

Annual Report 2017

ACCELERATING INNOVATION

to Connect and Secure the World

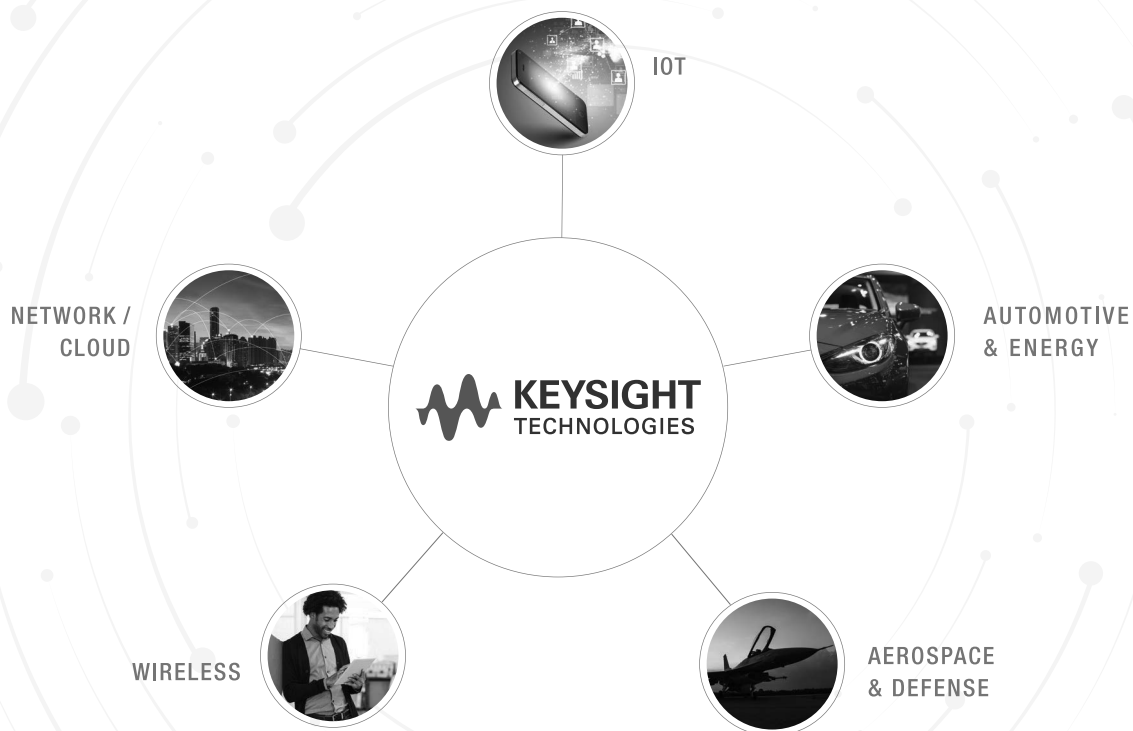


KEYSIGHT IS AT THE HEART OF THE TECHNOLOGY REVOLUTION

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KEYSIGHT IS AT THE HEART OF THE TECHNOLOGY REVOLUTION

To Our Stockholders,

2017 was a pivotal and notable year for Keysight. Transforming Keysight for revenue and earnings growth is a key element of our plan that we initiated a few years ago to create value for our shareholders. We are pleased to report that our investments and commitment to transform Keysight are yielding results, which included record revenue and orders while maintaining our strong operational discipline and financial performance for the year.

Keysight is at the heart of innovation processes in many growing end markets. We are executing on our strategy to create value for our customers and shareholders. In 2017, we drove growth across multiple avenues of emerging technology trends such as 5G, automotive and energy, IoT, aerospace and defense and high-speed datacenters, that yielded total Keysight organic order growth of 7 percent, the highest in the last six years. With sustainable topline growth, we are well-positioned to deliver earnings growth going forward.

This year we also continued to innovate ahead of emerging technologies to enable our customers to win with end-to-end design, test and optimization solutions. Our investments to bring new solutions to market, our relentless focus on the growth areas of the market and our go-to-market approach are fueling our momentum. Partnering early with customers and delivering full solutions are key initiatives for Keysight and areas where we are making strong progress. As a result, we are engaging with customers earlier in the development cycle than ever before, increasing the value we provide and growing sales of our R&D and software solutions, which is ultimately a catalyst for earnings growth.

In addition to making investments in our core business, we also expanded our technology portfolio and markets inorganically with several acquisitions in markets where customers are investing in next-generation digital and electronic technologies. Our largest acquisition, which closed in April, was Ixia, a leader in the network and application test and visibility markets. The addition of Ixia expanded our reach within the communications development lifecycle. To deliver the next world-changing innovation, our customers need help with more than just physical layer test and measurement solutions. With more complicated and integrated functionality, electronic devices are vulnerable to faults at any point in the technology stack. Customers need to verify the quality, performance, compliance and security of products at every layer--from Layer 1 to Layer 7--as well as how they integrate into live networks. Through our acquisition of Ixia, Keysight helps customers gain insight into how products are functioning at every layer. Our ability to combine Keysight's and Ixia's technologies and bring complete end-to-end solutions to market enables us to widen the technology gap between Keysight and the competition.

While smaller in scale, I will also note our acquisition of ScienLab, which expanded our Auto and Energy solutions offerings. ScienLab is based in Germany and serves a Tier-1 customer base. This acquisition strategically expands our global footprint and solutions portfolio, allowing end-to-end solutions for hybrid and electric vehicles and battery test solutions. Several trends are driving development activities across multiple dimensions at once in this end market, including increasing electronic content in vehicles, electric and hybrid powered cars, and radar technologies for autonomous driving. With this broad development landscape, we believe we will see continued R&D investment in auto and energy for many years to come, and we are intensifying our focus on this growing market opportunity.

Keysight's execution and performance this year were even more meaningful when considering the unimaginable challenges our team faced with the northern California wildfires in Santa Rosa in October. I am proud of how the Keysight team came together to help the community and each other navigate through this challenging time. I'm inspired by the resiliency, acts of courage and generosity. Our production facilities in Santa Rosa are now fully operational and our team is more focused than ever. I'd like to thank each and every member of the Keysight team around the globe, as well as our partners, customers and investors, for their unwavering support.

In closing, our clear vision, continued focus on market-leading solutions and commitment to our customers drove our strong results for the year. We have consistently delivered on our commitments and are very pleased with our progress to transform Keysight for long-term value creation. While 2017 was a transformative year, we believe we are just getting started and are poised to continue to drive revenue and earnings growth as the long-term trends in our markets evolve. We look forward to sharing our progress with you along the way.

Thank you for your continued support.

A handwritten signature in black ink, appearing to read "Ron Nersesian", followed by a horizontal line.

Ron Nersesian
President and Chief Executive Officer
February 9, 2018

Keysight at a Glance

Keysight Technologies, Inc. ("we," "us," "Keysight" or the "company"), incorporated in Delaware on December 6, 2013, is a measurement company providing electronic design and test solutions to communications and electronics industries. We provide electronic design and test instrumentation systems and related software, software design tools, and services that are used in the design, development, manufacture, installation, deployment, validation, optimization and secure operation of electronics systems. Related services include start-up assistance, instrument productivity, application services and instrument calibration and repair. We also offer customization, consulting and optimization services throughout the customer's product lifecycle.

On April 18, 2017, pursuant to the terms of an Agreement and Plan of Merger dated January 30, 2017, between Keysight and Ixia (the "Merger Agreement"), we acquired all of the outstanding common stock of Ixia for \$1,622 million, net of \$72 million of cash acquired, pursuant to an exchange offer for \$19.65 per share (the "Merger Consideration"). Pursuant to the Merger Agreement, any outstanding and unexercised Ixia stock options with an exercise price below the Merger Consideration and any outstanding Ixia restricted stock awards were cancelled and converted into the right to receive a cash payment equal to the merger consideration of \$19.65 per share (minus the exercise price for the Ixia stock options). The vested portion of the awards associated with prior service of Ixia employees represented approximately \$47 million of the total consideration. We funded the acquisition with a combination of cash and proceeds from debt and equity financings.

On August 31, 2017, we acquired all of the outstanding common stock of ScienLab for \$60 million, net of \$2 million of cash acquired. ScienLab is a Germany-based company that provides test solutions to automotive original equipment manufacturers and Tier 1 suppliers in the automotive and energy markets. This acquisition complements our portfolio, allowing end-to-end solutions for hybrid electric vehicles, electric vehicles, and battery test solutions that address e-mobility market dynamics. We funded the acquisition using existing cash. As a result of the acquisition, ScienLab has become a wholly-owned subsidiary of Keysight.

We have a comprehensive sales strategy that uses our direct sales force, distributors, resellers and manufacturer's representatives. The strategy varies based on the size of customer, the complexity of products and geographical coverage. We generated \$3.2 billion of net revenue in 2017 and \$2.9 billion of net revenue in fiscal year 2016 and 2015. Of our total net revenue of \$3.2 billion for the fiscal year ended October 31, 2017, we generated 33 percent in the United States and 67 percent outside the United States. As of October 31, 2017, we had approximately 12,600 employees worldwide. Our primary research and development sites are in California, Colorado, Georgia and Texas in the United States and outside of the United States in China, Finland, Germany, U.K., India, Japan, Malaysia, Romania, Singapore and Spain.

Net revenue, income from operations and assets by business segment as of and for the fiscal years ended October 31, 2017, 2016 and 2015 are shown in Note 20, "Segment Information," to our consolidated financial statements, which we incorporate by reference herein.

We had more than 16,000 direct customers for our products and services in fiscal year 2017 and greater than 32,000 customers including indirect channels. No single customer represented 10 percent or more of our net revenue. Many of our customers acquire products and services across multiple segments.

Operating Segments	2017 Net Revenue	Description
Communications Solutions Group	\$1.7 billion	<p>Summary: The Communications Solutions Group serves customers spanning the worldwide commercial communications end market, which includes internet infrastructure, and the aerospace, defense and government end market. The group provides electronic design and test software, instruments, and systems used in the simulation, design, validation, manufacturing, installation and optimization of electronic equipment.</p> <p>Markets: The markets for our communications solutions group include the commercial communications market and the aerospace, defense and government market.</p> <p><u>Commercial Communications Market:</u> We market our electronic design and test solutions to network equipment manufacturers (“NEMs”), wireless device manufacturers, and communications service providers, including the component manufacturers within the supply chain for these customers. Growth in mobile data traffic and increasing complexity in semiconductors and components are drivers of test demand across the communications market.</p> <p><u>Aerospace, Defense and Government Market:</u> We market our electronic design and test solutions to manufacturers and research laboratories within the aerospace and defense industries. This market includes commercial and government customers and their contracted suppliers. The modernization of satellite, radar and surveillance systems worldwide is a driver of test demand within the aerospace and defense market.</p> <p>Government customers include departments or ministries of defense and related agencies around the world. Contractors support the government and commercial customers by providing design and manufacturing capabilities for a variety of programs. We also sell to sub-contractors and component manufacturers within the supply chain.</p> <p>Product Areas: Our electronic design and test solutions include RF and microwave instruments, digital instruments and various other general purpose test instruments and targeted test solutions. We offer these products and related software in a variety of form factors, including benchtop, modular and handheld, depending on the specific requirements of the customer application.</p> <p>Customers: Our customers include commercial companies and government agencies around the world. We have customers across the lifecycle that design, develop, manufacture, install and monitor a variety of commercial and government communications networks. Commercial customers include original equipment and contract manufacturers of electronic components, semiconductors, wireless devices and network equipment, as well as network service providers that implement, maintain and manage communication networks and services. Other commercial customers include defense contractors and sub-contractors. Government customers</p>

include departments or ministries of defense, government agencies and related research institutes.

Our customers use our products to conduct research and development to manufacture, and to install and maintain radio frequency, microwave frequency, digital, semiconductor, and optical products and systems. Many of our customers purchase solutions across several of our major product lines for their different business units.

No single customer represented 10 percent or more of the group's net revenue.

**Electronic
Industrial
Solutions Group**

\$836 million

Summary: The Electronic Industrial Solutions Group provides test and measurement solutions across a broad set of electronic industrial end markets, focusing on high-growth applications in the automotive and energy industry and measurement solutions for semiconductor design and manufacturing, consumer electronics, education and general electronics manufacturing. The group provides electronic design and test software, instruments, and systems used in the simulation, design, validation, manufacturing, installation and optimization of electronic equipment.

Markets: We market our electronic design and test solutions to customers with significant electronic content across a broad set of electronic industrial end markets. These industries design, develop and manufacture a wide range of products, including those produced in high volumes, such as computers, computer peripherals, electronic components, consumer electronics, enterprise servers, storage networks and automotive electronics. The components, printed circuit assemblies and functional devices for these products may be designed, developed and manufactured by electronic components companies, by original equipment manufacturers or by contract manufacturers. Other industrial applications for our products include power, energy, automotive, medical, research and education.

Product Areas: Our electronic industrial products include design and design verification tools, a broad range of electronic test and measurement instruments, comprehensive manufacturing systems, material analysis and university education solutions to train the next generation of engineers and scientists.

Customers: Our customers include original equipment and contract manufacturers of electronic industrial products and services. These customers use our solutions to perform research and development, manufacturing and support their products and services. Customer products include semiconductor devices, printed circuit assemblies, electronic modules and systems. Our customers range from the largest multi-national global companies to the smallest start-ups and include universities and government agencies around the world.

No single customer represented 10 percent or more of the group's net revenue.

**Ixia Solutions
Group**

\$256 million

Summary: The Ixia Solutions Group helps customers validate the performance and security resilience of their networks and associated applications. The group's test, visibility, and security products help organizations and their customers strengthen their physical and virtual networks. Enterprises, service providers, network equipment manufacturers, and governments worldwide rely on the group's solutions to validate new products before shipping and secure ongoing operation of their networks with better visibility and security. The group's product solutions consist of high-performance hardware platforms, software applications, and services, including warranty and maintenance offerings.

Markets: We market our network test hardware platforms, software applications and services, and our network visibility products to network equipment manufacturers, service providers, enterprises and governments worldwide. Our network test customers use our products to evaluate the performance of their equipment and networks during the design, manufacture, and pre-deployment stages, as well as after the equipment is deployed in a network. Our network visibility products improve the way our customers manage their data centers, save valuable IT time and maximize return on IT investments.

Product Areas: Our product solutions consist of our hardware platforms, such as our chassis, interface cards and appliances, software application tools, and services, including our warranty and maintenance offerings and professional services. Our highly scalable and flexible products enable our customers to configure solutions based on their specific networks and use cases.

Customers: Our solutions provide the insight needed for organizations to make real-time decisions that optimize performance, harden security and increase the scalability of networks facing constantly changing requirements. Our line of hardware, software, and other services cater to the needs of network equipment manufacturers ("NEMs"), service providers, and enterprise and government organizations. Our solutions provide an end-to-end approach for our customers to test devices and systems prior to deployment, validate the performance and security of networks and data centers after every change, and help them continuously monitor network application and security behavior to manage performance.

No single customer represented 10 percent or more of the group's net revenue.

**Services Solutions
Group**

\$419 million

Summary: The Services Solution Group provides worldwide integrated service solutions to optimize customers test equipment and productivity, including repair and calibration

services, professional services and remanufactured equipment.

Markets: Services Solutions Group broadly addresses the same markets as the Communications Solutions Group and Electronic Industrial Solutions Group, which includes commercial communications, aerospace, defense and government, internet infrastructure, automotive and energy, semiconductor manufacturing and general electronics and manufacturing industries.

Product Areas: Keysight offers the following general types of services and products under the Services Solutions Group:

Accredited Product Support Services—Comprehensive product support services that combine repair, parts, and accredited calibrations of Keysight and non-Keysight test equipment.

Professional Services—Training and engineering services to optimize equipment adoption, utilization, and design and test processes.

Remanufactured Equipment—Refurbished used equipment, including Keysight Premium Used, which ensures the same high quality as our new equipment.

Asset Management Program—Full service solution to optimize customer's asset tracking, servicing and utilization requirements throughout the product life cycle.

Customers: The customers for our Services Solutions Group include customers of the Communications Solutions Group and Electronic Industrial Solutions Group.

No single customer represented 10 percent or more of the group's net revenue.

Senior Executives

Ronald S. Nersesian*
President and
Chief Executive Officer

Jay Alexander*
Senior Vice President, and
Chief Technology Officer

Satish Dhanasekaran*
Senior Vice President and
President, Communications
Solutions Group

Neil Dougherty*
Senior Vice President and
Chief Financial Officer

Ingrid Estrada*
Senior Vice President,
Chief People and
Administrative Officer

Soon Chai Gooi*
Senior Vice President and
President, Electronic Industrial
Solutions Group

John Page*
Senior Vice President and
President, Services Solutions
Group

John Skinner*
Vice President,
Corporate Controller and
Principal Accounting Officer

Mark Wallace*
Senior Vice President,
Worldwide Sales

Stephen D. Williams*
Senior Vice President, General
Counsel and Secretary

Directors

Paul N. Clark
Non-executive Chairman,
Keysight Technologies, Inc.
Former Chairman, President and
CEO of ICOS Corporation

Ronald S. Nersesian
President and Chief Executive
Officer, Keysight Technologies,
Inc.

James G. Cullen
Non-executive Chairman,
Agilent Technologies, Inc.
Former President and Chief
Operating Officer, Bell Atlantic

Charles J. Dockendorff
Former Executive Vice
President and Chief Financial
Officer, Covidien, PLC

Jean M. Halloran
Former Senior Vice President,
Agilent Technologies, Inc.

Richard Hamada
Former Chief Executive Officer,
Avnet, Inc.

Robert A. Rango
Chief Executive Officer,
Enevate Corporation
Former Executive Vice
President, Mobile & Wireless
Group, Broadcom Corporation

Mark B. Templeton
Former President and CEO,
Citrix Systems, Inc.

Board Committees

Audit and Finance Committee
Charles J. Dockendorff,
Chairperson
Paul N. Clark
Robert A. Rango

Compensation Committee
James G. Cullen,
Chairperson
Jean M. Halloran
Richard Hamada
Mark B. Templeton

**Nominating and Corporate
Governance Committee**
Paul N. Clark
Chairperson
James G. Cullen
Charles J. Dockendorff
Jean M. Halloran
Richard Hamada
Robert A. Rango
Mark B. Templeton

Executive Committee
Paul N. Clark,
Chairperson
Ronald S. Nersesian

Keysight's annual meeting of stockholders will take place on Thursday, March 22, 2018 at 8:00 a.m. at Keysight's headquarters located at 1400 Fountaingrove Parkway, Santa Rosa, California 95403.

**These individuals are current executive officers of Keysight under Section 16 of the Securities Act of 1934*

Investor Information

Please see the full and audited financial statements and footnotes contained in this booklet. To receive paper copies of the annual report, proxy statement, Form 10-K, earnings announcements and other financial information, you should call (707) 577-6915. In addition, you can access this financial information at Keysight's Investor Relations Website. The address is <http://www/investor.keysight.com>. This information is also available by writing to the address provided under the Investor Contact heading below.

Corporate Governance, Business Conduct and Ethics

Keysight's Corporate Governance Standards, the charter of our Audit and Finance Committee, our Compensation Committee, our Executive Committee and our Nominating and Corporate Governance Committee, as well as our Standard of Business Conduct (including code of ethics provisions that apply to our principal executive officer, principal financial officer, principal accounting officer and senior financial officers) are available on our website at www.investor.keysight.com under "Corporate Governance." These items are also available in print to any stockholder by calling (707) 577-6915. This information is also available by writing to the company at the address provided below.

Keysight Headquarters

Keysight Technologies, Inc.
1400 Fountaingrove Parkway
Santa Rosa, CA 95403
Phone: (800) 829-4444

Transfer Agent and Registrar

Please contact our transfer agent, at the phone number or address listed below, with any questions about stock certificates, transfer of ownership or other matters pertaining to your stock account.

Written Request:

Computershare
P.O. Box 30170
College Station, TX 77842-3170

Overnight Delivery:

Computershare
211 Quality Circle, Suite 210
College Station, TX 77845

Telephone Inquiries:

Within the U.S., Canada, or Puerto Rico: (877) 373-6374
Non-U.S.: (781) 575-2879

Investor Center Website: www-us.computershare.com/investor/contact

Email for Computershare: web.queries@computershare.com

Investor Contact

Keysight Technologies, Inc.
Investor Relations Department
1400 Fountaingrove Parkway
Santa Rosa, CA 95403
Email: investor.relations@keysight.com
Phone: (707) 577-6915

Common Stock

Our common stock is listed on the New York Stock Exchange ("NYSE") with the ticker symbol "KEYS." The following table sets forth the high and low sale prices per quarter for the fiscal years 2017 and 2016 as reported in the consolidated transaction reporting system for the New York Stock Exchange:

Fiscal 2017		High		Low	Dividends
First Quarter (ended January 31, 2017)	\$	38.28	\$	31.81	—
Second Quarter (ended April 30, 2017)	\$	39.36	\$	35.05	—
Third Quarter (ended July 31, 2017)	\$	42.98	\$	35.62	—
Fourth Quarter (ended October 31, 2017)	\$	44.79	\$	39.21	—

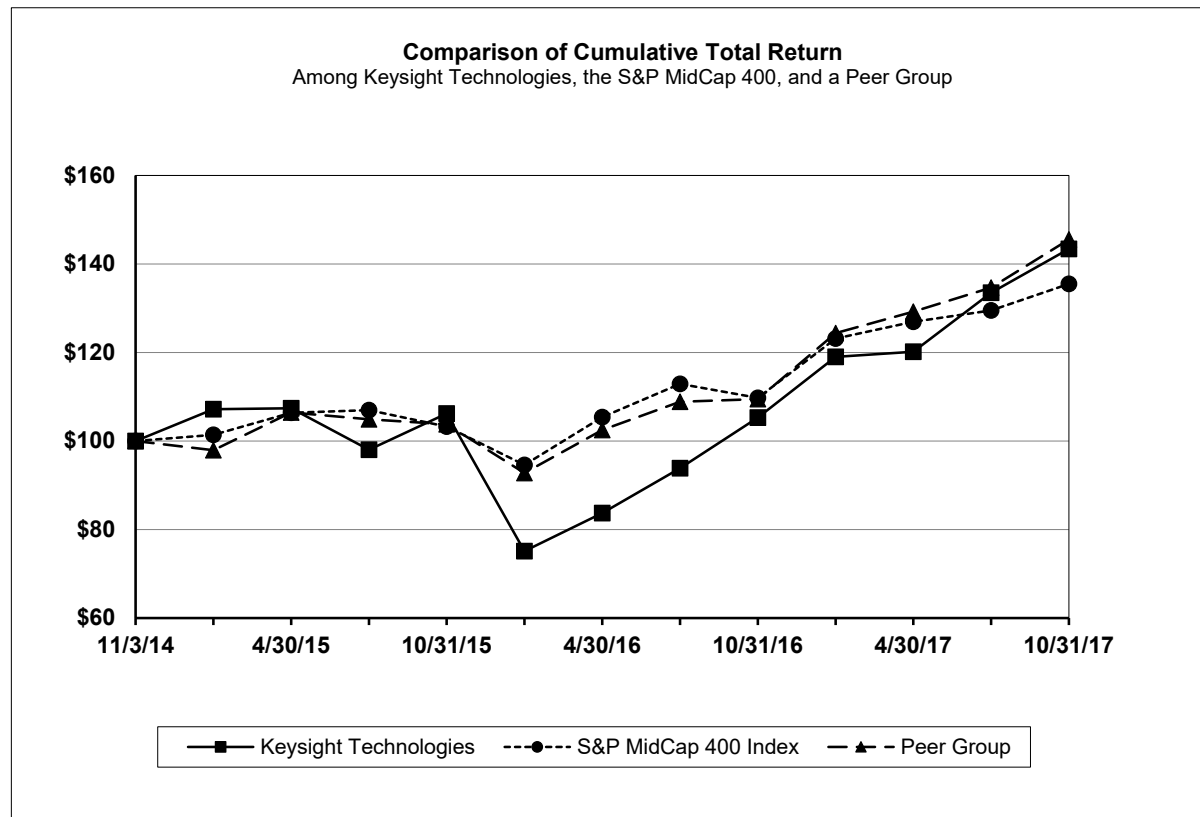
Fiscal 2016		High		Low	Dividends
First Quarter (ended January 31, 2016)	\$	33.48	\$	22.15	—
Second Quarter (ended April 30, 2016)	\$	28.39	\$	21.07	—
Third Quarter (ended July 31, 2016)	\$	31.87	\$	25.49	—
Fourth Quarter (ended October 31, 2016)	\$	33.14	\$	26.87	—

There were 23,622 shareholders of record of Keysight common stock as of December 15, 2017.

We have not paid any dividends, and we do not anticipate paying any cash dividends in the foreseeable future. All decisions regarding the declaration and payment of dividends and repurchase stock are at the discretion of our Board of Directors and will be evaluated regularly in light of our financial condition, earnings, growth prospects, funding requirements, applicable law, and any other factors that our Board deems relevant.

Stock Price Performance Graph

The graph below shows the cumulative total stockholder return, assuming the investment of \$100 (and the reinvestment of any dividends thereafter) for the period beginning on November 3, 2014, and ending on October 31, 2017, on each of: Keysight's common stock; the S&P MidCap 400 Index; and our Peer Group which includes all companies in the S&P 400 Information Technology Sector and the S&P 400 Industrials Sector. A complete list of the companies in the Peer Group is provided below. Keysight's stock price performance shown in the following graph is not indicative of future stock price performance. The data for this performance graph was compiled for us by Standard and Poor's.



Peer Group

(Companies in the S&P 400 Industrials Sector and the S&P 400 Information Technology Sector)

3D Systems Corp
ACI Worldwide Inc
Acxiom Corp
AECOM
AGCO Corp
ARRIS International plc
Arrow Electronics Inc
Avis Budget Group Inc
Avnet Inc
Belden Inc
Blackbaud Inc
Brink's Co
Broadridge Financial Solutions Inc

Brocade Communications Systems Inc
Carlisle Companies Inc
CDK Global Inc
Ciena Corp
Cirrus Logic Inc.
Clean Harbors Inc
Cognex Corp
Coherent Inc
CommVault Systems Inc
Convergys Corp
Copart Inc
CoreLogic Inc
Crane Co.

Cree Inc.
 Curtiss-Wright Corp
 Cypress Semiconductor Corp
 Deluxe Corp
 Diebold Nixdorf Inc
 Donaldson Co Inc.
 DST Systems Inc.
 Dun & Bradstreet Corp
 Dycom Industries Inc.
 EMCOR Group Inc.
 EnerSys
 Esterline Technologies Corp.
 Fair Isaac Corp
 First Solar Inc
 Fortinet Inc
 GATX Corp.
 Genesee & Wyoming Inc.
 Graco Inc.
 Granite Construction Inc.
 Henry (Jack) & Associates Inc
 Herman Miller Inc
 HNI Corp
 Hubbell Inc
 Huntington Ingalls Industries Inc
 IDEX Corporation
 Integrated Device Technology Inc.
 InterDigital Inc
 IPG Photonics Corp
 ITT Inc
 j2 Global Inc
 Jabil Inc
 JetBlue Airways Corp
 KBR Inc
 Kennametal Inc.
 Keysight Technologies Inc
 Kirby Corp
 KLX Inc
 Knight-Swift Transportation Holdings Inc
 Knowles Corp
 Landstar System Inc
 Leidos Holdings Inc
 Lennox International Inc.
 Lincoln Electric Holdings Inc
 Littelfuse Inc
 LogMeIn Inc
 Manhattan Associates Inc
 ManpowerGroup Inc

MAXIMUS Inc.
 Microsemi Corp
 Monolithic Power Systems Inc
 MSA Safety Inc
 MSC Industrial Direct Co Inc.
 National Instruments Corp
 NCR Corp
 NetScout Systems Inc
 Nordson Corp
 NOW Inc
 Old Dominion Freight Line Inc
 Orbital ATK Inc
 Oshkosh Corp
 Pitney Bowes Inc.
 Plantronics Inc.
 PTC Inc
 Regal Beloit Corp
 Rollins Inc.
 Ryder System Inc
 Sabre Corp
 Science Applications International Corp
 Silicon Laboratories Inc.
 Synaptics Inc
 SYNnex Corp
 Take-Two Interactive Software Inc
 Tech Data Corp
 Teledyne Technologies Inc.
 Teradata Corp
 Teradyne Inc.
 Terex Corp
 Timken Co
 Toro Co
 Trimble Inc
 Trinity Industries Inc.
 Tyler Technologies Inc.
 Ultimate Software Group Inc
 Valmont Industries Inc
 Verifone Systems Inc
 Versum Materials Inc
 ViaSat Inc.
 Vishay Intertechnology Inc.
 Wabtec Corp
 Watsco Inc.
 Werner Enterprises Inc.
 WEX Inc
 Woodward Inc
 Zebra Technologies Corp.

Additional Information

This annual report, including the letter titled “To our stockholders,” contains forward-looking statements including, without limitation, statements regarding trends, seasonality, cyclicalities and growth in, and drivers of, the markets we sell into, our strategic direction, our future effective tax rate and tax valuation allowance, earnings from our foreign subsidiaries, remediation activities, new product and service introductions, the ability of our products to meet market

needs, changes to our manufacturing processes, the use of contract manufacturers, the impact of local government regulations on our ability to pay vendors or conduct operations, our liquidity position, our ability to generate cash from operations, growth in our businesses, our investments, the potential impact of adopting new accounting pronouncements, our financial results, our purchase commitments, our contributions to our pension plans, the selection of discount rates and recognition of any gains or losses for our benefit plans, our cost-control activities, savings and headcount reduction recognized from our restructuring programs and other cost saving initiatives, and other regulatory approvals, the integration of our acquisitions and other transactions, our transition to lower-cost regions, and the existence of economic instability, 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 Item 1A and elsewhere in our Annual Report on Form 10-K for the year ended October 31, 2017.

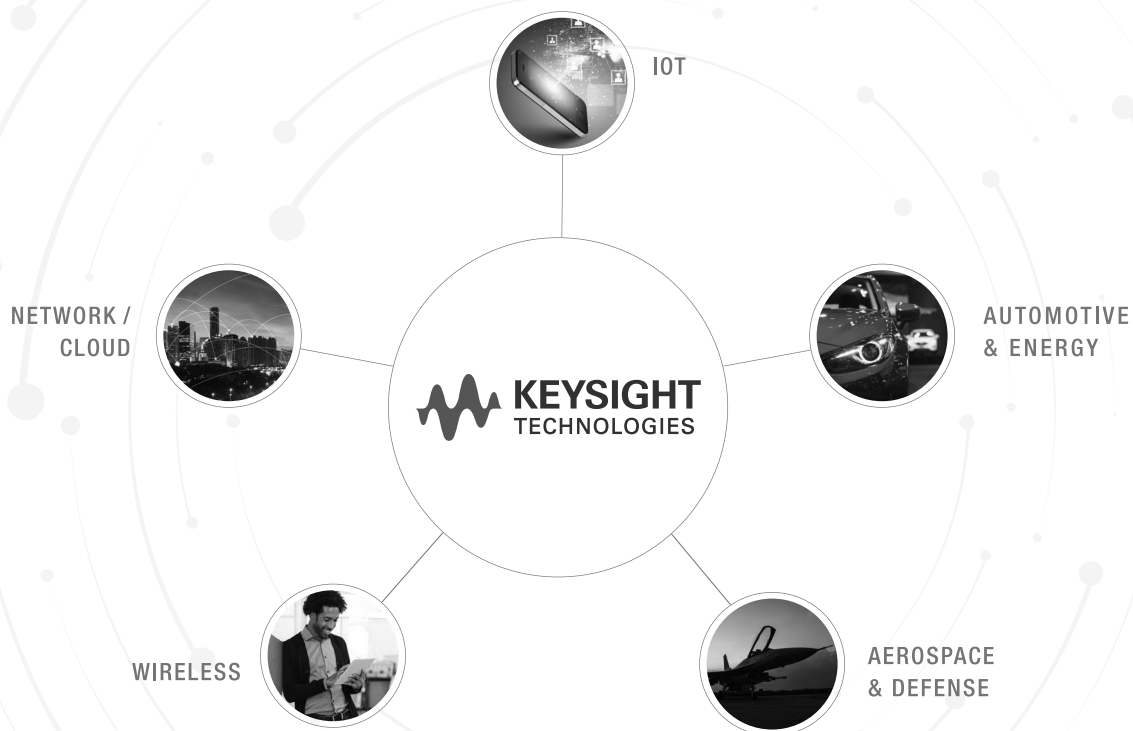
The materials contained in this annual report are as of December 20, 2017, unless otherwise noted. The content of this annual report contains time-sensitive information that is accurate only as of this date. If any portion of this annual report is redistributed at a later date, Keysight will not be reviewing or updating the material in this report.

This annual report contains Keysight's 2017 audited financial statements and notes thereto in the following section of this booklet with the tab "Annual Report Financials." Within the Annual Report Financials, please refer to "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Risks, Uncertainties and Other Factors That May Affect Future Results" for more complete information on each of our businesses and Keysight as a whole.

