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

FORM 10-K

(Mark One)

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended June 27, 2020
OR
☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from ____________ to ____________

Commission File Number 000-22874

Viavi Solutions Inc.
(Exact name of Registrant as specified in its charter)

Delaware	**94-2579683**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

6001 America Center Drive, San Jose, California 95002
(Address of principal executive offices including Zip code)

(408) 404-3600
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value of $0.001 per share	VIAV	The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes ☐ No ☒

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).
Yes ☒ No ☐

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

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

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

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

As of **December 28, 2019**, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant was approximately $3.5 billion, based upon the closing sale prices of the common stock as reported on the Nasdaq Stock Market LLC. Shares of common stock held by executive officers and directors have been excluded from this calculation because such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of **July 25, 2020**, the Registrant had 228,318,250 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Notice of Annual Meeting of Stockholders and Proxy Statement to be filed pursuant to Regulation 14A within 120 days after Registrant's fiscal year end of June 27, 2020 are incorporated by reference into Part III of this Report.

TABLE OF CONTENTS

		Page
PART I		
ITEM 1.	BUSINESS	3
ITEM 1A.	RISK FACTORS	12
ITEM 1B.	UNRESOLVED STAFF COMMENTS	23
ITEM 2.	PROPERTIES	23
ITEM 3.	LEGAL PROCEEDINGS	23
ITEM 4.	MINE SAFETY DISCLOSURE	23
PART II		
ITEM 5.	MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES	24
ITEM 6.	SELECTED FINANCIAL DATA	26
ITEM 7.	MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS	27
ITEM 7A.	QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK	45
ITEM 8.	FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA	47
ITEM 9.	CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE	104
ITEM 9A.	CONTROLS AND PROCEDURES	104
ITEM 9B.	OTHER INFORMATION	105
PART III		
ITEM 10.	DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE	105
ITEM 11.	EXECUTIVE COMPENSATION	105
ITEM 12.	SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS	106
ITEM 13.	CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE	106
ITEM 14.	PRINCIPAL ACCOUNTING FEES AND SERVICES	106
PART IV		
ITEM 15.	EXHIBITS, FINANCIAL STATEMENTS SCHEDULES	107
ITEM 16.	10-K SUMMARY	110
SIGNATURES		111

FORWARD-LOOKING STATEMENTS

Statements contained in this Annual Report on Form 10-K for the year ended June 27, 2020 (Annual Report on Form 10-K), which we also refer to as the Report, which are not historical facts are forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended. A forward-looking statement may contain words such as "anticipates," "believes," "can," "can impact," "could," "continue," "estimates," "expects," "intends," "may," "ongoing," "plans," "potential," "projects," "should," "will," "will continue to be," "would," or the negative thereof or other comparable terminology regarding beliefs, plans, expectations or intentions regarding the future. Forward-looking statements include statements such as:

- *Our expectations regarding the impact of the COVID-19 pandemic on our business, financial condition, results of operations and liquidity;*
- *Our expectations regarding demand for our products and services, including industry trends and technological advancements that may drive such demand, the role we will play in those advancements and our ability to benefit from such advancements;*
- *Our plans for growth and innovation opportunities;*
- *Financial projections and expectations, including profitability of certain business units, plans to reduce costs and improve efficiencies, the effects of seasonality on certain business units, continued reliance on key customers for a significant portion of our revenue, future sources of revenue, competition and pricing pressures, the future impact of certain accounting pronouncements and our estimation of the potential impact and materiality of litigation;*
- *Our plans for continued development, use and protection of our intellectual property;*
- *Our strategies for achieving our current business objectives, including related risks and uncertainties;*
- *Our plans or expectations relating to investments, acquisitions, partnerships and other strategic opportunities;*
- *Our strategies for mitigating the risk of supply chain interruptions;*
- *Our research and development plans and the expected impact of such plans on our financial performance; and*
- *Our expectations related to our products, including costs associated with the development of new products, product yields, quality and other issues.*

Management cautions that forward-looking statements are based on current expectations and assumptions and are subject to risks and uncertainties that could cause our actual results to differ materially from those projected in such forward-looking statements. These forward-looking statements are only predictions and are subject to risks and uncertainties including those set forth in Part I, Item 1A "Risk Factors" and elsewhere in this Annual Report on Form 10-K and in other documents we file with the U.S. Securities and Exchange Commission. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of these forward-looking statements. Forward-looking statements are made only as of the date of this Report and subsequent facts or circumstances may contradict, obviate, undermine or otherwise fail to support or substantiate such statements. We are under no duty to update any of the forward-looking statements after the date of this Form 10-K to conform such statements to actual results or to changes in our expectations.

PART I

ITEM 1. BUSINESS

GENERAL

Overview

Viavi Solutions Inc. (VIAVI, also referred to as the Company, we, our, and us) is a global provider of network test, monitoring and assurance solutions for communications service providers, enterprises, network equipment manufacturers, government and avionics. We help these customers harness the power of instruments, automation, intelligence and virtualization to *Command the network*. VIAVI is also a leader in light management solutions for 3D sensing, anti-counterfeiting, consumer electronics, industrial, government, automotive and defense applications.

To serve our markets, we operated in the following business segments:

- Network Enablement (NE);
- Service Enablement (SE); and
- Optical Security and Performance Products (OSP)

Industry Trends

NE and SE

NE and SE are collectively referred to as Network and Service Enablement (NSE).

The telecommunications (Telecom) and cable industries are experiencing a major evolution in technology that is likely to last for the next decade as wireless communications expand and evolve from 4G to 5G technology with its promise of greater bandwidth capacity, faster transmission speeds and lower latency response time. 5G is a disruptive technology that is being gradually deployed by service providers using millimeter wave and sub-6 GHz technologies.

Wireless communications connectivity at the edge, or the “last mile” or “last hundred yards”, will bring gigahertz speeds and capacity to the home as well as to “all devices” and to “all connected things (e.g. Cars, Drones, Bots, etc.)”. The 5G transition is being deployed globally and is expected to be disruptive to businesses, consumers and potentially create new applications and vertical industries. The adoption of 5G also requires increased bandwidth, high speed, and low latency backhaul capability from the network edge to the network core. This requires optical fiber upgrade or buildout as legacy copper line networks are decommissioned. 100GbE optical fiber is being deployed in many metropolitan networks, with the leading-edge networks installing 400GbE optical fiber. In the labs, 800GbE fiber technology is being evaluated for the future next generation optical network. These investments will extend fiber connectivity beyond the office and home and permeate “fiber-to-the-everywhere.”

While new networks are deploying 5G wireless and advanced optical fiber technology, existing network infrastructure that is not otherwise being upgraded is still expected to be modernized with new cable and access technologies. Cable service providers are investing in DOCSIS 3.1 to enhance existing cable networks with higher speed connectivity and bandwidth capacity. Some telecom operators with legacy copper digital subscriber line (DSL) have chosen to extend the useful life of these legacy networks by upgrading to Gfast technology. Many operators, however, have decided to run existing legacy networks until no longer operable and then replace them with new optical fiber. The COVID-19 pandemic resulted in global work-office shutdown and Work-From-Home policies among network service providers, network equipment manufacturers and its related supply chain. This in turn disrupted and delayed new network construction build out, general network maintenance and new technology development.

5G Wireless has broader applications beyond smart mobile devices. 5G’s increased bandwidth capacity and speed, as well as lower latency, should enable numerous devices, referred to as the “Internet of Things” (IOT), to have greater device-to-device connectivity to enable smart homes, smart cities, smart grid, smart and autonomous cars, factory automation and other applications that are yet to be conceptualized.

The scale and complexity of these technology shifts are also challenging service providers to rearchitect their networks, becoming more automated, virtualized and optimized based on real-time intelligence.

The convergence of network technologies requires significant investments from both the traditional carriers (telecom and cable) and cloud service providers. To achieve scale and a profitable return on investment, these communications service providers (CSPs) in recent years have consolidated and are expected to continue to consolidate. While traditional service provider capital spending in physical networks has been declining, and this impacts the served available market opportunity for our NSE segment.

However, the new cloud service providers and virtualized networks create new NSE opportunities. Our NE and SE products and solutions are well positioned to meet these rapidly changing industry trends, given our technology and products, as well as customer installed base.

NE's AvComm (or Avionics Communications) products from our acquisition of that business from Cobham plc in March 2018, further expand NSE's Test & Measurement (T&M) opportunity into the government, civil, aerospace and military markets for communications and public safety testing. Military radio test and avionics products are a growth opportunity as defense and public safety department budgets increase significantly due to the ongoing upgrade from analog to digital communications.

OSP

The threat of counterfeiting of banknotes and documents of value is rising as counterfeiters have increasing access to a broad range of advanced but relatively low-cost imaging technologies and printing tools. With this access, counterfeiters have the ability to potentially create simulations of actual documents and products for illicit purposes, creating the need for robust, technically sophisticated and easy to validate anti-counterfeiting features. We have decades of anti-counterfeiting expertise leveraging our Optically Variable Pigment (OVP®), and our Optically Variable Magnetic Pigment (OVMP®) technologies to protect the integrity of banknotes and other high-value documents by delivering optical effects that, on one hand, consumers can easily recognize but on the other hand, counterfeiters find very difficult to reproduce.

In addition to Anti-Counterfeiting solutions, we also provide optical technologies for the 3D sensing, consumer electronics, government, automotive, and industrial markets. For example, we manufacture and sell optical filters for 3D sensing applications that enable consumers to interact with their devices more naturally by allowing electronic devices to accurately measure depth and motion. Our filters play an important role in those applications, separating out ambient light from the incoming data used by sensors to make precise measurements. Notably, our patented low angle shift technology enables our customers to significantly improve the signal-to-noise ratio of their systems and deliver reliable system performance. Through the development of multiple generations of products for 3D sensing and by delivering improved performance and competitive value with each iteration, we believe we have established ourselves as the industry's leading supplier of high-performance filters enabling depth-sensing systems in consumer electronics. In October 2018, we broadened our portfolio of 3D sensing technologies when we acquired RPC Photonics (RPC), a technology leader in engineered optical diffusers, marketed under the trademark "Engineered Diffusers™." Engineered Diffusers™ diffuse the infrared laser light transmitted by a smartphone in 3D sensing applications, enabling reliable system performance while guarding eye safety. In user facing applications of 3D sensing including facial recognition, our Engineered Diffusers™ enable infrared light to safely impinge on the target, i.e. human facial profile. That light is then reflected back to the 3D Sensor on the smartphone and an image process gathers the target information.

Sales and Marketing

CSPs make up the majority of NE and SE revenues. We also market and sell products to network equipment manufacturers (NEMs), original equipment manufacturers (OEMs), enterprises, governmental organizations, distributors and strategic partners worldwide. We have a dedicated sales force organized around each of the markets that we serve that works directly with customers' executive, technical, manufacturing and purchasing personnel to determine design, performance and cost requirements. We are also supported by a worldwide channel community, including our Velocity Solution Partners who support our NE and SE segments.

OSP sales and marketing efforts are targeted primarily toward customers in the consumer electronics, government, industrial, medical and automotive markets. We have a dedicated direct global sales force focused on understanding customers' requirements and building market awareness and acceptance of our products. Our direct sales force is complemented by a highly trained team of field applications engineers who assist customers in designing, testing and qualifying our products. We market our products and capabilities through attendance at trade shows, the production of promotional webinars, participation in technical forums, select advertising and by developing customer partnerships.

A high level of support is a critical part of our strategy to develop and maintain long-term collaborative relationships with our customers. We develop innovative products by engaging our customers at the initial design phase and continues to build that relationship as our customers' needs change and develop. Service and support are provided through our offices and those of our partners worldwide.

Corporate Information

The Company was incorporated in California in 1979 as Uniphase Corporation and reincorporated in Delaware in 1993. Our heritage includes several significant mergers and acquisitions including, among others, the combination of Uniphase Corporation and JDS FITEL in 1999. In 2000, we acquired Optical Coatings Laboratory, Inc., which is currently part of our OSP business segment, and in 2005 we acquired Acterna, Inc. which is currently part of our NSE business segments. Following these acquisitions, we operated as a company comprised of a portfolio of businesses with a focus on optical innovation, communications network

and service enablement, commercial lasers and anti-counterfeiting solutions. In August 2015, JDSU completed the separation of our Lumentum business (the Separation) to gain greater strategic flexibility to address rapidly changing market dynamics. At the same time, we changed our name to Viavi Solutions Inc. Additionally, for the last several years, we have implemented multiple manufacturing, facility, organizational and product line transitions. We expect some of these activities to continue for the foreseeable future. Our headquarters are located at 6001 America Center Drive, San Jose, California 95002, and our telephone number is (408) 404-3600. Our website address is *www.viavisolutions.com*.

We are subject to the requirements of the Securities Exchange Act of 1934, as amended (the Exchange Act), under which we file annual, quarterly and periodic reports, proxy statements and other information with the SEC. The SEC maintains a website, *www.sec.gov*, which contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. We also make available free of charge, all of our SEC filings on our website at *www.viavisolutions.com/investors* as soon as reasonably practicable after they are electronically filed with or furnished to the SEC. The information contained on any of the websites referenced in this Annual Report on Form 10-K are not part of or incorporated by reference into this or any other report we file with, or furnish to, the SEC.

Corporate Strategy

Our objective is to continue to be a leading provider in the markets and industries we serve. In support of our business segments, we are pursuing a corporate strategy that we believe will best position us for future opportunities as follows:

- Market leadership in physical and virtualized test and measurement instruments with opportunity to grow market share;
- Market leadership in Anti-Counterfeiting pigments, 3D sensing optical filters and Engineered Diffusers™;
- Market leadership in 5G wireless, public safety radio and navigation/communication transponder test instruments;
- Increase the benefit from the use of our net operating loss carryforwards (NOL) by improving our profitability organically and inorganically; and,
- Greater flexibility in capital structure enabling greater capital return to shareholders.

Our near-term strategy, and next transformation phase, will be a greater focus on growth, both organic and inorganic. We expect to leverage major secular growth trends in 5G Wireless, Fiber and 3D Sensing to achieve higher levels of revenue and profitability.

Our long-term capital allocation strategy, which supports our corporate strategy, is as follows:

- Maintenance and run-rate investments to support operations;
- Organic investments in initiatives to support revenue growth and productivity;
- Return capital to shareholders through share buybacks; and,
- Mergers and acquisitions that are synergistic to company strategy and business segments.

Although we expect to successfully implement our strategy, internal and/or external factors could impact our ability to meet any, or all, of our objectives. These factors are discussed under Item 1A - Risk Factors.

Business Segments

We operate in two broad business categories: NSE and OSP. NSE operates in two reportable segments, NE and SE, whereas OSP operates as a single segment. Our NSE and OSP businesses are each organized with its own engineering, manufacturing and dedicated sales and marketing groups focused on each of the markets we serve to better support our customers and respond quickly to market needs. In addition, our segments share common corporate services that provide capital, infrastructure, resources and functional support, allowing them to focus on core technological strengths to compete and innovate in their markets.

The table below discloses the percentage of our total net revenue attributable to each of our three reportable segments.

	Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018
Network Enablement	65.7%	65.3%	61.6%
Service Enablement	9.0	9.1	13.5
Optical Security and Performance Products	25.3	25.6	24.9

Network Enablement

Our NE segment provides an integrated portfolio of testing solutions that access the network to perform build-out and maintenance tasks. These solutions include instruments, software and services to design, build, turn-up, certify, troubleshoot, and optimize networks. They also support more profitable, higher-performing networks and help speed time-to-revenue.

Our solutions address lab and production environments, field deployment and service assurance for wireless and wireline networks, including storage networks. Our test instrument portfolio is one of the largest in the industry, with hundreds of thousands of units in active use by major NEMs, operators and services providers worldwide. Designed to be mobile, these products include instruments and software that access the network to perform installation and maintenance tasks that help service provider technicians assess the performance of network elements and segments and verify the integrity of the information being transmitted across the network. These instruments are highly intelligent and have user interfaces that are designed to simplify operations and minimize the training required to operate them.

