
101.INS XBRL	Instance 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: May 30, 2019

By: /s/ Robert W. McMahon

Robert W. McMahon
Senior Vice President and Chief Financial Officer
(Principal Financial Officer)

Dated: May 30, 2019

By: /s/ Rodney Gonsalves

Rodney Gonsalves
Vice President, Corporate Controllershship
(Principal Accounting Officer)