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SELECTED FINANCIAL DATA
(unaudited)

The following table presents the selected combined and consolidated financial data, which should be read in conjunction with our consolidated financial statements and related notes and Management's Discussion and Analysis of Financial Condition and Results of Operations included elsewhere in this Form 10-K. We derived the selected financial data as of October 31, 2017 and for each of the fiscal years in the three-year period ended October 31, 2017 from our audited consolidated financial statements included elsewhere in this Form 10-K. We derived the selected financial data as of October 31, 2013 from audited combined financial statements that are not included in this Form 10-K.

Our historical combined and consolidated financial statements before November 1, 2014 include certain expenses of Agilent that were allocated to us for certain functions, including general corporate expenses related to information technology, research and development, finance, legal, insurance, compliance and human resources activities. These costs may not be representative of the costs we have incurred or will incur as an independent public company. The historical financial information included here may not necessarily reflect our financial position and results of operations or what our financial position and results of operations would have been had we been an independent, publicly-traded company during the historical periods presented or be indicative of our future performance as an independent company.

	Years Ended October 31,				
	2017	2016	2015	2014	2013
	(in millions, except per share data)				
Combined and Consolidated Statement of Operations Data:					
Net revenue	\$ 3,189	\$ 2,918	\$ 2,856	\$ 2,933	\$ 2,888
Income before taxes	\$ 179	\$ 366	\$ 388	\$ 475	\$ 501
Net income	\$ 102	\$ 335	\$ 513	\$ 392	\$ 457
Net income per share ^(a)					
Basic	\$ 0.57	\$ 1.97	\$ 3.04	\$ 2.35	\$ 2.74
Diluted	\$ 0.56	\$ 1.95	\$ 3.00	\$ 2.35	\$ 2.74
Weighted average shares used in computing net income per share ^(a)					
Basic	180	170	169	167	167
Diluted	182	172	171	167	167

^(a)On November 1, 2014, Agilent Technologies, Inc. distributed 167 million shares of Keysight common stock to existing holders of Agilent common stock. Basic and diluted net income per share for all periods through October 31, 2014 is calculated using the shares distributed on November 1, 2014. Refer to Note 6 of the consolidated financial statements for information regarding earnings per common share.

	October 31,				
	2017	2016	2015	2014	2013
	(in millions)				
Combined and Consolidated Balance Sheet Data:					
Cash and cash equivalents and short-term investments	\$ 818	\$ 783	\$ 483	\$ 810	\$ —
Working capital	\$ 1,358	\$ 1,210	\$ 893	\$ 1,081	\$ 412
Total assets	\$ 5,933	\$ 3,796	\$ 3,501	\$ 3,041	\$ 2,028
Long-term debt	\$ 2,038	\$ 1,093	\$ 1,092	\$ 1,090	\$ —
Stockholders'/Invested equity	\$ 2,310	\$ 1,513	\$ 1,302	\$ 769	\$ 1,245

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion in conjunction with the consolidated financial statements and notes thereto included elsewhere in this Annual Report on Form 10-K. This Management's Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements. The forward-looking statements contained herein include, without limitation, statements regarding trends, seasonality, cyclicalities and growth in, and drivers of, the markets we sell into, our strategic direction, our future effective tax rate and tax valuation allowance, earnings from our foreign subsidiaries, remediation activities, new product and service introductions, the ability of our products to meet market needs, changes to our manufacturing processes, the use of contract manufacturers, the impact of local government regulations on our ability to pay vendors or conduct operations, our liquidity position, our ability to generate cash from operations, growth in our businesses, our investments, the potential impact of adopting new accounting pronouncements, our financial results, our purchase commitments, our contributions to our pension plans, the selection of discount rates and recognition of any gains or losses for our benefit plans, our cost-control activities, savings and headcount reduction recognized from our restructuring programs and other cost saving initiatives, and other regulatory approvals, the integration of our acquisitions and other transactions, our transition to lower-cost regions, the existence of economic instability, and our and the combined group's estimated or anticipated future results of operations, 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 Item 1A and elsewhere in this Form 10-K.

Overview and Executive Summary

Keysight Technologies, Inc. ("we," "us," "Keysight" or the "company") incorporated in Delaware on December 6, 2013 and became an independent publicly-traded company following the separation from Agilent Technologies, Inc. ("Agilent") on November 1, 2014. We are a measurement company providing electronic test and design solutions to communications and electronics industries. Following the acquisition of Ixia, we also provide testing, visibility, and security solutions, strengthening applications across physical and virtual networks for enterprises, service providers, and network equipment manufacturers.

We provide electronic design and test instrumentation systems and related software, software design tools, and services that are used in the design, development, manufacture, installation, deployment, validation, optimization and secure operation of electronics systems. Related services include start-up assistance, instrument productivity, application services and instrument calibration and repair. We also offer customization, consulting and optimization services throughout the customer's product lifecycle.

We invest in product development to address the changing needs of the market and facilitate growth. We are investing in research and development to design measurement solutions that will satisfy the changing needs of our customers. These opportunities are being driven by evolving technology standards and the need for faster data rates and new form factors.

In fiscal year 2016, we completed an organizational change to align our organization with the industries we serve which resulted in three reportable operating segments: Communications Solutions Group, Electronic Industrial Solutions Group and Services Solutions Group. The Communications Solutions Group serves customers spanning the worldwide commercial communications end market, which includes internet infrastructure, and the aerospace, defense and government end market. The Electronic Industrial Solutions Group provides test and measurement solutions across a broad set of electronic industrial end markets. The Services Solutions Group provides repair, calibration and consulting services, and remarkets used Keysight equipment. On April 18, 2017, we completed the acquisition of Ixia, which became our fourth reportable segment, the Ixia Solutions Group ("ISG"). The group provides testing, visibility and security solutions, strengthening applications across physical and virtual networks for enterprises, service providers and network equipment manufacturers. In addition, our global team of experts provides startup assistance, consulting, optimization and application support across all of our end markets.

Years ended October 31, 2017, 2016 and 2015

Keysight's total orders in 2017 were \$3,406 million, an increase of 15 percent when compared to 2016. Foreign currency movements had a negligible impact on the year-over-year comparison. Orders associated with acquisitions accounted for 9 percentage points of order growth for the year ended October 31, 2017 when compared to 2016. Total orders in 2016 were \$2,953 million, an increase of 3 percent when compared to 2015. Foreign currency movements had an unfavorable impact of 1 percent on the year-over-year comparison. Orders associated with acquisitions accounted for 5 percentage points of order growth for the year ended October 31, 2016 when compared to 2015.

Net revenue of \$3,189 million for the year ended October 31, 2017 increased 9 percent when compared to 2016. Foreign currency movements had a negligible impact on the year-over-year comparison. Revenue associated with acquisitions accounted for 7 percentage points of revenue growth for the year ended October 31, 2017 when compared to 2016. Excluding acquisitions,

revenue grew year-over-year with growth in the Electronic Industrial Solutions Group, driven by semiconductor measurement and automotive and energy markets and growth in the Services Solutions Group. The Communications Solution Group revenue was flat as gains in the commercial communications market were offset by declines in the aerospace, defense and government market. Net revenue of \$2,918 million in 2016 increased 2 percent when compared to 2015. Foreign currency movements had no impact on the year-over-year comparison. The revenue increase associated with acquisitions accounted for approximately 5 percentage points for the year ended October 31, 2016 when compared to 2015. Excluding acquisitions, revenue declined year-over-year as weakness in the smartphone supply chain and restructuring and consolidation activities in the industry offset strength in 5G technologies and data center expansion.

Net income was \$102 million in 2017 compared to net income of \$335 million and \$513 million in 2016 and 2015, respectively. In 2017, 2016 and 2015, we generated operating cash flows of \$313 million, \$416 million and \$376 million, respectively. The decline in net income for the year ended October 31, 2017 is primarily driven by the unfavorable impact from amortization of acquisition-related balances.

In fiscal 2015, we initiated a phased program associated with our separation from Agilent to resize and optimize our infrastructure from the one that had been established to serve a diversified technology company. The focus of the first phase of the program was on the IT infrastructure to support finance, sales and human resources. The second phase of the program, which was initiated in the third quarter of fiscal 2016, primarily addressed the optimization of the IT infrastructure to support the services business. We recognized costs related to this program of \$20 million, \$24 million and \$20 million in the years ended October 31, 2017, 2016 and 2015, respectively. We expect to recognize additional costs estimated to range from \$2 million to \$3 million through fiscal 2018.

Impact of Northern California Wildfires

During the week of October 8, 2017, wildfires in northern California adversely impacted the Keysight corporate headquarters site in Santa Rosa, CA. Our headquarters was under mandatory evacuation for more than three weeks, and while direct damage to our core facilities was limited, our buildings did experience some smoke and other fire-related impacts. Cleaning and additional restoration efforts are ongoing in both production and non-production areas of the site. To ensure business continuity, the company has leased temporary office space that will support Santa Rosa employees who are not immediately re-occupying the site. Keysight is insured for the damage caused by the fire, including business interruption insurance, and though we do not expect the fire to have a net impact on our business results, the disruption will impact the seasonality of revenue in the first half of fiscal 2018.

For the three and twelve months ended October 31, 2017, we recognized costs of \$16 million, net of \$2 million of estimated insurance recovery, including the write-off of damaged fixed assets, unabsorbed overhead costs, cleaning and other direct costs related to the impact of this event.

As we are still in the investigation phase, we have only recognized an insurance receivable for known losses for which we believe insurance reimbursement is probable in excess of our self-insured retention amount of \$10 million. In many cases, our insurance coverage exceeds the amount of these covered losses, but no gain contingencies have been recognized as our ability to realize those gains remains uncertain for financial reporting purposes. We currently estimate that total losses and expenses related to the fire will range from \$80 million to \$110 million, primarily including cleaning and recovery costs, and believe that the expenses will be recoverable under our insurance policy. There may be a difference in timing of costs incurred and the related insurance reimbursement.

Outlook

Looking forward, we believe our increased investments in R&D combined with our completed acquisitions, which have expanded our technology portfolio and the size of our addressable market, positions Keysight for growth. We remain focused on delivering value through innovative solutions targeted at faster growing markets where customers are investing in next-generation digital and electronic technologies. Internally, we are continuously working to improve operational efficiency within, and across, all functions.

Currency Exchange Rate Exposure

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. 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. The result of the hedging has been included in our consolidated statement of operations. We experience some fluctuations within individual lines of the consolidated balance sheet and consolidated statement of operations 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 of 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-Years ended October 31, 2017, 2016 and 2015

Orders and Net Revenue

In general, recorded orders represent firm purchase commitments from our customers with established terms and conditions for products and services that will be delivered within six months. Consistent with our strategy, we are seeing an increase in solution sales, which have a longer order-to-revenue conversion cycle; however, the majority of recorded orders will be delivered within six months.

Revenue reflects the delivery and acceptance of the products and services as defined on the customer's terms and conditions. Cancellations are recorded in the period received from the customer and historically have not been material.

	Year Ended October 31,			2017 over 2016 % Change	2016 over 2015 % Change
	2017	2016	2015		
	(in millions)				
Orders	\$ 3,406	\$ 2,953	\$ 2,853	15%	3%
Net revenue:					
Products	\$ 2,664	\$ 2,440	\$ 2,408	9%	1%
Services and other	525	478	448	10%	7%
Total net revenue	\$ 3,189	\$ 2,918	\$ 2,856	9%	2%
	Year Ended October 31,			2017 over 2016 % Change	2016 over 2015 % Change
	2017	2016	2015		
% of total net revenue:					
Products	84%	84%	84%	— ppt	— ppt
Services and other	16%	16%	16%	— ppt	— ppt
Total	100%	100%	100%		

Orders

Total orders for the year ended October 31, 2017 were \$3,406 million, an increase of 15 percent when compared to 2016. Foreign currency movements had a negligible impact on the year-over-year comparison. Orders associated with acquisitions accounted for 9 percentage points of order growth for the year ended October 31, 2017 when compared to 2016. Orders grew across all operating segments with growth in all regions. Total orders for the year ended October 31, 2016 were \$2,953 million, an increase of 3 percent when compared to 2015. Foreign currency movements had an unfavorable impact of 1 percentage point on the year-over-year compare. Orders associated with acquisitions accounted for 5 percentage points of order growth for the year ended October 31, 2016 when compared to 2015. Orders grew across all operating segments with growth in all regions.

Net Revenue

The following table provides the percent change in revenue for the years ended October 31, 2017 and 2016 by geographic region, including and excluding the impact of currency changes, as compared to the respective prior year.

<u>Geographic Region</u>	Year over Year % Change			
	2017 over 2016		2016 over 2015	
	actual	currency adjusted	actual	currency adjusted
Americas	11%	11%	—%	1 %
Europe	6%	7%	3%	5 %
Japan	5%	6%	5%	(1)%
Asia Pacific ex-Japan	11%	11%	3%	4 %
Total revenue	9%	10%	2%	2 %

Net revenue of \$3,189 million for the year ended October 31, 2017 increased 9 percent when compared to 2016. Foreign currency movements had a negligible impact on the year-over-year comparison. Revenue associated with acquisitions accounted for 7 percentage points of revenue growth for the year ended October 31, 2017 when compared to 2016. Net revenue of \$2,918 million for the year ended October 31, 2016 increased 2 percent when compared to 2015. Foreign currency movements had a negligible impact on the year-over-year comparison. Revenue associated with acquisitions accounted for 5 percentage points of revenue growth for the year ended October 31, 2016 when compared to 2015.

Revenue from the Communications Solutions Group represented approximately 54 percent of total revenue in 2017 and was flat when compared to 2016. The Communications Solutions Group contribution to total revenue growth was negligible in 2017, with growth in Japan and Asia Pacific excluding Japan offset by declines in the Americas and Europe when compared to 2016. The Communications Solutions Group revenue remained flat as strength in 5G technologies and data center technologies was offset by decline in the aerospace, defense and government market. In 2016, the Communications Solutions Group represented approximately 60 percent of total revenue and increased 3 percent when compared to 2015. The Communications Solutions Group contributed 1 percentage point to total revenue growth in 2016, with growth in Europe, Japan and Asia Pacific excluding Japan, while the Americas revenue was flat when compared to 2015. Excluding revenue from Anite, the Communications Solutions Group revenue declined year-over-year as weakness in the smartphone supply chain and restructuring and consolidation activities in the industry offset strength in 5G technologies and data center expansion.

Revenue from the Electronic Industrial Solutions Group represented approximately 27 percent of total revenue in 2017 and grew 8 percent year-over-year when compared to the same period last year, driven by strong growth in semiconductor measurement and automotive and energy markets. The Electronic Industrial Solutions Group contributed 2 percentage points to total revenue growth in 2017, with growth in Asia Pacific excluding Japan and Europe, partially offset by declines in Japan, while revenue from the Americas remained flat. Revenue from the Electronic Industrial Solutions Group represented approximately 26 percent of total revenue in 2016 and grew 2 percent year-over-year when compared to the same period last year. The Electronic Industrial Solutions Group contributed 1 percentage point to total revenue growth in 2016, with growth in Asia Pacific excluding Japan and Japan, partially offset by declines in Europe and the Americas.

Revenue from the Ixia Solutions Group represented approximately 6 percent of total revenue in 2017. Revenue from the Ixia Solutions Group contributed 7 percentage points to total revenue growth in 2017.

Revenue from the Services Solutions Group represented approximately 13 percent of total revenue in 2017 and grew 4 percent when compared year-over-year. The Services Solutions Group contribution to the total revenue growth was negligible in 2017, with growth in all regions. Revenue from the Services Solutions Group represented approximately 14 percent of total revenue in 2016 and was flat when compared year-over-year. The Services Solutions Group contribution to total revenue growth was negligible in 2016, with growth in the Americas and Japan, partially offset by decline in Asia Pacific excluding Japan, while Europe was flat.

Backlog

Backlog represents the amount of revenue expected from orders that have already been booked, including orders for goods and services that have not been delivered to customers, orders invoiced but not yet recognized as revenue, and orders for goods that were shipped but not invoiced, awaiting acceptance by customers.

At October 31, 2017, our unfilled backlog was approximately \$950 million as compared to approximately \$807 million at October 31, 2016. Consistent with our strategy, we are seeing an increase in solution sales, which have a longer order-to-revenue

conversion cycle; however, we expect that a majority of the unfilled backlog will be recognized as revenue within six months. We believe backlog on any particular date, while indicative of short-term revenue performance, is not necessarily a reliable indicator of medium or long-term revenue performance.

Costs and Expenses

	Year Ended October 31,			2017 over 2016 % Change	2016 over 2015 % Change
	2017	2016	2015		
Gross margin on products	54.7%	57.3%	57.4%	(3) ppts	— ppt
Gross margin on services and other	46.5%	47.4%	45.6%	(1) ppts	2 ppts
Total gross margin	53.4%	55.7%	55.6%	(2) ppts	— ppt
Operating margin	7.5%	13.9%	15.1%	(6) ppts	(1) ppt

(in millions)

Research and development	\$	498	\$	425	\$	387	17%	10%
Selling, general and administrative	\$	1,049	\$	818	\$	787	28%	4%
Other operating expense (income), net	\$	(84)	\$	(25)	\$	(18)	237%	37%

Gross margin declined 2 percentage points in 2017 compared to 2016, primarily driven by the unfavorable impacts from amortization of acquisition-related assets, fire-related costs at our corporate headquarters, an increase in people-related costs and an increase in warranty expense due to a lower compare as a result of a one-time reduction in the standard warranty accrual during the three months ended July 31, 2016. Gross margin remained flat in 2016 compared to 2015 as the favorable impacts from a higher percentage of revenue from software and R&D solutions, lower inventory and warranty charges were offset by unfavorable impacts from acquisition-related intangible amortization.

Excess and obsolete inventory charges were \$16 million in 2017, \$17 million in 2016 and \$28 million in 2015. Sales of previously written-down inventory were \$1 million in 2017, \$2 million in 2016 and \$2 million in 2015.

Research and development expense increased 17 percent in 2017 compared to 2016 primarily driven by the addition of Ixia to the cost structure, an increase in people-related costs, acquisition-related compensation costs and our continued investment in research and development programs. As a percentage of total revenue, research and development expenses increased 1 percentage point to 16 percent in 2017 from 15 percent in 2016. Research and development expense increased 10 percent in 2016 compared to 2015 due to increased expenses associated with acquired companies and our continued investment in research and development programs. As a percentage of total revenue, research and development expenses increased 1 percentage point to 15 percent in 2016 from 14 percent in 2015. We expect investment in research and development to continue at current levels and have focused our development efforts on strategic growth opportunities.

Selling, general and administrative expenses increased 28 percent for 2017, compared to the same period last year, primarily driven by the addition of Ixia to our cost structure, increases in amortization of acquisition-related assets, acquisition and integration costs, acquisition-related compensation costs, investments in sales resources, people-related costs and the unfavorable impact from fire-related costs at our corporate headquarters and restructuring-related costs. Selling, general and administrative expenses increased 4 percent for 2016, compared to the same period last year, primarily driven by increased expenses associated with acquired companies, higher field selling costs, higher intangible amortization and higher separation-related costs, partially offset by the favorable impact from foreign currency movements and lower share-based compensation expense.

Other operating expense (income), net for 2017 was income of \$84 million, which primarily includes a \$68 million gain from a settlement related to our Japan pension fund and rental income. Other operating expense (income), net for 2016 was income of \$25 million, which primarily includes rental income.

Operating margin decreased 6 percentage points in 2017 when compared to 2016, primarily driven by increases in amortization of acquisition-related assets, acquisition and integration costs, investments in sales resources and people-related costs, partially offset by favorable impact from higher revenue and revenue mix. Operating margin decreased 1 percentage point in 2016 when compared to 2015, primarily driven by the impacts of acquisition-related intangible amortization, higher integration costs and the addition of the Anite cost structure, partially offset by favorable impacts from foreign currency movements and lower share-based compensation expense.

As of October 31, 2017, our headcount was approximately 12,600 compared to 10,300 in 2016. The increase is primarily driven by acquisition of Ixia.

Interest Expense

Interest expense for the year ended October 31, 2017 and 2016 was \$80 million and \$47 million, respectively, and relates to interest on our senior notes issued in October 2014 and April 2017. The increase in interest expense for the year ended October 31, 2017 is primarily due to costs related to a bridge loan facility that expired in April, interest expense and amortization of debt issuance costs on \$700 million of senior notes issued in April 2017, and new borrowings under a senior unsecured term loan and revolving credit facility. The new debt issuances provided partial funding for the acquisition of Ixia.

Income Taxes

	Year Ended October 31,		
	2017	2016	2015
	(in millions)		
Provision (benefit) for income taxes	\$ 77	\$ 31	\$ (125)

For 2017, the effective tax rate was 43 percent, which is higher than the U.S. statutory rate primarily due to the payment of a prior year Malaysia tax assessment of \$68 million, including tax and penalties, which we are currently in the process of appealing to the Special Commissioners of Income Tax (“SCIT”) in Malaysia.

For 2016, the effective tax rate was 8 percent, which is lower than the U.S. statutory rate primarily due to a higher percentage of earnings in the non-U.S. jurisdictions taxed at lower statutory tax rates. Also, the tax rate was lower than the U.S. statutory rate due to the net tax benefit of \$45 million resulting from the repatriation of earnings from Japan, which includes a U.S. tax expense of \$27 million offset by \$72 million of foreign tax credits recorded in connection with the repatriation.

For 2015, the effective tax rate was a benefit of 32 percent, which is lower than the U.S. statutory rate primarily due to the retroactive benefit of two tax incentives in Singapore approved during 2015. Also, the tax rate was lower than the U.S. statutory rate due to a higher percentage of earnings in the non-U.S. jurisdictions taxed at lower statutory tax rates.

We benefit from tax incentives in several different jurisdictions, most significantly in Singapore, and several jurisdictions have granted tax incentives that require renewal at various times in the future. The tax incentives provide lower rates of taxation on certain classes of income and require various thresholds of investment and employment or specific types of income in those jurisdictions. The tax incentives are due for renewal between 2024 and 2025. The impact of the tax incentives decreased income taxes by \$49 million, \$34 million and \$250 million in 2017, 2016, and 2015, respectively.

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. 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 in the consolidated statements of operations. Accrued interest and penalties are included on the related tax liability line in the consolidated balance sheet.

For the majority of our entities, the open tax years for the IRS, state and most foreign audit authorities are from August 1, 2014 through the current tax year. For certain foreign entities, the tax years generally remain open, at most, back to the year 2007. Given the number of years and numerous matters that remain subject to examination in various tax jurisdictions, we are unable to estimate the range of possible changes to the balance of our unrecognized tax benefits.

The company is being audited in Malaysia for the 2008 tax year. Although this tax year pre-dates our spin-off from Agilent, pursuant to the agreement between Agilent and Keysight pertaining to tax matters, as finalized at the time of separation, for certain entities including Malaysia, any historical tax liability is the responsibility of Keysight. In the fourth quarter of this year, Keysight paid income taxes and penalties of \$68 million on gains related to intellectual property rights, although we are currently in the process of appealing to the Special Commissioners of Income Tax (“SCIT”) in Malaysia. The company believes there are numerous defenses to the current assessment; the statute of limitations for the 2008 tax year in Malaysia is closed and the income in question is exempt from tax in Malaysia. The company is disputing this assessment and pursuing all avenues to resolve this issue favorably for the company.

On December 15, 2017, the conference committee comprised of representatives of both the U.S. House of Representatives and the U.S. Senate approved proposed U.S. tax reform legislation entitled Tax Cuts and Jobs Act. The Tax Cuts and Jobs Act will become law if passed by both the U.S. House of Representatives and the U.S. Senate and signed by the U.S. President. If this tax reform is enacted as currently drafted, it will have numerous impacts on our financial statements. For example, we would expect impacts to tax expense, deferred tax assets and liabilities. These impacts would primarily result from the proposed deemed repatriation of foreign earnings as well as the proposed reduction in the U.S. corporate tax rate. In addition, the current version of the Tax Cuts and Jobs Act contains numerous, complex provisions impacting U.S. multinational companies, and we continue to review and assess the proposed legislative language and its potential impact to Keysight.

Segment Overview

In fiscal 2016, we completed an organizational change to align our organization with the industries we serve which resulted in three reportable operating segments: Communications Solutions Group, Electronic Industrial Solutions Group and Services Solutions Group. The Communications Solutions Group serves customers spanning the worldwide commercial communications end market, which includes internet infrastructure, and the aerospace, defense and government end market. The Electronic Industrial Solutions Group provides test and measurement solutions across a broad set of electronic industrial end markets. The Services Solutions Group provides repair, calibration and consulting services, and remarkets used Keysight equipment. On April 18, 2017, we completed the acquisition of Ixia, which became our fourth reportable segment, the Ixia Solutions Group (“ISG”). The group provides testing, visibility and security solutions, strengthening applications across physical and virtual networks for enterprises, service providers and network equipment manufacturers. In addition, our global team of experts provides startup assistance, consulting, optimization and application support across all of our end markets.

The profitability of each segment is measured after excluding, among other things, charges related to the amortization of acquisition-related assets, the impact of restructuring and related costs, asset impairments, acquisition and integration costs, share-based compensation, separation and related costs, interest income and interest expense.

Communications Solutions Group

The Communications Solutions Group serves customers spanning the worldwide commercial communications end market and the aerospace, defense and government end market. The group provides electronic design and test software, instruments, and systems used in the simulation, design, validation, manufacturing, installation and optimization of electronic equipment.

Net Revenue

	Year Ended October 31,			2017 over 2016 % Change	2016 over 2015 % Change
	2017	2016	2015		
	(in millions)				
Total net revenue	\$ 1,738	\$ 1,752	\$ 1,703	(1)%	3%

The Communications Solutions Group revenue in 2017 decreased 1 percent when compared to 2016, primarily driven by decline in the aerospace, defense and government market, partially offset by growth in the commercial communications market. Revenue declines in the Americas and Europe were partially offset by growth in Asia Pacific excluding Japan and Japan. The Communications Solutions Group revenue in 2016 increased 3 percent when compared to 2015, primarily driven by growth in the commercial communications market, while the aerospace, defense and government market remained flat. Revenue grew in all regions except the Americas, which was flat when compared to 2015. Acquisitions added approximately 8 percentage points to the 2016 revenue growth.

Revenue from the commercial communications market represented approximately 60 percent and 58 percent of total Communications Solutions Group revenue in 2017 and 2016, respectively, and increased 3 percent and 5 percent year-over-year, respectively. In 2017, revenue grew in Asia Pacific excluding Japan, the Americas and Japan, partially offset by a decline in Europe. Revenue from the commercial communications market grew year-over-year, driven by growth in 5G and next-generation data center technologies, partially offset by lower 4G-related investments. In 2016, revenue grew in Europe, Asia Pacific excluding Japan and Japan, partially offset by a decline in the Americas. Excluding acquisitions, revenue from the commercial communications market declined year-over-year as weakness in the smartphone supply chain and restructuring and consolidation activities in the industry offset strength in 5G technologies and data center expansion.

Revenue from the aerospace, defense and government market represented approximately 40 percent of total Communications Solutions Group revenue in 2017 and declined 6 percent year-over-year. The decline in revenue from the aerospace, defense and government market was driven by continued weakness in the U.S. combined with lower spending in China. For the year ended October 31, 2017, revenue declines in the Americas and Asia Pacific excluding Japan was partially offset by growth in Europe

and Japan. Revenue from the aerospace, defense and government market represented approximately 42 percent of total Communications Solutions Group revenue in 2016 and was flat year-over-year. For the year ended October 31, 2016, growth in the Americas and Japan was partially offset by declines in Europe and Asia Pacific excluding Japan.

Gross Margin and Operating Margin

The following table shows the Communications Solutions Group margins, expenses and income from operations for 2017 versus 2016, and 2016 versus 2015.

	Year Ended October 31,			2017 over 2016 % Change	2016 over 2015 % Change
	2017	2016	2015		
Total gross margin	61.5%	60.8%	59.7%	1 ppt	1 ppt
Operating margin	17.9%	17.9%	19.3%	—	(1) ppt
(in millions)					
Research and development	\$ 302	\$ 303	\$ 263	—%	15%
Selling, general and administrative	\$ 463	\$ 457	\$ 432	1%	6%
Other operating expense (income), net	\$ (7)	\$ (9)	\$ (9)	(27)%	5%
Income from operations	\$ 311	\$ 314	\$ 329	(1)%	(5)%

Gross margin in 2017 increased 1 percentage point compared to 2016, primarily due to a higher percentage of revenue from software, lower inventory charges and lower infrastructure-related costs, partially offset by higher warranty costs. Gross margin in 2016 increased 1 percentage point compared to 2015, primarily due to a higher percentage of revenue from software and R&D solutions, lower warranty and lower inventory charges.

Research and development expenses were flat when compared to 2016. Increased investments in R&D engineers and programs were offset by reduction in infrastructure-related costs and discretionary spending. In 2016, research and development expenses increased 15 percent, primarily driven by acquisitions and increased investments in R&D engineers and programs. We remain committed to investment in research and development and have focused our development efforts on strategic opportunities in order to capture future growth.

Selling, general and administrative expenses in 2017 increased 1 percent when compared to 2016, primarily driven by investments in sales resources. Selling, general and administrative expenses in 2016 increased 6 percent when compared to 2015, primarily driven by the acquisitions and higher field selling expenses.

Other operating expense (income) in 2017 and 2016 was income of \$7 million and \$9 million, respectively.

Income from Operations

Income from operations for 2017 decreased \$3 million on a corresponding revenue decline of \$14 million. Income from operations for 2016 decreased \$15 million on a corresponding revenue increase of \$49 million.

Operating margin in 2017 was flat when compared to 2016, as improvement in gross margin was offset by investments in sales resources. Operating margin decreased 1 percentage point in 2016 compared to 2015, driven by investments in research and development and field selling costs.

Electronic Industrial Solutions Group

The Electronic Industrial Solutions Group provides test and measurement solutions across a broad set of electronic industrial end markets, focusing on high-growth applications in the automotive and energy industry and measurement solutions for semiconductor design and manufacturing, consumer electronics, education and general electronics manufacturing. The group provides electronic design and test software, instruments, and systems used in the simulation, design, validation, manufacturing, installation and optimization of electronic equipment.

Net Revenue

	Year Ended October 31,			2017 over 2016 % Change	2016 over 2015 % Change
	2017	2016	2015		
	(in millions)				
Total net revenue	\$ 836	\$ 776	\$ 758	8%	2%

The Electronic Industrial Solutions Group revenue in 2017 increased 8 percent when compared to 2016, driven by strong growth in semiconductor measurement, automotive and energy markets. Strong revenue growth in Asia Pacific excluding Japan and Europe was partially offset by declines in Japan and the Americas. The Electronic Industrial Solutions Group revenue in 2016 increased 2 percent when compared to 2015 with growth in Asia Pacific excluding Japan and Japan, partially offset by declines in the Americas and Europe. The revenue increase associated with acquisitions accounted for approximately 1 percentage point in 2016.

Gross Margin and Operating Margin

The following table shows the Electronic Industrial Solutions Group margins, expenses and income from operations for 2017 versus 2016, and 2016 versus 2015.

	Year Ended October 31,			2017 over 2016 % Change	2016 over 2015 % Change
	2017	2016	2015		
Total gross margin	61.1%	59.2%	58.0%	2 pts	1 ppt
Operating margin	23.8%	21.8%	20.9%	2 pts	1 ppt
(in millions)					
Research and development	\$ 121	\$ 108	\$ 104	12%	5%
Selling, general and administrative	\$ 194	\$ 186	\$ 181	4%	2%
Other operating expense (income), net	\$ (3)	\$ (4)	\$ (4)	(13)%	(8)%
Income from operations	\$ 199	\$ 169	\$ 158	18%	7%

Gross margin in 2017 increased 2 percentage points compared to 2016, primarily driven by higher revenue and favorable revenue mix. Gross margin in 2016 increased 1 percentage point compared to 2015, primarily driven by higher revenue, lower warranty expenses and higher system sales for new semiconductor process technology.

Research and development expenses in 2017 and 2016 increased 12 percent and 5 percent, respectively, primarily driven by increased investments in leading-edge technologies and key growth opportunities in our end markets. We remain committed to investment in research and development and have focused our development efforts on strategic opportunities in order to capture future growth.

Selling, general and administrative expenses in 2017 and 2016, increased 4 percent and 2 percent, respectively, primarily driven by our focus on solution selling and market expansion activities.

Other operating expense (income) in 2017 and 2016 was income of \$3 million and \$4 million, respectively.

Income from Operations

Income from operations for 2017 increased \$30 million on a corresponding revenue increase of \$60 million. Income from operations for 2016 increased \$11 million on a corresponding revenue increase of \$18 million.

Operating margin increased 2 percentage points in 2017 compared to 2016, driven by higher gross margin. Operating margin increased 1 percentage point in 2016 compared to 2015, driven by higher gross margin, partially offset by increased investments in R&D programs and market expansion activities.

Ixia Solutions Group

The Ixia Solutions Group helps customers validate the performance and security resilience of their networks and associated applications. The test, visibility and security products help organizations and their customers strengthen their physical and virtual networks. Enterprises, service providers, network equipment manufacturers, and governments worldwide rely on the group's

solutions to validate new products before shipping and secure ongoing operation of their networks with better visibility and security. The group's product solutions consist of our high-performance hardware platforms, software applications, and services, including warranty and maintenance offerings.