Within the NE product portfolio, our wireless products consist of flexible application software and multi-function hardware that our customers can easily use as standalone test and measurement solutions or combine with industry-standard computers, networks and third-party devices to created measurement, automation and embedded systems. Our Radio Access Network (RAN to Core) test and validation product addresses the various communications infrastructure market segments.

We also offer a range of product support and professional services designed to comprehensively address our customers' requirements. These services include repair, calibration, software support and technical assistance for our products. We offer product and technology training as well as consulting services. Our professional services, provided in conjunction with system integration projects, include project management, installation and implementation.

Our Avionics products group is a global leader in T&M instrumentation for communication and safety in the government, civil, aerospace and military markets. Avionic product solutions encompass a full spectrum of instrumentation from turnkey systems, stand-alone instruments or modular components that provide customers with highly reliable, customized, innovative and cost-effective testing tools.

Markets

Our NE segment provides solutions for CSPs, as well as NEMs and data center providers that deliver and/or operate broadband/IP networks (fixed and mobile) supporting voice, video and data services as well as a wide range of applications. These solutions support the development and production of network equipment, the deployment of next generation network technologies and services, and ensure a higher-quality customer experience. AvComm products are positioned in all of the customers' product life cycle phases from R&D, manufacturing, installation, deployment and field, to depot repair and maintenance of devices.

Customers

NE customers include CSPs, NEMs, government organizations and large corporate customers, such as major telecom, mobility and cable operators, chip and infrastructure vendors, storage-device manufacturers, storage-network and switch vendors, radio and avionics commercial companies, OEMs, civil, state and federal agencies, utilities, law enforcement, military contractors and the armed forces and deployed private enterprise customers. Our customers include América Móvil, AT&T Inc., Inc., CenturyLink, Inc., Cisco Systems, Inc., Nokia Solutions and Networks and Verizon Communications Inc.

No single NE customer accounted for more than 10% of our net revenue during fiscal 2020, 2019 or 2018.

Trends

Several network technology trends are taking place to support the growing bandwidth demand and are impacting the way NEMs and CSPs design, build and deploy new network systems. These trends are driving shifts in capital spending with the transition to advanced LTE and 5G, cable upgrades to DOCSIS 3.1, DSL copper line upgrades to Gfast, deployment of 100G Metro optical fiber, 400G in optical transport, and adoption of advanced network management technologies such as virtualization, assurance and automation. As service providers face pricing pressure on their average revenue per user (ARPU) metrics, they are turning to our NE products solutions to both reduce the need for physical customer service visits through faster installation and repair completion and improve user satisfaction. For our avionics products, many governments across the globe are increasing their military and public safety budgets to upgrade communication infrastructure.

Competition

Our NE segment competes against various companies, including Anritsu Corporation, EXFO Inc., Keysight Technologies Inc., Rohde & Schwarz, VeEX Inc., Spirent Communications plc. and Artiza Networks, Inc. While we face multiple competitors

for each of our product families, we continue to have one of the broadest portfolios of wireline and wireless products available in the network enablement industry. In Aerospace and Tactical Communications, AvComm competes against Anritsu, Astronics DME Corp., General Dynamics and Tel Instruments.

Offerings

Our NE solutions include instruments and software that support the development and production of network systems in the lab. These solutions activate, certify, troubleshoot and optimize networks that are differentiated through superior efficiency, reliable performance and greater customer satisfaction. Designed to be mobile, these products include instruments and software that access the network to perform installation and maintenance tasks. They help service provider technicians assess the performance of network elements and segments and verify the integrity of the information being transmitted across the network. These instruments are highly intelligent and have user interfaces that are designed to simplify operations and minimize the training required to operate them. Our NE solutions are also used by NEMs in the design and production of next-generation network equipment. Thorough testing by NEMs plays a critical role in producing the components and equipment that are the building blocks of network infrastructure. We leverage our installed base and knowledge of network management methods and procedures to develop these advanced customer experience solutions.

We also offer a range of product support and professional services designed to comprehensively address our customers' requirements. These services include repair, calibration, software support and technical assistance for our products. We offer product and technology training as well as consulting services. Our professional services, provided in conjunction with system integration projects, include project management, installation and implementation.

Our NE products and associated services including the acquired Trilithic and AW businesses are, as follows:

Field Instruments: Primarily consisting of (a) Access and Cable products; (b) Avionics products; (c) Fiber Instrument products; (d) Metro products; (e) RF Test products; and (f) Radio Test products.

Lab Instruments: Primarily consisting of (a) Fiber Optic Production Lab Test; (b) Optical Transport products; (c) Storage Network Test products; and (d) Wireless products.

Service Enablement

SE provides embedded systems and enterprise performance management solutions that give global CSPs, enterprises and cloud operators visibility into network, service and application data. These solutions - which primarily consist of instruments, microprobes and software - monitor, collect and analyze network data to reveal the actual customer experience and identify opportunities for new revenue streams and network optimization.

Our assurance solutions let carriers remotely monitor performance and quality of network, service and applications performance throughout the entire network. This provides our customers with enhanced network management, control, and optimization that allow network operators to initiate service to new customers faster, decrease the need for technicians to make on-site service calls, help to make necessary repairs faster and, as a result, lower costs while providing higher quality and more reliable services. Remote monitoring decreases operating expenses, while early detection helps increase uptime, preserve revenue, and helps operators better monetize their networks.

Our network performance management products help enterprise IT and security teams monitor and optimize connectivity for their employees across on-premise and cloud domains and conduct preventative and forensic analysis to address rising security challenges. This functionality has become more critical as organizations have been forced to adopt remote working procedures, increasing network challenges and security risks.

Markets

Our SE segment provides solutions and services primarily for communication service providers and enterprises that deliver and/or operate broadband/IP networks (fixed and mobile) supporting voice, video and data services as well as a wide range of applications. These solutions provide network and application visibility to enable more cost-effective ways to provide a higher-quality customer experience.

Customers

SE customers include similar CSPs, NEMs, government organizations, large corporate customers and storage-segment customers that are served by our NE segment.

Trends

Our Service Enablement solutions portfolio grew as a result of several acquisitions made during the past several years to address the network industry shift to a more agile, flexible, programmable, and cost-effective virtualized software-centric network. Our Data Center product and solutions offerings address customers' needs to support data center network traffic through application and performance monitoring.

Competition

Competitors of SE include NetScout Systems, Inc., Riverbed Technology and Spirent Communications plc. While we face multiple competitors for each of our product families, we continue to have one of the broadest portfolios of wireline and wireless monitoring solutions available in the service enablement industry.

Offerings

Our SE solutions are embedded network systems, including microprobes and software that collect and analyze network data to reveal the actual customer experience and identify opportunities for new revenue streams. These solutions provide our customers enhanced network management, control, optimization and differentiation. Our customers are able to access and analyze the growing amount of network data from a single console, simplifying the process of deploying, provisioning and managing network equipment and services. These capabilities allow network operators to initiate service to new customers faster, decrease the need for technicians to make on-site service calls, help to make necessary repairs faster and, as a result, lower costs while providing higher quality and more reliable services.

Our SE products and associated services are, as follows:

Data Center: Consisting of our Network Performance Monitoring and Security tools (Apex, GigaStor, Observer).

Assurance: Primarily consisting of our (a) Growth Products (Location Intelligence and Nitro Mobile products) and (b) Mature Products (Legacy Assurance and Legacy Wireline).

Optical Security and Performance Products

Our OSP segment leverages its core optical coating technologies and volume manufacturing capability to design, manufacture, and sell products targeting anti-counterfeiting, consumer and industrial, government, automotive, industrial and other markets.

Our security offerings for the anti-counterfeiting market include OVP® and OVMP®. OVP® enables color-shifting effects and OVMP® enables depth and motion effects in addition to color-shifting effects. Both OVP® and OVMP® are formulated into inks used by banknote issuers and security printers worldwide for anti-counterfeiting applications on banknotes and other high-value documents. Our technologies are deployed on the banknotes of more than 100 countries today.

Leveraging our expertise in spectral management and our unique high-precision coating capabilities, OSP provides a range of products and technologies for the consumer and industrial market, including, for example, 3D sensing optical filters.

OSP value-added solutions meet the stringent requirements of commercial and government customers. Our products are used in a variety of aerospace and defense applications, including optics for guidance systems, laser eye protection and night vision systems. These products, including coatings, optical filters and Engineered Diffusers™, are optimized for each specific application.

Markets

Our OSP segment delivers overt and covert features to protect banknotes and documents of value against counterfeiting, with a primary focus on the currency market. OSP also produces precise, high-performance, optical thin-film coatings for a variety of applications in consumer electronics, government, automotive, industrial, and other markets. For example, we design and produce optical filters which are used in 3D sensing products and other applications.

In addition, we offer custom color solutions that include innovative special effects pigments that provide product enhancement for brands in the automotive and other industries.

Customers

OSP serves customers such as SICPA Holding SA Company (SICPA), STMicroelectronics Holding N.V., Lockheed Martin Corporation and Seiko Epson Corporation. During fiscal 2020, 2019 and 2018, net revenue from SICPA represented 12.3%, 14.3%, 14.8%, respectively, of our net revenue.

Trends

Counterfeiting of banknotes and other documents of value is rising as counterfeiters have access to a broad range of advanced but relatively low-cost imaging technologies and printing tools, giving them the potential ability to create simulations of banknotes and other documents of value for illicit purposes. As a result, demand is increasing for sophisticated overt anti-counterfeiting features, such as our OVP® and OVMP® technologies. These technologies enable consumers, merchants, and law enforcement to easily validate banknotes and documents of value without the use of special tools. At the same time, the effects created by these technologies are difficult to create or simulate using conventional printing technology.

The consumer electronics, government, automotive and instrumentation markets require customized, high-precision coated products and optical components that selectively absorb, transmit or reflect light to meet the performance requirements of sophisticated systems. Our unique and proprietary deposition platforms and decades of know-how enable us to offer an array of advanced technologies and precision optics-from the UV to the far IR portion of the light spectrum to meet the specific requirements of our customers.

OSP's optical filters and Engineered Diffusers™ are deployed in smartphones to enable 3D sensing applications including facial recognition biometric authentication. 3D sensing optical filters separate out ambient light from incoming data for more natural interactions between consumers and devices, allowing devices to be controlled by a person's movements, gestures or features. Other potential applications for OSP's optical filters include augmented/virtual reality, sensors deployed in autonomous vehicles and IoT. Engineered Diffusers™ optimize transmitted infrared laser light in a 3D sensing module while ensuring visual eye safety. The diffuser redirects the laser light to avoid direct eye contact, a critical safety feature for 3D sensing applications.

Competition

OSP's competitors include providers of anti-counterfeiting features such as Giesecke & Devrient, De La Rue plc; special-effect pigments like Merck KGA; coating companies such as Nidek, Toppan, and Toray and optics companies such as Materion; and optical filter companies such as II-VI Inc. and AMS.

Offerings

Our OSP business provides innovative optical security and performance products which serve a variety of applications for customers in the anti-counterfeiting, consumer electronics, government, automotive, industrial, and other markets.

Anti-Counterfeiting: Our OVP® technology has become a standard used by many governments worldwide for currency protection. This technology provides a color-shifting effect that enables intuitive visual verification of banknotes. We also provide OVMP®, a technology that delivers depth and motion effects for authenticating banknotes.

For product differentiation and brand enhancement, we provide custom color solutions for a variety of applications using our ChromaFlair® and SpectraFlair® pigments to create color effects that emphasize body contours, create dynamic environments, or enhance products in motion. These pigments are added to paints, plastics or textiles for automotive, packaging, and other applications.

Consumer and Industrial: Our OSP business manufactures and sells optical filters for 3D sensing products that separate out ambient light from incoming data to allow devices to be controlled by a person's movements or gestures. Our Engineered Diffusers™ optimize the 3D sensing module for laser use eye safety.

Government: Our products are used in a variety of aerospace and defense applications, including optics for guidance systems, laser eye protection and night vision systems. These products, including coatings and optical filters, are optimized for each specific application.

Industrial and Other Markets: We provide multicavity and linear variable optical filters on a variety of substrates for applications including, thermal imaging, and spectroscopy and pollution monitoring. We also develop and manufacture miniature near infrared spectrometers that leverage our linear variable optical filters for use in applications for agriculture, pharmaceuticals and other markets.

Acquisitions

As part of our strategy, we are committed to the ongoing evaluation of strategic opportunities and, where appropriate, the acquisition of additional products, technologies or businesses that are complementary to, or strengthen, our existing products.

On May 31, 2019, we completed the acquisition of 3Z, a provider of antenna alignment installation and monitoring solutions.

On October 30, 2018, we completed the acquisition of RPC. The acquisition of RPC expands our 3D Sensing offerings.

On March 15, 2018, we completed the acquisition of AW, which further strengthens our competitive position in 5G deployment and diversifies our product offerings into military, public safety and avionics test markets.

On August 9, 2017, we completed the acquisition of Trilithic, a provider of electronic test and measurement equipment for telecommunications service providers.

The acquisitions of 3Z, AW and Trilithic have been integrated into our NE business segment. The acquisition of RPC has been integrated into our OSP business segment. Refer to "Note 5. Acquisitions" for additional information related to our acquisitions.

Restructuring Programs

We continue to engage in targeted restructuring events intended to consolidate our operations and align our businesses in response to market conditions and our current investment strategy. In fiscal 2019, we implemented a plan within our Network Service and Enablement business, including actions related to the recently acquired AW business. These actions further drive our strategy for organizational alignment and consolidation as part of its continued commitment to a more cost effective and agile organization and to improve overall profitability in our NSE business. Included in these restructuring plans are specific actions to consolidate and integrate the newly acquired AW business within the NSE business segment.

Please refer to Management's Discussion and Analysis of Financial Condition and Results of Operations under Item 7 and "Note 13. Restructuring and Related Charges" under Item 8 of this Annual Report on Form 10-K for further discussion on these charges.

Research and Development

During fiscal 2020 and 2019, we incurred R&D expenses of $193.6 million and $187.0 million, respectively. As of June 27, 2020, we had approximately 1,000 employees engaged in R&D.

We devote substantial resources to R&D to develop new and enhanced products to serve our markets. Once the design of a product is complete, our engineering efforts shift to enhancing both product performance and our ability to manufacture it in greater volume and at lower cost.

In our NE and SE segments, we develop portable test instruments for field service technicians, systems and software used in Network Operations Centers, and instruments used in the development, testing and production of communications network components, modules and equipment. We have centers of excellence for product marketing and development in Asia, Europe and North America.

In our OSP segment, our R&D efforts concentrate on developing more innovative technologies and products for customers in the anti-counterfeiting, consumer electronics, government, healthcare and automotive markets. Our strength in the banknote anti-counterfeiting market is complemented by our advances in developing novel pigments and foils for a variety of applications. Other areas of R&D focus for OSP include our efforts to leverage our optical coating technology expertise to develop applications for the government and defense markets as well as efforts related to new products for 3D sensing and smart phone sensors. OSP has also introduced an innovative hand-held spectrometer solution with applications in the agriculture, healthcare and defense markets.

Manufacturing

As of June 27, 2020, we have significant manufacturing facilities for our NE, SE and OSP segments located in China, France, Germany, United Kingdom and the United States. Our most significant contract manufacturing partners are located in China and Mexico.

Sources and Availability of Raw Materials

We use various suppliers and contract manufacturers to supply parts and components for the manufacture and support of multiple product lines. Although we intend to establish at least two sources of supply for materials whenever possible, for certain components we have sole or limited source supply arrangements. We may not be able to procure these components from alternative sources at acceptable prices within a reasonable time, or at all; therefore, the loss or interruption of such arrangements could impact our ability to deliver certain products on a timely basis.