	Year Ended October 31,			2017 over	2016 over
	2017	2016	2015	2016 % Change	2015 % Change
Total gross margin	76.6%	—%	—%	n/a	n/a
Operating margin	16.4%	—%	—%	n/a	n/a
(in millions)					
Net revenue	\$ 256	\$ —	\$ —	n/a	n/a
Research and development	\$ 50	\$ —	\$ —	n/a	n/a
Selling, general and administrative	\$ 103	\$ —	\$ —	n/a	n/a
Other operating expense (income), net	\$ —	\$ —	\$ —	n/a	n/a
Income from operations	\$ 42	\$ —	\$ —	n/a	n/a

The above table represents the Ixia Solution Group's results from the date of acquisition.

Services Solutions Group

The Services Solutions Group provides repair, calibration and consulting services, and remarkets used Keysight equipment. In addition to providing repair and calibration support for Keysight equipment, we also calibrate non-Keysight equipment. The group serves the same markets as Keysight's Communications Solutions and Electronic Industrial Solutions Groups, providing industry-specific services to deliver complete Keysight solutions and help customers reduce their total cost of ownership for their design and test equipment. This segment was formerly reported as the company's Customer Support and Services segment.

Net Revenue

	Year Ended October 31,			2017 over 2016	2016 over 2015
	2017	2016	2015	% Change	% Change
(in millions)					
Total net revenue	\$ 419	\$ 402	\$ 401	4%	—%

The Services Solutions Group revenue in 2017 grew 4 percent compared to 2016. Acquisitions accounted for approximately 1 percentage point of total revenue growth. An increase in revenue from sales of used equipment and calibration services was partially offset by a decline in revenue from repair services. Revenue grew in all regions, led by strong growth in Asia Pacific excluding Japan and the Americas. Services Solutions Group revenue in 2016 remained flat compared to 2015. Acquisitions accounted for approximately 2 percentage points of total revenue growth. An increase in revenue from calibration services and used equipment was partially offset by a decline in revenue from repair services. Growth in the Americas and Japan was partially offset by a decline in Asia Pacific excluding Japan, while Europe remained flat.

Gross Margin and Operating Margin

The following table shows the Services Solutions Group margins, expenses and income from operations for 2017 versus 2016, and 2016 versus 2015.

	Year Ended October 31,			2017 over 2016	2016 over 2015
	2017	2016	2015	% Change	% Change
Total gross margin	41.2%	40.9%	42.9%	— ppt	(2) ppts
Operating margin	16.3%	15.6%	17.9%	1 ppt	(2) ppts
(in millions)					
Research and development	\$ 2	\$ 5	\$ 9	(67)%	(40)%
Selling, general and administrative	\$ 105	\$ 99	\$ 94	7%	5%
Other operating expense (income), net	\$ (3)	\$ (2)	\$ (3)	25%	(14)%
Income from operations	\$ 68	\$ 63	\$ 72	8%	(12)%

Gross margin in 2017 was flat compared to 2016, primarily driven by higher volume and favorable revenue mix offset by higher expenses associated with the investments we are making in additional capacity to expand our multi-vendor calibration and asset management services. Gross margin in 2016 decreased 2 percentage points compared to 2015, primarily driven by flat volume and higher expenses associated with the investments we are making in additional capacity to expand our multi-vendor calibration and asset management services.

Research and development expenses for the Services Solutions Group represent the segment's share of centralized investment. Research and development expenses declined 67 percent when compared to 2016 and declined 40 percent in 2016 when compared to 2015, primarily driven by a change in the Services Solutions Group's share of centralized investments in research and development.

For 2017, selling, general and administrative expense increased 7 percent compared to 2016 due to increased investment in sales resources, higher people-related costs and acquisitions. Selling, general and administrative expense increased 5 percent in 2016 compared to 2015 due to higher field selling costs, an increase in infrastructure-related costs and acquisitions.

Other operating expense (income) in 2017 and 2016 was income of \$3 million and \$2 million, respectively.

Income from Operations

Income from operations for 2017 increased \$5 million on a corresponding revenue increase of \$17 million. Income from operations for 2016 decreased \$9 million on a corresponding revenue increase of \$1 million.

Operating margin increased 1 percentage point in 2017 compared to 2016, primarily driven by higher revenue and lower share in R&D expenses, partially offset by increased investment in sales resources. Operating margin decreased 2 percentage points in 2016 compared to 2015, driven by flat revenue, lower gross margins, higher infrastructure-related costs and field selling costs.

Financial Condition

Liquidity and Capital Resources

Our financial position as of October 31, 2017 consisted of cash and cash equivalents of \$818 million as compared to \$783 million as of October 31, 2016.

As of October 31, 2017, approximately \$767 million of our cash and cash equivalents was held outside of the U.S. in our foreign subsidiaries. Under current tax laws, most of the cash could be repatriated to the U.S., but it would be subject to U.S. federal and state income taxes, less applicable foreign tax credits. Cash held outside of the U.S. can be used for non-U.S. growth and expansion. Our cash and cash equivalents mainly consist of short-term deposits held at major global financial institutions, investments in institutional money market funds, and similar short duration instruments with original maturities of 90 days or less. We continuously monitor the creditworthiness of the financial institutions in which we invest our funds. We utilize a variety of funding strategies in an effort to ensure that our worldwide cash is available in the locations in which it is needed. Most significant international locations have access to internal funding through an offshore cash pool for working capital needs, in addition to temporary local overdraft and short-term working capital lines of credit for a few locations which are unable to access internal funding.

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, contractual obligations, commitments, principal and interest payments on debt, and other liquidity requirements associated with our operations.

Net Cash Provided by Operating Activities

Cash flows from operating activities can fluctuate significantly from period to period as working capital needs and the timing of payments for income taxes, restructuring activities, pension funding, variable pay and other items impact reported cash flows. Net cash provided by operating activities was \$313 million for the year ended October 31, 2017 as compared to \$416 million provided in 2016 and \$376 million provided in 2015.

- Net income in 2017 decreased by \$233 million as compared to 2016. Changes to non-cash income and expenses in 2017 as compared to 2016 included a \$91 million increase in depreciation and amortization expense, a \$64 million decrease in deferred tax expense, a \$69 million gain due to pension curtailment and settlement, a \$9 million fee associated with a bridge loan facility,

an impairment charge of \$7 million related to cancellation of an in-process R&D project, a \$7 million increase in share-based compensation expense, a \$2 million decline in gain from sale of land, a \$1 million decline in excess and obsolete inventory-related charges and a \$6 million increase in other miscellaneous non-cash expenses as compared to the same period last year. Additionally, we paid \$28 million of acquisition-related compensation expense to redeem certain of Ixia's outstanding unvested stock awards as of the date of the Merger Agreement that were determined to relate to post-merger service periods and expensed in Keysight's consolidated financial statements. Further, during fiscal 2017, we paid \$68 million to the Malaysia tax authority associated with a tax assessment, including penalties, on gains related to intellectual property transfers that we are currently in the process of appealing to the Special Commissioners of Income Tax ("SCIT") in Malaysia.

- The aggregate of accounts receivable, inventory and accounts payable provided net cash of zero during 2017, compared to net cash used of \$72 million in 2016 and \$27 million in 2015. The fiscal 2017 inventory change included \$61 million of amortization related to the fair value adjustment to inventory due to the Ixia acquisition. The amount of cash flow generated from or used by the aggregate of accounts receivable, inventory and accounts payable depends upon the cash conversion cycle, which represents the number of days that elapse from the day we pay for the purchase of raw materials and components to the collection of cash from our customers and can be significantly impacted by the timing of shipments and purchases, as well as collections and payments in a period.

- Net cash paid to Agilent under separation and distribution agreement was zero in 2017 and 2016 as compared to payments to Agilent of \$28 million in 2015.

- The aggregate of employee compensation and benefits, income taxes payable, deferred revenue, and other assets and liabilities provided net operating cash of \$30 million during 2017 as compared to net cash used of \$31 million and \$67 million in 2016 and 2015, respectively. The difference between 2017 and 2016 activities is primarily due to an increase in deferred revenue balances as a result of acquisition activity, partially offset by an increase in variable compensation payments and other differences due to timing of accruals and collections versus payments between the periods.

- We contributed \$34 million to our non-U.S. defined benefit plans during 2017 compared to \$38 million in 2016 and \$48 million in 2015. We did not contribute to our U.S. Defined Benefit Plans in 2017, 2016 and 2015. We did not contribute to the U.S. Post-Retirement Benefit Plan in 2017, and we contributed \$1 million in 2016 and \$1 million in 2015.

Net Cash Used in Investing Activities

Net cash used in investing activities was \$1,722 million in 2017, \$90 million in 2016 and \$671 million in 2015. Investments in property, plant and equipment were \$72 million in 2017, \$91 million in 2016 and \$92 million in 2015.

In 2017, we paid \$1,622 million, net of \$72 million of cash acquired, for the acquisition of Ixia, \$60 million for the acquisition of ScienLab, net of \$2 million of cash acquired, and \$20 million, net, for other acquisition activity. The purchase consideration includes approximately \$47 million paid to Ixia employees for vested equity awards. In 2016, we used \$10 million, net of cash acquired, for the acquisition of a small business and a contingent payment related to the Anite acquisition as compared to \$574 million for the acquisitions of Anite and ElectroServices in 2015.

We received \$8 million of proceeds from the sale of land in 2017 compared to \$10 million in 2016. We also received \$45 million of proceeds from the sale of investments in 2017 as compared to \$1 million in 2016 and \$1 million in 2015.

In 2015, we invested \$7 million in preferred stock of a privately held radio frequency microstructure company, accounted for using the cost method.

Net Cash Used in Financing Activities

Cash flows related to financing activities consist primarily of cash flows associated with the issuance of common stock, proceeds from and repayments of borrowings, issuance of common stock under employee stock plans, treasury stock repurchases and debt issuance cost. Net cash provided by financing activities in 2017 was \$1,440 million compared to cash used of \$25 million in 2016 and cash used of \$19 million in 2015, primarily due to proceeds used to fund the acquisition of Ixia, including the issuance of long-term debt of \$1,069 million, short-term borrowings of \$212 million, and the issuance of common stock under public offering of \$444 million, net of issuance costs. We repaid \$323 million of the borrowings in 2017, including \$182 million of the revolving facility, \$140 million of the term loan and a \$1 million short-term loan acquired with the acquisition of ScienLab. In addition, during 2017, we issued common stock under employee stock plans of \$51 million compared to \$43 million during 2016 and \$26 million during 2015.

On February 18, 2016, our Board of Directors approved a stock repurchase program under which the company is authorized to repurchase up to \$200 million of the company's outstanding common stock through open market purchases, privately negotiated

transactions or other means. The repurchase program may be suspended or discontinued at any time at the company's discretion. In fiscal 2016, the company used \$62 million to repurchase shares.

Financing activities in 2015 also reflects \$49 million of cash returned to Agilent in accordance with the separation and distribution agreement.

Short-term debt

Revolving Credit Facility

On February 15, 2017, we entered into an amended and restated credit agreement (the "Revolving Credit Facility") that replaced our existing \$450 million unsecured credit facility dated September 15, 2014. The Revolving Credit Facility provides for a \$450 million, five-year unsecured revolving credit facility that will expire on February 15, 2022 and bears interest at an annual rate of LIBOR + 1.30%. In addition, the Revolving Credit Facility permits us to increase the total commitments under this credit facility by up to \$150 million in the aggregate on one or more occasions upon request. We may use amounts borrowed under the facility for general corporate purposes. During the year ended October 31, 2017, we borrowed and repaid \$182 million of borrowings outstanding under the Revolving Credit Facility. As of October 31, 2017, we had no borrowings outstanding under the Revolving Credit Facility. We were in compliance with the covenants of the Revolving Credit Facility during the year ended October 31, 2017.

Bridge Facility

On January 30, 2017, we entered into a commitment letter, pursuant to which certain lenders agreed to provide a senior unsecured 364-day bridge loan facility of up to \$1.684 billion ("the Bridge Facility") for the purpose of providing the financing to support Keysight's acquisition of Ixia. Under the terms of commitment letter, the Bridge Facility was automatically terminated upon the Ixia acquisition on April 18, 2017. For the year ended October 31, 2017, we incurred costs in connection with the Bridge Facility of \$9 million that were amortized to interest expense.

Long-term debt

Senior Notes

In April 2017, the company issued an aggregate principal amount of \$700 million in senior notes ("2027 Senior Notes"). The 2027 Senior Notes were issued at 99.873 percent of their principal amount. The notes will mature on April 6, 2027 and bear interest at a fixed rate of 4.60 percent per annum. The interest is payable semi-annually on April 6 and October 6 of each year, commencing on October 6, 2017. We incurred issuance costs of \$6 million in connection with the 2027 Senior Notes that, along with the debt discount of \$1 million, are being amortized to interest expense over the term of the senior notes. The 2027 Senior Notes are unsecured and rank equally in right of payment with all of our other senior unsecured indebtedness.

In October 2014, the company issued an aggregate principal amount of \$500 million in senior notes ("2019 Senior Notes"). The 2019 Senior Notes were issued at 99.902 percent of their principal amount. The notes will mature on October 30, 2019, and bear interest at a fixed rate of 3.30 percent per annum. The interest is payable semi-annually on April 30 and October 30 of each year. In October 2014, the company issued an aggregate principal amount of \$600 million in senior notes ("2024 Senior Notes"). The 2024 Senior Notes were issued at 99.966 percent of their principal amount. The notes will mature on October 30, 2024, and bear interest at a fixed rate of 4.55 percent per annum. The interest is payable semi-annually on April 30 and October 30 of each year.

Senior Unsecured Term Loan

On February 15, 2017, we entered into a term credit agreement that provides for a three-year \$400 million senior unsecured term loan that bears interest at an annual rate of LIBOR + 1.50%. The term loan was drawn upon the closing of the Ixia acquisition. During the year ended October 31, 2017, we repaid \$140 million of the term loan. As of October 31, 2017, we had borrowings outstanding under the term loan of \$260 million, of which \$10 million is due in the next twelve months. In connection with the term loan, we incurred issuance costs of \$1 million that are being amortized to interest expense over the term of loan.

Off Balance Sheet Arrangements and Other

We have contractual commitments for non-cancellable operating leases. See Note 17, "Commitments and Contingencies," to our consolidated financial statements for further information on our non-cancellable operating leases.

Our liquidity is affected by many factors, some of which are based on normal ongoing operations of our business and some of which arise from fluctuations related to global economics and markets. Our cash balances are generated and held in many locations throughout the world. Local government regulations may restrict our ability to move cash balances to meet cash needs under certain circumstances. We do not currently expect such regulations and restrictions to impact our ability to pay vendors and conduct operations throughout our global organization.

Contractual Commitments

Our cash flows from operations are dependent on a number of factors, including fluctuations in our operating results, accounts receivable collections, inventory management, and the timing of tax and other payments. As a result, the impact of contractual obligations on our liquidity and capital resources in future periods should be analyzed in conjunction with such factors.

The following table summarizes our total contractual obligations at October 31, 2017 (in millions). The amounts presented in the table do not reflect \$41 million of liabilities for uncertain tax positions as of October 31, 2017. 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 12 months due to either the expiration of a statute of limitations or a tax audit settlement.

	Total	Less than one year	One to three years	Three to five years	More than five years
			(in millions)		
Debt obligations	\$ 2,060	\$ 10	\$ 750	\$ —	\$ 1,300
Interest payments on long-term debt	547	84	147	119	197
Operating lease commitments	222	51	75	43	53
Capital lease commitments	5	1	1	1	2
Commitments to contract manufacturers and suppliers	336	332	4	—	—
Retirement plans	35	35	—	—	—
Other purchase commitments	42	42	—	—	—
Total	<u>\$ 3,247</u>	<u>\$ 555</u>	<u>\$ 977</u>	<u>\$ 163</u>	<u>\$ 1,552</u>

Interest on senior notes. We have contractual obligations for interest payments on our senior notes. Interest rates and payment dates are detailed above under "Long-term debt."

Operating leases. Commitments under operating leases relate primarily to leasehold property, See Note 17, "Commitments and Contingencies."

Commitments to contract manufacturers and suppliers. We purchase components from a variety of suppliers and use several contract manufacturers to provide manufacturing services for our products. During the normal course of business, we issue purchase orders with estimates of our requirements several months ahead of the delivery dates. Our agreements with these suppliers usually provide us with the option to cancel, reschedule, and adjust our requirements based on business needs prior to firm orders being placed. Purchase orders outstanding with delivery dates within 30 days are typically non-cancellable. The majority of our reported purchase commitments arising from these agreements are firm, non-cancellable, and unconditional commitments. We expect to fulfill most of our purchase commitments for inventory within one year.

In addition to the commitments to contract manufacturers and suppliers referenced above, we record a liability for firm, non-cancellable and unconditional purchase commitments for quantities in excess of our future demand forecasts consistent with our policy relating to excess inventory. As of October 31, 2017, the liability for our excess firm, non-cancellable and unconditional purchase commitments was \$10 million, compared to \$9 million as of October 31, 2016. These amounts are included in other accrued liabilities in our consolidated balance sheet.

Retirement plans. Commitments under the retirement plans relate to expected contributions to be made to our non-U.S. defined benefit plans for the next year only. Contributions beyond the next year are impractical to estimate.

We also have benefit payments due under our defined benefit retirement plans and post-retirement benefit plan that are not required to be funded in advance, but are paid in the same period that benefits are provided. See Item 8-Financial Statements and Supplementary Data, Note 15, "Retirement Plans and Post-Retirement Benefit Plans," for additional information.

Other purchase commitments. Other purchase commitments relate to contracts with professional services suppliers. We can typically cancel these contracts within 90 days without penalties. For those contracts that are not cancellable within 90 days without penalties, we disclose the amounts we are obligated to pay to a supplier under each contract in that period before such contract can be canceled. As of October 31, 2017, our contractual obligations with these suppliers was approximately \$42 million within the next fiscal year, as compared to approximately \$35 million as of October 31, 2016.

We had no material off-balance sheet arrangements as of October 31, 2017 or October 31, 2016.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

At various times, we use derivative financial instruments to limit exposure to changes in foreign currency exchange rates and interest rates. Because derivative instruments are used solely as hedges and not for speculative trading purposes, fluctuations in the market values of such derivative instruments are generally offset by reciprocal changes in the underlying economic exposures that the instruments are intended to hedge. For further discussion of derivative financial instruments, refer to Note 13, "Derivatives."

Currency exchange rate 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 and expense 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.

Our operations generate non-functional currency cash flows such as revenue, third-party vendor payments and inter-company payments. In anticipation of these foreign currency cash flows and in view of the volatility of the currency market, we enter into such foreign exchange contracts as described above to substantially mitigate our currency risk. Approximately 71 percent of our revenues in 2017 and 2016 and 75 percent of our revenues in 2015 were generated in U.S. dollars.

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 October 31, 2017 and 2016, the analysis indicated that these hypothetical market movements would not have a material effect on our consolidated financial position, results of operations or cash flows.

Interest rate risk

As of October 31, 2017, we had \$2,060 million in principal amount of senior debt outstanding. The carrying amount of the fixed-rate senior notes was \$1,799 million, and the related fair value based on quoted prices was \$1,890 million. A change in interest rates on long-term debt impacts the fair value of the company's fixed-rate long-term debt but not the company's earnings or cash flow because the interest on such debt is fixed. Generally, the fair market value of fixed-rate debt will increase as interest rates fall and decrease as interest rates rise.

As of October 31, 2017, a hypothetical 10 percent increase in interest rates would have decreased the fair value of the company's fixed-rate long-term debt by approximately \$36 million. However, since the company currently has no plans to repurchase its outstanding fixed-rate instruments before their maturity nor do the investors in our fixed-rate debt obligations have the right to demand we pay off these obligations prior to maturity, the impact of market interest rate fluctuations on the company's fixed-rate long-term debt does not affect the company's results of operations or stockholders' equity.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of Keysight Technologies, Inc.:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, of comprehensive income, of equity and of cash flows present fairly, in all material respects, the financial position of Keysight Technologies, Inc. and its subsidiaries at October 31, 2017 and October 31, 2016, and the results of their operations and their cash flows for each of the three years in the period ended October 31, 2017 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 15(a)(2) presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of October 31, 2017, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As discussed in Note 2 to the consolidated financial statements, in 2017 the Company changed the manner in which it presents debt issuance costs on the consolidated balance sheet due to the adoption of Accounting Standards Update (ASU) 2015-03, *Simplifying the Presentation of Debt Issuance Costs*, as well as the manner in which it recognizes the income tax consequences of intra-entity transfers due to the adoption of ASU 2016-16, *Intra-Entity Transfers of Assets Other Than Inventory*.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

As described in Management's Report on Internal Control over Financial Reporting appearing under Item 9A, management has excluded Ixia and ScienLab from its assessment of internal control over financial reporting as of October 31, 2017, because they were acquired by the Company in purchase business combinations during 2017. We have also excluded Ixia and ScienLab from our audit of internal control over financial reporting. Ixia and ScienLab are wholly-owned subsidiaries whose total assets and total revenues excluded from management's assessment and our audit of internal control over financial reporting collectively represent approximately 6% and less than 1% of total assets, respectively and approximately 6% and less than 1% of total revenues, respectively, of the related consolidated financial statement amounts as of and for the year ended October 31, 2017.

/s/ PricewaterhouseCoopers LLP

San Jose, California
December 20, 2017

KEYSIGHT TECHNOLOGIES, INC.
COMBINED AND CONSOLIDATED STATEMENT OF OPERATIONS
(in millions, except per share data)

	Year Ended October 31,		
	2017	2016	2015
Net revenue:			
Products	\$ 2,664	\$ 2,440	\$ 2,408
Services and other	<u>525</u>	<u>478</u>	<u>448</u>
Total net revenue	3,189	2,918	2,856
Costs and expenses:			
Cost of products	1,206	1,042	1,025
Cost of services and other	<u>281</u>	<u>252</u>	<u>244</u>
Total costs	1,487	1,294	1,269
Research and development	498	425	387
Selling, general and administrative	1,049	818	787
Other operating expense (income), net	<u>(84)</u>	<u>(25)</u>	<u>(18)</u>
Total costs and expenses	<u>2,950</u>	<u>2,512</u>	<u>2,425</u>
Income from operations	239	406	431
Interest income	7	3	1
Interest expense	(80)	(47)	(46)
Other income (expense), net	<u>13</u>	<u>4</u>	<u>2</u>
Income before taxes	179	366	388
Provision (benefit) for income taxes	<u>77</u>	<u>31</u>	<u>(125)</u>
Net income	<u>\$ 102</u>	<u>\$ 335</u>	<u>\$ 513</u>
Net income per share:			
Basic	\$ 0.57	\$ 1.97	\$ 3.04
Diluted	\$ 0.56	\$ 1.95	\$ 3.00
Weighted average shares used in computing net income per share:			
Basic	180	170	169
Diluted	182	172	171

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

KEYSIGHT TECHNOLOGIES, INC.
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
(in millions)

	Year Ended October 31,		
	2017	2016	2015
Net income	\$ 102	\$ 335	\$ 513
Other comprehensive income (loss):			
Unrealized gain (loss) on investments, net of tax benefit (expense) of \$(1), \$2 and \$(2)	4	(11)	5
Unrealized gain (loss) on derivative instruments, net of tax benefit (expense) of \$(2), \$2 and \$5	4	(5)	(10)
Amounts reclassified into earnings related to derivative instruments, net of tax benefit (expense) of \$(1), \$(4) and zero	—	8	1
Foreign currency translation, net of tax benefit (expense) of zero	(10)	19	(54)
Net defined benefit pension cost and post retirement plan costs:			
Change in actuarial net gain (loss), net of tax benefit (expense) of \$(68), \$53 and \$25	178	(135)	(67)
Change in net prior service credit, net of tax benefit of \$9, \$10 and \$11	(15)	(15)	(18)
Other comprehensive income (loss)	161	(139)	(143)
Total comprehensive income	<u>\$ 263</u>	<u>\$ 196</u>	<u>\$ 370</u>

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

KEYSIGHT TECHNOLOGIES, INC.
CONSOLIDATED BALANCE SHEET
(in millions, except par value and share data)

	October 31,	
	2017	2016
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 818	\$ 783
Accounts receivable, net	547	437
Inventory	588	474
Other current assets	224	160
Total current assets	2,177	1,854
Property, plant and equipment, net	530	512
Goodwill	1,882	736
Other intangible assets, net	855	208
Long-term investments	63	55
Long-term deferred tax assets	186	392
Other assets	240	39
Total assets	<u>\$ 5,933</u>	<u>\$ 3,796</u>
LIABILITIES AND EQUITY		
Current liabilities:		
Current portion of long-term debt	\$ 10	\$ —
Accounts payable	211	189
Employee compensation and benefits	217	183
Deferred revenue	291	180
Income and other taxes payable	28	41
Other accrued liabilities	62	51
Total current liabilities	819	644
Long-term debt	2,038	1,093
Retirement and post-retirement benefits	309	405
Long-term deferred revenue	101	72
Other long-term liabilities	356	69
Total liabilities	<u>3,623</u>	<u>2,283</u>
Commitments and contingencies (Note 17)		
Stockholders' equity:		
Preferred stock; \$0.01 par value; 100 million shares authorized; none issued and outstanding	—	—
Common stock; \$0.01 par value; 1 billion shares authorized; 188 million shares at October 31, 2017, and 172 million shares at October 31, 2016 issued	2	2
Treasury stock at cost; 2.3 million shares at October 31, 2017 and 2.3 million shares at October 31, 2016	(62)	(62)
Additional paid-in-capital	1,786	1,242
Retained earnings	1,041	949
Accumulated other comprehensive loss	(457)	(618)
Total stockholders' equity	<u>2,310</u>	<u>1,513</u>
Total liabilities and equity	<u>\$ 5,933</u>	<u>\$ 3,796</u>

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

KEYSIGHT TECHNOLOGIES, INC.
CONSOLIDATED STATEMENT OF CASH FLOWS
(in millions)

	Year Ended October 31,		
	2017	2016	2015
Cash flows from operating activities:			
Net income	\$ 102	\$ 335	\$ 513
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	225	134	99
Share-based compensation	56	49	55
Excess tax (benefit) deficiency from share-based plans	(3)	5	(4)
Debt issuance expense	9	—	—
Deferred tax expense (benefit)	(47)	17	(163)
Excess and obsolete inventory related charges	16	17	28
Gain on sale of land	(8)	(10)	—
Asset impairment	7	—	—
Pension curtailment and settlement gains	(69)	—	—
Other non-cash expenses (income), net	10	4	14
Changes in assets and liabilities:			
Accounts receivable	(11)	(42)	(20)
Inventory	(4)	(22)	(25)
Accounts payable	15	(8)	18
Payment (to)/from Agilent, net	—	—	(28)
Employee compensation and benefits	(1)	16	6
Deferred revenue	90	15	(24)
Income taxes payable	3	(9)	2
Retirement and post-retirement benefits	(15)	(32)	(44)
Other assets and liabilities	(62)	(53)	(51)
Net cash provided by operating activities	<u>313</u>	<u>416</u>	<u>376</u>
Cash flows from investing activities:			
Purchases of property, plant and equipment	(72)	(91)	(92)
Proceeds from the sale of property, plant and equipment	8	10	1
Acquisitions of businesses and intangible assets, net of cash acquired	(1,702)	(10)	(574)
Purchase of investments	(1)	—	(7)
Proceeds from the sale of investments	45	1	1
Net cash used in investing activities	<u>(1,722)</u>	<u>(90)</u>	<u>(671)</u>
Cash flows from financing activities:			
Issuance of common stock under employee stock plans	51	43	26
Issuance of common stock under public offerings	444	—	—
Treasury stock repurchases	—	(62)	—
Proceeds from issuance of long-term debt	1,069	—	—
Debt issuance costs	(16)	—	—
Proceeds from short-term borrowings	212	—	—
Repayment of debt and credit facility	(323)	(1)	—
Excess tax benefit (deficiency) from share-based plans	3	(5)	4
Return of capital to Agilent	—	—	(49)
Net cash provided by/(used in) financing activities	<u>1,440</u>	<u>(25)</u>	<u>(19)</u>
Effect of exchange rate movements	<u>4</u>	<u>(1)</u>	<u>(13)</u>
Net increase/(decrease) in cash and cash equivalents	35	300	(327)
Cash and cash equivalents at beginning of year	<u>783</u>	<u>483</u>	<u>810</u>
Cash and cash equivalents at end of year	<u>\$ 818</u>	<u>\$ 783</u>	<u>\$ 483</u>

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

KEYSIGHT TECHNOLOGIES, INC.
CONSOLIDATED STATEMENT OF EQUITY
(in millions, except number of shares in thousands)

	Common Stock			Treasury Stock		Retained Earnings	Accumulated Other Comprehensive Income/(Loss)	Total Stockholders' Equity
	Number of Shares	Par Value	Additional Paid-in Capital	Number of Shares	Treasury Stock at Cost			
Balance as of October 31, 2014	167,483	\$ 2	\$ 1,002	—	\$ —	\$ 101	\$ (336)	\$ 769
Net income	—	—	—	—	—	513	—	513
Other comprehensive loss, net of tax	—	—	—	—	—	—	(143)	(143)
Issuance of common stock	2,108	—	18	—	—	—	—	18
Share-based compensation	—	—	54	—	—	—	—	54
Tax benefits from share-based awards issued	—	—	4	—	—	—	—	4
Separation related tax and pension adjustments	—	—	62	—	—	—	—	62
Reduction in cash payable to Agilent	—	—	25	—	—	—	—	25
Balance as of October 31, 2015	169,591	2	1,165	—	—	614	(479)	1,302
Net income	—	—	—	—	—	335	—	335
Other comprehensive loss, net of tax	—	—	—	—	—	—	(139)	(139)
Issuance of common stock	2,696	—	34	—	—	—	—	34
Share-based compensation	—	—	48	—	—	—	—	48
Tax deficiency from share-based awards issued	—	—	(5)	—	—	—	—	(5)
Repurchase of common stock	—	—	—	(2,289)	(62)	—	—	(62)
Balance as of October 31, 2016	172,287	2	1,242	(2,289)	(62)	949	(618)	1,513
Adjustment due to adoption of ASU 2016-16	—	—	—	—	—	(10)	—	(10)
Net income	—	—	—	—	—	102	—	102
Other comprehensive income, net of tax	—	—	—	—	—	—	161	161
Issuance of common stock	2,880	—	41	—	—	—	—	41
Public offering of common stock	13,143	—	444	—	—	—	—	444
Share-based compensation	—	—	56	—	—	—	—	56
Tax benefits from share-based awards issued	—	—	3	—	—	—	—	3
Balance as of October 31, 2017	188,310	\$ 2	\$ 1,786	(2,289)	\$ (62)	\$ 1,041	\$ (457)	\$ 2,310

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

KEYSIGHT TECHNOLOGIES, INC.
NOTES TO COMBINED AND CONSOLIDATED FINANCIAL STATEMENTS

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

Overview. Keysight Technologies, Inc. ("we", "us", "Keysight" or the "company"), incorporated in Delaware on December 6, 2013, is a measurement company providing electronic design and test solutions to communications and electronics industries. Following the acquisition of Ixia on April 18, 2017, the company also provides testing, visibility, and security solutions, strengthening applications across physical and virtual networks for enterprises, service providers, and network equipment manufacturers.

Basis of Presentation. We have prepared the accompanying financial statements pursuant to the rules and regulations of the SEC and in conformity with generally accepted accounting principles in the U.S. ("GAAP"). Our fiscal year end is October 31. Unless otherwise stated, all years and dates refer to our fiscal year.

Management is responsible for the fair presentation of the accompanying consolidated financial statements, prepared in accordance with GAAP, and has full responsibility for their integrity and accuracy. In the opinion of management, the accompanying consolidated financial statements contain all normal and recurring adjustments necessary to present fairly our consolidated balance sheet and our consolidated statement of operations, statement of comprehensive income, statement of cash flows and statement of equity.

Principles of consolidation. The consolidated financial statements include the accounts of the company and our wholly- and majority-owned subsidiaries. All significant inter-company transactions have been eliminated.

Use of Estimates. The preparation of financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the amounts reported in our 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 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 plan assumptions, valuation of goodwill and other intangible assets, warranty, restructuring and accounting for income taxes.

Acquisitions. On April 18, 2017 we acquired all of the outstanding common stock of Ixia for \$1,622 million, net of \$72 million of cash acquired. On August 31, 2017 we acquired all of the outstanding common stock of ScienLab for \$60 million, net of \$2 million of cash acquired. See Note 3, "Acquisitions," for further discussion of the company's acquisitions of Ixia and ScienLab.

Land Sale. On April 30, 2014 we entered into a binding contract to sell land in the United Kingdom ("U.K.") that resulted in the transfer of three separate land tracts totaling approximately \$34 million in May 2014, November 2015 and November 2016. In 2017 and 2016, we recognized gains of \$8 million and \$10 million, respectively, on the sale of the land tracts in other operating expense (income).

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 recognize revenue, net of trade discounts and allowances, provided that (1) persuasive evidence of an arrangement exists, (2) delivery has occurred, (3) the price is fixed or determinable and (4) collectability is reasonably assured. Delivery is considered to have occurred when title and risk of loss have transferred to the customer, for products, or when the service has been provided. We consider the price to be fixed or determinable when the price is not subject to refund or adjustments. We consider arrangements with extended payment terms not to be fixed or determinable, and accordingly we defer revenue until amounts become due. At the time of the transaction, we evaluate the creditworthiness of our customers to determine the appropriate timing of revenue recognition.

Product revenue. Our product revenue is generated predominantly from the sales of various types of test equipment and associated software. Product revenue, including sales to resellers and distributors, is reduced for estimated returns, when appropriate. For sales or arrangements that include customer-specified acceptance criteria, including those where acceptance is required upon achievement of performance milestones, revenue is recognized after the acceptance criteria have been met. For products that include installation, if the installation meets the criteria to be considered a separate element, product revenue is recognized upon delivery, and recognition of installation revenue is delayed until the installation is complete. Otherwise, neither the product nor the installation revenue is recognized until the installation is complete.

Where software is licensed separately, revenue is recognized when the software is delivered and has been transferred to the customer or, in the case of electronic delivery of software, when the customer is given access to the licensed software programs.

We also evaluate whether collection of the receivable is probable, the fee is fixed or determinable and whether any other undelivered elements of the arrangement exist on which a portion of the total fee would be allocated based on vendor-specific objective evidence ("VSOE"). When VSOE is not available we then use third-party evidence ("TPE") or management's best estimate of selling price ("ESP").

Service revenue. Revenue from services includes repair and calibration services, extended warranty, customer and software support, consulting, training and education. Service revenue is deferred and recognized over the contractual period or as services are rendered and accepted by the customer. For example, customer support contracts are recognized ratably over the contractual period, while training revenue is recognized as the training is provided to the customer. In addition, the four revenue recognition criteria described above must be met before service revenue is recognized.

Revenue recognition for arrangements with multiple deliverables. Our multiple-element arrangements are generally comprised of a combination of measurement 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 upon delivery and acceptance, if required, once title and risk of loss pass to the customer. Delivery of installation, start-up services and other services varies based on the complexity of the equipment, staffing levels in a geographic location and customer preferences, and can range from a few days to a few months. Service revenue is deferred and recognized over the contractual period or as services are rendered and accepted by the customer. Revenue from the sale of software products that are not required to deliver the tangible product's essential functionality are accounted for under software revenue recognition rules which require VSOE of fair value to allocate revenue in a multiple-element arrangement. Our arrangements generally do not include any provisions for cancellation, termination, or refunds that would significantly impact recognized revenue.

We evaluate the deliverables in our multiple-element arrangements and conclude that they are separate units of accounting if it is determined the delivered item or items have value to the customer on a standalone basis. For arrangements that include a general right of return relative to the delivered item(s), delivery or performance of the undelivered item(s) has been determined to be probable and substantially in our control. We allocate revenue to each element in our multiple-element arrangements based upon their relative selling prices. We determine the selling price for each deliverable based on a selling price hierarchy. The selling price for a deliverable is based on VSOE if available, TPE if VSOE is not available, or ESP if neither VSOE nor TPE is available. Revenue allocated to each element is then recognized when the basic revenue recognition criteria for that element have been met.

Within our Ixia Solutions Group, when an arrangement contains software and non-software deliverables, we use a two-step process to allocate revenue to each element in the arrangement. First, we allocate the total arrangement fee to the separate non-software and software deliverables as a group based on their relative selling prices. Then, we allocate revenue within the software group utilizing the residual method with revenue allocated to the undelivered elements based on VSOE and the residual amount allocated to the delivered elements.

We use VSOE of selling price in the selling price allocation in all instances where it exists. VSOE of selling price for products and services is determined when a substantial majority of the selling prices fall within a reasonable range when sold separately. TPE of selling price can be established by evaluating largely interchangeable competitor products or services in standalone sales to similarly situated customers. As our products contain a significant element of proprietary technology and the solution offered differs substantially from that of competitors, it is difficult to obtain the reliable standalone competitive pricing necessary to establish TPE. ESP represents the best estimate of the price at which we would transact a sale if the product or service were sold on a standalone basis. We determine ESP for a product or service by using historical selling prices which reflect multiple factors including, but not limited to, customer type, geography, market conditions, competitive landscape, gross margin objectives and pricing practices. The determination of ESP is made through consultation with and approval by management. We may modify or develop new pricing practices and strategies in the future. As these pricing strategies evolve, changes may occur in ESP. The aforementioned factors may result in a different allocation of revenue to the deliverables in multiple-element arrangements, which may change the pattern and timing of revenue recognition for these elements but will not change the total revenue recognized for the arrangement.

Shipping and handling costs. Our shipping and handling costs charged to customers are included in net revenue, and the associated expense is recorded in cost of products for all periods presented.

Deferred revenue. Deferred revenue represents the amount that is allocated to undelivered elements in multiple-element arrangements. We limit the revenue recognized to the amount that is not contingent on the future delivery of products or services or meeting other specified performance conditions. In addition, service revenue is deferred and recognized over the contractual period or as services are rendered and accepted by the customer.

Accounts receivable, net. Trade accounts receivable are recorded at the invoiced amount and do not bear interest. Such accounts receivable have been reduced by an allowance for doubtful accounts, which is our best estimate of the amount of probable credit losses in our existing accounts receivable. We determine the allowance based on customer specific experience and the aging of such receivables, among other factors. The allowance for doubtful accounts was approximately \$3 million and \$2 million as of

October 31, 2017 and 2016, respectively. We do not have any off-balance-sheet credit exposure related to our customers. Accounts receivable are also recorded net of product returns.

Share-based compensation. We account for share-based awards made to our employees and directors, including employee stock option awards, restricted stock units, employee stock purchases made under Keysight's Employee Stock Purchase Plan ("Keysight's ESPP") and performance share awards under Keysight Technologies, Inc. Long-Term Performance ("Keysight's LTP") Program, using the estimated grant date fair value method of accounting. Under the fair value method, we recorded compensation expense for all share-based awards of \$56 million in 2017, \$49 million in 2016 and \$55 million in 2015.

Inventory. Inventory is valued at standard cost, which approximates actual cost computed on a first-in, first-out basis, not in excess of market value. We assess the valuation of our inventory on a periodic basis and make adjustments to the value for estimated excess and obsolete inventory based on estimates about future demand and actual usage. The excess balance determined by this analysis becomes the basis for our excess inventory charge. Our excess inventory review process includes analysis of sales unit forecasts, managing product rollovers and working with manufacturing to maximize recovery of excess inventory.

Warranty. Our standard warranty term for most of our products from the date of delivery is typically three years. We accrue for standard warranty costs based on historical trends in warranty charges. 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 related product revenue is recognized. See Note 16, "Guarantees."

We also sell extended warranties that provide warranty coverage beyond the standard warranty term. Revenue associated with extended warranties is deferred and recognized over the extended coverage period.

Taxes on income. Income tax expense is based on income or loss before taxes. Deferred income taxes reflect the effect of temporary differences between asset and liability amounts that are recognized for financial reporting purposes and the amounts that are recognized for income tax purposes. These deferred taxes are measured by applying currently enacted tax laws. Valuation allowances are recognized to reduce deferred tax assets to the amount that is more likely than not to be realized.

We account for uncertainty in income taxes using a two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon settlement. We make adjustments to these reserves when facts and circumstances change, such as the closing of a tax audit or the refinement of an estimate due to new information. We classify the liability for unrecognized tax benefits as current to the extent that the company anticipates payment (or receipt) of cash within one year. Interest and penalties related to uncertain tax positions are recognized in the provision for income taxes. Given the number of years and numerous matters that remain subject to examination in various tax jurisdictions, we are unable to estimate the range of possible changes to the balance of our unrecognized tax benefits.

Goodwill and other intangible assets. Goodwill is assessed for impairment at least annually in the fourth quarter, as of September 30, on a reporting unit basis, or more frequently when events and circumstances occur indicating that the recorded goodwill may be impaired. In accordance with the authoritative accounting guidance we have the option to perform a qualitative assessment to determine whether it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount. If we determine this is the case, we are required to perform the two-step goodwill impairment test to identify potential goodwill impairment and measure the amount of goodwill impairment loss to be recognized. If we determine that it is more-likely-than-not that the fair value of the reporting unit is greater than its carrying amounts, the two-step goodwill impairment test is not required.

As defined in the authoritative guidance, a reporting unit is an operating segment, or one level below an operating segment. In 2016, we implemented changes in our organizational structure designed to align our organization with the industries we serve, which resulted in the formation of three reportable operating segments that are also our reporting units. On April 18, 2017 we completed the acquisition of Ixia, which became our fourth reportable operating segment, the Ixia Solutions Group, and reporting unit. In 2017, we assessed goodwill impairment by performing a qualitative test for our four reporting units. Based on the results of our testing, it was determined that it is more-likely-than-not that the fair values of the reporting units are greater than their carrying values. There was no impairment of goodwill during the years ended October 31, 2017, 2016 and 2015.

Other intangible assets consist primarily of developed technologies, proprietary know-how, trademarks, customer relationships, non-compete agreements, and backlog and are amortized using the straight-line method over estimated useful lives ranging from 3 months to 10 years. No impairments of purchased intangible assets were recorded during the year ended October 31, 2017, 2016 and 2015.

We review other intangible assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable or that the useful lives of these assets are no longer appropriate. The authoritative accounting guidance allows a qualitative approach for testing indefinite-lived intangible assets for impairment, similar to the impairment testing guidance for goodwill. It allows the option to first assess qualitative factors (events and circumstances) that could have affected the significant inputs used in determining the fair value of the indefinite-lived intangible

asset. The qualitative factors assist in determining whether it is more-likely-than-not that the indefinite-lived intangible asset is impaired. An organization may choose to bypass the qualitative assessment for any indefinite-lived intangible asset in any period and proceed directly to calculating its fair value. Our indefinite-lived intangible assets are in-process research and development ("IPR&D") intangible assets. In 2017, we assessed impairment by performing a qualitative test and recorded an impairment charge of \$7 million related to the cancellation of an IPR&D project. There were no impairments in 2016 and 2015.

Advertising. Advertising costs are expensed as incurred and amounted to \$22 million in 2017, \$19 million in 2016 and \$27 million in 2015.

Research and development. Costs related to the research, design and development of our products are charged to research and development expense as they are incurred.

Sales taxes. Sales taxes collected from customers and remitted to governmental authorities are not included in our revenue.

Investments. Cost method investments consisting of non-marketable equity securities are accounted for at historical cost. Trading securities are reported at fair value, with gains or losses resulting from changes in fair value recognized currently in earnings. Investments designated as available-for-sale are reported at fair value, with unrealized gains and losses, net of tax, included in accumulated other comprehensive income. The company assesses investments for impairment whenever events or changes in circumstances indicate that the carrying value of an investment may not be recoverable. There was no impairment recognized in 2017. In 2016, cost method investments with a carrying amount of \$2 million were written down to their fair value of zero, resulting in an impairment charge of \$2 million, which is included in other income (expense). In 2015, cost method investments with a carrying amount of \$4 million were written down to their fair value of zero, resulting in an impairment charge of \$4 million, which is included in other income (expense).

Net income per share. Basic net income per share is computed by dividing net income - the numerator - by the weighted average number of common shares outstanding - the denominator - during the period excluding the dilutive effect of stock options and other employee stock plans. Diluted net income per share gives effect to all potentially dilutive common stock equivalents outstanding during the period. 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, the tax benefits recorded in additional paid-in capital 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, unamortized share-based compensation expense and tax benefits are assumed proceeds to be used to repurchase hypothetical shares.

Cash, cash equivalents and short term investments. We classify investments as cash equivalents if their original maturity or remaining maturity at the time of purchase is three months or less at the date of purchase. Cash equivalents are stated at cost, which approximates fair value.

As of October 31, 2017, approximately \$767 million of our cash and cash equivalents was held outside of the U.S. in our foreign subsidiaries. Under current tax laws, most of the cash could be repatriated to the U.S., but it would be subject to U.S. federal and state income taxes, less applicable foreign tax credits. Our cash and cash equivalents mainly consist of short-term deposits held at major global financial institutions, investments in institutional money market funds, and similar short duration instruments with original maturities of 90 days or less. We continuously monitor the creditworthiness of the financial institutions and institutional money market funds in which we invest our funds.

We classify investments as short-term investments if their original maturities are greater than three months and their remaining maturities are one year or less.

Restricted cash. As of October 31, 2017, restricted cash of approximately \$2 million consisted of deposits held as collateral against bank guarantees and is classified within other assets in the consolidated balance sheet. As of October 31, 2016, restricted cash of \$2 million consisted of approximately \$1 million of deposits held as collateral against bank guarantees and approximately \$1 million of deposits held as collateral against foreign currency hedging contracts and is classified within other assets and other current assets, respectively, on the consolidated balance sheet.

Fair value of financial instruments. The carrying values of certain of our financial instruments including cash and cash equivalents, accounts receivable, accounts payable, and other accrued liabilities approximate fair value because of their short maturities. The fair value of long-term equity investments is determined using quoted market prices for those securities when available. For those long-term equity investments accounted for under the cost or equity method, their carrying value approximates their estimated fair value. The fair value of our long-term debt, calculated from quoted prices which are primarily Level 1 inputs under the accounting guidance fair value hierarchy, exceeded the carrying value by approximately \$91 million and \$30 million as of October 31, 2017 and 2016, respectively. 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 12, "Fair Value Measurements," for additional information on the fair value of financial instruments.

Concentration of credit risk. Financial instruments that potentially subject us to significant concentration of credit risk include money market fund investments, time deposits and demand deposit balances. These investments are categorized as cash and cash equivalents and long-term investments. In addition, we have credit risk from derivative financial instruments used in hedging activities and accounts receivable. We invest in a variety of financial instruments and limit the amount of credit exposure with any one financial institution. We have a comprehensive credit policy in place and credit exposure is monitored on an ongoing basis.

Credit risk with respect to our accounts receivable is diversified due to the large number of entities comprising our customer base and their dispersion across many different industries and geographies. Credit evaluations are performed on customers requiring credit over a certain amount.

Credit risk is mitigated through collateral such as letters of credit, bank guarantees or payment terms like cash in advance. No single customer accounted for more than 10 percent of accounts receivable as of October 31, 2017 or 2016.

Derivative instruments. We are exposed to global foreign currency exchange rate risk in the normal course of business. We enter into foreign exchange hedging contracts, primarily forward contracts and purchased options to manage financial exposures resulting from changes in foreign currency exchange rates. Foreign currency exposures include committed and anticipated revenue and expense transactions (cash flow exposure) and assets and liabilities that are denominated in currencies other than the functional currency of the subsidiary (balance sheet exposure). For cash flow hedges, contracts are designed at inception as hedges of the related foreign currency exposures. For option contracts, we exclude time value from the measurement of effectiveness. We formally document all relationships between hedging instruments and hedged items, as well as our risk-management objective and strategy for undertaking various hedge transactions at the inception of the hedge. This process includes linking all derivatives that are designated as cash flow hedges to specific forecasted transactions. We also formally assess, both at the hedge's inception and on an ongoing basis, whether the hedging instruments are highly effective in offsetting changes in cash flows of hedged items. Our foreign exchange hedging contracts generally mature within twelve months. We do not use derivative financial instruments for speculative trading purposes.

All derivatives are recognized on the balance sheet at their fair values. For derivative instruments that are designated and qualify as a cash flow hedge, changes in the value of the effective portion of the derivative instrument is recognized in accumulated comprehensive income, a component of stockholders' equity. Amounts associated with cash flow hedges are reclassified and recognized in income when either the forecast transaction occurs or it becomes probable the forecast transaction will not occur. Derivatives not designated as hedging instruments are recorded on the balance sheet at their fair value and changes in the fair values are recorded in earnings in the current period. Derivative instruments are subject to master netting arrangements and qualify for net presentation in the balance sheet. Changes in the fair value of the ineffective portion of derivative instruments are recognized in earnings in the current period. Cash flows from derivative instruments are classified in the statement of cash flows in the same category as the cash flows from the hedged or economically hedged item, primarily in operating activities.

Property, plant and equipment. Property, plant and equipment are stated at cost less accumulated depreciation. Additions, improvements and major renewals are capitalized; maintenance, repairs and minor renewals are expensed as incurred. When assets are retired or disposed of, the assets and related accumulated depreciation and amortization are removed from our general ledger, and the resulting gain or loss is reflected in the consolidated statement of operations. Buildings and improvements are depreciated over the lesser of their useful lives or the remaining term of the lease and machinery and equipment over three to ten years. We use the straight-line method to depreciate assets.

Leases. We lease buildings, machinery and equipment under operating leases for original terms ranging generally from one to twenty-five years. Certain leases contain renewal options for periods up to ten years.

Capitalized software. We capitalize certain internal and external costs incurred to acquire or create internal use software. Capitalized software is included in property, plant and equipment and is depreciated over three years once development is complete.

Impairment of long-lived assets. We continually monitor events and changes in circumstances that could indicate carrying amounts of long-lived assets, including intangible assets, may not be recoverable. When such events or changes in circumstances occur, we assess the recoverability of long-lived assets by determining whether the carrying value of such assets will be recovered through undiscounted expected future cash flows. If the total of the undiscounted future cash flows is less than the carrying amount of those assets, we recognize an impairment loss based on the excess of the carrying amount over the fair value of the assets.

Restructuring costs. The main component of our existing restructuring plans is related to workforce reductions. Workforce reduction charges are accrued when payment of benefits becomes probable and the amounts can be estimated. If the amounts and timing of cash flows from restructuring activities are significantly different from what we have estimated, the actual amount of restructuring and other related charges could be materially different, either higher or lower, than those we have recorded.

Employee compensation and benefits. Amounts owed to employees, such as accrued salary, bonuses and vacation benefits are accounted for within employee compensation and benefits. The total amount of accrued vacation benefit was \$72 million and \$66 million as of October 31, 2017 and 2016, respectively.

Foreign currency translation. We translate and remeasure balance sheet and statement of operations items into U.S. dollars. For those subsidiaries that operate in a local currency functional environment, all assets and liabilities are translated into U.S. dollars using current exchange rates at the balance sheet date; revenue and expenses are translated using monthly exchange rates which approximate to average exchange rates in effect during each period. Resulting translation adjustments are reported as a separate component of accumulated other comprehensive income (loss) in stockholders' equity.

For those subsidiaries that operate in a U.S. dollar functional environment, foreign currency assets and liabilities are re-measured into U.S. dollars at current exchange rates except for non-monetary assets and capital accounts which are remeasured at historical exchange rates. Revenue and expenses are generally remeasured at monthly exchange rates which approximate average exchange rates in effect during each period. Gains or losses from foreign currency re-measurement are included in net income. Net gains or losses resulting from foreign currency transactions are reported in other income (expense) and were a \$1 million gain in 2017, zero in 2016, and a \$5 million gain in 2015.

Retirement plans and post-retirement benefit plan assumptions. Retirement and post-retirement benefit plan costs are a significant cost of doing business. They represent obligations that will ultimately be settled sometime in the future and therefore are subject to estimation. Pension accounting is intended to reflect the recognition of future benefit costs over the employees' average expected future service to Keysight based on the terms of the plans and investment and funding decisions. To estimate the impact of these future payments and our decisions concerning funding of these obligations, we are required to make assumptions using actuarial concepts within the framework of GAAP. Two critical assumptions are the discount rate and the expected long-term return on plan assets. Other important assumptions include, expected future salary increases, expected future increases to benefit payments, expected retirement dates, employee turnover, retiree mortality rates, and portfolio composition. We evaluate these assumptions at least annually. See Note 15, "Retirement Plans and Post-Retirement Benefit Plans."

2. NEW ACCOUNTING PRONOUNCEMENTS

In May 2014, the Financial Accounting Standards Board ("FASB") issued guidance which will replace numerous requirements in GAAP, including industry-specific requirements, and provide companies with a single revenue recognition model for recognizing revenue from contracts with customers. The core principle of the new standard is that a company should recognize revenue to show the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. In July 2015, the FASB deferred the effective date by one year to December 15, 2017 for annual reporting periods beginning after that date. The FASB also permitted early adoption of the standard, but not before the original effective date of December 15, 2016. During 2016, the FASB issued several amendments to the standard, including clarification to the guidance on reporting revenues as a principal versus an agent, identifying performance obligations, accounting for intellectual property licenses, assessing collectability, presentation of sales taxes, impairment testing for contract costs and disclosure of performance obligations.

The two permitted transition methods under the new standard are (1) the full retrospective method, in which case the standard would be applied to each prior reporting period presented, and the cumulative effect of applying the standard would be recognized at the earliest period shown, or (2) the modified retrospective method, in which case the cumulative effect of applying the standard would be recognized at the date of initial application. We currently anticipate adopting the standard on November 1, 2018 and are evaluating the transition methods available. Based on the progress to date, we have not identified any material impacts of the new standard on the amount and timing of revenue recognition to our consolidated statement of operations; however, we have not completed our assessment, including the impact of our recent acquisitions of Ixia and ScienLab. We expect recognition of revenue for a majority of customer contracts to remain substantially unchanged. While we are continuing to assess all potential impacts of the standard, we currently believe the most significant impact relates to our accounting for software license revenue, as under the new standard we expect to recognize software license revenue at the time of billing rather than over the contractual term since control of the software license is transferred, and our performance obligation is satisfied at that point in time. The new standard will also require the deferral of commissions that were previously expensed as incurred and may qualify for capitalization under the new standard.

In April 2015, the FASB issued Accounting Standards Update ("ASU") 2015-03, *Simplifying the Presentation of Debt Issuance Costs*, to simplify the presentation of deferred issuance costs by requiring that they be presented as a direct deduction from the carrying amount of the debt liability, consistent with debt discounts. The standard was effective for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years. We adopted this guidance retrospectively during the first quarter of 2017. As a result, \$7 million of unamortized debt issuance costs have been reclassified from other assets to long-term debt in the consolidated balance sheet as of October 31, 2016 (see Note 18).

In May 2015, the FASB issued ASU 2015-07, *Disclosures for Investments in Certain Entities that Calculate Net Asset Value per Share (or its Equivalent)*, that removes the requirement to categorize within the fair value hierarchy all investments for which

fair value is measured using the net asset value per share practical expedient. The standard also removes the requirement to make certain disclosures for all investments that are eligible to be measured at fair value using the net asset value per share practical expedient. Rather, those disclosures are limited to investments for which the entity has elected to measure the fair value using that practical expedient. The standard was effective for fiscal years beginning after December 15, 2015, including interim periods within those fiscal years. We adopted this guidance retrospectively during 2017 (see Note 15).

In February 2016, the FASB issued guidance that will require organizations that lease assets to recognize assets and liabilities for leases with lease terms of more than 12 months. Consistent with current GAAP, the recognition, measurement, and presentation of expenses and cash flows arising from a lease by a lessee primarily will depend on its classification as a finance or operating lease. However, unlike current GAAP, which requires only capital leases to be recognized on the balance sheet, the new guidance will require both types of leases to be recognized on the balance sheet. The standard is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted. We are evaluating the impact of adopting this guidance on our consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting*, that amends the accounting for stock-based compensation and requires excess tax benefits and deficiencies to be recognized as a component of income tax expense rather than equity. This guidance also requires excess tax benefits and deficiencies to be presented as an operating activity on the statement of cash flows and allows an entity to make an accounting policy election to either estimate expected forfeitures or to account for them as they occur. The standard is effective for annual reporting periods beginning after December 15, 2016. We will adopt this guidance on November 1, 2017 in the first quarter for 2018 by recording the cumulative impact of applying this guidance to retained earnings. We estimate the impact to retained earnings, including the change in the forfeiture policy, will be approximately \$6 million.

The prospective inclusion of excess tax benefits and deficiencies as a component of our income tax expense will increase volatility within our provision for income taxes as the amount of excess tax benefits or deficiencies from stock-based compensation awards are dependent on our stock price at the date the awards vest. As a measure of sensitivity, had we adopted this guidance at the beginning of 2017, our income tax expense would have decreased by approximately \$4 million, which reflects the amount of excess tax benefits recognized during the year ended October 31, 2017.

In October 2016, the FASB issued ASU 2016-16, *Intra-Entity Transfers of Assets Other Than Inventory*, that removes the requirement under which the income tax consequences of intra-entity transfers are deferred until the assets are ultimately sold to an outside party, except for transfers of inventory. The tax consequences of such transfers would be recognized in tax expense when the transfers occur. The standard was effective for annual reporting periods beginning after December 15, 2017, and interim periods within those annual periods. We elected to early adopt this guidance on a modified retrospective basis during the first quarter of 2017. As a result, a \$10 million cumulative-effect adjustment was recorded directly to retained earnings as of November 1, 2016, the beginning of the annual period of adoption, with corresponding reductions of \$2 million, \$6 million and \$2 million to other current assets, other assets, and long-term deferred tax assets, respectively.

In January 2017, the FASB issued guidance to narrow the definition of a business and provide a framework that gives entities a basis for making reasonable judgments about whether a transaction involves an asset or a business. The standard is effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. Early adoption is permitted. We do not expect a material impact to our consolidated financial statements due to the adoption of this guidance.

In January 2017, the FASB issued guidance that eliminates the requirement to calculate the implied fair value of goodwill to measure a goodwill impairment charge. Instead, entities will record an impairment charge based on the excess of a reporting unit's carrying amount over its fair value. The standard is effective for annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. We do not expect a material impact to our consolidated financial statements due to the adoption of this guidance.

In March 2017, the FASB issued guidance that requires the service cost component of net periodic pension cost and net periodic post-retirement benefit cost to be included in operating expenses (together with other employee compensation costs) and the other components of the cost to be included in non-operating expenses. The standard is effective for annual and interim periods beginning after December 31, 2017. Early adoption is permitted. We are evaluating the impact of adopting this guidance on our consolidated financial statements.

In May 2017, the FASB issued guidance that clarifies when changes to the terms or conditions of a share-based payment award must be accounted for as modifications. Specifically, an entity would not apply modification accounting if the fair value, vesting conditions, and classification of the awards are the same immediately before and after the modification. The standard is effective for fiscal years beginning after December 31, 2017, and interim periods within those fiscal years. Early adoption is permitted. We are evaluating the impact of adopting this guidance on our consolidated financial statements.

In August 2017, the FASB issued guidance to enable entities to better portray the economics of their risk management activities in the financial statements and enhance transparency and understandability of hedge results. The standard is effective for fiscal

years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted. We are evaluating the impact of adopting this guidance on our consolidated financial statements.

Other amendments to GAAP 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. ACQUISITIONS

Acquisitions in 2017

Acquisition of Ixia

On April 18, 2017, pursuant to the terms of an Agreement and Plan of Merger dated January 30, 2017, between Keysight and Ixia (the "Merger Agreement"), we acquired all of the outstanding common stock of Ixia for \$1,622 million, net of \$72 million of cash acquired, pursuant to an exchange offer for \$19.65 per share (the "Merger Consideration"). Pursuant to the Merger Agreement, any outstanding and unexercised Ixia stock options with an exercise price below the Merger Consideration and any outstanding Ixia restricted stock awards were cancelled and converted into the right to receive a cash payment equal to the merger consideration of \$19.65 per share (minus the exercise price for the Ixia stock options). The vested portion of the awards associated with prior service of Ixia employees represented approximately \$47 million of the total consideration. We funded the acquisition with a combination of cash and proceeds from debt and equity financings. As a result of the acquisition, Ixia has become a wholly-owned subsidiary of Keysight. Accordingly, the results of Ixia are included in Keysight's consolidated financial statements from the date of the acquisition and are reported in the Ixia Solutions Group operating segment.

The Ixia acquisition was accounted for in accordance with the authoritative accounting guidance. The acquired assets and assumed liabilities were recorded by Keysight at their estimated fair values. Keysight determined the estimated fair values with the assistance of appraisals or valuations performed by third party specialists, discounted cash flow analysis, and estimates made by management. We expect to leverage and expand the existing sales channels and product development resources, and utilize the assembled workforce. The company also anticipates opportunities for growth through expanded geographic and customer segment diversity and the ability to leverage additional products and capabilities. These factors, among others, contributed to a purchase price in excess of the estimated fair value of Ixia's net identifiable assets acquired (see summary of net assets below), and, as a result, we have recorded goodwill in connection with this transaction.

All goodwill was assigned to the Ixia Solutions Group. We do not expect the goodwill recognized or any potential impairment charges in the future to be deductible for income tax purposes.

A portion of the overall purchase price was allocated to acquired intangible assets. Amortization expense associated with acquired intangible assets is not deductible for tax purposes. Therefore, a deferred tax liability of approximately \$186 million was established primarily for the future amortization of these intangibles and is included in "other long-term liabilities" in the table below.

The following table summarizes the preliminary allocation of the purchase price to the estimated fair values of the assets acquired and liabilities assumed on the closing date of April 18, 2017 (in millions):

Cash and cash equivalents	\$	72
Short-term investments		44
Accounts receivable		91
Inventory		107
Other current assets		34
Property, plant and equipment		50
Goodwill		1,117
Other intangible assets		744
Other assets		4
Total assets acquired		<u>2,263</u>
Accounts payable		(10)
Employee compensation and benefits		(32)
Deferred revenue		(35)
Income and other taxes payable		(1)
Other accrued liabilities		(32)
Other long-term liabilities		(459)
Net assets acquired	\$	<u>1,694</u>

The fair values of cash and cash equivalents, short-term investments, accounts receivable, other current assets, accounts payable, employee compensation and benefits, and other accrued liabilities were generally determined using historical carrying values

given the short-term nature of these assets and liabilities. The fair values for acquired inventory, property, plant and equipment, intangible assets, and deferred revenue were determined with the input from third-party valuation specialists. The fair values of certain other assets and certain other liabilities were determined internally using historical carrying values and estimates made by management. During the third quarter of 2017, the fair value measurements of assets acquired and liabilities assumed as of the acquisition date were refined. The total purchase price allocation adjustment to goodwill in the third quarter was approximately \$137 million and related primarily to an increase in the allocation to deferred tax liabilities. Initially during the second quarter of 2017 upon closing of the acquisition, the company recorded a deferred tax liability of \$113 million for non-permanently invested earnings based on a preliminary calculation. During the third quarter of 2017, the company obtained additional information to allow the refinement of this calculation and made adjustments to increase the deferred tax liability for non-permanently invested earnings by \$149 million, to decrease the deferred tax liability by \$9 million for conformance of transfer pricing policies, and to decrease the deferred tax liability by \$3 million for other adjustments related to the Ixia U.S. group. During the fourth quarter of 2017, the company made adjustments to increase the deferred tax liability and recognize additional withholding tax receivable. These fourth quarter adjustments were under \$1 million. If additional information becomes available, we may revise the preliminary purchase price allocation during the remainder of the measurement period (which will not exceed 12 months from the acquisition date). Any such revisions or changes may be material.

Valuation of Intangible Assets Acquired

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

	Estimated Fair Value	Estimated useful life
Developed product technology	\$ 423	4 years
Customer relationships	234	7 years
Tradenames and trademarks	12	3 years
Backlog	8	90 days
Total intangible assets subject to amortization	677	
In-process research and development	67	
Total intangible assets	<u>\$ 744</u>	

As noted above, the intangible assets were valued with input from valuation specialists using the income approach, which includes the discounted cash flow, cost-savings, and relief from royalty methods. The in-process research and development was valued using the multi-period excess earnings method under the income approach by discounting forecasted cash flows directly related to the products expecting to result from the projects, net of returns on contributory assets. A discount rate of 14% was used to value the research and development projects, adjusted to reflect additional risks inherent in the acquired projects. The primary in-process projects acquired relate to next generation products which will be released in the near future. Total costs to complete for all Ixia in-process research and development were estimated at approximately \$12 million as of the close date.

Acquisition and integration costs directly related to the Ixia acquisition were recorded in the consolidated statement of operations as follows:

	Year Ended October 31, 2017 (in millions)
Cost of products and services	\$ 2
Research and development	1
Selling, general and administrative	42
Other income (expense), net	10
Total acquisition and integration costs	<u>\$ 55</u>

Such costs are expensed in accordance with the authoritative accounting guidance. In addition, for the year ended October 31, 2017, we incurred \$28 million of acquisition-related compensation expense to redeem certain of Ixia's outstanding unvested stock awards as of the date of the Merger Agreement that were determined to relate to post-merger service periods.

Acquisition of ScienLab

On August 31, 2017, we acquired all of the outstanding common stock of ScienLab for \$60 million, net of \$2 million of cash acquired. ScienLab is a Germany-based company that provides test solutions to automotive original equipment manufacturers and Tier 1 suppliers in the automotive and energy markets. This acquisition complements our portfolio, allowing end-to-end solutions for hybrid electric vehicles, electric vehicles, and battery test solutions that address e-mobility market dynamics. We funded the acquisition using existing cash. As a result of the acquisition, ScienLab has become a wholly-owned subsidiary of Keysight. Accordingly, the results of ScienLab are included in Keysight's consolidated financial statements from the date of the

acquisition and are reported in the Electronic Industrial Solutions Group operating segment. For the period from September 1, 2017 to October 31, 2017, ScienLab's net revenue and net loss was \$1 million and \$2 million, respectively.

The ScienLab acquisition was accounted for in accordance with the authoritative accounting guidance. The acquired assets and assumed liabilities were recorded by Keysight at their estimated fair values. Keysight determined the estimated fair values with the assistance of appraisals or valuations performed by third party specialists, discounted cash flow analysis, and estimates made by management. We expect to leverage and expand the existing sales channels and product development resources, and utilize the assembled workforce. The company also anticipates opportunities for growth through expanded geographic and customer segment diversity and the ability to leverage additional products and capabilities. These factors, among others, contributed to a purchase price in excess of the estimated fair value of ScienLab's net identifiable assets acquired (see summary of net assets below), and, as a result, we have recorded goodwill in connection with this transaction.