Patents and Proprietary Rights

Intellectual property rights apply to our various products include patents, trade secrets and trademarks. We do not intend to broadly license our intellectual property rights unless we can obtain adequate consideration or enter into acceptable patent cross-license agreements. As of June 27, 2020, we owned approximately 793 U.S. patents and 1,478 foreign patents and have 913 patent

applications pending throughout the world. The average age of the patents we hold is 11.6 years, which is slightly older than the midpoint of the average 20-year life of a patent.

Backlog

We consider our backlog balance to be an estimate of future revenue to be earned from contractually committed product and service arrangements. As of June 27, 2020 and June 29, 2019, our backlog was approximately $204.6 million and $244.1 million, respectively.

Due to possible changes in product delivery schedules and cancellation of product orders, and because our sales often reflect orders shipped in the same quarter in which they are received, our backlog at any particular date is not necessarily indicative of actual revenue or the level of orders for any succeeding period.

Employees

We employed approximately 3,600 employees as of June 27, 2020, which included approximately 1,200 employees in manufacturing, 1,000 employees in research and development, 900 employees in sales and marketing, and 500 employees in general and administration. This compared to a workforce of approximately 3,600 as of June 29, 2019, and 3,500 as of June 30, 2018. None of our employees in the U.S. is represented by a labor union; however, in certain foreign subsidiaries, labor unions or workers' councils represent some of our employees.

COVID-19

At VIAVI, the health, safety and wellbeing of our employees, customers, partners, suppliers, communities are of the utmost importance. We have suspended international business travel and are conducting meetings with customers and partners remotely. We have established an internal COVID-19 task force with management representation from human resources, legal, facilities and business units and are closely monitoring developments. We have updated our business continuity plans and our IT team continues to enhance remote work capabilities and cybersecurity tools. Our employees have access to a centralized resource portal for COVID-19 where they can find health and safety information and support tools. While we, along with the rest of the world continue to navigate the risks and uncertainties associated with the COVID-19 pandemic, we are committed to continuing to provide a safe and supportive work environment for our employees and are following all recommended protocols from state and local regulators and health authorities.

Environmental, Social and Governance

All of our stakeholders are essential to our business-stockholders, customers, suppliers, employees, communities as well as the environment and society. We are working to making our workforce more inclusive, our business more sustainable, and our communities more engaged by maintaining strong environmental, social and governance (ESG) practices. We detail our overall ESG strategy and our ESG progress on our ESG web page and in our annual Corporate Social Responsibility Report, which can both be found at *www.viavisolutions.com/csr*.

Seasonality

Our business is seasonal, as is typical for our competitors and many large companies. For NSE, revenue is typically higher in the second and fourth fiscal quarter, all else being equal. There is typically a modest end of calendar year customer spending budget flush that benefits the December quarter. Telecom and cable spending budgets are typically set at the start of a new calendar year, the March quarter and thus NSE's weakest revenue quarter, all else being equal, with spending release and benefiting the June quarter. For our OSP business, given our recent exposure to the consumer market, namely our 3D Sensing products into the smart phone market, OSP revenue is expected to be seasonally higher in the first and second fiscal quarter followed by seasonal demand declines in the third and fourth fiscal quarters.

ITEM 1A. RISK FACTORS

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

The COVID-19 pandemic has resulted in a widespread health crisis that is adversely affecting the broader economies, financial markets and may affect the overall demand environment for our products and services.

In response to the COVID-19 pandemic, we have prioritized employee, customer and partner safety and have temporarily shut down, slowed or limited activity in certain locations, including limiting production in certain locations to essential business needs, all in conjunction with federal, state and local health and safety regulations and shelter-in-place orders. The majority of our global workforce is working from home, and we have canceled participation in trade shows and marketing events and restricted business travel, resulting in the limitation of normal sales and business development activity.

We have experienced and may continue to experience disruption of our facilities, suppliers and contract manufacturers, which has and may continue to negatively impact our sales and operating results. In addition, we have experienced and may continue to experience shipping and logistics challenges as our customers have also closed their facilities and are operating under similar restrictions. Both NE and SE net revenue declined in the second half of fiscal 2020. NE revenue declined as the COVID-19 pandemic resulted in certain customer operation and logistic shutdowns that resulted in shipment or acceptance delays, which resulted in a demand slowdown in Field Instruments with orders pushed out into future periods, and SE revenue declined as customers were unable to provide on-site verification and acceptance due to facility closures and other restrictions.

There is currently no vaccine for COVID-19 and therapeutic medications to date have had limited efficacy in alleviating symptoms. When and as normal business operations resume, we will need to expand globally the safety measures we have already undertaken at sites conducting essential business, such as enhanced sanitation procedures, health checks and social distancing protocols, none of which can completely eliminate the risk of exposure or spread of COVID-19. Even after shelter-in-place restrictions have been lifted by governmental authorities, there could be additional waves or spikes in infection, again causing widespread social, economic and operational impacts.

Further, the COVID-19 pandemic has adversely affected, and may continue to adversely affect, the economies and financial markets in many countries. On June 8, 2020, the National Bureau of Economic Research announced that the U.S. was in a recession. Deterioration of macro-economic conditions could further curtail or delay spending by our customers and decrease demand for our products as well as cause an increased risk of customer defaults or delays in payment. Current economic conditions have already led to a tightening of credit markets. We entered into a $300 million dollar secured credit facility to strengthen our liquidity position but have not drawn on this facility to date. If there is a long-term economic downturn or a prolonged recession as a result of the pandemic, we could face additional liquidity needs and challenges. There can be no assurance that we will be able to obtain financing on favorable terms or at all.

Due to the evolving and highly uncertain nature of this event, it is currently not possible to estimate the ultimate direct or indirect impacts the COVID-19 pandemic may have on our business. However, any prolonged disruption of manufacturing of our products, commerce and related activity caused by the pandemic or significant decrease in demand for our products could materially and adversely affect our results of operations and financial conditions. To the extent the COVID-19 pandemic adversely affects our business and financial results, it may also have the effect of heightening many of the other risks described in this “Risk Factors” section, such as those relating to our quarterly revenue and operating results as well as on our liquidity and on our ability to satisfy our indebtedness obligations, including the compliance with the covenants that apply to our indebtedness.

We refer you to “Management’s Discussion and Analysis of Financial Position and Results of Operations” for a more detailed discussions of the potential impact of the COVID-19 pandemic and associated economic disruptions, and the actual operational and financial impacts that we have experienced to date.

We have a history of net losses, and our future profitability is not assured.

We earned net income of $28.7 million and $5.4 million in fiscal 2020 and fiscal 2019, respectively. In fiscal 2018 we incurred a net loss of $48.6 million. Historically, we operated as a portfolio company comprised of many product lines, with diverse operating metrics and markets. As a result, our profitability in a particular period was impacted by revenue, product mix and operational costs that varied significantly across our product portfolio and business segments.

These transitions are costly and may impair our profit objectives. Specific factors that may undermine our financial objectives include, among others:

- uncertain future telecom carrier and cable operator capital and R&D spending levels, which particularly affects our NE and SE segments;
- adverse changes to our product mix, both fundamentally (resulting from new product transitions, the declining profitability of certain legacy products and the termination of certain products with declining margins, among other things) and due to quarterly demand fluctuations;
- pricing pressure across our NSE product lines due to competitive forces, increasingly from Asia, and to a highly concentrated customer base for many of our product lines, which may offset some of the cost improvements;
- our OSP operating margin may experience some downward pressure as a result of higher mix of 3D sensing products and increased operating expenses;
- limited availability of components and resources for our products which leads to higher component prices;
- increasing commoditization of previously differentiated products, and the attendant negative effect on average selling prices and profit margins;
- execution challenges, which limit revenue opportunities and harm profitability, market opportunities and customer relations;
- decreased revenue associated with terminated or divested product lines;
- redundant costs related to periodic transitioning of manufacturing and other functions to lower-cost locations;
- ongoing costs associated with organizational transitions, consolidations and restructurings, which are expected to continue in the nearer term;
- continuing high levels of selling, general and administrative, (SG&A) expenses;
- cyclical demand for our currency products;
- changing market and economic conditions, including the impacts due to tariffs and the COVID-19 pandemic;
- ability of our customers, partners, manufacturers and suppliers to purchase, market, sell, manufacture or supply our products and services, including as a result of disruptions arising from the COVID-19 pandemic;
- financial stability of our customers, including the solvency of private sector customers, which may be impacted by the COVID-19 pandemic and statutory authority for government customers to purchase goods and services; and
- factors beyond our control resulting from public health epidemics, pandemics and similar outbreaks as well as the fear of exposure to a widespread health epidemic, such as the COVID-19 pandemic, manufacturing restrictions, travel restrictions and shelter-in-place orders to control the spread of a disease regionally and globally, and limitations on the ability of our employees and our suppliers' and customers' employees to work and travel.

Taken together, these factors limit our ability to predict future profitability levels and to achieve our long-term profitability objectives. If we fail to achieve profitability expectations, the price of our debt and equity securities, as well as our business and financial condition, may be materially adversely impacted.

Our operating results may be adversely affected by unfavorable economic and market conditions.

Global macroeconomic and geopolitical risks, including those resulting from the COVID-19 pandemic which are beyond our control, could adversely impact customer business conditions that could decrease or delay capital spending among communications service providers, enterprise budgets and consumer demand. This could also result in increased price competition for our products, increase our risk of excess and obsolete inventories and higher overhead costs as a percentage of revenue.

Rapid technological change in our industry presents us with significant risks and challenges, and if we are unable to keep up with the rapid changes, our customers may purchase less of our products which could adversely affect our operating results.

The manufacture, quality and distribution of our products, as well as our customer relations, may be affected by several factors, including the rapidly changing market for our products, supply issues and internal restructuring efforts. We expect the impact of these issues will become more pronounced as we continue to introduce new product offerings and when overall demand increases.

Our success depends upon our ability to deliver both our current product offerings and new products and technologies on time and at acceptable cost to our customers. The markets for our products are characterized by rapid technological change, frequent

new product introductions, substantial capital investment, changes in customer requirements and a constantly evolving industry. Our future performance will depend on the successful development, introduction and market acceptance of new and enhanced products that address these issues and provide solutions that meet our customers' current and future needs. As a technology company, we also constantly encounter quality, volume and cost concerns such as:

- Our continuing cost reduction programs, which include site and organization consolidations, asset divestitures, outsourcing the manufacture of certain products to contract manufacturers, other outsourcing initiatives, and reductions in employee headcount, require the re-establishment and re-qualification by our customers of complex manufacturing lines, as well as modifications to systems, planning and operational infrastructure. During this process, we have experienced, and may continue to experience, additional costs, delays in re-establishing volume production levels, planning difficulties, inventory issues, factory absorption concerns and systems integration problems.

- We have experienced variability of manufacturing yields caused by difficulties in the manufacturing process, the effects from a shift in product mix, changes in product specifications and the introduction of new product lines. These difficulties can reduce yields or disrupt production and thereby increase our manufacturing costs and adversely affect our margin.

- We may incur significant costs to correct defective products (despite rigorous testing for quality both by our customers and by us), which could include lost future sales of the affected product and other products, and potentially severe customer relations problems, litigation and damage to our reputation.

- We are dependent on a limited number of vendors, who are often small and specialized, for raw materials, packages and standard components. We also rely on contract manufacturers around the world to manufacture certain of our products. Our business and results of operations have been, and could continue to be, adversely affected by this dependency. Specific concerns we periodically encounter with our suppliers include stoppages or delays of supply, insufficient vendor resources to supply our requirements, substitution of more expensive or less reliable products, receipt of defective parts or contaminated materials, increases in the price of supplies and an inability to obtain reduced pricing from our suppliers in response to competitive pressures. Additionally, the ability of our contract manufacturers to fulfill their obligations may be affected by economic, political or other forces that are beyond our control, including the COVID-19 pandemic. Any such failure could have a material impact on our ability to meet customers' expectations and may materially impact our operating results.

- New product programs and introductions involve changing product specifications and customer requirements, unanticipated engineering complexities, difficulties in reallocating resources and overcoming resource limitations and with their increased complexity, which expose us to yield and product risk internally and with our suppliers.

These factors have caused considerable strain on our execution capabilities and customer relations. We have and could continue to see (a) periodic difficulty responding to customer delivery expectations for some of our products, (b) yield and quality problems, particularly with some of our new products and higher volume products and (c) additional funds and other resources required to respond to these execution challenges. From time to time, we have had to divert resources from new product R&D and other functions to assist with resolving these matters. If we do not improve our performance in all of these areas, our operating results will be harmed, the commercial viability of new products may be challenged and our customers may choose to reduce or terminate their purchases of our products and purchase additional products from our competitors.

Unfavorable, uncertain or unexpected conditions in the transition to 5G may cause fluctuations in our rate of revenue growth or financial results.

Markets for 5G infrastructure may not develop in the manner or in the time periods we anticipate. If domestic and global economic conditions worsen, including as a result of the COVID-19 pandemic, overall spending on 5G infrastructure may be reduced, which would adversely impact demand for our products in these markets. In addition, unfavorable developments with evolving laws and regulations worldwide related to 5G may limit or slow the rate of global adoption, impede our strategy, and negatively impact our long-term expectations in this area. Further, the COVID-19 pandemic resulted in global work-office shut down and Work-From-Home policies among network service providers, network equipment manufacturers and its related supply chain. This in turn disrupted and delayed new network construction build out, general network maintenance and new technology development.

Even if the 5G infrastructure market and rate of adoption develop in the manner or in the time periods we anticipate, if we do not have timely, competitively priced, market-accepted products available to meet our customers' planned roll-out of 5G platforms and systems, we may miss a significant opportunity and our business, financial condition, results of operations and cash flows could be materially and adversely affected.

Our forecasts related to our growth strategy in 3D sensing and other applications may prove to be inaccurate.

Growth forecasts are subject to significant uncertainty and are based on assumptions and estimates which may not prove to be accurate. Our estimate of the market opportunity related to 3D sensing is subject to significant uncertainty and is based on assumptions and estimates, including our internal analysis, industry experience and third-party data. Accordingly, our estimated market opportunity may prove to be materially inaccurate. In addition, our growth and ability to serve a significant portion of this estimated market is subject to many factors, including our success in implementing our business strategy and expansion of 3D sensing and other applications for consumer electronics. We cannot assure you that we will be able to serve a significant portion of this market and the growth forecasts should not be taken as indicative of our future growth.

Natural Disasters and Catastrophic Events

In October 2017 and again in October 2019, we temporarily closed our Santa Rosa, California facility, which resulted in production stoppage due to wildfires in the region and the facility's close proximity to the wildfire evacuation zone. The location of our production facility could subject us to production delays and/or equipment and property damage. The geographic location of our Northern California headquarters and production facilities subject them to earthquake and wildfire risks. It is impossible to predict the timing, magnitude or location of such natural disasters or their impacts on the local economy and on our operations. If a major earthquake, wildfire or other natural disaster were to damage or destroy our facilities or manufacturing equipment, we may experience potential impacts ranging from production and shipping delays to lost profits and revenues.

Restructuring

We continue to restructure and realign our cost base with current and anticipated future market conditions. Significant risks associated with these actions that may impair our ability to achieve the anticipated cost reductions or that may disrupt our business include delays in the implementation of anticipated workforce reductions in highly regulated locations outside of the U.S. and the failure to meet operational targets due to the loss of key employees. In addition, our ability to achieve the anticipated cost savings and other benefits from these actions within the expected timeframe is subject to many estimates and assumptions. These estimates and assumptions are subject to significant economic, competitive and other uncertainties, some of which are beyond our control. If these estimates and assumptions are incorrect, if we experience delays, or if other unforeseen events occur, our business and results of operations could be adversely affected.

Impairment in the carrying value of goodwill or other assets could negatively affect our results of operations or net worth.