All goodwill was assigned to the Electronic Industrial Solutions Group. We do not expect the goodwill recognized or any potential impairment charges in the future to be deductible for income tax purposes.

A portion of the overall purchase price was allocated to acquired intangible assets. Amortization expense associated with acquired intangible assets is not deductible for tax purposes. Therefore, a deferred tax liability of approximately \$13 million was established primarily for the future amortization of these intangibles and is included in "other long-term liabilities" in the table below.

The following table summarizes the preliminary allocation of the purchase price to the estimated fair values of the assets acquired and liabilities assumed on the closing date of August 31, 2017 (in millions):

Cash and cash equivalents	\$	2
Accounts receivable		3
Inventory		16
Other current assets		1
Goodwill		23
Other intangible assets		40
Total assets acquired		<u>85</u>
Accounts payable		(1)
Deferred revenue		(3)
Income and other taxes payable		(2)
Current portion of long-term debt		(1)
Other long-term liabilities		(16)
Net assets acquired	\$	<u>62</u>

The fair values of cash and cash equivalents, accounts receivable, other current assets, accounts payable, deferred revenue, and current portion of long-term debt were generally determined using historical carrying values given the short-term nature of these assets and liabilities. The fair values for acquired inventory and intangible assets were determined with the input from third-party valuation specialists. The fair values of certain other liabilities were determined internally using historical carrying values and estimates made by management. As additional information becomes available, we may revise the preliminary purchase price allocation during the remainder of the measurement period (which will not exceed 12 months from the acquisition date). Any such revisions or changes may be material.

Valuation of Intangible Assets Acquired

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

	Estimated Fair Value	Estimated useful life
Developed product technology	\$ 33	6 years
Customer relationships	4	5 years
Non-compete agreements	1	3 years
Tradenames and trademarks	1	3 years
Backlog	1	6 months
Total intangible assets	<u>\$ 40</u>	

As noted above, the intangible assets were valued with input from valuation specialists using the income approach, which includes the discounted cash flow, cost-savings, and relief from royalty methods.

Acquisition and integration costs directly related to the ScienLab acquisition totaled \$1 million for the year ended October 31, 2017 which were recorded in selling, general and administrative expenses.

Acquisitions in 2015

Acquisition of Anite

On August 13, 2015, we acquired all of the share capital of Anite plc ("Anite.") Anite was a U.K.-based global company with strong software expertise and a leading supplier of wireless test solutions. As a result of the acquisition, Anite has become a wholly-owned subsidiary of Keysight. Accordingly, the results of Anite are included in Keysight's consolidated financial statements from the date of the acquisition. For the period from August 14, 2015 to October 31, 2015, Anite's net revenue was \$25 million and net loss was \$14 million. This acquisition strengthened our wireless software design and test portfolio and its Network Test business expanded our served addressable market. Coupled with Keysight's expertise in helping customers design and test hardware, we can now provide customers with more comprehensive wireless solutions. Anite's Network Test business will also enable us to provide innovative solutions that help customers deliver an outstanding experience for mobile users in the network.

The consideration paid was approximately \$558 million, net of \$43 million of cash acquired. We funded the acquisition using our existing cash. In connection with the acquisition of Anite, we entered into several foreign currency forward contracts to mitigate the currency exchange risk associated with the payment of the purchase price in British Pound currency. The aggregate notional amount of the currencies hedged was \$608 million. These foreign exchange contracts did not qualify for hedge accounting treatment and were not designated as hedging instruments. The resulting loss on settlement, on the date of acquisition, was \$2 million and was recorded in other income (expense) in the consolidated statement of operations for the year ended October 31, 2015.

The Anite acquisition was accounted for in accordance with the authoritative accounting guidance. The acquired assets and assumed liabilities were recorded by Keysight at their estimated fair values. Keysight determined the estimated fair values with the assistance of appraisals or valuations performed by third party specialists, discounted cash flow analysis, and estimates made by management. We expect to leverage and expand the existing sales channels and product development resources, and utilize the assembled workforce. The company also anticipates opportunities for growth through expanded geographic and customer segment diversity and the ability to leverage additional products and capabilities. These factors, among others, contributed to a purchase price in excess of the estimated fair value of Anite's net identifiable assets acquired (see summary of net assets below), and, as a result, we have recorded goodwill in connection with this transaction.

All goodwill was allocated to the Communications Solutions Group reporting unit. We do not expect the goodwill recognized to be deductible for income tax purposes. Any potential impairment charges made in the future associated with goodwill will not be tax deductible.

A portion of the overall purchase price was allocated to acquired intangible assets. Amortization expense associated with acquired intangible assets is not deductible for tax purposes. Therefore, a deferred tax liability of approximately \$47 million was established primarily for the future amortization of these intangibles and is included in "other long-term liabilities" in the table below.

The following table summarizes the final allocation of the purchase price to the estimated fair values of the assets acquired and liabilities assumed on the closing date of August 13, 2015 (in millions):

Cash and cash equivalents	\$	43
Accounts receivable		32
Inventory		19
Deferred tax assets		1
Other current assets		10
Property, plant and equipment		31
Intangible assets		244
Goodwill		324
Long-term deferred tax assets		5
Total assets acquired		<u>709</u>
Accounts payable		(10)
Employee compensation and benefits		(3)
Deferred revenue		(17)
Income and other taxes payable		—
Other accrued liabilities		(26)
Other long-term liabilities		(50)
Net assets acquired	\$	<u><u>603</u></u>

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

of these assets and liabilities. The fair values for acquired inventory, property, plant and equipment, intangible assets, and deferred revenue were determined with the input from third-party valuation specialists. The fair values of certain other assets and certain other liabilities were determined internally using historical carrying values and estimates made by management.

Valuations of intangible assets acquired

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

	Estimated Fair Value	Estimated useful life
Developed product technology	\$ 182	6 years
Customer relationships	31	8 years
Tradenames and trademarks	19	10 years
Total intangible assets subject to amortization	232	
In-process research and development	12	
Total intangible assets	<u>\$ 244</u>	

As noted above, the intangible assets were valued with input from valuation specialists using the income approach, which includes the discounted cash flow, cost-savings, and relief from royalty methods. The in-process research and development was valued using the multi-period excess earnings method under the income approach by discounting forecasted cash flows directly related to the products expecting to result from the projects, net of returns on contributory assets. Discount rates of 11% and 11.5% were used to value the research and development projects, adjusted to reflect additional risks inherent in the acquired projects. The primary in-process projects acquired relate to next generation products which will be released in the near future. Total costs to complete for all Anite in-process research and development were estimated at approximately \$1 million as of the close date.

Acquisition and integration costs directly related to the Anite acquisition were recorded in the consolidated statement of operations as follows:

	Year Ended October 31,		
	2017	2016	2015
	(in millions)		
Cost of products and services	\$ 1	\$ —	\$ —
Research and development	1	—	—
Selling, general and administrative	9	18	14
Total acquisition and integration costs	<u>\$ 11</u>	<u>\$ 18</u>	<u>\$ 14</u>

Such costs are expensed in accordance with the authoritative accounting guidance.

Supplemental Pro Forma Information (Unaudited)

The following represents pro forma operating results as if Ixia and Anite had been included in the company's consolidated statements of operations as of the beginning of fiscal 2016 and 2015, respectively (in millions, except per share amounts):

	Year Ended October 31,		
	2017	2016	2015
Net revenue	\$ 3,462	\$ 3,413	\$ 2,998
Net income	\$ 116	\$ 231	\$ 510
Net income per share - Basic	\$ 0.63	\$ 1.26	\$ 3.02
Net income per share - Diluted	\$ 0.62	\$ 1.25	\$ 2.98

The unaudited pro forma financial information for the years ended October 31, 2017 and 2016 combine the historical results of Keysight and Ixia for the years ended October 31, 2017 and 2016, assuming that the companies were combined as of November 1, 2015. The unaudited pro forma financial information for the year ended October 31, 2015 combines the historical results of Keysight and Anite for the year ended October 31, 2015, assuming that the companies were combined as of November 1, 2014. The unaudited pro forma financial information includes business combination accounting effects from the acquisition including amortization and depreciation charges from acquired intangible assets, property plant and equipment, interest expense on the financing transactions used to fund the Ixia acquisition and acquisition-related transaction costs and tax-related effects. Pro forma results of operations for ScienLab have not been presented because the effects of the acquisition were not material to the company's financial results.

The pro forma information as presented above is for informational purposes only and is not indicative of the results of operations that would have been achieved if the acquisition had taken place at the beginning of fiscal 2016 for Ixia and 2015 for Anite.

4. SHARE-BASED COMPENSATION

Keysight 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 employee stock option awards, Restricted Stock Units ("RSUs"), 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 ("LTP") Program based on estimated fair values.

On November 1, 2014, Keysight became an independent publicly-traded company through the distribution by Agilent Technologies, Inc. ("Agilent") of 100 percent of the outstanding common stock of Keysight to Agilent's shareholders (the "Separation"). Prior to the Separation, Keysight employees participated in Agilent's equity plans. Upon the Separation, outstanding Keysight employee stock options, RSUs and LTP Program awards previously issued under Agilent's equity plans were adjusted and converted into new Keysight stock-based awards under the Keysight 2014 Equity and Incentive Compensation Plan using a formula designed to preserve the intrinsic value and fair value of the awards immediately prior to the Separation. These adjusted awards retained the vesting schedule and expiration date of the original awards.

Description of Keysight's Share-Based Plans

Incentive compensation plans. The 2014 Equity and Incentive Compensation Plan (the "2014 Stock Plan") was originally adopted by the Board of Directors ("the Board") on July 16, 2014, subsequently amended and restated by the Board on September 29, 2014 and on January 22, 2015 and became effective as of November 1, 2014 (the "Effective Date"). The Board initially reserved 25 million shares of company common stock that may be issued under the 2014 Stock Plan, plus any shares forfeited or cancelled under the 2014 Stock Plan and subsequently reduced the number to 17 million shares. The 2014 Stock Plan provides for the grant of awards in the form of stock options, SARs, restricted stock, RSUs, performance shares and performance units with performance-based conditions on vesting or exercisability, and cash awards. The 2014 Stock Plan has a term of ten years. As of October 31, 2017, approximately 5 million shares were available for future awards under the 2014 Stock Plan.

Stock options granted under the 2014 Stock Plan may be either "incentive stock options," as defined in Section 422 of the Internal Revenue Code, or non-statutory. Options generally vest at a rate of 25 percent per year over a period of four years from the date of grant and generally have a maximum contractual term of ten years. The exercise price for stock options is generally not less than 100 percent of the fair market value of our common stock on the date the stock award is granted.

Effective November 1, 2014, the Compensation Committee of the Board of Directors approved the Performance awards plan, which is a performance stock award program administered under the 2014 Stock Plan, for the company's executive officers and other key employees. Participants in this program are entitled to receive unrestricted shares of the company's stock after the end of a three-year period, if specified performance targets are met. Performance awards are generally designed to meet the criteria of a performance award with the performance metrics and peer group comparison set at the beginning of the performance period. Based on the performance metrics the final award may vary from zero to 200 percent of the target award. The maximum contractual term for awards under the Performance awards program is three years. Awards granted under the LTP Program are based on a variety of targets, such as total shareholder return (TSR) or financial metrics such as operating margin, cost synergies and others. We consider the dilutive impact of this program in our diluted net income per share calculation only to the extent that the performance conditions are met.

Restricted stock units under our share-based plans are granted to directors, executives and employees. The estimated fair value of the restricted stock unit awards granted under the 2014 Stock Plan is determined based on the market price of Keysight common stock on the date of grant. 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.

Effective November 1, 2014, the company adopted the Employee Stock Purchase Plan. The ESPP allows eligible employees to contribute up to ten percent of their base compensation to purchase shares of Keysight common stock at 85 percent of the closing market price at purchase date. Shares authorized for issuance in connection with the ESPP are subject to an automatic annual increase of the lesser of one percent of the outstanding shares of Keysight common stock on November 1, or an amount determined by the Compensation Committee of our Board of Directors. Under the terms of the ESPP, in no event shall the number of shares issued under the ESPP exceed 75 million shares.

Under our ESPP, employees purchased 1,085,382 shares for \$32 million in 2017, 1,234,111 shares for \$30 million in 2016 and 493,289 shares for \$14 million in 2015. As of October 31, 2017, common stock authorized and available for issuance under our ESPP was 22,187,218 shares, which includes shares issued in November 2017 to participants in consideration of the aggregate contribution totaling \$17 million as of October 31, 2017.

Impact of Share-based Compensation Awards

All share-based awards compensation expense has been recognized using a straight-line amortization method and as required by guidance, has been reduced for estimated forfeitures.

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

	Year Ended October 31,		
	2017	2016	2015
	(in millions)		
Cost of products and services	\$ 11	\$ 11	\$ 12
Research and development	9	8	9
Selling, general and administrative	36	30	34
Total share-based compensation expense	<u>\$ 56</u>	<u>\$ 49</u>	<u>\$ 55</u>

At October 31, 2017 and 2016 no share-based compensation expense was capitalized within inventory. The income tax benefit (deficiency) realized from the exercised stock options and similar awards recognized was \$3 million in 2017, \$(5) million in 2016 and \$4 million in 2015.

Valuation Assumptions

The following assumptions were used to estimate the fair value of employee stock options and LTP Program grants.

	Year Ended October 31,		
	2017	2016	2015
Stock Option Plans:			
Weighted average risk-free interest rate	N/A	N/A	1.60%
Dividend yield	N/A	N/A	0%
Weighted average volatility	N/A	N/A	31%
Expected life	N/A	N/A	4.9 years
LTP Program:			
Volatility of Keysight shares	27%	25%	26%
Volatility of index/ peer group	15%	14%-54%	17%-67%
Price-wise correlation with selected peers	57%	38%	38%

The fair value of share-based awards for employee stock option awards was estimated using the Black-Scholes option pricing model. Shares granted under the LTP Program were valued using a Monte Carlo simulation model. Both the Black-Scholes and Monte Carlo simulation fair value models require the use of highly subjective and complex assumptions, including the option's expected life and the price volatility of the underlying stock. The estimated fair value of restricted stock awards is determined based on the market price of Keysight's common stock on the date of grant. Prior to the Separation, it was determined based on the market price of Agilent's common stock on the date of grant, adjusted for expected dividend yield.

We did not grant any option awards in 2017 and 2016. For the year ended October 31, 2015, we used the average historical volatility of eleven peer companies to estimate the volatility for our stock option awards. We considered our ability to find traded options of peer companies in the current market with similar terms and prices to our options.

As of November 1, 2014, Agilent's fiscal 2013 LTP Program grants to Keysight executives were classified as liability awards in our consolidated financial statements as the payout of Keysight shares is dependent upon Agilent Total Shareholder Return ("TSR") as compared to its peer companies at the end of fiscal 2015. The final payout resulted in reversal of \$4 million of expense recorded for those awards.

Share-based Payment Award Activity

Employee Stock Options

The following table summarizes employee stock option award activity made to our employees and directors for 2017:

	Options Outstanding (in thousands)	Weighted Average
Outstanding at October 31, 2016	3,276	\$ 25
Granted	—	\$ —
Exercised	(922)	\$ 20
Forfeited and expired	—	\$ —
Outstanding at October 31, 2017	2,354	\$ 27

There were no forfeited or expired options in 2017.

The options outstanding and exercisable for equity share-based payment awards at October 31, 2017 were as follows:

Range of Exercise Prices	Options Outstanding				Options Exercisable			
	Number	Weighted	Weighted	Aggregate	Number	Weighted	Weighted	Aggregate
	Outstanding	Average	Average	Intrinsic	Exercisable	Average	Average	Intrinsic
	(in thousands)	Remaining (in years)	Exercise	Value (in thousands)	(in thousands)	Remaining (in years)	Exercise	Value (in thousands)
\$0 - 25	766	3.9	\$ 19	\$ 19,522	766	3.9	\$ 19	\$ 19,522
\$25.01 - 30	667	6.1	\$ 30	9,905	477	6.1	\$ 30	7,088
\$30.01 - 40	921	7.0	\$ 31	12,593	438	7.0	\$ 31	5,984
	2,354	5.7	\$ 27	\$ 42,020	1,681	5.3	\$ 25	\$ 32,594

The aggregate intrinsic value in the table above represents the total pre-tax intrinsic value, based on Keysight's closing stock price of \$44.67 at October 31, 2017, that would have been received by award holders had all award holders exercised their awards that were in-the-money as of that date. The total number of in-the-money awards exercisable at October 31, 2017 was approximately 1.7 million.

The following table summarizes the aggregate intrinsic value of options exercised and the fair value of options granted in 2017, 2016 and 2015:

	Aggregate Intrinsic Value (in thousands)	Weighted Average Exercise	Per Share Value Using Black-Scholes
Options exercised in fiscal 2015	\$ 15,160	\$ 16	
Black-Scholes per share value of options granted during fiscal 2015			\$ 9.20
Options exercised in fiscal 2016	\$ 5,656	\$ 19	
Black-Scholes per share value of options granted during fiscal 2016			N/A
Options exercised in fiscal 2017	\$ 16,385	\$ 20	
Black-Scholes per share value of options granted during fiscal 2017			N/A

As of October 31, 2017 the unrecognized share-based compensation costs for outstanding stock option awards, net of expected forfeitures, was approximately \$1 million, which is expected to be amortized over a weighted average period of 1 year. See Note 5, "Income Taxes," for the tax impact on share-based award exercises.

Non-vested Awards

The following table summarizes non-vested award activity in 2017 primarily for our LTP Program and restricted stock unit awards:

	Shares	Weighted Average Grant Date Fair
	(in thousands)	
Non-vested at October 31, 2016	3,056	\$ 30
Granted	1,822	\$ 37
Vested	(1,205)	\$ 29
Forfeited	(33)	\$ 33
Non-vested at October 31, 2017	<u>3,640</u>	<u>\$ 33</u>

As of October 31, 2017 the unrecognized share-based compensation cost for non-vested restricted stock awards, net of expected forfeitures, was approximately \$47 million, which is expected to be amortized over a weighted average period of 2.7 years. The total fair value of restricted stock awards vested was \$43 million for 2017, \$33 million for 2016 and \$36 million for 2015.

5. INCOME TAXES

The domestic and foreign components of income before taxes are:

	Year Ended October 31,		
	2017	2016	2015
	(in millions)		
U.S. operations	\$ (147)	\$ (30)	\$ (6)
Non-U.S. operations	326	396	394
Total income before taxes	<u>\$ 179</u>	<u>\$ 366</u>	<u>\$ 388</u>

The provision (benefit) for income taxes is comprised of:

	Year Ended October 31,		
	2017	2016	2015
	(in millions)		
U.S. federal taxes:			
Current	\$ 21	\$ (15)	\$ 12
Deferred	(56)	(13)	(7)
Non-U.S. taxes:			
Current	101	32	24
Deferred	9	28	(158)
State taxes, net of federal benefit:			
Current	2	(1)	1
Deferred	—	—	3
Total provision (benefit) for income taxes	<u>\$ 77</u>	<u>\$ 31</u>	<u>\$ (125)</u>

The income tax provision does not reflect potential future tax savings resulting from excess deductions associated with our various share-based award plans.

The significant components of deferred tax assets and deferred tax liabilities included in the consolidated balance sheet are:

	October 31,			
	2017		2016	
	Deferred Tax Assets	Deferred Tax Liabilities	Deferred Tax Assets	Deferred Tax Liabilities
	(in millions)			
Inventory	\$ 16	\$ (3)	\$ 14	\$ (1)
Intangibles	55	(158)	88	(15)
Property, plant and equipment	16	(20)	15	(13)
Warranty reserves	17	(1)	17	—
Pension benefits	90	(58)	110	(3)
Employee benefits, other than retirement	29	(1)	25	—
Net operating loss, capital loss, and credit carryforwards	257	—	165	—
Unremitted earnings of foreign subsidiaries	—	(305)	—	(38)
Share-based compensation	26	—	23	—
Deferred revenue	24	(3)	38	(1)
Other	10	(10)	10	(5)
Subtotal	540	(559)	505	(76)
Tax valuation allowance	(63)	—	(38)	—
Total deferred tax assets or deferred tax liabilities	<u>\$ 477</u>	<u>\$ (559)</u>	<u>\$ 467</u>	<u>\$ (76)</u>

The increase in 2017 as compared to 2016 for the deferred tax liability primarily relates to an increase in unremitted earnings of foreign subsidiaries from the Ixia acquisition, Ixia and ScienLab deferred tax liabilities established for acquired intangible assets which are not deductible for tax purposes when amortized, and decreases in future pension liabilities primarily in Japan and the U.K. This is offset by an increase in the deferred tax asset for net operating losses primarily in Singapore and credit carryforwards primarily in the U.S.

Excess foreign tax credits associated with unremitted earnings are not recorded as an asset as they do not represent a separate deferred tax asset until earnings are remitted. However, unremitted foreign taxes reduce deferred tax liabilities associated with outside basis differences related to the investment in a foreign subsidiary to the extent the credit reduces a deferred tax liability of the investment.

We record U.S. income taxes on the undistributed earnings of foreign subsidiaries unless the subsidiaries' earnings are considered indefinitely reinvested outside the U.S. For the fiscal year ending October 31, 2017, we increased our deferred tax liability to \$305 million for the U.S. tax liability expected to be imposed upon the repatriation of unremitted foreign earnings that are not considered indefinitely reinvested. As of October 31, 2017, the cumulative amount of undistributed earnings considered indefinitely reinvested was \$1.5 billion. No deferred tax liability has been recognized on the basis difference created by such earnings since it is our intention to indefinitely reinvest those earnings in the company's foreign operations. Because of the availability of U.S. foreign tax credits, the determination of the unrecognized deferred tax liability on these earnings is not practicable.

Valuation allowances require an assessment of both positive and negative evidence when determining whether it is more likely than not that deferred tax assets are recoverable. Such assessment is required on a jurisdiction by jurisdiction basis.

The \$63 million valuation allowance as of October 31, 2017 is mainly related to capital losses in the U.K., California research credits, and net operating losses in the U.K. and Netherlands. The \$38 million valuation allowance as of October 31, 2016 was mainly related to deferred tax assets for capital losses in the U.K. and net operating losses in the Netherlands. The increase in valuation allowance from October 31, 2016 to October 31, 2017 is primarily due to an increase in the valuation allowance on California research credits and U.S. state net operating losses that were both acquired in the Ixia acquisition. We will maintain a valuation allowance until sufficient positive evidence exists to support reversal.

At October 31, 2017, we had U.S. federal net operating loss carryforwards of approximately \$10 million, U.S. capital loss carryforwards of approximately \$3 million, and U.S. state net operating loss carryforwards, primarily acquired in the Ixia acquisition, of approximately \$91 million. The U.S. federal net operating losses will expire in years beginning 2028 through 2030 if not utilized and capital loss carryforwards will expire in beginning in 2018 if not utilized. The U.S. state net operating loss carryforwards will begin to expire in 2018 if not utilized. At October 31, 2017, we had U.S. foreign tax credit carryforwards of approximately \$43 million, U.S. research credit carryforwards of approximately \$40 million, U.S. AMT carryforwards of \$1 million, and California research credits of approximately \$15 million. The U.S. federal credits begin to expire in 2025, if not utilized. The California research credits can be carried forward indefinitely. The U.S. federal and state net operating loss and tax credit carryforwards are subject to change of ownership limitations provided by the Internal Revenue Code and similar state

provisions. At October 31, 2017, we also had foreign net operating loss carryforwards of approximately \$2,608 million. Of this foreign loss, \$112 million will expire in years beginning 2023 through 2026 if not utilized. The remaining \$2,496 million has an indefinite life. At October 31, 2017, we had foreign capital loss carryforwards of approximately \$152 million with an indefinite life and \$3 million of tax credits in foreign jurisdictions with an indefinite life. Some of the foreign losses are subject to annual loss limitation rules. These annual loss limitations in foreign jurisdictions may result in the expiration or reduced utilization of the net operating losses.

The authoritative guidance prohibits recognition of a deferred tax asset for excess tax benefits related to stock and stock option plans that have not yet been realized through reduction in income taxes payable. Such unrecognized deferred tax benefit totals \$6 million as of October 31, 2017 and will be accounted for as a credit to retained earnings, upon the adoption of ASU 2016-09 on November 1, 2017. We have recognized approximately \$2 million as a credit to shareholders' equity for cumulative excess tax benefits related to stock and stock option plans that have been realized as of October 31, 2017.

The differences between the U.S. federal statutory income tax rate and our effective tax rate are:

	Year Ended October 31,		
	2017	2016	2015
	(in millions)		
Profit before tax times statutory rate	\$ 63	\$ 128	\$ 136
State income taxes, net of federal benefit	1	(1)	3
Non-U.S. income taxed at different rates	(83)	(88)	(107)
Singapore tax incentives through amortization	—	—	(219)
Retroactive Singapore tax rate incentive impact	—	—	(15)
Repatriation of foreign earnings	—	(45)	—
Foreign earnings not considered indefinitely reinvested	3	39	33
Change in unrecognized tax benefits	23	1	33
U.S. research credits	(7)	(5)	(1)
Share-based compensation adjustment for non-U.S. employees	6	4	4
Deemed repatriation of foreign earnings	5	3	3
Malaysia tax assessment	68	—	—
Other, net	(2)	(5)	5
Provision (benefit) for income taxes	\$ 77	\$ 31	\$ (125)
Effective tax rate	43%	8%	(32)%

We benefit from tax incentives in several different jurisdictions, most significantly in Singapore, and several jurisdictions have granted tax incentives that require renewal at various times in the future. The tax incentives provide lower rates of taxation on certain classes of income and require various thresholds of investments and employment or specific types of income in those jurisdictions. The tax incentives are due for renewal between 2024 and 2025. The impact of the tax incentives decreased income taxes by \$49 million, \$34 million and \$250 million in 2017, 2016, and 2015, respectively. The benefit of the tax incentives on net income per share (diluted) was approximately \$0.27, \$0.20 and \$1.46 in 2017, 2016 and 2015, respectively. The increase in the benefit from the tax incentive from 2016 to 2017 is primarily due to an increase in pre-tax book income earned in Singapore. Of the \$1.46 benefit of the tax incentives on net income per share (diluted) in 2015, \$1.21 benefit relates to one-time items due to the retroactive granting of the Singapore tax incentives.

For 2017, the effective tax rate was 43 percent, which is higher than the U.S. statutory rate primarily due to the payment of a prior year Malaysia tax assessment of \$68 million, including tax and penalties, which we are currently in the process of appealing to the Special Commissioners of Income Tax ("SCIT") in Malaysia.

For 2016, the effective tax rate was 8 percent, which is lower than the U.S. statutory rate primarily due to a higher percentage of earnings in the non-U.S. jurisdictions taxed at lower statutory tax rates. Also, the tax rate was lower than the U.S. statutory rate due to the net tax benefit of \$45 million resulting from the repatriation of earnings from Japan, which includes a U.S. tax expense of \$27 million offset by \$72 million of foreign tax credits recorded in connection with the repatriation.

For 2015, the effective tax rate was a benefit of 32 percent, which is lower than the U.S. statutory rate primarily due to the retroactive benefit of two tax incentives in Singapore approved during 2015. Also, the tax rate was lower than the U.S. statutory rate due to a higher percentage of earnings in the non-U.S. jurisdictions taxed at lower statutory tax rates.

The breakdown between current and long-term income tax assets and liabilities, excluding deferred tax assets and liabilities, was as follows for the years 2017 and 2016:

	October 31,	
	2017	2016
	(in millions)	
Current income tax assets (included within other current assets)	\$ 40	\$ 29
Current income tax liabilities (included within income and other taxes payable)	(7)	(19)
Long-term income tax assets (included within other assets)	—	6
Long-term income tax liabilities (included within other long-term liabilities)	(39)	(21)
Total	<u>\$ (6)</u>	<u>\$ (5)</u>

The calculation of our tax liabilities involves 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.

The aggregate changes in the balances of our unrecognized tax benefits including all federal, state and foreign tax jurisdictions are as follows:

	2017	2016	2015
	(in millions)		
Balance, beginning of year	\$ 51	\$ 50	\$ 129
Reductions due to spin transaction	—	—	(113)
Additions due to acquisition	22	—	2
Additions for tax positions related to the current year	31	5	34
Additions for tax positions from prior years	52	1	2
Reductions for tax positions from prior years	(9)	(4)	(4)
Settlements with taxing authorities	—	—	—
Statute of limitations expirations	(1)	(1)	—
Balance, end of year	<u>\$ 146</u>	<u>\$ 51</u>	<u>\$ 50</u>

As of October 31, 2017, we had \$166 million of unrecognized tax benefits including interest and penalties which, if recognized, would affect our effective tax rate. However, approximately \$4 million of the unrecognized tax benefits were related to state income tax positions which, if recognized, would be in the form of a deferred tax asset that would likely not affect our effective tax rate due to a valuation allowance. Under the terms of the agreement between Agilent and Keysight pertaining to tax matters, as finalized at the time of separation, the unrecognized tax benefits as of separation differed from the amount allocated using the separate return methodology, therefore, a \$113 million reduction in the unrecognized tax benefits occurred as of November 1, 2014 upon separation.

We recognized a tax expense of \$18 million, \$1 million, and zero of interest and penalties related to unrecognized tax benefits in 2017, 2016 and 2015, respectively. Cumulatively, interest and penalties accrued as of the end of October 31, 2017, 2016 and 2015 were \$20 million, \$2 million and \$1 million, respectively. The increase in interest and penalties from October 31, 2016 to October 31, 2017 is primarily due to \$18 million of penalties paid for the Malaysia tax assessment relating to the 2008 tax year.

For the majority of our entities, the open tax years for the IRS, state and most foreign audit authorities are from August 1, 2014 through the current tax year. For certain foreign entities, the tax years generally remain open, at most, back to the year 2007. Given the number of years and numerous matters that remain subject to examination in various tax jurisdictions, we are unable to estimate the range of possible changes to the balance of our unrecognized tax benefits.

The company is being audited in Malaysia for the 2008 tax year. Although this tax year pre-dates our spin-off from Agilent, pursuant to the agreement between Agilent and Keysight pertaining to tax matters, as finalized at the time of separation, for certain entities including Malaysia, any historical tax liability is the responsibility of Keysight. In the fourth quarter of this year, Keysight paid income taxes and penalties of \$68 million on gains related to intellectual property rights, although we are currently

in the process of appealing to the Special Commissioners of Income Tax (“SCIT”) in Malaysia. The company believes there are numerous defenses to the current assessment; the statute of limitations for the 2008 tax year in Malaysia is closed and the income in question is exempt from tax in Malaysia. The company is disputing this assessment and pursuing all avenues to resolve this issue favorably for the company.

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.

	Year Ended October 31,		
	2017	2016	2015
	(in millions)		
Numerator:			
Net income	\$ 102	\$ 335	\$ 513
Denominator:			
Basic weighted-average shares	180	170	169
Potential common shares— stock options and other employee stock plans	2	2	2
Diluted weighted-average shares	182	172	171

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, the tax benefits recorded in additional paid-in capital 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 and tax benefits that would be recorded in additional paid-in capital when the award becomes deductible are collectively assumed 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. For the year ended 2017, 2016 and 2015, we excluded zero, 1.7 million shares and zero shares from the calculation of diluted earnings per share, respectively. In addition, we also exclude from the calculation of diluted earnings per share, stock options, ESPP, LTP Program and restricted stock awards, whose combined exercise price, unamortized fair value and excess tax benefits collectively were greater than the average market price of our common stock because their effect would also be anti-dilutive. For the years ended October 31, 2017, 2016 and 2015, we excluded 7,760 shares, 26,200 shares and 46,300 shares, respectively, from the calculation of diluted earnings per share.

7. SUPPLEMENTAL CASH FLOW INFORMATION

Net cash paid for income taxes was \$121 million in 2017, \$23 million in 2016 and \$40 million in 2015. The 2017 payments include \$68 million paid to the Malaysia tax authority associated with a tax assessment on gains related to intellectual property transfers that we are currently in the process of appealing to the Special Commissioners of Income Tax (“SCIT”) in Malaysia.

Cash paid for interest was \$64 million in 2017, \$44 million in 2016 and \$46 million in 2015. In 2017, we also paid fees of \$9 million in connection with a bridge loan facility that were amortized to interest expense and classified as financing activity.

The following table summarizes our non-cash investing activities that are not reflected in the consolidated statement of cash flows:

	Year Ended October 31,		
	2017	2016	2015
	(in millions)		
Non-cash investing activities:			
Capital expenditures in accounts payables	\$ (4)	\$ (11)	\$ 10
Capital expenditures in other long-term liabilities	4	1	—
	\$ —	\$ (10)	\$ 10

8. INVENTORY

	October 31,	
	2017	2016
	(in millions)	
Finished goods	\$ 286	\$ 218
Purchased parts and fabricated assemblies	302	256
Total inventory	<u>\$ 588</u>	<u>\$ 474</u>

The increase in inventory was driven primarily by business acquisitions. Inventory-related excess and obsolescence charges recorded in total cost of products were \$16 million in 2017, \$17 million in 2016 and \$28 million in 2015. We record excess and obsolete inventory charges for both inventory on our site as well as inventory at our contract manufacturers and suppliers where we have non-cancellable purchase commitments.

9. PROPERTY, PLANT AND EQUIPMENT, NET

	October 31,	
	2017	2016
	(in millions)	
Land	\$ 63	\$ 66
Buildings and leasehold improvements	678	679
Machinery and equipment	1,008	931
Total property, plant and equipment	1,749	1,676
Accumulated depreciation and amortization	(1,219)	(1,164)
Property, plant and equipment, net	<u>\$ 530</u>	<u>\$ 512</u>

Asset impairments were zero in 2017, 2016 and 2015. In 2017 we recognized a loss of \$5 million related to assets that were damaged or destroyed due to the northern California wildfires. Depreciation expense was \$92 million in 2017, \$85 million in 2016 and \$81 million in 2015. Buildings and leasehold improvements include assets held under capital lease of \$4 million and \$1 million at October 31, 2017 and 2016, respectively.

10. GOODWILL AND OTHER INTANGIBLE ASSETS

The goodwill balances as of October 31, 2017, 2016 and 2015 and the movements in 2017 and 2016 for each of our reportable segments were as follows:

	Communications Solutions Group	Electronic Industrial Solutions Group	Ixia Solutions Group	Services Solutions Group	Total
	(in millions)				
Goodwill as of October 31, 2015	\$ 433	\$ 204	\$ —	\$ 63	\$ 700
Foreign currency translation impact	12	9	—	1	22
Goodwill arising from acquisitions and other adjustments	11	3	—	—	14
Goodwill as of October 31, 2016	456	216	—	64	736
Foreign currency translation impact	(15)	1	—	1	(13)
Goodwill arising from acquisitions	—	23	1,117	19	1,159
Goodwill as of October 31, 2017	<u>\$ 441</u>	<u>\$ 240</u>	<u>\$ 1,117</u>	<u>\$ 84</u>	<u>\$ 1,882</u>

Other intangible assets as of October 31, 2017 and 2016 consisted of the following:

	Other Intangible Assets as of October 31, 2017			Other Intangible Assets as of October 31, 2016		
	Gross Carrying Amount	Accumulated Amortization and Impairments	Net Book Value	Gross Carrying Amount	Accumulated Amortization and	Net Book Value
	(in millions)					
Developed technology	\$ 808	\$ 252	\$ 556	\$ 309	\$ 159	\$ 150
Backlog	13	12	1	4	4	—
Trademark/Tradenname	33	8	25	20	4	16
Customer relationships	304	61	243	65	35	30
Non-compete agreements	1	—	1	—	—	—
Total amortizable intangible assets	1,159	333	826	398	202	196
In-Process R&D	29	—	29	12	—	12
Total	\$ 1,188	\$ 333	\$ 855	\$ 410	\$ 202	\$ 208

In 2017, we recorded additions to goodwill and other intangible assets of \$1,159 million and \$785 million, based on the preliminary allocation of the purchase prices to the estimated fair values of the assets acquired and liabilities assumed in the acquisition of Ixia and other acquisitions. There was no foreign exchange translation impact to other intangible assets in 2017. In 2017, we transferred \$43 million from in-process R&D to developed technology as projects were successfully completed and recorded an impairment charge of \$7 million related to the cancellation of an in-process R&D project.

In 2016, we recorded additions to goodwill and other intangible assets of \$14 million and \$19 million, respectively, due to an acquisition in 2016 and a revision to the preliminary purchase price allocation of the Anite acquisition, which was completed in 2015. We recorded \$4 million of foreign exchange translation impact to other intangible assets in 2016.

Amortization of other intangible assets was \$131 million in 2017, \$43 million in 2016, and \$15 million in 2015. Future amortization expense related to existing finite-lived purchased intangible assets is estimated to be \$198 million in 2018, \$196 million in 2019, \$194 million in 2020, \$126 million in 2021, \$50 million in 2022, and \$62 million thereafter.

11. INVESTMENTS

Net book value of investments as of October 31, 2017 and 2016 were as follows:

	October 31,	
	2017	2016
	(in millions)	
Long-Term		
Cost method investments	\$ 16	\$ 15
Trading securities	13	11
Available-for-sale investments	34	29
Total	\$ 63	\$ 55

Cost method investments consist of non-marketable equity securities and are accounted for at historical cost. Trading securities are reported at fair value, with gains or losses resulting from changes in fair value recognized currently in earnings. Investments designated as available-for-sale consists of equity securities and are reported at fair value, with unrealized gains and losses, net of tax, included in accumulated other comprehensive income (loss).

Investments in available-for-sale securities at estimated fair value were as follows:

	October 31, 2017				October 31, 2016			
	Amortized Cost	Gross Unrealized	Gross Unrealized	Fair Value	Amortized Cost	Gross Unrealized	Gross Unrealized	Fair Value
	(in millions)							
Long-Term								
Equity securities	\$ 15	\$ 19	\$ —	\$ 34	\$ 15	\$ 14	\$ —	\$ 29

All of our investments, excluding trading securities, are subject to periodic impairment review. The impairment analysis requires significant judgment to identify events or circumstances that would likely have a significant adverse effect on the future value of the investment. We consider various factors in determining whether an impairment is other-than-temporary, including the severity and duration of the impairment, forecasted recovery, the financial condition and near-term prospects of the investee, and our ability and intent to hold the investment for a period of time sufficient to allow for any anticipated recovery in market value. There was no impairment recognized in the year ended 2017. In 2016, cost method investments with a carrying amount of \$2 million were written down to their fair value of zero, resulting in an impairment charge of \$2 million, which is included in other income (expense). In 2015, cost method investments with a carrying amount of \$4 million were written down to their fair value of zero, resulting in an impairment charge of \$4 million, which is included in other income (expense).

Realized gains or losses on the sale of available-for-sale or cost method securities were zero in 2017, 2016 and 2015. Net unrealized gains on our trading securities portfolio were \$2 million of unrealized gains in 2017, zero in 2016 and \$1 million of unrealized gains in 2015.

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

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

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

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

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

Financial assets and liabilities measured at fair value on a recurring basis as of October 31, 2017 and 2016 were as follows:

	Fair Value Measurements as of October 31, 2017				Fair Value Measurements as of October 31, 2016			
	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
	(in millions)							
Assets:								
<i>Short-term</i>								
Cash equivalents								
Money market funds	\$ 403	\$ 403	\$ —	\$ —	\$ 471	\$ 471	\$ —	\$ —
Derivative instruments (foreign exchange contracts)	6	—	6	—	4	—	4	—
<i>Long-term</i>								
Trading securities	13	13	—	—	11	11	—	—
Available-for-sale investments	34	34	—	—	29	29	—	—
Total assets measured at fair value	<u>\$ 456</u>	<u>\$ 450</u>	<u>\$ 6</u>	<u>\$ —</u>	<u>\$ 515</u>	<u>\$ 511</u>	<u>\$ 4</u>	<u>\$ —</u>
Liabilities:								
<i>Short-term</i>								
Derivative instruments (foreign exchange contracts)	\$ 1	\$ —	\$ 1	\$ —	\$ 8	\$ —	\$ 8	\$ —
<i>Long-term</i>								
Deferred compensation liability	13	—	13	—	11	—	11	—
Total liabilities measured at fair value	<u>\$ 14</u>	<u>\$ —</u>	<u>\$ 14</u>	<u>\$ —</u>	<u>\$ 19</u>	<u>\$ —</u>	<u>\$ 19</u>	<u>\$ —</u>

Our money market funds, trading securities, and available-for-sale investments are generally valued using quoted market prices and therefore are classified within Level 1 of the fair value hierarchy. Our deferred compensation liability are classified as Level 2 because the inputs used in the calculations are observable, although the values are not directly based on quoted market prices. 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.

Trading securities (which are earmarked to pay the deferred compensation liability) and deferred compensation liability are reported at fair value, with gains or losses resulting from changes in fair value recognized currently in earnings. Investments designated as available-for-sale and certain derivative instruments are reported at fair value, with unrealized gains and losses, net of tax, included in accumulated other comprehensive income (loss). Realized gains and losses from the sale of these instruments are recorded in earnings.

13. DERIVATIVES

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

Cash Flow Hedges

We enter into foreign exchange contracts to hedge our forecasted operational cash flow exposures resulting from changes in foreign currency exchange rates. These foreign exchange contracts, carried at fair value, have maturities between one and twelve months. These derivative instruments are designated and qualify as cash flow hedges under the criteria prescribed in the authoritative guidance. The changes in the value of the effective portion of the derivative instrument are recognized in accumulated other comprehensive income. Amounts associated with cash flow hedges are reclassified to cost of sales in the 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 will be reclassified to other income (expense) in the current period. Changes in the fair value of the ineffective portion of derivative instruments are recognized in earnings in the 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 other income (expense) over the life of the option contract. The ineffectiveness for the years ended October 31, 2017, 2016 and 2015 was not significant.

Other Hedges

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

In connection with the acquisition of Anite, which closed on August 13, 2015, Keysight entered into foreign currency forward contracts to mitigate the currency exchange risk associated with the payment of the purchase price in British Pound currency. The aggregate notional amount of the currencies hedged was \$608 million. These foreign exchange contracts did not qualify for hedge accounting treatment and were not designated as hedging instruments. The resulting loss on settlement, on the date of acquisition, was \$2 million and was recorded in other income (expense) in the consolidated statement of operations for the year ended October 31, 2015.

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 October 31, 2017 was immaterial. The credit-risk-related contingent features underlying these agreements had not been triggered as of October 31, 2017.

There were 127 foreign exchange forward contracts open as of October 31, 2017 and designated as cash flow hedges. There were 71 foreign exchange forward contracts and zero foreign exchange option contract open as of October 31, 2017 not designated as hedging instruments. The aggregated notional amounts by currency and designation as of October 31, 2017 were as follows:

Currency	Derivatives in Cash Flow Hedging Relationships		Derivatives Not Designated as Hedging Instruments	
	Forward Contracts		Forward Contracts	
	Buy/(Sell)		Buy/(Sell)	
	(in millions)			
Euro	\$	—	\$	36
British Pound		—		(15)
Singapore Dollar		10		(1)
Malaysian Ringgit		62		(3)
Japanese Yen		(101)		(38)
Other currencies		(14)		(6)
	\$	(43)	\$	(27)

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 presentation of derivative instruments held in the consolidated balance sheet as of October 31, 2017 and 2016 were as follows:

Fair Values of Derivative Instruments					
Asset Derivatives			Liability Derivatives		
Balance Sheet Location	Fair Value		Balance Sheet Location	Fair Value	
	October 31, 2017	October 31, 2016		October 31, 2017	October 31, 2016
(in millions)					
Derivatives designated as hedging instruments:					
Cash flow hedges					
Foreign exchange contracts					
Other current assets	\$ 5	\$ 2	Other accrued liabilities	\$ —	\$ 4
Derivatives not designated as hedging instruments:					
Foreign exchange contracts					
Other current assets	1	2	Other accrued liabilities	1	4
Total derivatives	\$ 6	\$ 4		\$ 1	\$ 8

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 was as follows:

	2017	2016	2015
		(in millions)	
Derivatives designated as hedging instruments:			
<i>Cash flow hedges</i>			
Foreign exchange contracts:			
Gain (loss) recognized in accumulated other comprehensive income	\$ 6	\$ (7)	\$ (15)
Gain (loss) reclassified from accumulated other comprehensive income into cost of sales	\$ (1)	\$ (12)	\$ (1)
Derivatives not designated as hedging instruments:			
Gain (loss) recognized in other income (expense), net	\$ 6	\$ (10)	\$ (7)

The estimated amount of existing net gain at October 31, 2017 expected to be reclassified from accumulated other comprehensive income to cost of sales within the next twelve months is \$3 million.

14. RESTRUCTURING

We initiated a targeted workforce reduction program in July 2015 that was designed to restructure our operations and cost structure for optimization of resources and cost savings. Approximately 100 employees of our total workforce were impacted by this program. In 2015, we also announced a voluntary pre-retirement notification program for retirement-eligible employees to provide early notice of their planned retirement in return for severance benefits. Approximately 160 employees of our total workforce opted for this program. Severance payments under both programs were complete at October 31, 2016.

We initiated a targeted workforce reduction program in November 2016 that is expected to reduce Keysight's total headcount by between 60 to 200 employees. The timing and scope of workforce reductions will vary based on local legal requirements. This targeted workforce management program was designed to support our site consolidation strategy, align with our new industry segment structure and improve efficiency. As of October 31, 2017, approximately 85 employees exited under this workforce reduction program, which we expect to be substantially complete by the end of first quarter of fiscal 2018.

A summary of balances and restructuring activity for the above plans is shown in the table below:

	Workforce reduction	U.S. Pre- retirement Plan
	(in millions)	
Balance at October 31, 2015	\$ 4	\$ 2
Cash payments	(4)	(2)
Balance at October 31, 2016	—	—
Income statement expense	8	—
Cash payments	(6)	—
Balance at October 31, 2017	<u>\$ 2</u>	<u>\$ —</u>

The restructuring accrual of \$2 million at October 31, 2017 relating to workforce reduction is recorded in other accrued liabilities in the consolidated balance sheet.

A summary of the charges in the consolidated statement of operations resulting from all restructuring activities, including acquisition and other activities, is shown below:

	Year Ended October 31,		
	2017	2016	2015
	(in millions)		
Cost of products and services	\$ 1	\$ —	\$ 4
Research and development	3	—	2
Selling, general and administrative	8	—	10
Total restructuring and other related costs	<u>\$ 12</u>	<u>\$ —</u>	<u>\$ 16</u>

15. RETIREMENT PLANS AND POST-RETIREMENT BENEFIT PLANS

General. Substantially all of our employees are covered under various defined benefit and/or defined contribution retirement plans. Additionally, we sponsor post-retirement health care benefits for our eligible U.S. employees. We provide U.S. employees, who meet eligibility criteria under the Keysight Technologies, Inc. Retirement Plan ("RP"), defined benefits which are based on an employee's base or target pay during the years of employment and on length of service. For eligible employees' service through October 31, 1993, the benefit payable under the RP is reduced by any amounts due to the eligible employees' service under our defined contribution Deferred Profit-Sharing Plan ("DPSP"), which was closed to new participants as of November 1993.

In addition, in the U.S. we maintain the Supplemental Benefits Retirement Plan ("SBRP"), a supplemental unfunded non-qualified defined benefit plan to provide benefits that would be provided under the RP but for limitations imposed by the Internal Revenue Code. The RP and the SBRP comprise the "U.S. Plans."

As of October 31, 2017, the fair value of plan assets of the DPSP for U.S. employees was \$297 million. The obligation for the DPSP eligible employees equals the fair value of the DPSP assets due to the benefit payable under the RP being the greater of the RP and DPSP.

Eligible employees outside the U.S. generally receive retirement benefits under various retirement plans ("Non-U.S. Plans") based upon factors such as years of service and/or employee compensation levels. Eligibility is generally determined in accordance with local statutory requirements.

401(k) defined contribution plan. Eligible U.S. employees may participate in the Keysight Technologies, Inc. 401(k) Plan (the "401(k) Plan"). Enrollment in the 401(k) Plan is automatic for employees who meet eligibility requirements unless they decline participation. Under the 401(k) Plan, we provide matching contributions to employees up to a maximum of 4 percent of an employee's annual eligible compensation. The maximum contribution to the 401(k) Plan is 50 percent of an employee's annual eligible compensation, subject to regulatory limitations. Employees hired on or after August 1, 2015 are not eligible to participate in the RP or the U.S. Post-Retirement Benefit Plan. We provide matching contributions to these employees under the 401(k) Plan up to a maximum of 6 percent of the employee's annual eligible compensation. The 401(k) Plan employer expense included in income from operations was \$16 million in 2017, \$14 million in 2016 and \$14 million in 2015.

Post-retirement medical benefit plans. In addition to receiving retirement benefits, U.S. employees who meet eligibility requirements as of their termination date may participate in the Keysight Technologies, Inc. Health Plan for Retirees ("U.S. Post-Retirement Benefit Plan"). Eligible retirees who were less than age 50 as of January 1, 2005 and who retire after age 55 with 15 or more years of service (age 54 with 14 or more years of service for workforce managed terminations) are eligible for a fixed amount which can be utilized to pay for premiums under a Keysight sponsored pre-Medicare medical plan, non-Keysight sponsored medical, dental and vision plans purchased in the individual insurance market, as well as Medicare Part A, Medicare

Part B, prescription drug premiums, and eligible premiums paid for coverage under another employer's retiree medical, retiree vision and retiree dental plan provided such premiums were not paid on a pre-tax basis. Eligible retirees who were at least age 50 as of January 1, 2005 and who retire after age 55 with 15 or more years of service (age 54 with 14 or more years of service for workforce managed terminations) currently choose from managed-care or indemnity options, with the company subsidization level or stipend dependent on a number of factors including eligibility and length of service. Grandfathered retirees receive a fixed monthly subsidy toward pre-65 premium costs (subsidy capped at 2011 levels) and a fixed monthly stipend post-65. The subsidy amounts will not increase.

Components of net periodic benefit cost. The company uses alternate methods of amortization, as allowed by the authoritative guidance, which amortizes the actuarial gains and losses on a consistent basis for the years presented. For the U.S. Plans, gains and losses are amortized over the average future working lifetime. For most Non-U.S. Plans and the U.S. Post-Retirement Benefit Plan, gains and losses are amortized using a separate layer for each year's gains and losses.

On December 15, 2016, we transferred a portion of the assets and obligations of our Japanese Employees' Pension Fund ("EPF") to the Japanese government. The remaining portion of the EPF was transferred to a new Keysight Japan corporate defined benefit pension plan. The difference between the obligations settled with the government of \$142 million and the assets transferred to the government of \$51 million resulted in an increase in the funded status of the new defined benefit pension plan of \$91 million. The settlement resulted in a gain of \$68 million which is included in other operating expense (income) in the consolidated statement of operations. Previously accrued salary progression of \$4 million was derecognized at the time of settlement.

For the years ended October 31, 2017, 2016 and 2015, components of net periodic benefit cost (benefit) and other amounts recognized in other comprehensive income were comprised of:

	Defined Benefit Plans						U.S. Post-Retirement Benefit Plan		
	U.S. Plans			Non-U.S. Plans					
	2017	2016	2015	2017	2016	2015	2017	2016	2015
	(in millions)								
Net periodic benefit cost (benefit)									
Service cost — benefits earned during the period	\$ 22	\$ 21	\$ 22	\$ 18	\$ 19	\$ 18	\$ 1	\$ 1	\$ 1
Interest cost on benefit obligation	21	22	20	23	32	41	7	9	7
Expected return on plan assets	(33)	(37)	(38)	(74)	(74)	(72)	(11)	(14)	(13)
Amortization:									
Net actuarial loss	15	9	4	33	27	27	21	20	12
Prior service credit	(8)	(7)	(7)	(1)	(1)	(1)	(15)	(17)	(21)
Net periodic benefit cost (benefit)	17	8	1	(1)	3	13	3	(1)	(14)
Curtailments and settlements	—	—	—	(69)	—	—	—	—	—
Net periodic benefit cost (benefit)	\$ 17	\$ 8	\$ 1	\$ (70)	\$ 3	\$ 13	\$ 3	\$ (1)	\$ (14)
Other changes in plan assets and benefit obligations recognized in other comprehensive (income) loss									
Net actuarial loss (gain)	\$ 4	\$ 60	\$ 57	\$ (145)	\$ 188	\$ 51	\$ (16)	\$ 5	\$ 31
Amortization:									
Net actuarial loss	(15)	(9)	(4)	(33)	(27)	(27)	(21)	(20)	(12)
Prior service credit	8	7	7	1	1	1	15	17	21
Settlement	—	—	—	(24)	—	—	—	—	—
Curtailment	—	—	—	1	—	—	—	—	—
Foreign currency	—	—	—	1	(5)	24	—	—	—
Total recognized in other comprehensive (income) loss	(3)	58	60	(199)	157	49	(22)	2	40
Total recognized in net periodic benefit cost (benefit) and other comprehensive (income) loss	\$ 14	\$ 66	\$ 61	\$ (269)	\$ 160	\$ 62	\$ (19)	\$ 1	\$ 26

Funded status. As of October 31, 2017 and 2016, the funded status of the defined benefit and post-retirement benefit plans was as follows:

	U.S. Defined Benefit Plans		Non-U.S. Defined Benefit Plans		U.S. Post-Retirement Benefit Plan	
	2017	2016	2017	2016	2017	2016
	(in millions)					
Change in fair value of plan assets:						
Fair value — beginning of year	\$ 464	\$ 475	\$ 1,317	\$ 1,343	\$ 171	\$ 179
Actual return on plan assets	72	16	136	79	26	5
Employer contributions	—	—	34	38	—	1
Settlements	—	—	(51)	—	—	—
Benefits paid	(21)	(27)	(42)	(40)	(15)	(14)
Currency impact	—	—	46	(103)	—	—
Fair value — end of year	<u>\$ 515</u>	<u>\$ 464</u>	<u>\$ 1,440</u>	<u>\$ 1,317</u>	<u>\$ 182</u>	<u>\$ 171</u>
Change in benefit obligation:						
Benefit obligation — beginning of year	\$ 610	\$ 559	\$ 1,508	\$ 1,425	\$ 214	\$ 223
Service cost	22	21	18	19	1	1
Interest cost	21	22	23	32	7	9
Settlements	—	(1)	(142)	—	—	—
Curtailments	—	—	(12)	—	—	—
Actuarial loss (gain)	43	36	(69)	192	—	(5)
Benefits paid	(21)	(27)	(42)	(40)	(15)	(14)
Currency impact	—	—	54	(120)	—	—
Benefit obligation — end of year	<u>\$ 675</u>	<u>\$ 610</u>	<u>\$ 1,338</u>	<u>\$ 1,508</u>	<u>\$ 207</u>	<u>\$ 214</u>
Overfunded (Underfunded) status of PBO	<u>\$ (160)</u>	<u>\$ (146)</u>	<u>\$ 102</u>	<u>\$ (191)</u>	<u>\$ (25)</u>	<u>\$ (43)</u>
Amounts recognized in the consolidated balance sheet consist of:						
Other assets	\$ —	\$ —	\$ 211	\$ 12	\$ —	\$ —
Employee compensation and benefits	(1)	(1)	—	—	—	—
Retirement and post-retirement benefits	(159)	(145)	(109)	(203)	(25)	(43)
Net asset (liability) ^(a)	<u>\$ (160)</u>	<u>\$ (146)</u>	<u>\$ 102</u>	<u>\$ (191)</u>	<u>\$ (25)</u>	<u>\$ (43)</u>
Amounts recognized in accumulated other comprehensive income (loss):						
Actuarial losses	\$ 135	\$ 145	\$ 385	\$ 586	\$ 45	\$ 83
Prior service credits	(11)	(18)	(1)	(3)	(42)	(58)
Total	<u>\$ 124</u>	<u>\$ 127</u>	<u>\$ 384</u>	<u>\$ 583</u>	<u>\$ 3</u>	<u>\$ 25</u>

^(a) Certain of our immaterial defined benefit plans are not included in these disclosures.

The amounts in accumulated other comprehensive income expected to be amortized into net periodic benefit cost (benefit) during 2018 are as follows:

	U.S. Defined Benefit Plans	Non-U.S. Defined Benefit Plans	U.S. Post-Retirement Benefit Plan
	(in millions)		
Amortization of net prior service credit	\$ (7)	\$ (1)	\$ (15)
Amortization of actuarial net loss	\$ 12	\$ 25	\$ 16

Investment policies and strategies as of October 31, 2017. In the U.S., our RP and U.S. Post-Retirement Benefit Plan target asset allocations are approximately 70 percent to equities and approximately 30 percent to fixed income investments. Our DPSP target asset allocation is approximately 60 percent to equities and approximately 40 percent to fixed income investments. The general investment objective for all our plan assets is to obtain the optimum rate of investment return on the total investment portfolio consistent with the assumption of a reasonable level of risk. Specific investment objectives for the plans' portfolios are to: maintain and enhance the purchasing power of the plans' assets; achieve investment returns consistent with the level of risk being taken; and earn performance rates of return in accordance with the benchmarks adopted for each asset class. Outside of the U.S., our target asset allocation is from 36 to 60 percent to equities, from 40 to 64 percent to fixed income investments, from zero to 20 percent to real estate investments and from zero to 14 percent to cash, depending on the plan. All plans' assets are broadly

diversified. Due to fluctuations in capital markets, our actual allocations of plan assets as of October 31, 2017, differ from the target allocation. Our policy is to periodically bring the actual allocation in line with the target allocation.

Equity securities include exchange-traded common stock and preferred stock of companies from broadly diversified industries. Fixed income securities include a portfolio of corporate bonds of companies from diversified industries, government securities, mortgage-backed securities, asset-backed securities, derivative instruments and other. Portions of the cash and cash equivalent, equity, and fixed income investments are held in commingled funds.

Fair Value. The measurement of the fair value of pension and post-retirement plan assets uses the valuation methodologies and the inputs as described in Note 12, "Fair Value Measurements."

Cash and Cash Equivalents - Cash and cash equivalents consist of short-term investment funds. The funds also invest in short-term domestic fixed income securities and other securities with debt-like characteristics emphasizing short-term maturities and quality. Cash and cash equivalents are classified as Level 1 investments except when the cash and cash equivalents are held in commingled funds, which have a daily net asset value ("NAV") derived from quoted prices for the underlying securities in active markets; these are classified as assets measured at NAV.

Equity - Some equity securities consisting of common and preferred stock are held in commingled funds, which have daily NAVs derived from quoted prices for the underlying securities in active markets; these are classified as assets measure at NAV. Commingled funds which have quoted prices in active markets are classified as Level 1 investments.

Fixed Income - Some of the fixed income securities are held in commingled funds, which have daily NAVs derived from the underlying securities; these are classified as assets measured at NAV. Commingled funds which have quoted prices in active markets are classified as Level 1 investments.

Other Investments - Other investments include property-based pooled vehicles which invest in real estate. Market NAVs are regularly published in the financial press or on corporate websites and so these investments are classified as Level 3 investments or assets measured at NAV.

The following table presents the fair value of U.S. Defined Benefit Plans assets classified under the appropriate level of the fair value hierarchy as of October 31, 2017 and 2016:

	October 31, 2017	Fair Value Measurement as of October 31 2017 Using			
		Quoted Prices	Significant	Significant	Assets Measured at NAV ^(b)
		in Active Markets for	Other Observable	Unobservable Inputs	
			(in millions)		
Cash and cash equivalents	\$ 5	\$ —	\$ 5	\$ —	\$ —
Equity	371	114	1	—	256
Fixed income	139	16	75	—	48
Other investments	—	—	—	—	—
Total assets measured at fair value	<u>\$ 515</u>	<u>\$ 130</u>	<u>\$ 81</u>	<u>\$ —</u>	<u>\$ 304</u>

^(b) Per ASU 2015-07, certain instruments that are measured at fair value using the NAV per share practical expedient have not been categorized in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the total value of plan assets.

	October 31, 2016	Fair Value Measurement as of October 31 2016 Using			
		Quoted Prices	Significant	Significant	Assets Measured at NAV ^(b)
		in Active Markets for	Other Observable	Unobservable Inputs	
			(in millions)		
Cash and cash equivalents	\$ 6	\$ —	\$ 6	\$ —	\$ —
Equity	337	92	1	—	244
Fixed income	121	15	68	—	38
Other investments	—	—	—	—	—
Total assets measured at fair value	<u>\$ 464</u>	<u>\$ 107</u>	<u>\$ 75</u>	<u>\$ —</u>	<u>\$ 282</u>

^(b) Per ASU 2015-07, certain instruments that are measured at fair value using the NAV per share practical expedient have not been categorized in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the total value of plan assets.

For U.S. Defined Benefit Plans, there was no activity relating to assets measured at fair value using significant unobservable inputs (Level 3) during 2017 and 2016.

The following table presents the fair value of U.S. Post-Retirement Benefit Plan assets classified under the appropriate level of the fair value hierarchy as of October 31, 2017 and 2016:

		Fair Value Measurement as of October 31 2017 Using			
	October 31, 2017	Quoted Prices in Active Markets for	Significant Other Observable	Significant Unobservable Inputs	Assets Measured at NAV ^(b)
			(in millions)		
Cash and cash equivalents	\$ 3	\$ 1	\$ 2	\$ —	\$ —
Equity	132	41	—	—	91
Fixed income	47	5	25	—	17
Other investments	—	—	—	—	—
Total assets measured at fair value	\$ 182	\$ 47	\$ 27	\$ —	\$ 108

^(b) Per ASU 2015-07, certain instruments that are measured at fair value using the NAV per share practical expedient have not been categorized in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the total value of plan assets.

		Fair Value Measurement as of October 31 2016 Using			
	October 31, 2016	Quoted Prices in Active Markets for	Significant Other Observable	Significant Unobservable Inputs	Assets Measured at NAV ^(b)
			(in millions)		
Cash and cash equivalents	\$ 3	\$ 1	\$ 2	\$ —	\$ —
Equity	122	33	—	—	89
Fixed income	46	6	26	—	14
Other investments	—	—	—	—	—
Total assets measured at fair value	\$ 171	\$ 40	\$ 28	\$ —	\$ 103

^(b) Per ASU 2015-07, certain instruments that are measured at fair value using the NAV per share practical expedient have not been categorized in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the total value of plan assets.

For U.S. Post-Retirement Benefit Plan, there was no activity relating to assets measured at fair value using significant unobservable inputs (Level 3) during 2017 and 2016.

The following table presents the fair value of Non-U.S. Defined Benefit Plans assets classified under the appropriate level of the fair value hierarchy as of October 31, 2017 and 2016:

		Fair Value Measurement as of October 31 2017 Using			
	October 31, 2017	Quoted Prices in Active Markets for	Significant Other Observable	Significant Unobservable Inputs	Assets Measured at NAV ^(b)
			(in millions)		
Cash and cash equivalents	\$ —	\$ —	\$ —	\$ —	\$ —
Equity	757	156	2	—	599
Fixed income	677	—	200	—	477
Other investments	6	—	—	3	3
Total assets measured at fair value	\$ 1,440	\$ 156	\$ 202	\$ 3	\$ 1,079

^(b) Per ASU 2015-07, certain instruments that are measured at fair value using the NAV per share practical expedient have not been categorized in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the total value of plan assets.

	Fair Value Measurement as of October 31 2016 Using				
	October 31, 2016	Quoted Prices	Significant	Significant	Assets Measured at NAV ^(b)
		in Active	Other	Unobservable	
		Markets for	Observable	Inputs	
		(in millions)			
Cash and cash equivalents	\$ 36	\$ 28	\$ 8	\$ —	\$ —
Equity	660	137	3	—	520
Fixed income	615	11	240	—	364
Other investments	6	—	—	3	3
Total assets measured at fair value	\$ 1,317	\$ 176	\$ 251	\$ 3	\$ 887

^(b) Per ASU 2015-07, certain instruments that are measured at fair value using the NAV per share practical expedient have not been categorized in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the total value of plan assets.

For Non-U.S. Defined Benefit Plans assets measured at fair value using significant unobservable inputs (Level 3), the following table summarizes the change in balances during 2017 and 2016:

	Year Ended October 31,	
	2017	2016
	(in millions)	
Balance, beginning of year	\$ 3	\$ —
Realized gains	—	—
Unrealized gains/(losses)	—	—
Purchases, sales, issuances, and settlements	—	3
Transfers in (out)	—	—
Balance, end of year	<u>\$ 3</u>	<u>\$ 3</u>

The table below presents the combined projected benefit obligation ("PBO"), accumulated benefit obligation ("ABO") and fair value of plan assets, grouping plans using comparisons of the PBO and ABO relative to the plan assets as of October 31, 2017 and 2016:

	2017		2016	
	Benefit Obligation PBO	Fair Value of Plan Assets	Benefit Obligation PBO	Fair Value of Plan Assets
	(in millions)		(in millions)	
U.S. defined benefit plans where PBO exceeds the fair value of plan assets	\$ 675	\$ 515	\$ 610	\$ 464
U.S. defined benefit plans where fair value of plan assets exceeds PBO	—	—	—	—
Total	\$ 675	\$ 515	\$ 610	\$ 464
Non-U.S. defined benefit plans where PBO exceeds or is equal to the fair value of plan assets	\$ 378	\$ 269	\$ 1,329	\$ 1,126
Non-U.S. defined benefit plans where fair value of plan assets exceeds PBO	960	1,171	179	191
Total	\$ 1,338	\$ 1,440	\$ 1,508	\$ 1,317
	ABO		ABO	
U.S. defined benefit plans where ABO exceeds the fair value of plan assets	\$ 629	\$ 515	\$ 581	\$ 464
U.S. defined benefit plans where the fair value of plan assets exceeds ABO	—	—	—	—
Total	\$ 629	\$ 515	\$ 581	\$ 464
Non-U.S. defined benefit plans where ABO exceeds or is equal to the fair value of plan assets	\$ 364	\$ 269	\$ 1,290	\$ 1,126
Non-U.S. defined benefit plans where fair value of plan assets exceeds ABO	952	1,171	171	191
Total	\$ 1,316	\$ 1,440	\$ 1,461	\$ 1,317

Contributions and estimated future benefit payments. During 2018, we do not expect to contribute to the U.S. Defined Benefit Plans or the U.S. Post-Retirement Benefit Plan, and we expect to contribute \$35 million to the Non-U.S. Defined Benefit Plans. The following table presents expected future benefit payments for the next 10 years.