We have significant long-lived assets recorded on our balance sheet. We evaluate intangible assets and goodwill for impairment at least annually, or whenever events or changes in circumstances indicate that the carrying value may not be recoverable. We monitor factors or indicators, such as unfavorable variances from forecasted cash flows, established business plans or volatility inherent to external markets and industries that would require an impairment test. The test for impairment of intangible assets requires a comparison of the carrying value of the asset or asset group with their estimated undiscounted future cash flows. If the carrying value of the asset or asset group is considered impaired, an impairment charge is recorded for the amount by which the carrying value of the asset or asset group exceeds its fair value. We have in the past and may in the future experience impairment charges to goodwill. The amount of any impairment charge could be significant and could have a material adverse impact on our financial condition and results of operations for the period in which the charge is taken. In addition, the economic disruptions caused by the COVID-19 pandemic could also adversely impact the impairment risks for certain long-lived assets, equity method investments and goodwill. Refer to Note 9 and Note 10 of the Notes to the Consolidated Financial Statements and "Critical Accounting Policies and Estimates" in Management's Discussion and Analysis of Financial Condition and Results of Operations for further discussion of the impairment testing of goodwill and long-lived assets.

We will continue to evaluate the recoverability of the carrying amount of our goodwill and long-lived assets on an ongoing basis, and we may incur substantial impairment charges, which would adversely affect our financial results. There can be no assurance that the outcome of such reviews in the future will not result in substantial impairment charges. Impairment assessment inherently involves judgment as to assumptions about expected future cash flows and the impact of market conditions on those assumptions. Future events and changing market conditions may impact our assumptions as to prices, costs, holding periods or other factors that may result in changes in our estimates of future cash flows. Although we believe the assumptions we used in testing for impairment are reasonable, significant changes in any one of our assumptions could produce a significantly different result. If, in any period, our stock price decreases to the point where the fair value of the Company, as determined by our market capitalization, is less than our book value, this too could indicate a potential impairment and we may be required to record an impairment charge in that period.

We rely on a limited number of customers for a significant portion of our sales.

We believe that we will continue to rely upon a limited number of customers for a significant portion of our revenues for the foreseeable future. Any failure by us to continue capturing a significant share of these customers could materially harm our business. Dependence on a limited number of customers exposes us to the risk that order reductions from any one customer can have a material adverse effect on periodic revenue. Further, to the extent that there is consolidation among communications equipment manufacturers and service providers, we will have increased dependence on fewer customers who may be able to exert increased pressure on our prices and other contract terms. Customer consolidation activity and periodic manufacturing and inventory initiatives could also create the potential for disruptions in demand for our products as a consequence of such customers streamlining, reducing or delaying purchasing decisions.

We have a strategic alliance with SICPA, our principal customer for our anti-counterfeiting pigments that are used to, among other things, provide security features for banknotes. Under a license and supply agreement, we rely exclusively on SICPA to market and sell one of these product lines, Optical Variable Pigment (OVP®) and Optical Variable Magnetic Pigment (OVMP®), for document authentication applications worldwide. The agreement requires SICPA to purchase minimum quantities of these pigments over the term of the agreement. If SICPA fails to purchase these quantities, as and when required by the agreement, our business and operating results (including, among other things, our revenue and gross margin) will be harmed as we may be unable to find a substitute marketing and sales partner or develop these capabilities ourselves.

Movement towards virtualized networks and software solutions may result in lower demand for our hardware products and increased competition.

The markets for our NE and SE segments are increasingly looking towards virtualized networks and software solutions. While we are devoting substantial resources to meet these needs, this trend may result in lower demand for our legacy hardware products. Additionally, barriers to entry are generally lower for software solutions, which may lead to increased competition for our products and services.

We face a number of risks related to our strategic transactions.

Our strategy continues to include periodic acquisitions and divestitures of businesses and technologies. Strategic transactions of this nature involve numerous risks, including the following:

- the impact of the recent COVID-19 pandemic, and any other adverse public health developments, epidemic disease or other pandemic in the countries in which we operate or our customers are located, including regional quarantines restricting the movement of people or goods, reductions in labor supply or staffing, the closure of facilities to protect employees, including those of our customers, disruptions to global supply chains and our and our suppliers' ability to deliver materials and products on a timely or cost-effective basis, shipment, acceptance or verification delays, the resulting overall significant volatility and disruption of financial markets, and economic instability affecting customer spending patterns;
- inadequate internal control procedures and disclosure controls to comply with the requirements of Section 404 of the Sarbanes-Oxley Act of 2002, or poor integration of a target company's or business's procedures and controls;
- diversion of management's attention from normal daily operations of the business;
- potential difficulties in completing projects associated with in-process R&D;
- difficulties in entering markets in which we have no or limited prior experience and where competitors have stronger market positions;
- difficulties in obtaining or providing sufficient transition services and accurately projecting the time and cost associated with providing these services;
- an acquisition may not further our business strategy as we expected or we may overpay for, or otherwise not realize the expected return on, our investments;
- expected earn-outs may not be achieved in the time frame or at the level expected or at all;
- we may not be able to recognize or capitalize on expected growth, synergies or cost savings;
- insufficient net revenue to offset increased expenses associated with acquisitions;
- potential loss of key employees of the acquired companies; and
- difficulty in forecasting revenues and margins.

Acquisitions may also cause us to:

- issue common stock that would dilute our current stockholders' percentage ownership and may decrease earnings per share;
- assume liabilities, some of which may be unknown at the time of the acquisitions;
- record goodwill and non-amortizable intangible assets that will be subject to impairment testing and potential periodic impairment charges;
- incur additional debt to finance such acquisitions;
- incur amortization expenses related to certain intangible assets; or
- acquire, assume, or become subject to litigation related to the acquired businesses or assets.

Certain of our products are subject to governmental and industry regulations, certifications and approvals.

The commercialization of certain of the products we design, manufacture and distribute through our OSP segment may be more costly due to required government approval and industry acceptance processes. Development of applications for our anti-counterfeiting and special effects pigments may require significant testing that could delay our sales. For example, certain uses in cosmetics may be regulated by the U.S. Food and Drug Administration, which has extensive and lengthy approval processes. Durability testing by the automobile industry of our special effects pigments used with automotive paints can take up to three years. If we change a product for any reason, including technological changes or changes in the manufacturing process, prior approvals or certifications may be invalid and we may need to go through the approval process again. If we are unable to obtain these or other government or industry certifications in a timely manner, or at all, our operating results could be adversely affected.

We face risks related to our international operations and revenue.

Our customers are located throughout the world. In addition, we have significant operations outside North America, including product development, manufacturing, sales and customer support operations.

Our international presence exposes us to certain risks, including the following:

- fluctuations in exchange rates between the U.S. dollar and among the currencies of the countries in which we do business may adversely affect our operating results by negatively impacting our revenues or increasing our expenses;
- our ability to comply with a wide variety of laws and regulations of the countries in which we do business, including, among other things, customs, import/export, anti-bribery, anti-competition, tax and data privacy laws, which may be subject to sudden and unexpected changes;
- difficulties in establishing and enforcing our intellectual property rights;
- tariffs and other trade barriers;
- political, legal and economic instability in foreign markets, particularly in those markets in which we maintain manufacturing and product development facilities;
- strained or worsening relations between the United States and China or other countries;
- difficulties in staffing and management;
- language and cultural barriers;
- seasonal reductions in business activities in the countries where our international customers are located;
- integration of foreign operations;
- longer payment cycles;
- difficulties in management of foreign distributors; and
- potential adverse tax consequences.

The spread of COVID-19 has and is likely to continue to affect the manufacturing and shipment of goods globally. For example, while the Chinese government has lifted certain restrictions on movement of people and goods to limit the spread of COVID-19, it is continuing to take control measures and recently imposed certain restrictions to limit the spread of COVID-19

in Beijing. Further, most other countries have imposed or are imposing certain restrictions on the movement of people and goods and may continue to lift and reimpose such restrictions as needed. Any delay in production or delivery of our products due to an extended closure of our suppliers' plants as a result of efforts to limit the spread of COVID-19 could adversely impact our business. Worldwide travel restrictions have been imposed by many countries, including air travel and transport, that have caused and are likely to continue to cause delays in shipment of our products as well as increased logistics costs and will restrict our ability to attract, develop, integrate and retain highly skilled employees with appropriate qualifications from other countries.

Net revenue from customers outside the Americas accounted for 63.5%, 62.3% and 52.4% of our total net revenue, for fiscal 2020, 2019 and 2018, respectively. We expect that net revenue from customers outside North America will continue to account for a significant portion of our total net revenue. Lower sales levels that typically occur during the summer months in Europe and some other overseas markets may materially and adversely affect our business. In addition, the revenues we derive from many of our customers depend on international sales and further expose us to the risks associated with such international sales.

Economic conditions and regulatory changes that may result from the United Kingdom's pending exit from the European Union could adversely affect our business, financial condition and results of operations.

In June 2016, the United Kingdom (the U.K.) held a referendum in which voters narrowly approved an exit from the European Union (the E.U.), commonly referred to as "Brexit." The announcement of Brexit caused significant volatility in global stock markets and currency exchange rate fluctuations that resulted in the strengthening of the U.S. dollar against foreign currencies in which we conduct business. The withdrawal of the U.K. from the E.U. in January 2020 and the current transition period may also contribute to further global economic uncertainty, which may cause our current and future customers to closely monitor their costs and reduce their spending on our products and services.

The withdrawal and transition period could significantly disrupt the free movement of goods, services, and people between the U.K. and the E.U., and result in increased legal and regulatory complexities, as well as potential higher costs of conducting business in Europe. Given the lack of comparable precedent, it is unclear how Brexit may negatively impact the economies of the U.K., the E.U. countries and other nations, as well as our operations in these locations. However, any of these effects of Brexit, among others, could adversely affect our financial position, results of operations or cash flows.

While we have not experienced any material financial impact from Brexit on our business to date, we cannot predict its future implications.

US Government trade actions could have an adverse impact on our business, financial position, and results of operation.

The United States and China have been engaged in protracted negotiations over the Chinese government's acts, policies, and practices related to technology transfer, intellectual property, and innovation that the Trump Administration has found to be unreasonable and burdensome to US commerce. To date, the President has used his authority under Section 301 of the Trade Act of 1974 three times to levy a 25% retaliatory tariff on 6,830 subheading categories of imported Chinese high-tech and consumer goods valued at $250 billion per year. Although List 3, alone valued at $200 billion, had originally set an additional duty rate at 10%, that rate was increased to 25% effective May 10, 2019. Moreover, in August 2019, the President announced a 15% tariff on a fourth list of goods valued at nearly $300 billion. Pursuant to a US-China trade deal signed in January 2020, the List 3 rate remains at 25% and the List 4 rate decreased to 7.5% on February 14, 2020. These tariffs, along with any additional tariffs or other trade actions that may be implemented, may increase the cost of certain materials and/or products that we import from China, thereby adversely affecting our profitability. These actions could require us to raise our prices, which could decrease demand for our products. As a result, these actions, including potential retaliatory measures by China and further escalation into a potential "trade war", may adversely impact our business. Given the uncertainty regarding the scope and duration of these trade actions by the United States or other countries, as well as the potential for additional trade actions, the impact on our operations and results remains uncertain.

Our business and operations could be adversely impacted in the event of a failure of our information technology infrastructure.

We rely upon the capacity, reliability and security of our information technology infrastructure and our ability to expand and continually update this infrastructure in response to our changing needs. In some cases, we rely upon third party hosting and support services to meet these needs. The growing and evolving cyber-risk environment means that individuals, companies, and organizations of all sizes, including ourselves and our hosting and support partners, are increasingly vulnerable to the threat of intrusions and disruptions on their networks and systems by a wide range of actors on an ongoing and regular basis. We also design and manage IT systems and products that contain IT systems for various customers, and generally face the same threats for these systems as for our own internal systems.

We maintain information security staff, policies and procedures for managing risk to our networks and information systems, and conduct employee training on cyber-security to mitigate persistent and continuously evolving cyber-security threats. Our

network security measures include, but are not limit to, the implementation of firewalls, anti-virus protection, patches, log monitors, routine backups, off-site storage, network audits and other routine updates and modifications. We also routinely monitor and develop our internal information technology systems to address risks to our information systems. Despite our implementation of these and other security measures and those of our third-party vendors, our systems are vulnerable to damages from computer viruses, natural disasters, unauthorized access and other similar disruptions and intrusions that continue to emerge and evolve. Any system failure, accident or security breach could result in disruptions to our business processes, network degradation, and system down time, 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 any disruption, degradation, downtime or other security breach results in a loss or damage to our data or systems, or in inappropriate disclosure of confidential information, it could adversely impact us and our clients, potentially resulting in, among other things, financial losses; our inability to transact business on behalf of our clients; violations of applicable privacy and other laws; regulatory fines, penalties, litigation, reputational damage, reimbursement or other compensation costs; and/or additional compliance costs. We may also incur additional costs related to cyber-security risk management and remediation. There can be no assurance that we or our service providers, if applicable, will not suffer losses relating to cyber-attacks or other information security breaches in the future or that our insurance coverage will be adequate to cover all the costs resulting from such events. No assurances can be given that our efforts to reduce the risk of such attacks will be successful.

The COVID-19 pandemic may adversely affect our systems, and the health of members of our internal IT team who monitor and address the cyber threats and attacks against VIAVI. In particular, the internet is currently experiencing an increase in cyber threats during the COVID-19 pandemic in the form of phishing emails, malware attachments and malicious websites which seemingly offer information regarding COVID-19. We have employed efforts to mitigate any potential impact that could result from increased cyber threats and the loss of members of our internal IT team and by providing our employees with enhanced awareness materials and training, updating our business continuity plans, and cross training staff.

Failure to maintain satisfactory compliance with certain privacy and data protections laws and regulations may subject us to substantial negative financial consequences and civil or criminal penalties.

Complex local, state, national, foreign, and international laws and regulations apply to the collection, use, retention, protection, disclosure, transfer, and other processing of personal data. These privacy laws and regulations are quickly evolving, with new or modified laws and regulations proposed and implemented frequently and existing laws and regulations subject to new or different interpretations. In addition, our legal and regulatory obligations in jurisdictions outside of the U.S. are subject to unexpected changes, including the potential for regulatory or other governmental entities to enact new or additional laws or regulations, to issues rulings that invalidate prior laws or regulations, or to increase penalties significantly. Complying these laws and regulations can be costly and can impede the development and offering of new products and services.

For example, the E.U. General Data Protection Regulation (GDPR), which became effective in May 2018, imposes stringent data protection requirements and provides for significant penalties for noncompliance. Additionally, California recently enacted legislation, the California Consumer Privacy Act (CCPA), which became effective January 1, 2020. The CCPA requires, among other things, covered companies to provide new disclosures to California consumers, and allow such consumers new abilities to opt-out of certain sales of personal data. The CCPA also provides for civil penalties for violations, as well as a private right of action for data breaches that may increase data breach litigation. We may also be subject to additional obligations relating to personal data by contract that industry standards apply to our practices. Further, other states are considering expanding or passing privacy laws in the near term.

Our failure to comply with applicable laws and regulations or other obligations to which we may be subject relating to personal data, or to protect personal data from unauthorized access, use, or other processing, could result in enforcement actions and regulatory investigations against us, claims for damages by customers and other affected individuals, fines, damage to our reputation, and loss of goodwill, any of which could have a material adverse effect on our operations, financial performance, and business.

Failure to maintain effective internal controls may adversely affect our stock price.

Effective internal controls are necessary for us to provide reliable financial reports and to effectively prevent fraud. We are required to annually evaluate the effectiveness of the design and operation of our internal controls over financial reporting. Based on these evaluations, we may conclude that enhancements, modifications, or changes to internal controls are necessary or desirable. In addition, our independent registered public accounting firm must report on the effectiveness of our internal control over financial reporting. While management evaluates the effectiveness of our internal controls on a regular basis, these controls may not always be effective. A material weakness in our internal controls has been identified in the past, and we cannot assure you that we or our independent registered public accounting firm will not identify a material weakness in our internal controls in the future. A material weakness in our internal controls over financial reporting would require management and our independent registered public accounting firm to evaluate our internal controls as ineffective. If our internal controls over financial reporting are not considered

effective, we may experience a loss of public confidence, which could have an adverse effect on our business, financial condition and the market price of our common stock and other securities.

There are inherent limitations on the effectiveness of internal controls, including collusion, management override and failure in human judgment. In addition, control procedures are designed to reduce rather than eliminate financial statement risk. Additionally, if we or our independent registered public accounting firm are not satisfied with our internal control over financial reporting or the level at which these controls are documented, designed, operated or reviewed in the future, or if our independent registered public accounting firm interprets the requirements, rules and/or regulations differently from our interpretation, then they may issue a qualified report. Furthermore, we may discover that the internal controls of businesses we acquire are inadequate or changes to our existing businesses may impact the effectiveness of our internal controls. These situations could require us to make changes to our internal controls and could cause our independent registered public accounting firm to issue a qualified report, which could result in a loss of investor confidence in the reliability of our financial statements and could negatively impact our stock price.

In March 2017, we issued $460.0 million of 1.00% Senior Convertible Notes due 2024, and in May 2018 we issued $225.0 million of 1.75% Senior Convertible Notes due 2023. The issuance of the Notes increases our overall leverage and could dilute our existing stockholders and lower our reported earnings per share.

We issued $460.0 million of indebtedness in March 2017 in the form of 1.00% Senior Convertible Notes due 2024 (the 2024 Notes). In May 2018, we issued $225.0 million of indebtedness in the form of 1.75% Senior Convertible Notes due 2023 (the 2023 Notes, and, together with the 2024 Notes, the Notes). The issuance of the Notes substantially increased our principal payment obligations. The degree to which we are leveraged could materially and adversely affect our ability to successfully obtain financing for working capital, acquisitions or other purposes and could make us more vulnerable to industry downturns and competitive pressures. In addition, the holders of the Notes are entitled to convert the Notes into shares of our common stock or a combination of cash and shares of common stock under certain circumstances which would dilute our existing stockholders and lower our reported per share earnings.

If we have insufficient proprietary rights or if we fail to protect those we have, our business would be materially harmed. Our intellectual property rights may not be adequate to protect our products or product roadmaps.

We seek to protect our products and our product roadmaps in part by developing and/or securing proprietary rights relating to those products, including patents, trade secrets, know-how and continuing technological innovation. The steps taken by us to protect our intellectual property may not adequately prevent misappropriation or ensure that others will not develop competitive technologies or products. Other companies may be investigating or developing other technologies that are similar to our own. It is possible that patents may not be issued from any of our pending applications or those we may file in the future and, if patents are issued, the claims allowed may not be sufficiently broad to deter or prohibit others from making, using or selling products that are similar to ours. We do not own patents in every country in which we sell or distribute our products, and thus others may be able to offer identical products in countries where we do not have intellectual property protection. In addition, the laws of some territories in which our products are or may be developed, manufactured or sold, including Europe, Asia-Pacific or Latin America, may not protect our products and intellectual property rights to the same extent as the laws of the United States.

Any patents issued to us may be challenged, invalidated or circumvented. Additionally, we are currently a licensee in all of our operating segments for a number of third-party technologies, software and intellectual property rights from academic institutions, our competitors and others, and are required to pay royalties to these licensors for the use thereof. Unless we are able to obtain such licenses on commercially reasonable terms, patents or other intellectual property held by others could inhibit our development of new products, impede the sale of some of our current products, substantially increase the cost to provide these products to our customers, and could have a significant adverse impact on our operating results. In the past, licenses generally have been available to us where third-party technology was necessary or useful for the development or production of our products. In the future licenses to third-party technology may not be available on commercially reasonable terms, if at all.

Our products may be subject to claims that they infringe the intellectual property rights of others.

Lawsuits and allegations of patent infringement and violation of other intellectual property rights occur in our industry on a regular basis. We have received in the past, and anticipate that we will receive in the future, notices from third parties claiming that our products infringe their proprietary rights. Over the past several years there has been a marked increase in the number and potential severity of third-party patent infringement claims, primarily from two distinct sources. First, large technology companies, including some of our customers and competitors, are seeking to monetize their patent portfolios and have developed large internal organizations that have approached us with demands to enter into license agreements. Second, patent-holding companies, entities that do not make or sell products (often referred to as “patent trolls”), have claimed that our products infringe upon their proprietary rights. We will continue to respond to these claims in the course of our business operations. In the past, the resolution of these disputes has not had a material adverse impact on our business or financial condition; however, this may not be the case in the

future. Further, the litigation or settlement of these matters, regardless of the merit of the claims, could result in significant expense to us and divert the efforts of our technical and management personnel, whether or not we are successful. If we are unsuccessful, we could be required to expend significant resources to develop non-infringing technology or to obtain licenses to the technology that is the subject of the litigation. We may not be successful in such development, or such licenses may not be available on terms acceptable to us, if at all. Without such a license, we could be enjoined from future sales of the infringing product or products, which could adversely affect our revenues and operating results.

The use of open source software in our products, as well as those of our suppliers, manufacturers and customers, may expose us to additional risks and harm our intellectual property position.

Certain of the software and/or firmware that we use and distribute (as well as that of our suppliers, manufacturers and customers) may be, be derived from, or contain, "open source" software, which is software that is generally made available to the public by its authors and/or other third parties. Such open source software is often made available under licenses which impose obligations in the event the software or derivative works thereof are distributed or re-distributed. These obligations may require us to make source code for the derivative works available to the public, and/or license such derivative works under a particular type of license, rather than the forms of license customarily used to protect our own software products. While we believe we have complied with our obligations under the various applicable licenses for open source software, in the event that a court rules that these licenses are unenforceable, or in the event the copyright holder of any open source software were to successfully establish in court that we had not complied with the terms of a license for a particular work, we could be required to release the source code of that work to the public and/or stop distribution of that work. Additionally, open source licenses are subject to occasional revision. In the event future iterations of open source software are made available under a revised license, such license revisions may adversely affect our ability to use such future iterations.

We face certain litigation risks that could harm our business.

We are and may become subject to various legal proceedings and claims that arise in or outside the ordinary course of business. The results of complex legal proceedings are difficult to predict. Moreover, many of the complaints filed against us do not specify the amount of damages that plaintiffs seek, and we therefore are unable to estimate the possible range of damages that might be incurred should these lawsuits be resolved against us. While we are unable to estimate the potential damages arising from such lawsuits, certain of them assert types of claims that, if resolved against us, could give rise to substantial damages. Thus, an unfavorable outcome or settlement of one or more of these lawsuits could have a material adverse effect on our financial condition, liquidity and results of operations. Even if these lawsuits are not resolved against us, the uncertainty and expense associated with unresolved lawsuits could seriously harm our business, financial condition and reputation. Litigation is costly, time-consuming and disruptive to normal business operations. The costs of defending these lawsuits have been significant, will continue to be costly and may not be covered by our insurance policies. The defense of these lawsuits could also result in continued diversion of our management's time and attention away from business operations, which could harm our business. For additional discussion regarding litigation, see the "Legal Proceedings" portion of this Annual Report on Form 10-K.

Changes in the method of determining LIBOR, or the replacement of LIBOR with an alternative reference rate, may adversely affect interest rates on our future indebtedness and may otherwise adversely affect our financial condition and results of operations.

Certain of our indebtedness is made at variable interest rates that use the London Interbank Offered Rate, or LIBOR (or metrics derived from or related to LIBOR), as a benchmark for establishing the interest rate. On July 27, 2017, the United Kingdom's Financial Conduct Authority announced that it intends to stop persuading or compelling banks to submit LIBOR rates after 2021. These reforms may cause LIBOR to cease to exist, new methods of calculating LIBOR to be established, or alternative reference rates to be established. The potential consequences cannot be fully predicted and could have an adverse impact on the market value for or value of LIBOR-linked securities, loans, and other financial obligations or extensions of credit held by or due to us. Changes in market interest rates may influence our financing costs, returns on financial investments and the valuation of derivative contracts and could reduce our earnings and cash flows. In addition, any transition process may involve, among other things, increased volatility or illiquidity in markets for instruments that rely on LIBOR, reductions in the value of certain instruments or the effectiveness of related transactions such as hedges, increased borrowing costs, uncertainty under applicable documentation, or difficult and costly consent processes. This could materially and adversely affect our results of operations, cash flows, and liquidity. We cannot predict the effect of the potential changes to LIBOR or the establishment and use of alternative rates or benchmarks.

We may be subject to environmental liabilities which could increase our expenses and harm our operating results.

We are subject to various federal, state and foreign laws and regulations governing the environment, including those governing pollution and protection of human health and the environment and, recently, those restricting the presence of certain substances in electronic products and holding producers of those products financially responsible for the collection, treatment, recycling and

disposal of certain products. Such laws and regulations have been passed in several jurisdictions in which we operate, are often complex and are subject to frequent changes. We will need to ensure that we comply with such laws and regulations as they are enacted, as well as all environmental laws and regulations, and as appropriate or required, that our component suppliers also comply with such laws and regulations. If we fail to comply with such laws, we could face sanctions for such noncompliance, and our customers may refuse to purchase our products, which would have a materially adverse effect on our business, financial condition and results of operations.

With respect to compliance with environmental laws and regulations in general, we have incurred, and in the future could incur, substantial costs for the cleanup of contaminated properties, either those we own or operate or to which we have sent wastes in the past, or to comply with such environmental laws and regulations. Additionally, we could be subject to disruptions to our operations and logistics as a result of such clean-up or compliance obligations. If we were found to be in violation of these laws, we could be subject to governmental fines and liability for damages resulting from such violations. If we have to make significant capital expenditures to comply with environmental laws, or if we are subject to significant expenditures in connection with a violation of these laws, our financial condition or operating results could be materially adversely impacted.

We may not generate positive returns on our research and development strategy.

Developing our products is expensive, and the investment in product development may involve a long payback cycle. For fiscal years 2019, 2018 and 2017, our research and development expenses were $187.0 million, or approximately 17.0% of our revenue, $133.3 million, or approximately 16.5% of our revenue, and $136.3 million, or approximately 15.2% of our revenue, respectively. We expect to continue to invest heavily in research and development in order to expand the capabilities of 3D sensing and smart phone sensors, handheld spectrometer solution and portable test instruments, introduce new products and features and build upon our technology. We believe one of our greatest strengths lies in our innovation and our product development efforts. By investing in research and development including through our acquisitions, we believe we are well positioned to continue to execute on our strategy and take advantage of market opportunities. We expect that our results of operations may be impacted by the timing and size of these investments. In addition, these investments may take several years to generate positive returns, if ever.

Our actual operating results may differ significantly from our guidance.

We release guidance in our quarterly earnings conference calls, quarterly earnings releases, or otherwise, regarding our future performance that represents our management's estimates as of the date of release. This guidance, which includes forward-looking statements, will be based on projections prepared by our management.

Projections are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our control and are based upon specific assumptions with respect to future business decisions, some of which will change. We will continue to state possible outcomes as high and low ranges which are intended to provide a sensitivity analysis as variables are changed but are not intended to imply that actual results could not fall outside of the suggested ranges. The principal reason that we release guidance is to provide a basis for our management to discuss our business outlook with analysts and investors. We do not accept any responsibility for any projections or reports published by any such third parties.

Guidance is necessarily speculative in nature, and it can be expected that some or all of the assumptions underlying the guidance furnished by us will not materialize or will vary significantly from actual results. Accordingly, our guidance is only an estimate of what management believes is realizable as of the date of release. Actual results may vary from our guidance and the variations may be material. In light of the foregoing, investors are urged not to rely upon our guidance in making an investment decision regarding our common stock.

Any failure to successfully implement our operating strategy or the occurrence of any of the events or circumstances set forth in this "Risk Factors" section in this Annual Report on Form 10-K could result in the actual operating results being different from our guidance, and the differences may be adverse and material.

Certain provisions in our charter and under Delaware laws could hinder a takeover attempt.

We are subject to the provisions of Section 203 of the Delaware General Corporation Law prohibiting, under some circumstances, publicly-held Delaware corporations from engaging in business combinations with some stockholders for a specified period of time without the approval of the holders of substantially all of our outstanding voting stock. Such provisions could delay or impede the removal of incumbent directors and could make more difficult a merger, tender offer or proxy contest involving us, even if such events could be beneficial, in the short-term, to the interests of the stockholders. In addition, such provisions could limit the price that some investors might be willing to pay in the future for shares of our common stock. Our certificate of incorporation and bylaws contain provisions providing for the limitations of liability and indemnification of our directors and officers, allowing vacancies on our board of directors to be filled by the vote of a majority of the remaining directors, granting our board of directors the authority to establish additional series of preferred stock and to designate the rights, preferences and

privileges of such shares (commonly known as "blank check preferred") and providing that our stockholders can take action only at a duly called annual or special meeting of stockholders, which may only be called by the Chairman of the board, the Chief Executive Officer or the board of directors. These provisions may also have the effect of deterring hostile takeovers or delaying changes in control or change in our management.

Our ability to use our net operating loss carryforwards to offset future taxable income may be subject to certain limitations.

As of June 27, 2020, we had U.S. federal and state net operating losses, or NOLs, of $4,752.2 million and $575.8 million, respectively, and U.S. federal and state tax credit carryforwards of $105.8 million and $52.6 million respectively, which may be utilized against future income taxes. Utilization of these NOLs and tax credit carryforwards may be subject to a substantial annual limitation if the ownership change limitations under Sections 382 and 383 of the Internal Revenue Code and similar state provisions are triggered by changes in the ownership of our capital stock. In general, an ownership change occurs if there is a cumulative change in our ownership by "5-percent shareholders" that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws. Accordingly, purchases of our capital stock by others could limit our ability to utilize our NOLs and tax credit carryforwards in the future.

Furthermore, we may not be able to generate sufficient taxable income to utilize our NOLs and tax credit carryforwards before they expire. Due to uncertainty regarding the timing and extent of our future profitability, we continue to record a valuation allowance to offset our U.S. and certain of our foreign deferred tax assets because of uncertainty related to our ability to utilize our NOLs and tax credit carryforwards before they expire.

If any of these events occur, we may not derive some or all of the expected benefits from our NOLs and tax credit carryforwards.

In October 2017 and again in October 2019, we temporarily closed our Santa Rosa, California facility resulting in production stoppage, due to wildfires in the region and the facility's close proximity to the wildfire evacuation zone. The location of our production facility could subject us to production delays and/or equipment and property damage.

The geographic location of our Northern California headquarters and production facilities subject them to earthquake and wildfire risks. It is impossible to predict the timing, magnitude or location of such natural disasters or their impacts on the local economy and on our operations. If a major earthquake, wildfire or other natural disaster were to damage or destroy our facilities or manufacturing equipment, we may experience potential impacts ranging from production and shipping delays to lost profits and revenues. Moreover, in October 2019, Pacific Gas and Electric (PG&E), the public electric utility in our Northern California region commenced planned widespread blackouts during the peak wildfire season to avoid and contain wildfires sparked during strong wind events by downed power lines or equipment failure. While we have not experienced damage to our facilities or a material disruption to operations as a result of these power outages, ongoing blackouts, particularly if prolonged or frequent, could impact our operations going forward.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We own and lease various properties in the United States and in 25 other countries around the world. We use the properties for executive and administrative offices, data centers, product development offices, customer service offices, and manufacturing facilities. Our corporate headquarters of approximately 37,000 square feet is located at 6001 America Center Drive, San Jose, California 95002. As of June 27, 2020, we have 1.5 million square feet of leased or owned property, of which approximately 316,000 square feet is owned. Larger leased sites include properties located in China, France, Germany, United Kingdom and the United States. We believe our existing properties, including both owned and leased sites, are in good condition and suitable for the conduct of our business.

While we believe our existing facilities are adequate to meet our immediate needs, it may become necessary to lease, acquire, or sell additional or alternative space to accommodate future business needs.

ITEM 3. LEGAL PROCEEDINGS

The information set forth under the heading "Legal Proceedings" in "Note 18, Commitments and Contingencies" in the Notes to Consolidated Financial Statements in Item 8 of Part II of this Report is incorporated herein by reference.