	U.S. Defined Benefit Plans	Non-U.S. Defined Benefit Plans	U.S. Post-Retirement Benefit Plan
	(in millions)		
2018 \$	32	\$ 37	\$ 17
2019 \$	35	\$ 32	\$ 18
2020 \$	40	\$ 37	\$ 17
2021 \$	46	\$ 40	\$ 16
2022 \$	47	\$ 42	\$ 16
2023 - 2027	\$ 266	\$ 236	\$ 73

Assumptions. The assumptions used to determine the benefit obligations and expense for our defined benefit and post-retirement benefit plans are presented in the tables below. The expected long-term return on assets below represents an estimate of long-term returns on investment portfolios consisting of a mixture of equities, fixed income and other investments in proportion to the asset allocations of each of our plans. We consider long-term rates of return, which are weighted based on the asset classes (both historical and forecasted) in which we expect our pension and post-retirement funds to be invested. Discount rates reflect the current rate at which pension and post-retirement obligations could be settled based on the measurement dates of the plans - October 31. The U.S. discount rates as of October 31, 2017 and 2016 were determined based on the results of matching expected plan benefit payments with cash flows from a hypothetically constructed bond portfolio. The Non-U.S. discount rates as of October 31, 2017 and 2016 were determined using spot rates along the yield curve to calculate disaggregated discount rates. In addition, we used this method to calculate two components of the periodic benefit cost: service cost and interest cost. The range of assumptions that were used for the Non-U.S. Defined Benefit Plans reflects the different economic environments within various countries.

Assumptions used to calculate the net periodic benefit cost (benefit) for the year ended October 31, 2017 and 2016 were as follows:

	For years ended October 31,	
	2017	2016
U.S. Defined Benefit Plans:		
Discount rate	3.50%	4.00%
Average increase in compensation levels	3.00%	3.00%
Expected long-term return on assets	7.50%	8.00%
Non-U.S. Defined Benefit Plans:		
Discount rate	0.40-2.63%	0.76-3.80%
Average increase in compensation levels	2.50-3.50%	2.50-3.50%
Expected long-term return on assets	4.00-6.50%	4.00-6.50%
U.S. Post-Retirement Benefits Plan:		
Discount rate	3.50%	4.00%
Expected long-term return on assets	7.50%	8.00%
Current medical cost trend rate	6.00%	7.00%
Ultimate medical cost trend rate	3.50%	3.50%
Medical cost trend rate decreases to ultimate rate in year	2029	2028

Assumptions used to calculate the benefit obligation as of October 31, 2017 and 2016 were as follows:

	As of the years ended October 31,	
	2017	2016
U.S. Defined Benefit Plans:		
Discount rate	3.75%	3.50%
Average increase in compensation levels	3.00%	3.00%
Non-U.S. Defined Benefit Plans:		
Discount rate	0.59-2.52%	0.40-2.63%
Average increase in compensation levels	2.50-3.25%	2.50-3.50%
U.S. Post-Retirement Benefits Plan:		
Discount rate	3.50%	3.50%
Current medical cost trend rate	6.00%	6.00%
Ultimate medical cost trend rate	3.50%	3.50%
Medical cost trend rate decreases to ultimate rate in year	2029	2028

Health care trend rates do not have a significant effect on the total service and interest cost components or on the post-retirement benefit obligation amounts reported for the U.S. Post-Retirement Benefit Plan for the years ended October 31, 2017 and 2016.

16. GUARANTEES

Standard Warranty

Our standard warranty term for most of our products from the date of delivery is typically three years. We accrue for standard warranty costs based on historical trends in warranty charges. 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 related product revenue is recognized.

Activity related to the standard warranty accrual, which is included in other accrued and other long-term liabilities in our consolidated balance sheet, is as follows:

	Year Ended October 31,	
	2017	2016
	(in millions)	
Beginning balance	\$ 44	\$ 53
Accruals for warranties, including change in estimates	33	23
Settlements made during the period	(32)	(32)
Ending balance	<u>45</u>	<u>\$ 44</u>

Accruals for warranties due within one year	\$	24	\$	23
Accruals for warranties due after one year		21		21
Ending balance at October 31	\$	45	\$	44

During the year ended October 31, 2016, we reduced the standard warranty accrual by \$5 million as a result of lower than expected historical warranty charges. This benefit was recognized in the consolidated statement of operations for the year ended October 31, 2016.

Indemnifications to Agilent

In connection with our separation from Agilent, we agreed to indemnify Agilent against certain damages and expenses that it might incur in the future. These indemnifications primarily cover damages relating to liabilities of the electronic measurement business of Agilent which was contributed to Keysight. Additionally, if the distribution of Keysight common stock to the Agilent shareholders were determined to be taxable for U.S. federal income tax purposes, Agilent and its shareholders that are subject to U.S. federal income tax could incur significant U.S. federal income tax liabilities. If such determination is the result of our taking or failing to take certain actions, then under the agreement between Agilent and Keysight pertaining to tax matters, as finalized at the time of separation, we are generally required to indemnify Agilent against such tax liabilities. Pursuant to the agreement pertaining to tax matters, we may also be required to indemnify Agilent for other contingent tax liabilities, which could materially adversely affect our financial position. In our opinion, the fair value of these indemnification obligations was not material as of October 31, 2017.

Indemnifications to Avago

In connection with the sale of Agilent's semiconductor products business in December 2005, Agilent agreed to indemnify Avago, its affiliates and other related parties against certain damages and expenses that it might incur in the future. The continuing indemnifications primarily cover damages and expenses relating to liabilities of the businesses that Agilent retained and did not transfer to Avago, as well as pre-closing taxes and other specified items. In connection with our separation from Agilent, we have agreed to indemnify Agilent in connection with the indemnification obligations of Agilent with respect to Avago. In our opinion, the fair value of these indemnification obligations was not material as of October 31, 2017.

Indemnifications to Verigy

In connection with the spin-off of Verigy, Agilent agreed to indemnify Verigy and its affiliates against certain damages which it might incur in the future. These indemnifications primarily cover damages relating to liabilities of the businesses that Agilent did not transfer to Verigy, liabilities that might arise under limited portions of Verigy's IPO materials that relate to Agilent, and costs and expenses incurred by Agilent or Verigy to effect the IPO, arising out of the distribution of Agilent's remaining holding in Verigy ordinary shares to Agilent's stockholders, or incurred to effect the separation of the semiconductor test solutions business from Agilent to the extent incurred prior to the separation on June 1, 2006. On July 4, 2011, Verigy announced the completion by Advantest Corporation of its acquisition of Verigy. Verigy operates as a wholly-owned subsidiary of Advantest and Agilent's indemnification obligations to Verigy should be unaffected. In connection with our separation from Agilent, we have agreed to indemnify Agilent in connection with the indemnification obligations of Agilent with respect to Verigy. In our opinion, the fair value of these indemnification obligations was not material as of October 31, 2017.

Indemnifications to HP Inc.

Agilent has given multiple indemnities to HP Inc. ("HP") in connection with Agilent's activities prior to its spin-off from HP for the businesses that constituted Agilent prior to the spin-off. These indemnifications cover a variety of aspects of Agilent's business, including, but not limited to, employee, tax, intellectual property and environmental matters. The agreements containing these indemnifications have been previously disclosed as exhibits to Agilent's registration statement on Form S-1 filed on August 16, 1999. As part of our separation from Agilent, we have agreed to assume these indemnification obligations of Agilent relating to the electronic measurement business with respect to HP. In our opinion, the fair value of these indemnification obligations was not material as of October 31, 2017.

Indemnifications to Officers and Directors

Our corporate by-laws require that we indemnify our officers and directors, as well as those who act as directors and officers of other entities at our request, against expenses, judgments, fines, settlements and other amounts actually and reasonably incurred in connection with any proceedings arising out of their services to Keysight and such other entities, including service with respect to employee benefit plans. In addition, we have entered into separate indemnification agreements with each director and each board-appointed officer of Keysight which provide for indemnification of these directors and officers under similar circumstances and under additional circumstances. The indemnification obligations are more fully described in the by-laws and the indemnification agreements. We purchase standard insurance to cover claims or a portion of the claims made against our directors and officers. Since a maximum obligation is not explicitly stated in our by-laws or in our indemnification agreements and will depend on the facts and circumstances that arise out of any future claims, the overall maximum amount of the obligations cannot

be reasonably estimated. Historically, we have not made payments related to these obligations, and the fair value for these indemnification obligations was not material as of October 31, 2017.

Other Indemnifications

As is customary in our industry and as provided for in local law in the U.S. and other jurisdictions, many of our standard contracts provide remedies to our customers and others with whom we enter into contracts, such as defense, settlement, or payment of judgment for intellectual property claims related to the use of our products. From time to time, we indemnify customers, as well as our suppliers, contractors, lessors, lessees, companies that purchase our businesses or assets and others with whom we enter into contracts, against combinations of loss, expense, or liability arising from various triggering events related to the sale and the use of our products and services, the use of their goods and services, the use of facilities and state of our owned facilities, the state of the assets and businesses that we sell and other matters covered by such contracts, usually up to a specified maximum amount. In addition, from time to time we also provide protection to these parties against claims related to undiscovered liabilities, additional product liability or environmental obligations. In our experience, claims made under such indemnifications are rare and the associated estimated fair value of the liability was not material as of October 31, 2017.

In connection with the previous sales of several of Agilent's businesses, Agilent agreed to indemnify the buyers of such businesses, their respective affiliates and other related parties against certain damages that they might incur in the future. The continuing indemnifications primarily cover damages relating to liabilities of the businesses that Agilent retained and did not transfer to the buyers, as well as other specified items. In connection with our separation from Agilent, we agreed to assume the indemnification obligations of Agilent to the extent that the retained businesses were part of the electronic measurement business. In our opinion, the fair value of these indemnification obligations was not material as of October 31, 2017.

17. COMMITMENTS AND CONTINGENCIES

Operating Lease Commitments. We lease certain real and personal property from unrelated third parties under non-cancellable operating leases. Future minimum lease payments under operating leases as of October 31, 2017 were \$51 million in 2018, \$44 million in 2019, \$31 million in 2020, \$23 million in 2021, \$20 million in 2022 and \$53 million thereafter. Future minimum sublease income under leases as of October 31, 2017 was \$1 million in 2018, \$1 million in 2019, \$1 million in 2020, \$1 million in 2021, \$1 million in 2022 and none thereafter. Certain leases require us to pay property taxes, insurance and routine maintenance, and include escalation clauses. Total rent expense was \$51 million in 2017, \$45 million in 2016 and \$43 million in 2015.

Capital Lease Commitments. We had capital lease obligations of \$4 million and \$1 million as of October 31, 2017 and October 31, 2016, respectively. The current portion of the total obligation is included in other accrued liabilities and the remaining long-term portion is included in other long-term liabilities on the consolidated balance sheet. Future minimum lease payments, including financing charges, under capital leases as of October 31, 2017 were \$1 million in 2018, zero in 2019, \$1 million in 2020, zero in 2021, \$1 million in 2022 and \$2 million thereafter. Assets held under capital leases are included in net property, plant, and equipment on the consolidated balance sheet.

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

18. DEBT

Short-Term Debt

Revolving Credit Facility

On February 15, 2017, we entered into an amended and restated credit agreement (the "Revolving Credit Facility") that replaced our existing \$450 million unsecured credit facility dated September 15, 2014. The Revolving Credit Facility provides for a \$450 million, five-year unsecured revolving credit facility that will expire on February 15, 2022 and bears interest at an annual rate of LIBOR + 1.30%. In addition, the Revolving Credit Facility permits us to increase the total commitments under this credit facility by up to \$150 million in the aggregate on one or more occasions upon request. We may use amounts borrowed under the facility for general corporate purposes. During the year ended October 31, 2017, we borrowed and repaid \$182 million of borrowings outstanding under the Revolving Credit Facility. As of October 31, 2017, we had no borrowings outstanding under the Revolving Credit Facility. We were in compliance with the covenants of the Revolving Credit Facility during the year ended October 31, 2017.

Bridge Facility

On January 30, 2017, we entered into a commitment letter, pursuant to which certain lenders agreed to provide a senior unsecured 364-day bridge loan facility of up to \$1.684 billion ("the Bridge Facility") for the purpose of providing the financing to support Keysight's acquisition of Ixia. Under the terms of commitment letter, the Bridge Facility was automatically terminated upon the Ixia acquisition on April 18, 2017. For the year ended October 31, 2017, we incurred costs in connection with the Bridge Facility of \$9 million that were amortized to interest expense.

Long-Term Debt

The following table summarizes the components of our long-term debt:

	October 31,	
	2017	2016
	(in millions)	
3.30% Senior Notes due 2019 (\$500 face amount less unamortized costs of \$2 and \$3)	\$ 498	\$ 497
4.55% Senior Notes due 2024 (\$600 face amount less unamortized costs of \$4 and \$4)	596	596
4.60% Senior Notes due 2027 (\$700 face amount less unamortized costs of \$6 and zero)	694	—
Term loan (\$260 face amount less unamortized costs of zero)	260	—
	2,048	1,093
Less: Current portion of long-term debt	10	—
Total	\$ 2,038	\$ 1,093

2019 Senior Notes

In October 2014, the company issued an aggregate principal amount of \$500 million in senior notes ("2019 Senior Notes"). The 2019 Senior Notes were issued at 99.902 percent of their principal amount. The notes will mature on October 30, 2019, and bear interest at a fixed rate of 3.30 percent per annum. The interest is payable semi-annually on April 30 and October 30 of each year. We incurred issuance costs of \$4 million in connection with the 2019 Senior Notes that are being amortized to interest expense over the term of the senior notes.

2024 Senior Notes

In October 2014, the company issued an aggregate principal amount of \$600 million in senior notes ("2024 Senior Notes"). The 2024 Senior Notes were issued at 99.966 percent of their principal amount. The notes will mature on October 30, 2024, and bear interest at a fixed rate of 4.55 percent per annum. The interest is payable semi-annually on April 30 and October 30 of each year. We incurred issuance costs of \$5 million in connection with the 2024 Senior Notes that are being amortized to interest expense over the term of the senior notes.

2027 Senior Notes

In April 2017, the company issued an aggregate principal amount of \$700 million in senior notes ("2027 Senior Notes"). The 2027 Senior Notes were issued at 99.873 percent of their principal amount. The notes will mature on April 6, 2027 and bear interest at a fixed rate of 4.60 percent per annum. The interest is payable semi-annually on April 6 and October 6 of each year, commencing on October 6, 2017. We incurred issuance costs of \$6 million in connection with the 2027 Senior Notes that, along with the debt discount of \$1 million, are being amortized to interest expense over the term of the senior notes. The 2027 Senior Notes are unsecured and rank equally in right of payment with all of our other senior unsecured indebtedness.

Senior Unsecured Term Loan

On February 15, 2017, we entered into a term credit agreement that provides for a three-year \$400 million senior unsecured term loan that bears interest at an annual rate of LIBOR + 1.50%. The term loan was drawn upon the closing of the Ixia acquisition. During the year ended October 31, 2017, we repaid \$140 million of the term loan. As of October 31, 2017, we had borrowings outstanding under the term loan of \$260 million, of which \$10 million is due in the next twelve months. In connection with the term loan, we incurred issuance costs of \$1 million that are being amortized to interest expense over the term of loan.

As of October 31, 2017 and October 31, 2016, we had \$26 million and \$18 million, respectively, of outstanding letters of credit unrelated to the credit facility that were issued by various lenders.

19. STOCKHOLDERS' EQUITY

Issuance of Common Stock

In March 2017, we completed a public offering of our common stock and issued 13,142,856 shares for total cash proceeds of \$444 million, net of underwriting discounts and offering costs.

Stock Repurchase Program

On February 18, 2016, the Board of Directors approved a stock repurchase program authorizing the purchase of up to \$200 million of the company's common stock. Under the program, shares may be purchased from time to time, subject to general business and market conditions and other investment opportunities, through open market purchases, privately negotiated transactions or other means. All such shares and related costs are held as treasury stock and accounted for at trade date using the cost method. The stock repurchase program may be commenced, suspended or discontinued at any time at the company's discretion and does not have an expiration date.

For the year ended October 31, 2017, we did not repurchase any shares of common stock under the stock repurchase program. For the year ended October 31, 2016, we repurchased 2.3 million shares of common stock for \$62 million. All such shares and related costs are held as treasury stock and accounted for at trade date using the cost method.

Accumulated other comprehensive income

The following table summarizes the components of our accumulated other comprehensive loss as of October 31, 2017 and 2016, net of tax effect:

	October 31,	
	2017	2016
	(in millions)	
Unrealized gain on equity securities, net of tax (expense) of \$(5) and \$(4)	\$ 14	\$ 10
Foreign currency translation, net of tax (expense) of \$(63) and \$(63)	(39)	(29)
Unrealized losses on defined benefit plans, net of tax benefit of \$82 and \$141	(433)	(596)
Unrealized losses on derivative instruments, net of tax benefit (expense) of \$(2) and \$1	1	(3)
Total accumulated other comprehensive loss	<u>\$ (457)</u>	<u>\$ (618)</u>

Changes in accumulated other comprehensive income by component and related tax effects for the years ended October 31, 2017 and 2016 were as follows:

			Net defined benefit pension cost and post retirement plan costs:			
	Unrealized gain on equity securities	Foreign currency translation	Actuarial Losses	Prior service credits	Unrealized gains (losses) on derivatives	Total
	(in millions)					
At October 31, 2015	\$ 21	\$ (48)	\$ (511)	\$ 65	\$ (6)	\$ (479)
Other comprehensive income (loss) before reclassifications	(13)	19	(244)	—	(7)	(245)
Amounts reclassified out of accumulated other comprehensive income	—	—	56	(25)	12	43
Tax (expense) benefit	2	—	53	10	(2)	63
Other comprehensive income (loss) for the twelve months ended October 31, 2016	(11)	19	(135)	(15)	3	(139)
At October 31, 2016	10	(29)	(646)	50	(3)	(618)
Other comprehensive income (loss) before reclassifications	5	(10)	177 ^(a)	—	6	178
Amounts reclassified out of accumulated other comprehensive income	—	—	69	(24)	1	46
Tax (expense) benefit	(1)	—	(68)	9	(3)	(63)
Other comprehensive income (loss) for the twelve months ended October 31, 2017	4	(10)	178	(15)	4	161
At October 31, 2017	\$ 14	\$ (39)	\$ (468)	\$ 35	\$ 1	\$ (457)

^(a) This includes pension curtailment and settlement of \$(1) million and \$24 million, respectively.

Reclassifications out of accumulated other comprehensive loss for the twelve months ended October 31, 2017 and 2016 were as follows:

Details about accumulated other comprehensive loss components	Amounts Reclassified from other comprehensive loss		Affected line item in statement of operations
	Year Ended October 31,		
	2017	2016	
	(in millions)		
Unrealized loss on derivatives	\$ (1)	\$ (12)	Cost of products
	1	4	Provision for income tax
	—	(8)	Net of Income Tax
Net defined benefit pension cost and post retirement plan costs:			
Actuarial net loss	(69)	(56)	
Prior service benefit	24	25	
	(45)	(31)	Total before income tax
	14	8	Provision for income tax
	(31)	(23)	Net of income tax
Total reclassifications for the period	\$ (31)	\$ (31)	

An amount in parentheses indicates a reduction to income and an increase to the accumulated other comprehensive income.

Reclassifications of prior service benefit and actuarial net loss in respect of retirement plans and post retirement pension plans are included in the computation of net periodic cost (see Note 15, "Retirement Plans and Post Retirement Pension Plans").

20. SEGMENT INFORMATION

We provide electronic design and test instruments and systems and related software, software design tools, and related services that are used in the design, development, manufacture, installation, deployment and operation of electronics equipment. Related services include start-up assistance, instrument productivity and application services and instrument calibration and repair. Additionally, we provide test, security and visibility solutions that validate, secure and optimize networks and applications from engineering concept to live deployment. We also offer customization, consulting and optimization services throughout the customer's product life cycle.

In fiscal 2016, we completed an organizational change to align our organization with the industries we serve which resulted in three reportable operating segments, Communications Solutions Group ("CSG"), Electronic Industrial Solutions Group ("EISG"), and Services Solutions Group ("SSG"). CSG and EISG are from our previous Measurement Solutions segment, while SSG was formerly reported as the company's Customer Support and Services segment. The new organizational structure continues to include centralized enterprise functions that provide support across the groups. Prior period amounts were revised in 2016 to conform to the presentation. On April 18, 2017, we completed the acquisition of Ixia, which became our fourth reportable segment, the Ixia Solutions Group ("ISG").

Our operating segments were determined based primarily on how the chief operating decision maker views and evaluates our operations. Segment operating results are regularly reviewed by the chief operating decision maker to make decisions about resources to be allocated to each segment and to assess 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.

Descriptions of our four reportable segments are as follows:

The Communications Solutions Group serves customers spanning the worldwide commercial communications end market, which includes internet infrastructure, and the aerospace, defense and government end market. The group provides electronic design and test software, instruments, and systems used in the simulation, design, validation, manufacturing, installation and optimization of electronic equipment.

The Electronic Industrial Solutions Group provides test and measurement solutions across a broad set of electronic industrial end markets, focusing on high-growth applications in the automotive and energy industry and measurement solutions for semiconductor design and manufacturing, consumer electronics, education and general electronics manufacturing. The group provides electronic design and test software, instruments, and systems used in the simulation, design, validation, manufacturing, installation and optimization of electronic equipment.

The Ixia Solutions Group helps customers validate the performance and security resilience of their networks and associated applications. The test, visibility and security products help organizations and their customers strengthen their physical and virtual networks. Enterprises, service providers, network equipment manufacturers, and governments worldwide rely on the group's solutions to validate new products before shipping and secure ongoing operation of their networks with better visibility and security. The group's product solutions consist of high-performance hardware platforms, software applications, and services, including warranty and maintenance offerings.

The Services Solutions Group provides repair, calibration and consulting services, and remarkets used Keysight equipment. In addition to providing repair and calibration support for Keysight equipment, we also calibrate non-Keysight equipment. The group serves the same markets as Keysight's Communications Solutions and Electronic Industrial Solutions Groups, providing industry-specific services to deliver complete Keysight solutions and help customers reduce their total cost of ownership for their design and test equipment.

A significant portion of the segments' expenses, other than the Ixia Solutions Group 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 costs of centralized research and development, legal, accounting, real estate, insurance services, information technology services, treasury and other corporate infrastructure expenses. 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. The Ixia Solutions Group will not be allocated these charges until integrated into the shared services and infrastructure.

The following tables reflect the results of our reportable segments under our management reporting system. These results are not necessarily in conformity with GAAP. The performance of each segment is measured based on several metrics, including income from operations. These results are used, in part, by the chief operating decision maker in evaluating the performance of, and in allocating resources to, each of the segments.

The profitability of each of the segments is measured after excluding share-based compensation expense, restructuring and asset impairment charges, investment gains and losses, interest income, interest expense, acquisition and integration costs, separation and related costs, amortization related to acquisition-related balances and other items as noted in the reconciliations below.

	Communications Solutions Group	Electronic Industrial Solutions Group	Ixia Solutions Group	Services Solutions Group	Total Segments
	(in millions)				
Year ended October 31, 2017:					
Total net revenue	\$ 1,737	\$ 836	\$ 197	\$ 419	\$ 3,189
Amortization of acquisition-related balances	1	—	59	—	60
Total segment revenue	\$ 1,738	\$ 836	\$ 256	\$ 419	\$ 3,249
Segment income from operations	\$ 311	\$ 199	\$ 42	\$ 68	\$ 620
Depreciation expense	\$ 52	\$ 20	\$ 7	\$ 13	\$ 92
Year ended October 31, 2016:					
Total net revenue	\$ 1,740	\$ 776	\$ —	\$ 402	\$ 2,918
Amortization of acquisition-related balances	12	—	—	—	12
Total segment revenue	\$ 1,752	\$ 776	\$ —	\$ 402	\$ 2,930
Segment income from operations	\$ 314	\$ 169	\$ —	\$ 63	\$ 546
Depreciation expense	\$ 53	\$ 20	\$ —	\$ 12	\$ 85
Year ended October 31, 2015:					
Total net revenue	\$ 1,697	\$ 758	\$ —	\$ 401	\$ 2,856
Amortization of acquisition-related balances	6	—	—	—	6
Total segment revenue	\$ 1,703	\$ 758	\$ —	\$ 401	\$ 2,862
Segment income from operations	\$ 329	\$ 158	\$ —	\$ 72	\$ 559
Depreciation expense	\$ 49	\$ 19	\$ —	\$ 13	\$ 81

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

	Year Ended October 31,		
	2017	2016	2015
	(in millions)		
Total reportable segments' income from operations	\$ 620	\$ 546	\$ 559
Share-based compensation expense	(56)	(49)	(55)
Restructuring and related costs	(11)	—	(14)
Amortization of acquisition-related balances	(256)	(56)	(23)
Acquisition and integration costs	(57)	(18)	(16)
Acquisition-related compensation expense	(28)	—	—
Separation and related costs	(20)	(24)	(20)
Pension curtailment and settlement gains	69	—	—
Northern California wildfire-related costs	(16)	—	—
Other	(6)	7	—
Income from operations, as reported	239	406	431
Interest income	7	3	1
Interest expense	(80)	(47)	(46)
Other income (expense), net	13	4	2
Income before taxes, as reported	\$ 179	\$ 366	\$ 388

Major customers. No customer represented 10 percent or more of our total net revenue in 2017, 2016 or 2015.

The following table presents assets and capital expenditures directly managed by each segment. Unallocated assets primarily consist of cash, cash equivalents, investments, long-term and other receivables and other assets.

	Communications Solutions Group	Electronic Industrial Solutions Group	Ixia Solutions Group	Services Solutions Group	Total Segments
	(in millions)				
As of October 31, 2017:					
Assets	\$ 1,739	\$ 799	\$ 2,063	\$ 304	\$ 4,905
Capital expenditures	\$ 36	\$ 15	\$ 7	\$ 14	\$ 72
As of October 31, 2016:					
Assets	\$ 1,805	\$ 773	\$ —	\$ 273	\$ 2,851
Capital expenditures	\$ 50	\$ 20	\$ —	\$ 21	\$ 91

The following table reconciles segment assets to our total assets:

	October 31,	
	2017	2016
	(in millions)	
Total reportable segments' assets	\$ 4,905	\$ 2,851
Cash and cash equivalents	818	783
Prepaid expenses	113	92
Other current assets	7	5
Investments	63	55
Long-term and other receivables	118	78
Other	(91)	(68)
Total assets	\$ 5,933	\$ 3,796

The other category primarily includes pension assets and also represents the difference between how segments report deferred taxes and intangible assets at the initial purchased amount.

The following table presents summarized information for net revenue and long-lived assets by geographic region. Revenues from external customers are generally attributed to countries based upon the location of the Keysight sales representative. Long lived assets consist of property, plant, and equipment, long-term receivables and other long-term assets excluding intangible assets. The rest of the world primarily consists of rest of Asia and Europe.

	United States	China	Japan	Rest of the World	Total
	(in millions)				
Net revenue:					
Year ended October 31, 2017	\$ 1,054	\$ 608	\$ 338	\$ 1,189	\$ 3,189
Year ended October 31, 2016	\$ 1,009	\$ 572	\$ 323	\$ 1,014	\$ 2,918
Year ended October 31, 2015	\$ 991	\$ 531	\$ 311	\$ 1,023	\$ 2,856

	United States	Japan	Malaysia	UK	Rest of the World	Total
	(in millions)					
Long-lived assets:						
October 31, 2017	\$ 280	\$ 234	\$ 73	\$ 106	\$ 126	\$ 819
October 31, 2016	\$ 259	\$ 176	\$ 76	\$ 45	\$ 42	\$ 598

21. IMPACT OF NORTHERN CALIFORNIA WILDFIRES

During the week of October 8, 2017, wildfires in northern California adversely impacted the Keysight corporate headquarters site in Santa Rosa, CA. Our headquarters was under mandatory evacuation for more than three weeks, and while direct damage to our core facilities was limited, our buildings did experience some smoke and other fire-related impacts. Cleaning and additional restoration efforts are ongoing in both production and non-production areas of the site. To ensure business continuity, the company has leased temporary office space that will support Santa Rosa employees who are not immediately re-occupying the site. Keysight is insured for the damage caused by the fire, including business interruption insurance, and though we do not expect the fire to have a net impact on our business results, the disruption will impact the seasonality of revenue in the first half of fiscal 2018.

For the three and twelve months ended October 31, 2017, we recognized costs of \$16 million, net of \$2 million of estimated insurance recovery, including the write-off of damaged fixed assets, unabsorbed overhead costs, cleaning and other direct costs related to the impact of this event.

A summary of the net charges in the consolidated statement of operations resulting from the impact of the fire is shown below:

	Year Ended October 31, 2017
	(in millions)
Cost of products and services	\$ 5
Research and development	1
Selling, general and administrative	8
Other operating expense (income), net	2
Total	\$ 16

As we are still in the investigation phase, we have only recognized an insurance receivable for known losses for which we believe insurance reimbursement is probable in excess of our self-insured retention amount of \$10 million. In many cases, our insurance coverage exceeds the amount of these covered losses, but no gain contingencies have been recognized as our ability to realize those gains remains uncertain for financial reporting purposes. We currently estimate that total losses and expenses related to the fire will range from \$80 million to \$110 million, primarily including cleaning and recovery costs, and believe that the expenses will be recoverable under our insurance policy. There may be a difference in timing of costs incurred and the related insurance reimbursement.

QUARTERLY SUMMARY

(Unaudited)

	Three Months Ended			
	January 31,	April 30,	July 31,	October 31,
	(in millions, except per share data)			
2017				
Net revenue	\$ 726	\$ 753	\$ 832	\$ 878
Gross profit	\$ 404	\$ 413	\$ 411	\$ 474
Income (loss) from operations	\$ 162	\$ 42	\$ (4)	\$ 39
Net income (loss)	\$ 109	\$ 49	\$ (18)	\$ (38)
Net income (loss) per share:				
Basic	\$ 0.64	\$ 0.28	\$ (0.10)	\$ (0.20)
Diluted	\$ 0.63	\$ 0.27	\$ (0.10)	\$ (0.20)
Weighted average shares used in computing net income (loss) per share:				
Basic	171	177	186	186
Diluted	173	179	186	186
Range of stock prices on NYSE	31.81 - 38.28	35.05 - 39.36	35.62 - 42.98	39.21 - 44.79
2016				
Net revenue	\$ 721	\$ 731	\$ 715	\$ 751
Gross profit	\$ 392	\$ 406	\$ 406	\$ 420
Income from operations ^(a)	\$ 98	\$ 95	\$ 106	\$ 107
Net income	\$ 64	\$ 88	\$ 91	\$ 92
Net income per share:				
Basic	\$ 0.37	\$ 0.52	\$ 0.54	\$ 0.54
Diluted	\$ 0.37	\$ 0.51	\$ 0.53	\$ 0.53
Weighted average shares used in computing net income per share:				
Basic	171	170	170	170
Diluted	172	172	172	172
Range of stock prices on NYSE	22.15 - 33.48	21.07 - 28.39	25.49 - 31.87	26.87 - 33.14

RISKS, UNCERTAINTIES AND OTHER FACTORS THAT MAY AFFECT FUTURE RESULTS

Risks Related to Our Business

Depressed and uncertain 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. The continued economic downturn 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 future investment portfolio.

In addition, macroeconomic developments, such as the recent downturn in Europe, the economic slowdown in Asia and the results of the recent U.S. and other national elections, economic uncertainties caused by the result of the United Kingdom's referendum advising for its exit from the European Union could negatively affect our ability to conduct business in those geographies. Financial difficulties experienced by our suppliers and customers, including distributors, could result in product delays and inventory issues. Risks to accounts receivable could result in delays in collection and greater bad debt expense.

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 technology-related spending and orders received during the fiscal quarter, which are difficult to forecast and may be cancelled by our customers. In addition, our revenues and earnings forecasts for future fiscal quarters are often based on the expected seasonality or cyclical nature of our markets. However, the markets we serve do not always experience the seasonality or cyclical nature that we expect. Any decline in our customers' markets would likely result in a reduction in demand for our products and services. The broader semiconductor market is one of the drivers for our business, and therefore, a decrease in the semiconductor market could harm our business. Also, if our customers' markets decline, we may not be able to collect on outstanding amounts due to us. Such declines could harm our 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, R&D 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, rapid technological changes and changing industry standards, our products and services will become obsolete, and our operating results will 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. In addition, many of the markets in which we operate are seasonal and cyclical. Without the timely introduction of new products, services and enhancements, our products and services will become technologically obsolete over time, in which case our revenue and operating results would suffer. The success of new products and services will depend on several factors, including but not limited to our ability to:

- properly identify customer needs;
- innovate and develop new technologies, services and applications;
- successfully commercialize new technologies in a timely manner;
- manufacture and deliver our 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.