ITEM 4. MINE SAFETY DISCLOSURES

None.

PART II

ITEM 5. MARKET FOR REGISTRANT’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is traded on the Nasdaq Global Select Market under the symbol (VIAV). The closing price on July 25, 2020 was $13.34.

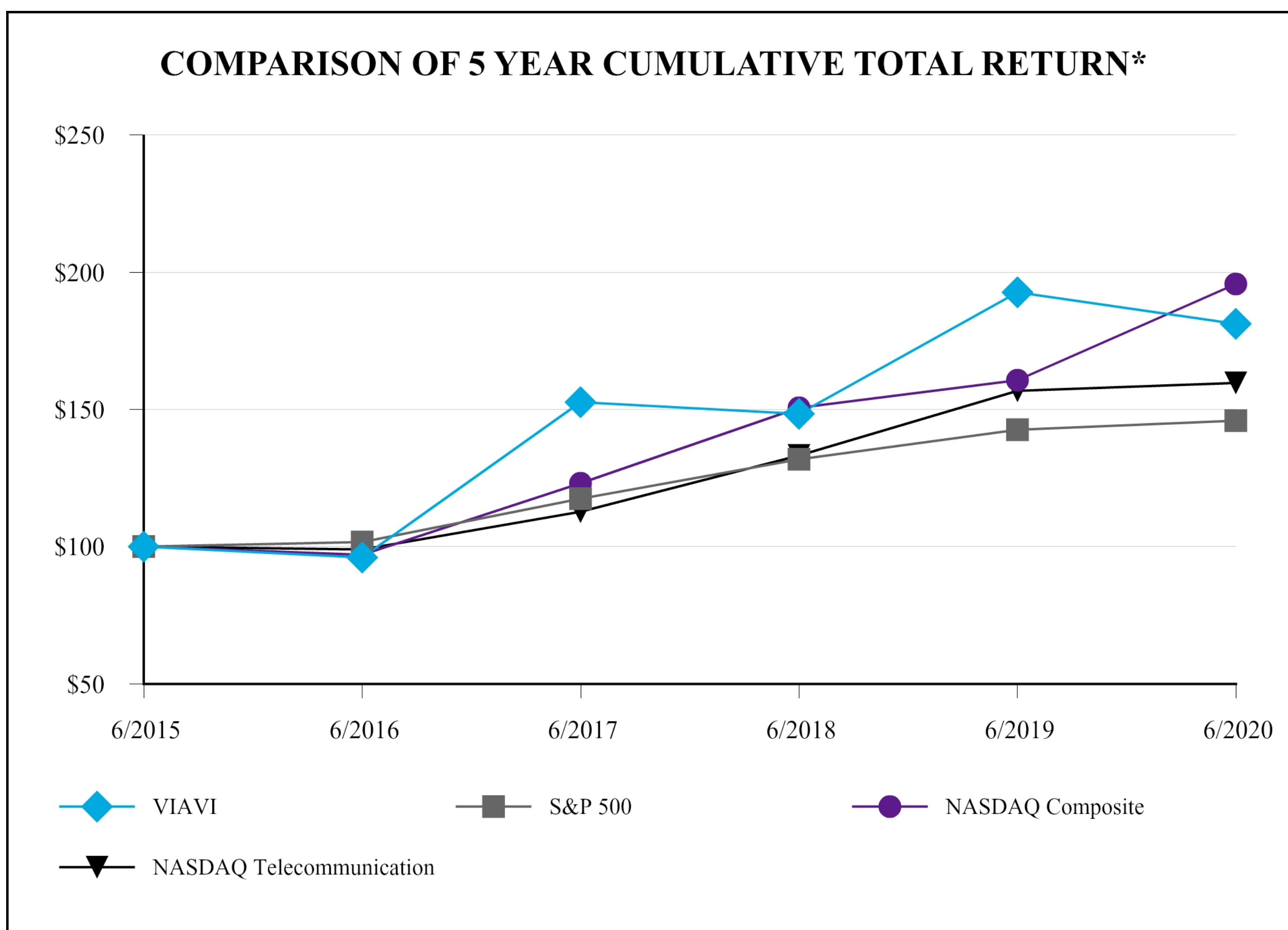
As of July 25, 2020, we had 2,906 holders of record of our common stock. We have not paid cash dividends on our common stock and do not anticipate paying cash dividends in the foreseeable future.

During fiscal 2020, we repurchased and retired shares of our common stock pursuant to the stock repurchase program authorized by the Board of Directors. Refer to “Note 15. Stockholders' Equity” of Item 8 for more details.

STOCK PERFORMANCE GRAPH

The information contained in the following graph shall not be deemed to be "soliciting material" or to be "filed" with the Securities and Exchange Commission, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except to the extent that the Company specifically incorporates it by reference in such filing.

The following graph and table set forth the total cumulative return, assuming reinvestment of dividends, on an investment of $100 in June 2015 and ending June 2020 in: (i) our Common Stock, (ii) the S&P 500 Index, (iii) the Nasdaq Stock Market (U.S.) Index, and (iv) the Nasdaq Telecommunications Index. The table below includes our stock performance prior to the separation of the Lumentum business as traded on the Nasdaq Global Select Market under the symbol "JDSU." Historical stock price performance is not necessarily indicative of future stock price performance. For the purpose of this graph, the distribution of approximately 80.1% of the outstanding common stock of Lumentum to our stockholders, pursuant to which Lumentum became an independent company, is treated as a non-taxable cash dividend of $21.15 for every five shares of our common stock held, an amount equal to the closing price of Lumentum common stock on August 4, 2015 which was deemed reinvested in our common stock at the closing price on August 4, 2015.



*$100 invested on 6/30/15 in stock or index.

	6/2015	6/2016	6/2017	6/2018	6/2019	6/2020
VIAVI	$ 100.00	$ 96.07	$ 152.57	$ 148.37	$ 192.57	$ 181.12
S&P 500	$ 100.00	$ 101.73	$ 117.46	$ 131.76	$ 142.59	$ 145.85
Nasdaq Composite	$ 100.00	$ 97.11	$ 123.13	$ 150.60	$ 160.55	$ 195.66
Nasdaq Telecommunications	$ 100.00	$ 98.99	$ 112.65	$ 133.23	$ 156.83	$ 159.55

ITEM 6. SELECTED FINANCIAL DATA

This table sets forth selected financial data of VIAVI for the periods indicated. This data should be read in conjunction with and is qualified by reference to “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” of this Annual Report on Form 10-K and our audited consolidated financial statements, including the notes thereto and the other financial information included in Item 8. Financial Statements and Supplementary Data, of this Annual Report on Form 10-K. The selected financial data presented in this section is not intended to replace the consolidated financial statements included in this report. Amounts provided below are (*in millions*, *except share and per share amounts*)

	Years Ended				
	June 27, 2020	**June 29, 2019**	**June 30, 2018**	**July 1, 2017**	**July 2, 2016**
	(1) (2) (3)	**(4) (9)**	**(5) (6)**	**(5) (7) (9)**	**(7) (8) (9)**
Consolidated Statements of Operations Data:					
Net revenue	$ 1,136.3	$ 1,130.3	$ 875.7	$ 805.0	$ 906.3
Income (loss) from continuing operations, net of tax	28.7	7.8	(48.6)	158.6	(50.4)
Income (loss) from discontinued operations, net of tax	—	(2.4)	—	1.6	(48.8)
Net income (loss)	$ 28.7	$ 5.4	$ (48.6)	$ 160.2	$ (99.2)
Net income (loss) per share from - basic:					
Continuing operations	$ 0.13	$ 0.03	$ (0.21)	$ 0.69	$ (0.22)
Discontinued operations	—	(0.01)	—	0.01	(0.20)
Net income (loss)	$ 0.13	$ 0.02	$ (0.21)	$ 0.70	$ (0.42)
Net income (loss) per share from - diluted:					
Continuing operations	$ 0.12	$ 0.03	$ (0.21)	$ 0.68	$ (0.22)
Discontinued operations	—	(0.01)	—	—	(0.20)
Net income (loss)	$ 0.12	$ 0.02	$ (0.21)	$ 0.68	$ (0.42)

	Years Ended				
	June 27, 2020	**June 29, 2019**	**June 30, 2018**	**July 1, 2017**	**July 2, 2016**
	(1) (2) (3)	**(4)**	**(5) (6)**	**(5) (7)**	**(7) (8)**
Consolidated Balance Sheets Data:					
Cash and cash equivalents, short-term investments, and short-term restricted cash	$ 544.0	$ 526.5	$ 788.0	$ 1,447.8	$ 979.8
Working capital	680.8	632.8	877.3	1,456.6	985.3
Total assets	1,776.3	1,815.1	2,026.8	2,113.1	1,678.1
Long-term obligations	832.1	805.3	738.7	1,095.8	762.4
Total stockholders’ equity	711.4	725.8	734.9	803.5	689.3

(1) During the third quarter of fiscal 2020, the Company recorded a tax provision of $31.6 million for withholding taxes related to the planned repatriation of cash from a foreign subsidiary to US, of which $19.4 million was paid in fiscal 2020.

(2) During fiscal 2020, the Company recorded a gain on change in fair value of RPC related earn-out liability of $29.5 million. Refer to “Note 8. Fair Value Measurements” for more information.

(3) Reflects the impact of the adoption of the new lease accounting standard (ASC 842) in fiscal year 2020.

(4) During the second quarter of fiscal 2019 we acquired RPC. During the fourth quarter of fiscal 2019 we acquired 3Z Telecom, Inc. Both transactions were accounted for as business combinations. The Consolidated Statement of Operations for fiscal 2019 includes the results of the acquired businesses subsequent to the respective acquisition dates. The Consolidated Balance Sheet as of June 29, 2019 includes the acquired businesses’ financial position. Refer to “Note 5. Acquisitions” for more information.

(5) Fiscal 2018 and 2017 have been adjusted for our retrospective adoption of the new revenue recognition accounting standard (ASC 606).

(6) During the first quarter of fiscal 2018 we acquired Trilithic Inc. During the third quarter of fiscal 2018 we acquired the AvComm and Wireless businesses of Cobham plc. Both transactions were accounted for as business combinations. The Consolidated Statement of Operations for fiscal 2018 and fiscal 2019 includes the results of the acquired businesses subsequent to the respective acquisition dates. The Consolidated Balance Sheet as of June 30, 2018 includes the acquired businesses’ financial position. Refer to “Note 5. Acquisitions” for more information.

(7) During fiscal years ended 2017 and 2016, we recorded $203.0 million and $71.5 million, respectively, gross realized gains on the sale of Lumentum common stock that was retained as part of the Separation.

(8) During the fourth quarter of fiscal 2016, we recorded a $91.4 million goodwill impairment charge related to the SE reporting unit in the Consolidated Statements of Operations.

(9) During the first quarter of fiscal 2016, we completed the separation of Lumentum. Operations of Lumentum have been presented as discontinued operations in all periods of our Consolidated Statements of Operations.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion of our financial condition and results of operations in conjunction with the financial statements and the notes thereto included elsewhere in this Annual Report on Form 10-K. The following discussion contains forward-looking statements that reflect our plans, estimates and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and in this Annual Report on Form 10-K, particularly in "Risk Factors" and "Forward-Looking Statements."

Our Industries and Developments

Viavi Solutions Inc. (VIAVI, also referred to as the Company, we, our, and us) is a global provider of network test, monitoring and assurance solutions for communications service providers, enterprises, network equipment manufacturers, government and avionics. We help these customers harness the power of instruments, automation, intelligence and virtualization to *Command the network*. VIAVI is also a leader in light management solutions for 3D sensing, anti-counterfeiting, consumer electronics, industrial, government, automotive and defense applications.

To serve our markets, during fiscal 2020 we operated the following business segments:

- Network Enablement (NE);
- Service Enablement (SE); and
- Optical Security and Performance Products (OSP).

Network Enablement

NE provides an integrated portfolio of testing solutions that access the network to perform build-out and maintenance tasks. These solutions include instruments, software and services to design, build, activate, certify, troubleshoot and optimize networks. They also support more profitable, higher-performing networks and facilitate time-to-revenue.

Our solutions address lab and production environments, field deployment and service assurance for wireless and fixed communications networks, including storage networks. Our test instrument portfolio is one of the largest in the industry, with hundreds of thousands of units in active use by major network-equipment manufacturers (NEMs), operators and services providers worldwide. Designed to be mobile, these products include instruments and software that access the network to perform installation and maintenance tasks. They help service provider technicians assess the performance of network elements and segments and verify the integrity of the information being transmitted across the network. These instruments are highly intelligent and have user interfaces that are designed to simplify operations and minimize the training required to operate them. Our NE solutions are also used by NEMs in the design and production of next-generation network equipment. Other Test & Measurement communications products also serve the public safety, government, and aerospace and defense markets.

We also offer a range of product support and professional services designed to comprehensively address our customers' requirements. These services include repair, calibration, software support and technical assistance for our products. We offer product and technology training as well as consulting services. Our professional services, provided in conjunction with system integration projects, include project management, installation and implementation.

NE customers include CSPs, NEMs, government organizations and large corporate customers, such as major telecom, mobility and cable operators, chip and infrastructure vendors, storage-device manufacturers, storage-network and switch vendors, and deployed private enterprise customers. Our customers include América Móvil, AT&T Inc., Inc., CenturyLink, Inc., Cisco Systems, Inc., Nokia Solutions and Networks and Verizon Communications Inc.

Our NE products and associated services including acquired business are described below:

Field Instruments: Primarily consisting of (a) Access and Cable products; (b) Avionics products; (c) Fiber Instrument products; (d) Metro products; (e) RF Test products; and (f) Radio Test products.

Lab Instruments: Primarily consisting of (a) Fiber Optic Production Lab Test; (b) Optical Transport products; (c) Storage Network Test products; and (d) Wireless products.

Service Enablement

SE provides embedded systems and enterprise performance management solutions that give global CSPs, enterprises and cloud operators visibility into network, service and application data. These solutions, which primarily consist of instruments, microprobes and software, monitor, collect and analyze network data to reveal the actual customer experience and identify opportunities for new revenue streams and network optimization.

Our portfolio of SE solutions addresses the same lab and production environments, field deployment and service assurance for wireless and fixed communications networks, including storage networks, as our NE portfolio. Our solutions let carriers remotely monitor performance and quality of network, service and applications performance throughout the entire network. This provides our customers with enhanced network management, control and optimization that allow network operators to initiate service to new customers faster, decrease the need for technicians to make on-site service calls, help to make necessary repairs faster and, as a result, lower costs while providing higher quality and more reliable services. Remote monitoring decreases operating expenses, while early detection helps increase uptime, preserve revenue, and helps operators better monetize their networks.

SE customers include similar CSPs, NEMs, government organizations, large corporate customers and storage-segment customers that are served by our NE segment.

Our SE products and associated services are described below:

Data Center: Consisting of our Network Performance Monitoring and Security tools.

Assurance: Primarily consisting of our (a) Growth Products (Location Intelligence and Nitro Mobile products) and (b) Mature Products (Legacy Assurance and Legacy Wireline).

Optical Security and Performance Products

Our OSP segment leverages its core optical coating technologies and volume manufacturing capability to design, manufacture, and sell products targeting anti-counterfeiting, consumer and industrial, government, automotive, industrial and other markets.

Our anti-counterfeiting offerings for the currency market include OVP® and OVMP®. OVP® enables a color-shifting effect used by banknote issuers and security printers worldwide for anti-counterfeiting applications on banknotes and other high-value documents. We also provide OVMP®, a technology that delivers depth and motion effects for authenticating banknotes. Our anti-counterfeiting technologies are deployed on the banknotes of more than 100 countries today.

Leveraging our expertise in spectral management and our unique high-precision coating capabilities, OSP provides a range of products and technologies for the consumer and industrial market, including, for example, 3D Sensing optical filters and Engineered Diffusers™.

OSP value-added solutions meet the stringent requirements of commercial and government customers. Our products are used in a variety of aerospace and defense applications, including optics for guidance systems, laser eye protection and night vision systems. These products, including coatings and optical filters, are optimized for each specific application.

OSP serves customers such as SICPA Holding SA Company (SICPA), STMicroelectronics Holding N.V., Lockheed Martin Corporation and Seiko Epson Corporation.

COVID-19 Pandemic Update

The COVID-19 pandemic has confirmed cases in the U.S. and most of the countries and territories we operate in worldwide. The pandemic has prompted authorities worldwide to implement measures to contain the virus, which include and are not limited to, travel bans and restrictions, quarantines, shelter-in-place orders, temporary business closures among others. The COVID-19 pandemic and these aforementioned measures, have had and continue to have, a substantial macroeconomic impact on businesses and economies worldwide. These conditions may continue and result in an adverse impact to our operations.

Our priority during the COVID-19 pandemic has remained focused on protecting the health and safety of all those we serve, - our employees, customers, suppliers, and communities, including implementing early and regular updates to our health and safety policies and procedures. We have shut down, slowed, or modified business operations and activities in certain geographies, including in some instances, limiting production to essential business services, all in conjunction with federal, state, and local health and safety regulations and shelter-in-place directives. We continue to follow the guidance of local and national governments, including monitoring the health of our employees who have returned to our offices, by limiting the gathering size of employee groups in indoor spaces per social distancing guidelines, and requiring those employees to wear masks and to undergo screenings prior to entering our offices.

The COVID-19 pandemic has not had a substantial net impact on our liquidity position in the second half of the fiscal year. We continue to generate operating cash flows to meet our short-term liquidity needs, and we expect to maintain access to the capital markets enabled by our strong credit ratings. To date, we have not observed any material or materially adverse indication of impairments under the authoritative guidance, to any of our assets or a significant change to the fair value of assets due to the COVID-19 pandemic.

We have experienced and may continue to experience disruption of our facilities, suppliers and contract manufacturers, which has and may continue to negatively impact our sales and operating results. In addition, we have experienced and may continue to experience shipping and logistics challenges as many of our customers have also closed their facilities and are operating under similar restrictions. Both NE and SE net revenue declined in the second half of fiscal 2020. NE revenue declined as the COVID-19 pandemic resulted in certain customer operation and logistic shutdowns that resulted in shipment or acceptance delays, which resulted in a demand slowdown in Field Instruments with orders pushed out into future periods, and SE revenue declined as customers were unable to provide on-site verification and acceptance due to facility closures and other restrictions.

We have a global supply chain footprint with our primary manufacturing partners located in China, France, Germany, United Kingdom and the United States. Supply chain challenges resulting from the COVID-19 pandemic such as diminished manufacturing capacity and materials shortages resulted in extended lead-times to our customers, increased logistics costs, and impacted the volume of product we were able to deliver, which negatively impacted our ability to fully recognize the associated revenue in the second half of 2020.

While COVID-19 has brought unprecedented challenges, we believe that we have a robust and adaptable supply chain. Our supply chain team has been working to meet our customer needs by executing on a risk mitigation plan, including multi-sourcing, pre-ordering components, transforming our logistics network, prioritizing critical customers, working with local government agencies to understand challenges, and partnering on solutions that limit disruptions to our operations while ensuring the safety of our employees, partners and suppliers.

We have also experienced shipping and logistics challenges with respect to our NE Field Instruments products as many of our customers closed facilities and are continuing to operate under similar restrictions, and have delayed purchase decisions or placed orders on hold due to shipment or acceptance delays. In addition, many of our customers have been unable provide on-site verification and acceptance of our SE products due to facility closures and other restrictions.

Capital markets and worldwide economies have also been significantly impacted by the COVID-19 pandemic, and on June 8, 2020, the National Bureau of Economic Research announced that the U.S. was in a recession. Deterioration of macro-economic conditions could have a material adverse impact on our longer-term business as customers curtail and reduce overall spending. As the pandemic spread across the globe, there has been a tightening of the credit markets. We entered into a $300 million secured credit facility in May 2020 to strengthen our liquidity position but have not drawn on this facility to date. Under a prolonged global recession, we could face future liquidity challenges and may not be able to obtain additional financing on favorable terms or at all.

Despite the continued challenges that we are facing due to the COVID-19 pandemic, we remain confident that the actions that we are taking to manage such challenges, combined with our strong liquidity, position us well to navigate through the current economic environment and continue to execute on our long-term value creation strategy.

Recently Issued Accounting Pronouncements

Refer to "Note 2. Recently Issued Accounting Pronouncements" regarding the effect of certain recent accounting pronouncements on our consolidated financial statements.

Critical Accounting Policies and Estimates

Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP), which require management to make judgments, estimates and assumptions that affect the reported amounts of assets and liabilities, net revenue and expenses, and the disclosure of contingent assets and liabilities. Our estimates are based on historical experience and assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities. We believe that the accounting estimates employed and the resulting balances are reasonable; however, actual results may differ from these estimates and such differences may be material. We believe the following critical accounting policies are affected by significant estimates, assumptions and judgments used in the preparation of our consolidated financial statements:

Revenue Recognition

We derive revenue from a diverse portfolio of network solutions and optical technology products and services, as follows:

- *Products:* NE and SE products include instruments, microprobes and perpetual software licenses that support the development, production, maintenance and optimization of network systems. Our OSP products include proprietary pigments used for optical security and optical filters used in commercial and government 3D Sensing applications.
- *Services:* We also offer a range of product support and professional services designed to comprehensively address customer requirements. These include repair, calibration, extended warranty, software support, technical assistance, training and consulting services. Implementation services provided in conjunction with hardware or software solution projects include sale of the products along with project management, set-up and installation.

Steps of revenue recognition

We account for revenue in accordance with the revenue standard, in which the following five steps are applied to recognize revenue:

1. *Identify the contract with a customer:* Generally, we consider customer purchase orders which, in some cases are governed by master sales or other purchase agreements, to be the customer contract. All of the following criteria must be met before we consider an agreement to qualify as a contract with a customer under the revenue standard: (i) it must be approved by all parties; (ii) each party's rights regarding the goods and services to be transferred can be identified; (iii) the payment terms for the goods and services can be identified; (iv) the customer has the ability and intent to pay and collection of substantially all of the consideration is probable; and, (v) the agreement has commercial substance. We exercise reasonable judgment to determine the customer's ability and intent to pay, which is based upon various factors including the customer's historical payment experience or credit and financial information and credit risk management measures that we implement.

2. *Identify the performance obligations in the contract:* We assess whether each promised good or service is distinct for the purpose of identifying the various performance obligations in each contract. Promised goods and services are considered distinct provided that: (i) the customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer and (ii) our promise to transfer the good or service to the customer is separately identifiable or distinct from other promises in the contract. Our performance obligations consist of a variety of products and services offerings, which include networking equipment; proprietary pigment; optical filters; proprietary software licenses; and support and maintenance, which includes hardware support that extends beyond our standard warranties, software maintenance, installation, professional and implementation services, and training.

   Identifying and evaluating whether products and services are considered distinct performance obligations may require significant judgment particularly in NSE due to the underlying nature of the product and service offerings. We may enter into contracts that involve a significant level of integration and interdependency between a software license and installation services. Judgment may be required to determine whether the software license is considered distinct in the context of the contract and accounted for separately, or not distinct in the context of the contract and accounted for together with the installation service.

3. *Determine the transaction price:* Transaction price reflects the amount of consideration to which we expect to be entitled in exchange for transferring goods or services to the customer. Our contracts may include terms that could cause variability in the transaction price including rebates, sales returns, market incentives and volume discounts. Variable consideration is generally accounted for at the portfolio level and estimated based on historical information. If a contract includes a variable amount, the price adjustments are estimated at contract inception. In both cases, estimates are updated at the end of each reporting period as additional information becomes available.

4. *Allocate the transaction price to performance obligations in the contract:* If the contract contains a single performance obligation, the entire transaction price is allocated to that performance obligation. Many of our contracts include multiple performance obligations with a combination of distinct products and services, maintenance and support, professional services and/or training. Contracts may also include rights or options to acquire future products and/or services, which are accounted for as separate performance obligations by us, only if the right or option provides the customer with a material right that it would not receive without entering into the contract. For contracts with multiple performance obligations, we allocate the total transaction value to each distinct performance obligation based on relative standalone selling price (SSP). Judgment is required to determine the SSP for each distinct performance obligation. The best evidence of SSP is the observable price of a good or service when we sell that good or service separately under similar circumstances to similar customers. If a directly observable price is not available, the SSP must be estimated based on multiple factors including, but not limited to, historical pricing practices, internal costs, and profit objectives as well as overall market conditions.

5. *Recognize revenue when (or as) performance obligations are satisfied:* Revenue is recognized at the point in time control is transferred to the customer. For hardware sales, transfer of control to the customer typically occurs at the point the product is shipped or delivered to the customer's designated location. For software license sales, transfer of control to the customer typically occurs upon shipment, electronic delivery, or when the software is available for download by the customer. For sales of implementation service and solution contracts or in instances where software is sold along with essential installation services, transfer of control occurs and revenue is typically recognized upon customer acceptance. In certain instances, acceptance is deemed to have occurred if all acceptance provisions lapse, or if we have evidence that all acceptance provisions will be, or have been, satisfied. For fixed-price support and extended warranty contracts, or certain software arrangements, which provide customers with a right to access over a discrete period, control is deemed to transfer over time and revenue is recognized on a straight-line basis over the contract term due to the stand-ready nature of the performance obligation. Revenue from hardware repairs and calibration services outside of an extended warranty or support contract is recognized at the time of completion of the related service. For other professional services or time-based labor contracts, revenue is recognized as we perform the services and the customers receive and/or consume the benefits.

Business Combinations

We use the acquisition method of accounting under the authoritative guidance on business combinations. Each acquired company's operating results are included in our Consolidated Financial Statements beginning on the date of acquisition. The purchase price is equivalent to the fair value of consideration transferred. Tangible and identifiable intangible assets acquired and liabilities assumed as of the date of acquisition are recorded at their estimated fair values as of the acquisition date. Goodwill is recognized for the excess of purchase price over the net fair value of assets acquired and liabilities assumed.

The allocation of purchase price requires management to make significant estimates and assumptions in determining the fair values of the assets acquired and liabilities assumed. With respect to intangible assets, critical estimates in valuing intangible assets include, but are not limited to, future cash flows from customer relationships, developed technology, trade names and acquired patents; and discount rates. Management estimates of fair value are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable. Unanticipated events and circumstances may occur which may affect the accuracy or validity of such assumptions, estimates or actual results.

Goodwill Valuation

Goodwill represents the excess of the purchase price paid, over the net fair value of assets acquired and liabilities assumed, to purchase an enterprise or asset. We test goodwill for impairment at the reporting unit level at least annually, during the fourth quarter of each fiscal year, or more frequently if events or changes in circumstance indicate that the asset may be impaired.

The accounting guidance provides us the option to perform a qualitative assessment to determine whether further impairment testing is necessary. The qualitative assessment considers events and circumstances that might indicate that a reporting unit's fair value is less than its carry amount. These events and circumstances include, macro-economic conditions, such as a significant adverse change in our operating environment, industry or market considerations; entity-specific events such as increasing costs, declining financial performance, or loss of key personnel; or other events, such as the sale of a reporting unit, adverse regulatory developments or a sustained decrease in our stock price.

If it is determined, as a result of the qualitative assessment, that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, a quantitative test is required. Otherwise, no further testing is required.

Under the quantitative test, if the carrying amount of the reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment loss is recorded in the Consolidated Statements of Operations as impairment of goodwill. Measurement of the fair value of a reporting unit is based on one or more of the following fair value measures: using present value techniques of estimated future cash flows or using valuation techniques based on multiples of earnings or revenue, or a similar performance measure.

Application of the goodwill impairment test requires judgments, including: identification of the reporting units, assigning assets and liabilities to reporting units, assigning goodwill to reporting units, a qualitative assessment to determine whether there are any impairment indicators, and determining the fair value of each reporting unit. We generally estimate the fair value of a reporting unit using a combination of the income approach, which estimates the fair value based on the future discounted cash flows, and the market approach, which estimates the fair value based on comparable market prices. Our significant estimates in the income approach include our weighted average cost of capital, long-term rate of growth and profitability of the reporting unit's business and working capital effects. The market approach estimates the fair value of the business based on a comparison of the reporting unit to comparable publicly traded companies in similar lines of business. Significant estimates in the market approach include identifying similar companies with comparable business factors such as size, growth, profitability, risk and return on investment, and assessing comparable revenue and operating income multiples in estimating the fair value of the reporting unit.

We base our estimates on historical experience and on various assumptions about the future that we believe are reasonable based on available information. Unanticipated events and circumstances may occur that affect the accuracy of our assumptions, estimates and judgments. For example, if the price of our common stock were to significantly decrease combined with other adverse changes in market conditions, thus indicating that the underlying fair value of our reporting units may have decreased, we might be required to reassess the value of our goodwill in the period such circumstances were identified.

In the fourth quarter of fiscal 2020, we performed the goodwill impairment test in accordance with the authoritative guidance for NE, SE and OSP reporting units, and determined no indicator of impairment. Refer to “Note 9. Goodwill” for more information.

Income Taxes

In accordance with the authoritative guidance on accounting for income taxes, we recognize income taxes using an asset and liability approach. This approach requires the recognition of taxes payable or refundable for the current year and deferred tax liabilities and assets for the future tax consequences of events that have been recognized in our consolidated financial statements or tax returns. The measurement of current and deferred taxes is based on provisions of the enacted tax law and the effects of future changes in tax laws or rates are not anticipated.

The authoritative guidance provides for recognition of deferred tax assets if the realization of such deferred tax assets is more likely than not to occur based on an evaluation of both positive and negative evidence and the relative weight of the evidence. With the exception of certain international jurisdictions, we have determined that at this time it is more likely than not that deferred tax assets attributable to the remaining jurisdictions will not be realized, primarily due to uncertainties related to our ability to utilize our net operating loss carryforwards before they expire. Accordingly, we have established a valuation allowance for such deferred tax assets. If there is a change in our ability to realize our deferred tax assets for which a valuation allowance has been established, then our tax provision may decrease in the period in which we determine that realization is more likely than not. Likewise, if we determine that it is not more likely than not that our deferred tax assets will be realized, then a valuation allowance may be established for such deferred tax assets and our tax provision may increase in the period in which we make the determination.

The authoritative guidance on accounting for uncertainty in income taxes prescribes the recognition threshold and measurement attributes for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Additionally, it provides guidance on recognition, classification and disclosure of tax positions. We are subject to income tax audits by the respective tax authorities in all of the jurisdictions in which we operate. The determination of tax liabilities in each of these jurisdictions requires the interpretation and application of complex and sometimes uncertain tax laws and regulations. We recognize liabilities based on our estimate of whether, and the extent to which, additional tax liabilities are more likely than not. If we ultimately determine that the payment of such a liability is not necessary, then we reverse the liability and recognize a tax benefit during the period in which the determination is made that the liability is no longer necessary.

The recognition and measurement of current taxes payable or refundable and deferred tax assets and liabilities requires that we make certain estimates and judgments. Changes to these estimates or a change in judgment may have a material impact on our tax provision in a future period.

Contingencies

We are subject to various potential loss contingencies arising in the ordinary course of business. In determining a loss contingency, we consider the likelihood of loss or impairment of an asset or the incurrence of a liability, as well as its ability to reasonably estimate the amount of loss. An estimated loss is accrued when it is probable that an asset has been impaired, a liability has been incurred and the amount of loss can be reasonably estimated. We regularly evaluate current information available to determine whether such accruals should be adjusted and whether new accruals are required.

Contingent liabilities include contingent consideration in connection with our acquisitions, which represent earn-out payments and is recognized at fair value on the acquisition date and is remeasured each reporting period with subsequent adjustments recognized in the Selling, general and administrative expense of our Consolidated Statements of Operations. Contingent consideration is valued using significant inputs that are not observable in the market pursuant to fair value measurement accounting. While we believe the estimates and assumptions are reasonable, there is significant judgment and uncertainty involved.