Dependence on contract manufacturing and outsourcing other portions of our supply chain 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 cut 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. Additionally, changing or replacing our contract manufacturers or other outsourcees 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 of our IT providers to perform could impair our ability to operate effectively. In addition to the risks outlined above, problems with manufacturing or IT outsourcing could result in lower revenues and unrealized efficiencies, and could impact our results of operations and stock price. Much of our outsourcing takes place in developing countries and, as a result, may be subject to geopolitical uncertainty.

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

Our income could be harmed if we are unable to adjust our purchases to market fluctuations, including those caused by the seasonal or cyclical 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 or cyclical trends in the demand for their products. For example, the consumer electronics market is particularly volatile, making demand difficult to anticipate. 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 seen 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-cancellable 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. Prior commitments of this type have resulted in an excess of parts when demand for electronic products has decreased. If demand for our products is less than we expect, we may experience additional excess and obsolete inventories and be forced to incur additional charges.

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 will likely exceed our production requirements. If, during a general market upturn or an upturn in our business, we cannot increase our manufacturing capacity to meet product demand, we will 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 income, margin and operating results. By contrast, if, during an economic downturn, we had excess manufacturing capacity, then our fixed costs associated with excess manufacturing capacity would adversely affect our income, margins and operating results.

Industry consolidation and consolidation among our customer base may lead to increased competition and may harm our operating results.

There is potential for industry consolidation in our markets. As companies attempt to strengthen or hold their market positions in an evolving industry, companies could be acquired or may be unable to continue operations. Companies that are strategic alliance partners in some areas of our business may acquire or form alliances with our competitors, thereby reducing their business with us. We believe that industry consolidation may result in stronger competitors and could lead to more variability in our operating results and could have a material adverse effect on our business, operating results, and financial condition. Furthermore, particularly in the communications market, rapid consolidation

would lead to fewer customers, with the effect that loss of a major customer could have a material impact on results not anticipated in a customer marketplace composed of more numerous participants.

Additionally, if there is consolidation among our customer base, our customers may be able to command increased leverage in negotiating prices and other terms of sale, which could adversely affect our profitability. In addition, if, as a result of increased leverage, customer pressures require us to reduce our pricing such that our gross margins are diminished, we could decide not to sell our products under such less favorable terms, which would decrease our revenue. Consolidation among our customer base may also lead to reduced demand for our products, replacement of our products by the combined entity with those of our competitors and cancellations of orders, each of which could harm our operating results.

Economic, political 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. However, there can be no assurances that our international sales will continue at existing levels or grow in accordance with our effort to increase foreign market penetration. In addition, many of our employees, contract manufacturers, suppliers, job functions and manufacturing facilities are located outside the United States. Accordingly, our future results could be harmed by a variety of factors, including but not limited to:

- interruption to transportation flows for delivery of parts to us and finished goods to our customers;
- changes in foreign currency exchange rates;
- changes in a specific country's or region's political, economic or other conditions;
- trade protection measures, sanctions, and import or export licensing requirements or restrictions;
- negative consequences from changes in tax laws;
- difficulty in staffing and managing widespread operations;
- differing labor regulations;
- differing protection of intellectual property;
- unexpected changes in regulatory requirements; and
- volatile political environments or geopolitical turmoil, including regional conflicts, terrorism, and war.

We centralize most of our accounting processes at two locations: India and Malaysia. These processes include general accounting, inventory cost accounting, accounts payable and accounts receivables functions. If conditions change in those countries, it may adversely affect operations, including impairing our ability to pay our suppliers. Our results of operations, as well as our liquidity, may be adversely affected and possible delays may occur in reporting financial results.

Additionally, we must 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, and anti-competition 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, ability to attract and retain employees, international operations, business and operating results. Although we actively maintain policies and procedures designed to ensure ongoing compliance with these laws and regulations, there can be no assurance that our employees, contractors or agents will not violate these policies and procedures.

In addition, although a substantial amount of our products are priced and paid for in U.S. Dollars, many of our products are priced in local currencies and a significant amount of certain types of expenses, such as payroll, utilities, tax and marketing expenses, are paid in local currencies. Our hedging programs are designed to reduce, but not entirely eliminate, within any given 12-month period, the impact of currency exchange rate movements, including those caused by currency controls, which could impact our business, operating results and financial condition by resulting in lower revenue or increased expenses. However, for expenses beyond a 12-month period, our hedging strategy will not mitigate our exchange rate risk. In addition, our currency hedging programs involve third-party financial institutions

as counterparties. The weakening or failure of these counterparties may adversely affect our hedging programs and our financial condition through, among other things, a reduction in the number of available counterparties, increasingly unfavorable terms or the failure of counterparties to perform under hedging contracts.

Key customers or large orders may expose us to additional business and legal risks that could have a material adverse impact on our operating results and financial condition.

Certain key customers have substantial purchasing power and leverage in negotiating contractual arrangements with us. These customers may demand contract terms that differ considerably from our standard terms and conditions. Large orders may also include severe contractual liabilities for us if we fail to provide the quantity and quality of product at the required delivery times. While we attempt to contractually limit our potential liability under such contracts, we may have to agree to some or all of these types of provisions to secure these orders and to continue to grow our business. Such actions expose us to significant additional risks, which could result in a material adverse impact on our 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 may not be able to maintain or expand our business. The markets in which we operate are dynamic, and we may need to respond with reorganizations, workforce reductions and site closures from time to time. We believe our pay levels are competitive within the regions that we operate. However, there is also intense competition for certain highly technical specialties in geographic areas in which we operate, and it may become more difficult to retain key employees.

Any inability to complete acquisitions on acceptable terms could negatively impact our growth rate and financial performance.

Our ability to grow revenues, earnings and cash flow depends in part upon our ability to identify and successfully acquire and integrate businesses at appropriate prices and realize anticipated synergies and business performance. Appropriate targets for acquisition are difficult to identify and complete for a variety of reasons, including but not limited to, limited due diligence, high valuations, business and intellectual property evaluations, other interested parties, negotiations of the definitive documentation, satisfaction of closing conditions, the need to obtain antitrust or other regulatory approvals on acceptable terms, and availability of funding. The inability to close appropriate acquisitions on acceptable terms could adversely impact our growth rate, revenue, and financial performance.

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

In the normal course of business, we may engage in discussions with third parties relating to possible acquisitions, strategic alliances, joint ventures and divestitures. 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. If market conditions or other factors lead us to change our strategic direction, we may not realize the expected value from such transactions. Further, such transactions often have post-closing arrangements, including, but not limited to, post-closing adjustments, transition services, escrows or indemnifications, the financial results of which can be difficult to predict. In addition, acquisitions and strategic alliances may require us to integrate a different company culture, management team and business infrastructure. We may have difficulty developing, manufacturing and marketing the products of a newly acquired company in a way that enhances the performance of our businesses or product lines to realize the value from expected synergies. Depending on the size and complexity of an acquisition, the successful integration of the entity depends on a variety of factors, including but not limited to:

- the retention of key employees and/or customers;
- the management of facilities and employees in different geographic areas; and
- the compatibility of our infrastructure, policies and organizations with those of the acquired company.

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.

In addition, effective internal controls are necessary for us to provide reliable and accurate financial reports and to effectively prevent fraud. We are devoting significant resources and time to comply with the internal control over

financial reporting requirements of the Sarbanes-Oxley Act of 2002. However, we cannot be certain that these measures will ensure that we design, implement and maintain adequate control over our financial processes and reporting in the future, especially in the context of acquisitions of other businesses. 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. Inferior internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our stock and our access to capital. All of these efforts require varying levels of management resources, which may divert our attention from other business operations.

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

We currently have outstanding debt as well as availability to borrow under a revolving credit facility. 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:

- requiring a portion of our cash flow from operations to make interest payments on this debt;
- increasing our vulnerability to general adverse economic and industry conditions;
- reducing the cash flow available to fund capital expenditures and other corporate purposes and to grow our business; and
- limiting our flexibility in planning for, or reacting to, changes in our business and the industry.

Our current revolving credit facility and term loan imposes restrictions on us, including restrictions on our ability to create liens on our assets 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, then, subject to applicable cure periods, our outstanding indebtedness could be declared immediately due and payable.

Environmental contamination from past operations could subject us to unreimbursed costs and could harm on-site operations and the future use and value of the properties involved, and environmental contamination caused by ongoing operations could subject us to substantial liabilities in the future.

Some of our properties are undergoing remediation by HP Inc. ("HP") for subsurface contaminations that were known at the time of Agilent's separation from HP in 1999. In connection with Agilent's separation from HP, HP and Agilent entered into an agreement pursuant to which HP agreed to retain the liability for this subsurface contamination, perform the required remediation and indemnify Agilent with respect to claims arising out of that contamination. Agilent has assigned its rights and obligations under this agreement to Keysight in respect of facilities transferred to us in the separation. As a result, HP will have access to a limited number of our properties to perform remediation. Although HP agreed to minimize interference with on-site operations at such properties, remediation activities and subsurface contamination may require us to incur unreimbursed costs and could harm on-site operations and the future use and value of the properties. In connection with the separation, Agilent will indemnify us directly for any liabilities related thereto. We cannot be sure that HP will continue to fulfill its remediation obligations or that Agilent will continue to fulfill its indemnification obligations.

In connection with the separation from Agilent, Agilent also agreed to indemnify us for any liability associated with contamination from past operations at all properties transferred from Agilent to Keysight. We cannot be sure that Agilent will fulfill its indemnification obligations.

Our current manufacturing processes involve the use of substances regulated under various international, federal, state and local laws governing the environment. 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 at our sites inside and outside the United States, even if the sites outside the United States are not subject to regulations imposed by foreign governments, we may not be aware of all conditions that could subject us to liability.

We and our customers are subject to various governmental regulations, compliance with which 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.

We and our customers are subject to various significant international, federal, state and local regulations, including, but not limited to, health and safety, packaging, product content, labor and import/export regulations. 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 violations of these regulations. Any failure by us to comply with applicable government regulations could also result in 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. If demand for our products is adversely affected or our costs increase, our 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 U.S. Federal Communications Commission. We also must comply with work safety rules. If we fail to adequately address any of these regulations, our businesses could be harmed.

Third parties may claim that we are infringing their intellectual property rights, 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 business operations. A claim of intellectual property infringement could cause us to enter into a costly or restrictive license agreement (which may not be available under acceptable terms, or at all), require us to redesign certain of our products (which would be costly and time-consuming) and/or subject us to significant damages or an injunction against the development and sale of certain products or services. In certain of our businesses, we rely on third-party intellectual property licenses, and we cannot ensure that these licenses will be available to us in the future on terms favorable to us or at all.

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

Our success depends in 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. In preparation for the separation and distribution, we have applied for trademarks related to our new global brand name in various jurisdictions worldwide. Any successful opposition to our applications in material jurisdictions could impose material costs on us or make it more difficult to protect our brand. Different jurisdictions vary widely in the level of protection and priority they give to trademark and other intellectual property rights.

We may be required to spend significant resources monitoring our intellectual property rights, and we may or may not be able to detect infringement of such rights by third parties. Our competitive position may be harmed if we cannot detect infringement and enforce our intellectual property rights in a timely manner, or at all. In some circumstances, we may choose to not pursue enforcement due to a variety of reasons. In addition, competitors may 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 to the company. Furthermore, some of our intellectual property is licensed to others, which allows them to compete with us using that intellectual property.

We are or will be subject to ongoing tax examinations of our tax returns by the IRS and other tax authorities. An adverse outcome of any such audit or examination by the IRS or other tax authority could have a material adverse effect on our results of operations, financial condition and liquidity.

We are or will be subject to ongoing tax examinations of our tax returns by the IRS and other tax authorities in various jurisdictions. We regularly assess the likelihood of adverse outcomes resulting from ongoing tax examinations to determine the adequacy of our provision for income taxes. These assessments can require considerable estimates and judgments. Intercompany transactions associated with the sale of inventory, services, intellectual property and cost sharing arrangements are complex and affect our tax liabilities. The calculation of our tax liabilities involves uncertainties in the application of complex tax laws and regulations in multiple jurisdictions. The outcomes of any tax examinations could have an adverse effect on our operating results and financial condition. Due to the complexity of tax contingencies, the ultimate resolution of any tax matters related to operations may result in payments greater or less than amounts accrued.

Our operations may be adversely impacted by changes in our business mix or changes in the tax legislative landscape.

Our effective tax rate may be adversely impacted by, among other things, changes in the mix of our earnings among countries with differing statutory tax rates, changes in the valuation allowance of deferred tax assets, and changes in tax laws. We cannot give any assurance as to what our effective tax rate will be in the future because, among other things, there is uncertainty regarding the tax policies of the jurisdictions where we operate. Changes in tax laws, such as tax reform in the United States or changes in tax laws resulting from the Organization for Economic Co-operation and Development's ("OECD") multi-jurisdictional plan of action to address "base erosion and profit shifting" and the taxation of the "Digital Economy" could impact our effective tax rate.

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

We benefit from tax incentives extended to certain of our foreign subsidiaries to encourage investment or employment. Several jurisdictions have granted us tax incentives that require renewal at various times in the future, the most significant being Singapore. We do not expect incentives granted by other jurisdictions to have a material impact on our financial statements. The Singapore tax incentive requires that specific conditions be satisfied, which include achieving thresholds of employment, ownership of certain assets, as well as specific types of investment activities within Singapore. We believe that we will satisfy such conditions in the future as needed, but cannot guarantee that such conditions will be satisfied. Our Singapore tax incentive is due for renewal in fiscal 2024, but we cannot guarantee that Singapore will not revoke the tax incentive earlier.

Singapore announced potential changes to its IP incentive programs in its 2017 budget. Such potential changes could result in a reduction in tax incentive benefits and an early termination of or changes to our existing Singapore incentive in 2021. No changes have been finalized, and it is unclear to what extent, if at all, changes will be made to the tax incentives or any specific conditions. We cannot guarantee that we will qualify for any new incentive regime or that such conditions will be satisfied.

Our taxes could increase if the incentives are not renewed upon revocation or expiration. If we cannot or do not wish to satisfy all or portions of the tax incentive conditions, we may lose the related tax incentive and could be required to refund the benefits that the tax incentives previously provided. As a result, our effective tax rate could be higher than it would have been had we maintained the benefits of the tax incentives and could harm our operating results.

If we suffer a loss to our factories, facilities or distribution system due to a catastrophic event, our operations could be significantly harmed.

Our factories, facilities and distribution system are subject to catastrophic loss due to fire, flood, terrorism or other natural or manmade disasters. In particular, several of our facilities could be subject to a catastrophic loss caused by earthquake or other natural disasters due to their locations. For example, 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 these 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 our agreements, our reputation could be harmed and our business and operating results could be adversely affected. In addition, since we have consolidated our manufacturing facilities, 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 decision 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 operations will be harmed by a catastrophic loss.

If we experience a significant disruption in, or breach in security of, our information technology systems, our business could be adversely affected.

We rely on several centralized information technology systems to provide products and services, maintain financial records, process orders, manage inventory, process shipments to customers and operate other critical functions. If we 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, 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. Furthermore, security breaches of our information technology systems could result in the misappropriation or unauthorized disclosure of confidential information belonging to the company or our employees, partners, customers or suppliers, which could result in significant financial or reputational damage to the company.

Man-made problems such as cybersecurity attacks, computer viruses or terrorism may disrupt our operations and harm our business, reputation and operating results

Despite our implementation of network security measures, our network may be vulnerable to cybersecurity attacks, computer viruses, break-ins and similar disruptions. Cybersecurity attacks, in particular, are evolving and include, but are not limited to, malicious software, attempts to gain unauthorized access to data, and other electronic security breaches that could lead to disruptions in systems, unauthorized release of confidential or otherwise protected information and corruption of data. Any such event could have a material adverse effect on our business, operating results and financial condition.

Our daily business operations require us to retain sensitive data such as intellectual property, proprietary business information and data related to customers, suppliers and business partners within our networking infrastructure. The ongoing maintenance and security of this information is pertinent to the success of our business operations and our strategic goals, and organizations like Keysight are susceptible to multiple variations of attacks on our networks on a daily basis.

Our networking infrastructure and related assets may be subject to unauthorized access by hackers, employee errors, or other unforeseen activities. Such issues could result in the disruption of business processes, network degradation and system downtime, along with the potential that a third party will exploit our critical assets such as intellectual property, proprietary business information and data related to our customers, suppliers and business partners. To the extent that such disruptions occur, they may cause delays in the manufacture or shipment of our products and the cancellation of customer orders and, as a result, our business operating results and financial condition could be materially and adversely affected resulting in a possible loss of business or brand reputation.

In addition, the effects of war or acts of terrorism could have a material adverse effect on our business, operating results and financial condition. The continued threat of terrorism and heightened security and military action in response to this threat, or any future acts of terrorism, may cause further disruption to the economy and create further uncertainties in the economy. Energy shortages, such as gas or electricity shortages, could have similar negative impacts. To the extent that such disruptions or uncertainties result in delays or cancellations of customer orders or the manufacture or shipment of our products, our business, operating results and financial condition could be materially and adversely affected.

Our business and financial results may be adversely affected by various legal and regulatory proceedings.

We are subject to legal proceedings, lawsuits and other claims in the normal course of business and could become subject to additional claims in the future, some of which could be material. The outcome of existing proceedings, lawsuits and claims may differ from our expectations because the outcomes of litigation are often difficult to reliably predict. Various factors or developments can lead us to change current estimates of liabilities and related insurance receivables where applicable, or permit us to make such estimates for matters previously not susceptible to reasonable

estimates, such as a significant judicial ruling or judgment, a significant settlement, significant regulatory developments or changes in applicable law. A future adverse ruling, settlement or unfavorable development could result in charges that could adversely affect our business, operating results or financial condition.

We have substantial cash requirements in the United States, although most of our cash is generated outside of the United States. The failure to maintain a level of cash sufficient to address our cash requirements in the United States could adversely affect our financial condition and results of operations.

Although the cash generated in the United States from our operations, including any cash and non-permanently invested earnings repatriated to the United States, is expected to cover our normal operating requirements and debt service requirements, a substantial amount of additional cash may be required for special purposes such as the maturity of our current and future debt obligations, any dividends that may be declared, any future stock repurchase programs and any acquisitions. If we encounter a significant need for liquidity domestically that we cannot fulfill through borrowings, equity offerings or other internal or external sources, the transfer of cash into the United States may incur an overall tax rate higher than our tax rates have been in the past and negatively impact after-tax earnings.

We may need additional financing in the future to meet our capital needs or to make opportunistic acquisitions, and such financing may not be available on terms favorable to us, if at all, and may be dilutive to existing shareholders.

We may need to seek additional financing for our general corporate purposes. For example, we may need to increase our investment in R&D activities or need funds to make acquisitions. We may be unable to obtain any desired additional financing on terms favorable to us, if at all. If adequate funds are not available on acceptable terms, we may be unable to fund our expansion, successfully develop or enhance products or respond to competitive pressures, any of which could negatively affect our business. If we finance acquisitions by issuing additional convertible debt or equity securities, our existing stockholders may experience share dilution, which could affect the market price of our stock. If we raise additional funds through the issuance of equity securities, our shareholders will experience dilution of their ownership interest. If we raise additional funds by issuing debt, we may be subject to further limitations on our operations and ability to pay dividends due to restrictive covenants.

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

Our cash and cash equivalents are 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 results and financial condition.

Future investment returns on pension assets may be lower than expected or interest rates may decline, requiring us to make significant additional cash contributions to our future plans.

We sponsor several defined benefit pension plans that cover many of our salaried and hourly employees. The Federal Pension Protection Act of 2006 requires that certain capitalization levels be maintained in each of the U.S. plans, and there may be similar funding requirements in the plans outside the United States. Because it is unknown what the investment return on and the fair value of our pension assets will be in future years or what interest rates and discount rates may be at any point in time, no assurances can be given that applicable law will not require us to make future material plan contributions. Any such contributions could adversely affect our financial condition.

Risks Related to Our Common Stock

Our share price may fluctuate significantly.

Our common stock is listed on NYSE under the ticker symbol “KEYS.” The market price of our common stock may fluctuate widely, depending on many factors, some of which may be beyond our control, including but not limited to:

- actual or anticipated fluctuations in our operating results due to factors related to our business;
- success or failure of our business strategy;
- our quarterly or annual earnings, or those of other companies in our industry;
- our ability to obtain third-party financing as needed;

- announcements by us or our competitors of significant acquisitions or dispositions;
- changes in accounting standards, policies, guidance, interpretations or principles;
- the failure of securities analysts to cover our common stock;
- changes in earnings estimates by securities analysts or our ability to meet those estimates;
- the operating and share price performance of other comparable companies;
- investor perception of our company;
- natural or other disasters that investors believe may affect us;
- overall market fluctuations;
- results from any material litigation or government investigations;
- changes in laws or regulations affecting our business; and
- general economic conditions and other external factors.

Stock markets in general have experienced volatility that has often been unrelated to the operating performance of a particular company. These broad market fluctuations could adversely affect the trading price of our common stock.

In addition, when the market price of a company's shares drops significantly, shareholders often institute securities class action lawsuits against the company. A lawsuit against us could cause us to incur substantial costs and could divert the time and attention of management and other resources.

We do not currently pay dividends on our common stock.

We do not currently pay dividends on our common stock. The payment of any dividends in the future, and the timing and amount thereof, to our stockholders fall within the discretion of our board of directors. The board's decisions regarding the payment of dividends will depend on many factors, such as our financial condition, earnings, capital requirements, debt service obligations, restrictive covenants in our debt, industry practice, legal requirements, regulatory constraints and other factors that the board deems relevant. We cannot guarantee that we will pay a dividend in the future or continue to pay any dividends if we commence paying dividends.

Certain provisions in our amended and restated certificate of incorporation and bylaws, and of Delaware law, may prevent or delay an acquisition of the company, which could decrease the trading price of our common stock.

Our amended and restated certificate of incorporation and amended and restated bylaws contain, and Delaware law contains, provisions that are intended to deter coercive takeover practices and inadequate takeover bids by making such practices or bids unacceptably expensive to the bidder and to encourage prospective acquirers to negotiate with our board of directors rather than to attempt a hostile takeover. These provisions include but are not limited to:

- the inability of our shareholders to call a special meeting;
- the inability of our shareholders to act without a meeting of shareholders;
- rules regarding how shareholders may present proposals or nominate directors for election at shareholder meetings;
- the right of our board to issue preferred stock without shareholder approval;
- the division of our board of directors into three classes of directors, with each class serving a staggered three-year term, and this classified board provision could have the effect of making the replacement of incumbent directors more time consuming and difficult;
- a provision that shareholders may only remove directors with cause;
- the ability of our directors, and not shareholders, to fill vacancies on our board of directors; and
- the requirement that the affirmative vote of shareholders holding at least 80% of our voting stock is required to amend certain provisions in our amended and restated certificate of incorporation (relating to the number, term

and removal of our directors, the filling of our board vacancies, the advance notice to be given for nominations for elections of directors, the calling of special meetings of shareholders, shareholder action by written consent, the ability of the board of directors to amend the bylaws, elimination of liability of directors to the extent permitted by Delaware law, exclusive forum for certain types of actions and proceedings that may be initiated by our shareholders and amendments of the certificate of incorporation) and certain provisions in our amended and restated bylaws (relating to the calling of special meetings of shareholders, the business that may be conducted or considered at annual or special meetings, the advance notice of shareholder business and nominations, shareholder action by written consent, the number, tenure, qualifications and removal of our directors, the filling of our board vacancies, director and officer indemnification and amendments of the bylaws).

In addition, because we have not chosen to be exempt from Section 203 of the Delaware General Corporation Law (the "DGCL"), this provision could also delay or prevent a change of control that some shareholders may favor. Section 203 provides that, subject to limited exceptions, persons that acquire, or are affiliated with a person that acquires, more than 15% of the outstanding voting stock of a Delaware corporation (an "interested stockholder") shall not engage in any business combination with that corporation, including by merger, consolidation or acquisitions of additional shares, for a three-year period following the date on which the person became an interested stockholder, unless (i) prior to such time, the board of directors of such corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder; (ii) upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of such corporation at the time the transaction commenced (excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) the voting stock owned by directors who are also officers or held in employee benefit plans in which the employees do not have a confidential right to tender or vote stock held by the plan); or (iii) on or subsequent to such time the business combination is approved by the board of directors of such corporation and authorized at a meeting of shareholders by the affirmative vote of at least two-thirds of the outstanding voting stock of such corporation not owned by the interested stockholder.

We believe these provisions will protect our shareholders from coercive or otherwise unfair takeover tactics by requiring potential acquirers to negotiate with our board of directors and by providing our board of directors with more time to assess any acquisition proposal. These provisions are not intended to make us immune from takeovers. However, these provisions will apply even if the offer may be considered beneficial by some shareholders and could delay or prevent an acquisition that our board of directors determines is not in the best interests of the company and our shareholders. These provisions may also prevent or discourage attempts to remove and replace incumbent directors.

Our amended and restated certificate of incorporation designates that the state courts in the State of Delaware or, if no state court located within the State of Delaware has jurisdiction, the federal court for the District of Delaware, as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our shareholders, which could discourage lawsuits against the company and our directors and officers.

Our amended and restated certificate of incorporation provide that unless the board of directors otherwise determines, the state courts in the State of Delaware or, if no state court located within the State of Delaware has jurisdiction, the federal court for the District of Delaware, will be the sole and exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a claim of breach of a fiduciary duty owed by any of our directors or officers to the company or our shareholders, any action asserting a claim against us or any of our directors or officers arising pursuant to any provision of the DGCL or Keysight's amended and restated certificate of incorporation or bylaws, or any action asserting a claim against us or any of our directors or officers governed by the internal affairs doctrine. This exclusive forum provision may limit the ability of our shareholders to bring a claim in a judicial forum that such shareholders find favorable for disputes with us or our directors or officers, which may discourage such lawsuits against us and our directors and officers.

Risks Related to the Acquisition of Ixia

We may not realize all of the anticipated benefits of the Merger or those benefits may take longer to realize than expected. We may also encounter significant unexpected difficulties in integrating the two businesses.

Our ability to realize the anticipated benefits of the Merger will depend, to a large extent, on our ability to integrate our and Ixia's businesses. The combination of two independent businesses is a complex, costly and time-consuming process. As a result, we will be required to devote significant management attention and resources to integrating Ixia's business practices and operations with our existing business practices and operations. The integration process may disrupt the businesses and, if implemented ineffectively or if impacted by unforeseen negative economic or market conditions or other factors, we may not realize the full anticipated benefits of the Merger. Our failure to meet the challenges involved in integrating the two businesses to realize the anticipated benefits of the Merger could cause an interruption of, or a loss of momentum in, our activities and could adversely affect our results of operations.

In addition, the overall integration of the businesses may result in material unanticipated problems, expenses, liabilities, competitive responses, loss of customer relationships, and diversion of management's attention. The difficulties of combining the operations of the companies include but are not limited to:

- the diversion of management's attention to integration matters;
- difficulties in achieving anticipated cost savings, synergies, business opportunities and growth prospects from combining Ixia's business with our business;
- difficulties entering new markets or manufacturing in new geographies where we have no or limited direct prior experience;
- difficulties in the integration of operations and systems;
- difficulties in the assimilation of employees;
- difficulties in managing the expanded operations of a significantly larger and more complex company;
- successfully managing relationships with our strategic partners and supplier and customer base; and
- challenges in maintaining existing, and establishing new, business relationships.

Many of these factors will be outside of our control and any one of them could result in increased costs, decreases in the amount of expected revenues and diversion of management's time and energy, which could materially impact the business, financial condition and our results of operations. In addition, even if the operations of our business and Ixia's business are integrated successfully, we may not realize the full benefits of the Merger, including the synergies, cost savings or sales or growth opportunities that we expect. These benefits may not be achieved within the anticipated time frame, or at all. Furthermore, additional unanticipated costs may be incurred in the integration of the businesses. All of these factors could decrease or delay the expected accretive effect of the Merger and negatively impact us. As a result, we cannot be certain that the combination of our and Ixia's businesses will result in the realization of the full benefits anticipated from the Merger.

Uncertainties associated with the Merger may cause a loss of employees and may otherwise materially adversely affect the future business and operations of the combined company.

The combined company's success after the Merger will depend in part upon the ability of the combined company to retain executive officers and key employees. In some of the fields in which we and Ixia operate, there are only a limited number of people in the job market who possess the requisite skills and it may be increasingly difficult for the combined company to hire personnel over time.

Current and prospective employees of each company may experience uncertainty about their roles with the combined company following the Merger. In addition, key employees may depart because of issues relating to the uncertainty and difficulty of integration or a desire not to remain with the combined company following the Merger. The loss of services of any key personnel or the inability to hire new personnel with the requisite skills could restrict the ability of the combined company to develop new products or enhance existing products in a timely manner, to sell products to customers or to manage the business of the combined company effectively. Also, the business, financial condition and results of operations of the combined company could be materially adversely affected by the loss of any of its key

employees, by the failure of any key employee to perform in his or her current position, or by the combined company's inability to attract and retain skilled employees.

We and Ixia will incur direct and indirect costs as a result of the Merger.

We and Ixia will incur substantial expenses in connection with and as a result of completing the Merger and, over a period of time following the completion of the Merger, we further expect to incur substantial expenses in connection with coordinating our businesses, operations, policies and procedures and Ixia's. While we have assumed that a certain level of transaction expenses will be incurred, factors beyond our control could affect the total amount or the timing of these expenses. Many of the expenses that will be incurred, by their nature, are difficult to estimate accurately.

Risks Related to the Separation

We will be subject to continuing contingent liabilities of Agilent following the separation.

After the separation, there are several significant areas where the liabilities of Agilent may become our obligations. For example, under the Internal Revenue Code and the related rules and regulations, each corporation that was a member of the Agilent U.S. consolidated group during a taxable period or portion of a taxable period ending on or before the effective time of the distribution is severally liable for the U.S. federal income tax liability of the entire Agilent U.S. consolidated group for that taxable period. Consequently, if Agilent is unable to pay the consolidated U.S. federal income tax liability for a prior period, we could be required to pay the entire amount of such tax, which could be substantial and in excess of the amount allocated to it as agreed between us and Agilent at the time of separation. Other provisions of federal law establish similar liability for other matters, including laws governing tax-qualified pension plans, as well as other contingent liabilities.

There could be significant liability if the distribution is determined to be a taxable transaction.

A condition to the distribution is that Agilent received an opinion of Baker & McKenzie LLP, tax counsel to Agilent, regarding the qualification of the separation and the distribution as a reorganization within the meaning of Sections 355(a) and 368(a)(1)(D) of the Code. The opinion relies on certain facts, assumptions, representations and undertakings from Agilent and Keysight, including those 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, Agilent and its shareholders may not be able to rely on the opinion, and could be subject to significant tax liabilities. Notwithstanding the opinion of tax counsel, the IRS could determine on audit that the distribution 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 distribution were determined to be taxable for U.S. federal income tax purposes, Agilent and its shareholders that are subject to U.S. federal income tax could incur significant U.S. federal income tax liabilities. For example, if the distribution failed to qualify for tax-free treatment, Agilent would for U.S. federal income tax purposes be treated as if it had sold the Keysight common stock in a taxable sale for its fair market value, and Agilent's shareholders, who are subject to U.S. federal income tax, would be treated as receiving a taxable distribution in an amount equal to the fair market value of the Keysight common stock received in the distribution. In addition, if the separation and distribution failed to qualify for tax-free treatment under federal, state and local tax law and/or foreign tax law, Agilent and Keysight could each incur significant tax liabilities under U.S. federal, state, local and/or foreign tax law.

Under the agreement between Agilent and Keysight pertaining to tax matters, as finalized at the time of separation, we are generally required to indemnify Agilent against taxes incurred by Agilent that arise as a result of our taking or failing to take, as the case may be, certain actions that result in the distribution failing to meet the requirements of a tax-free distribution under Section 355 of the Code. Under the agreement between Agilent and Keysight, as finalized at the time of separation, we may also be required to indemnify Agilent for other contingent tax liabilities, which could materially adversely affect our financial position.

CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management has evaluated, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, the effectiveness of our disclosure controls and procedures as of October 31, 2016, pursuant to and as required by Rule 13a-15(b) under the Securities Exchange Act of 1934 ("Exchange Act"). Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of October 31, 2017, the company's disclosure controls and procedures, as defined by Rule 13a-15(e) under the Exchange Act, were effective and designed to ensure that (i) information required to be disclosed in the company's reports filed under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (ii) information is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosures.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on the results of this evaluation, our management concluded that our internal control over financial reporting was effective as of October 31, 2017.

The SEC provides for exclusion of an acquired business's internal controls from management's annual assessment of the internal controls over financial reporting when it is not possible to conduct assessments for the acquired business in the period between the acquisition date and the date of management's assessment. The company completed the acquisition of Ixia on April 18, 2017 and ScienLab on August 31, 2017. Management excluded Ixia and ScienLab from its assessment of the effectiveness of the company's internal control over financial reporting as of October 31, 2017. Ixia constituted approximately 6% of total assets and approximately 6% total revenues, while ScienLab constituted less than 1% of total assets and total revenues for the year ended October 31, 2017.

The effectiveness of our internal control over financial reporting as of October 31, 2017 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears in Item 8 of this Annual Report on Form 10-K.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during our last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.



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1400 Fountaingrove Pkwy
Santa Rosa, CA 95403-1799
United States