Adoption of Lease Accounting Standard

Refer to “Note 2. Recently Issued Accounting Pronouncements” regarding the impact to our financial statements of the adoption of the accounting standard leases (ASC 842 - *Lease*) on June 30, 2019.

In the first quarter of fiscal 2020 the Company adopted this standard lease using the modified retrospective approach. Adoption of the leasing standard resulted in $35.5 million of Right-of-Use (ROU) assets and $37.0 million of lease liabilities on June 30,

2019. In addition, the Company recorded an adjustment to accumulated deficit, net of taxes, of $3.0 million from the recognition of previously deferred profit under sale-leaseback arrangements and de-recognition of related real estate assets of $7.1 million and financing obligations of $10.1 million. The adoption of the new standard did not have a material impact on the Company's Consolidated Statements of Operations and Statements of Cash Flows. For additional information refer to "Note 12. Leases."

RESULTS OF OPERATIONS

The results of operations for the current period are not necessarily indicative of results to be expected for future periods. The following table summarizes selected Consolidated Statements of Operations items as a percentage of net revenue:

	Years Ended		
	June 27, 2020	**June 29, 2019**	**June 30, 2018**
Segment net revenue:			
Network Enablement	65.7%	65.3%	61.6 %
Service Enablement	9.0	9.1	13.5
Optical Security and Performance	25.3	25.6	24.9
Net revenue	100.0	100.0	100.0
Cost of revenues	38.6	39.4	41.2
Amortization of acquired technologies	2.9	3.0	3.0
Gross profit	58.5	57.6	55.8
Operating expenses:			
Research and development	17.0	16.5	15.2
Selling, general and administrative	27.7	30.4	37.1
Amortization of other intangibles	3.1	3.4	2.4
Restructuring and related charges	0.3	1.4	0.9
Total operating expenses	48.1	51.7	55.6
Income from operations	10.4	5.9	0.2
Interest income and other income, net	0.8	0.6	1.1
Gain on sale of investments	—	—	—
Interest expense	(2.9)	(3.0)	(5.3)
Income (loss) from continuing operations before income taxes	8.3	3.5	(4.0)
Provision for income taxes	5.8	2.8	1.5
Income (loss) from continuing operations, net of taxes	2.5	0.7	(5.5)
(Loss) income from discontinued operations, net of taxes	—	(0.2)	—
Net income (loss)	2.5%	0.5%	(5.5)%

Financial Data for Fiscal 2020, 2019 and 2018

The following table summarizes selected Consolidated Statement of Operations items (*in millions, except for percentages*):

	2020	2019	Change	Percent Change	2019	2018	Change	Percent Change
Segment net revenue:								
NE	$746.7	$737.8	$8.9	1.2 %	$737.8	$539.1	$198.7	36.9 %
SE	102.7	103.4	(0.7)	(0.7)%	103.4	118.5	(15.1)	(12.7)%
OSP	286.9	289.1	(2.2)	(0.8)%	289.1	218.1	71.0	32.6 %
Net revenue	$1,136.3	$1,130.3	$6.0	0.5 %	$1,130.3	$875.7	$254.6	29.1 %
Amortization of acquired technologies	$ 32.7	$ 34.4	$ (1.7)	(4.9)%	$ 34.4	$ 26.7	$ 7.7	28.8 %
Percentage of net revenue	2.9 %	3.0 %			3.0 %	3.0 %		
Gross profit	$ 665.3	$ 651.4	$ 13.9	2.1 %	$ 651.4	$ 488.4	$ 163.0	33.4 %
Gross margin	58.5 %	57.6 %			57.6 %	55.8 %		
Amortization of intangibles	$ 35.1	$ 38.1	$ (3.0)	(7.9)%	$ 38.1	$ 21.0	$ 17.1	81.4 %
Percentage of net revenue	3.1 %	3.4 %			3.4 %	2.4 %		
Research and development	$ 193.6	$ 187.0	$ 6.6	3.5 %	$ 187.0	$ 133.3	$ 53.7	40.3 %
Percentage of net revenue	17.0 %	16.5 %			16.5 %	15.2 %		
Selling, general and administrative	$ 315.0	$ 343.5	$ (28.5)	(8.3)%	$ 343.5	$ 323.9	$ 19.6	6.1 %
Percentage of net revenue	27.7 %	30.4 %			30.4 %	37.1 %		
Restructuring and related charges	$ 3.5	$ 15.4	$ (11.9)	(77.3)%	$ 15.4	$ 8.3	$ 7.1	85.5 %
Percentage of net revenue	0.3 %	1.4 %			1.4 %	0.9 %		
Interest and other income, net	9.6	6.2	$ 3.4	54.8 %	6.2	9.7	$ (3.5)	(36.1)%
Percentage of net revenue	0.8 %	0.5 %			0.5 %	1.1 %		
Interest expense	$ (33.7)	$ (34.3)	$ 0.6	(1.7)%	$ (34.3)	$ (47.3)	$ 13.0	(27.5)%
Percentage of net revenue	(2.9)%	(3.0)%			(3.0)%	(5.4)%		
Provision for income taxes	$ 65.3	$ 31.5	$ 33.8	107.3 %	$ 31.5	$ 12.9	$ 18.6	144.2 %
Percentage of net revenue	5.8 %	2.8 %			2.8 %	1.5 %		
(Loss) income from discontinued operations, net of taxes	$ —	$ (2.4)	$ 2.4	(100.0)%	$ (2.4)	$ —	$ (2.4)	— %
Percentage of net revenue	— %	(0.2)%			(0.2)%	— %		

Foreign Currency Impact on Results of Operations

While the majority of our net revenue and operating expenses are denominated in U.S. dollar, a portion of our international operations are denominated in currencies other than the U.S. dollar. Changes in foreign exchange rates may significantly affect revenue and expenses. While we use foreign currency hedging contracts to mitigate some foreign currency exchange risk, these activities are limited in the protection that they provide us and can themselves result in losses. We have presented below "constant dollar" comparisons of our net sales and operating expenses which exclude the impact of currency exchange rate fluctuations. Constant dollar net revenue and operating expenses are non-GAAP financial measures, which is information derived from consolidated financial information but not presented in our financial statements prepared in accordance with U.S. GAAP. Our management believes these non-GAAP measures, when considered in conjunction with the corresponding U.S. GAAP measures, may facilitate a better understanding of changes in net revenue and operating expenses.

Fiscal 2020 and 2019

If currency exchange rates had been constant in fiscal 2020 and 2019, our consolidated net revenue in "constant dollars" would have increased by approximately $8.4 million, or 0.7% of net revenue, which primarily impacted our NE and SE segments. The impact of foreign currency fluctuations on net revenue was not indicative of the impact on net income due to the offsetting foreign currency impact on operating costs and expenses. If currency exchange rates had been constant in fiscal 2020 and 2019, our consolidated operating expenses in "constant dollars" would have increased by approximately $6.2 million, or 0.5% of net revenue.

Fiscal 2019 and 2018

If currency exchange rates had been constant in fiscal 2019 and 2018, our consolidated net revenue in "constant dollars" would have increased by approximately $13.7 million, or 1.2% of net revenue, which primarily impacted our NE and SE segments. The impact of foreign currency fluctuations on net revenue was not indicative of the impact on net income due to the offsetting foreign currency impact on operating costs and expenses. If currency exchange rates had been constant in fiscal 2019 and 2018, our consolidated operating expenses in "constant dollars" would have increased by approximately $10.1 million, or 0.9% of net revenue.

The Results of Operations are presented in accordance with U.S. GAAP and not using constant dollars. Refer to Item 7A. Qualitative and Quantitative Disclosures about Market Risk of this Annual Report on Form 10-K for further details on foreign currency instruments and our related risk management strategies.

Net Revenue

Revenue from our service offerings exceeds 10% of our total consolidated net revenue and is presented separately in our Consolidated Statements of Operations. Service revenue primarily consists of maintenance and support, extended warranty, professional services and post-contract support in addition to other services such as calibration and repair services. When evaluating the performance of our segments, management focuses on total net revenue, gross profit and operating income and not the product or service categories. Consequently, the following discussion of business segment performance focuses on total net revenue, gross profit, and operating income consistent with our approach for managing the business.

Fiscal 2020 and 2019

Net revenue increased by $6.0 million, or 0.5%, during fiscal 2020 compared to fiscal 2019. This increase was driven by a slight growth in NE revenue, partially offset by a small decrease in our OSP and SE segments.

Product revenues remained relatively flat by $1.0 million, or 0.1%, during fiscal 2020 compared to fiscal 2019. During the period we realized strength from our NE segment, which was largely offset by declines in our SE and OSP segments as further discussed below.

Service revenues increased $5.0 million, or 4.0%, during fiscal 2020 compared to fiscal 2019. This increase was primarily due to increased support revenue from our NE and SE segments, primarily driven by increased support revenues from our Wireless and Mature Assurance products.

NE net revenue increased by $8.9 million, or 1.2%, during fiscal 2020 compared to fiscal 2019. This increase was primarily driven by 5G wireless secular growth trends, higher fiber demand from Field Instruments due to the 400Gb upgrade cycle. The increase in revenue was partially offset by the effect of COVID-19.

SE net revenue decreased by $0.7 million, or 0.7%, during fiscal 2020 compared to fiscal 2019. This was primarily driven by the continued run-off in our Mature Assurance portfolio solutions.

OSP net revenue decreased by $2.2 million, or 0.8%, during fiscal 2020 compared to fiscal 2019. This decrease was primarily driven by decrease in demand for our Anti-Counterfeiting products which benefited from higher banknote redesign demand in fiscal 2019, This decrease was partially offset by continued 3D Sensing products demand driven by further adoption and the broadening of our customer base.

Fiscal 2019 and 2018

Net revenue increased by $254.6 million, or 29.1%, during fiscal 2019 compared to fiscal 2018. This increase was primarily due to increases from our NE and OSP segments, partially offset by a revenue decrease from our SE segment.

Product revenues increased by $231.7 million, or 30.0%, during fiscal 2019 compared to fiscal 2018. This increase was primarily from our NE and OSP segment as discussed below.

Service revenues increased $22.9 million, or 22.2%, during fiscal 2019 compared to fiscal 2018. This increase was primarily due to increased support revenue from the NE segment primarily driven by revenues from the AW business acquired in the third quarter of fiscal 2018, partially offset by a decline in support contract renewals from the SE segment as discussed below.

NE net revenue increased by $198.7 million or 36.9%, during fiscal 2019 compared to fiscal 2018. This increase was primarily driven by revenue from the AW business acquired in the third quarter of fiscal 2018, the 5G wireless secular growth trend and organic growth in our Fiber business across Lab and Field Instruments. This increase was partially offset by revenue declines primarily in Cable products from peak levels a year ago driven by the DOCSIS 3.1 upgrade cycle.

SE net revenue decreased by $15.1 million, or 12.7%, during fiscal 2019 compared to fiscal 2018. This decrease was primarily driven by a decline in our Data Center customer demand and from the expected run-off in our Mature Assurance products due to a decline in support renewal contracts. This decrease was partially offset by an increase in our Growth Assurance product portfolio.

OSP net revenue increased by $71.0 million, or 32.6%, during fiscal 2019 compared to fiscal 2018. This increase was primarily driven by increase in demand from out Anti-Counterfeiting products due to bank note redesign and higher revenue from out Consumer and Industrial products, due to higher demand for our 3D Sensing optical filters and newly acquired Engineered Diffusers™ products as technology adoption of facial recognition applications for smartphones increased.

Going forward, we expect to continue to encounter a number of industry and market risks and uncertainties that may limit our visibility, and consequently, our ability to predict future revenue, profitability and general financial performance, and that could create quarter over quarter variability in our financial measures. For example, while the majority of our net revenue and expenses are denominated in U.S. dollars, a portion of our international operations are denominated in foreign currencies. The strengthening of the U.S. dollar relative to foreign currencies could negatively impact reported revenue.

Additionally, we have seen demand for our NE and SE products affected by macroeconomic uncertainty. We cannot predict when or to what extent these uncertainties will be resolved. Our revenues, profitability, and general financial performance may also be affected by: (a) pricing pressures due to, among other things, a highly concentrated customer base, increasing competition, particularly from Asia-based competitors, and a general commoditization trend for certain products; (b) product mix variability in our NE and SE markets, which affects revenue and gross margin; (c) fluctuations in customer buying patterns, which cause demand, revenue and profitability volatility; (d) the current trend of communication industry consolidation, which is expected to continue, that directly affects our NE and SE customer bases and adds additional risk and uncertainty to our financial and business projections; (e) the impact of ongoing global trade policies, political tensions between the U.S. and China, tariffs and sanctions; and (f) regulatory or economic developments that slow or change the rate of adoption of 5G, 3D Sensing and other emerging secular technologies and platforms.

Revenue by Region

We operate in three geographic regions: Americas, Asia-Pacific and Europe Middle East and Africa (EMEA). Net revenue is assigned to the geographic region and country where our product is initially shipped. For example, certain customers may request shipment of our product to a contract manufacturer in one country, which may differ from the location of their end customers. The following table presents net revenue by the three geographic regions we operate in and net revenue from countries that exceeded 10% of our total net revenue *(in millions)*:

	Years Ended					
	June 27, 2020		June 29, 2019		June 30, 2018	
Americas:						
United States	$ 341.6	30.1%	$ 342.1	30.3%	$ 335.5	38.3%
Other Americas	73.2	6.4%	84.2	7.4%	81.0	9.3%
Total Americas	$ 414.8	36.5%	$ 426.3	37.7%	$ 416.5	47.6%
Asia-Pacific:						
Greater China	$ 245.7	21.6%	$ 216.6	19.1%	$ 128.6	14.7%
Other Asia-Pacific	122.5	10.8%	155.6	13.8%	85.2	9.7%
Total Asia-Pacific	$ 368.2	32.4%	$ 372.2	32.9%	$ 213.8	24.4%
EMEA:						
Switzerland	$ 64.6	5.7%	$ 97.0	8.6%	$ 75.3	8.6%
Other EMEA	288.7	25.4%	234.8	20.8%	170.1	19.4%
Total EMEA	$ 353.3	31.1%	$ 331.8	29.4%	$ 245.4	28.0%
Total net revenue	$ 1,136.3	100.0%	$ 1,130.3	100.0%	$ 875.7	100.0%

Net revenue from customers outside the Americas for the fiscal years ended 2020, 2019 and 2018 represented 63.5%, 62.3% and 52.4% of net revenue, respectively. We expect revenue from customers outside of United States to continue to be an important part of our overall net revenue and an increasing focus for net revenue growth opportunities.

Gross Margin

Gross margin in fiscal 2020 increased by 0.9% to 58.5% from 57.6% in fiscal 2019. This increase was primarily driven by higher revenue volume in our NE segment and better manufacturing absorption in our NE and OSP segments. The increase was partially offset by gross margin reduction in our SE segment, further discussed in the sections below.

Gross margin in fiscal 2019 increased 1.8% to 57.6% from 55.8% in fiscal 2018. This increase was primarily driven by higher revenue volume and a favorable product mix within our NE segment and a decrease in acquisition related costs incurred from our past acquisitions. This increase was partially offset by gross margin reduction in our SE segment and increase in amortization of acquired developed technology from recent acquisitions, further discussed in the sections below.

As discussed in more detail under "Net Revenue" above, we sell products in certain markets that are consolidating, undergoing product, architectural and business model transitions, have high customer concentrations, are highly competitive (increasingly due to Asia-Pacific-based competition), are price sensitive and/or are affected by customer seasonal and mix variant buying patterns. We expect these factors to continue to result in variability of our gross margin.

Research and Development

R&D expense increased by $6.6 million, or 3.5%, during fiscal 2020 compared to fiscal 2019. This increase was primarily driven by targeted investments to support increased demand for our key products lines and additional R&D costs incurred from our acquired businesses. As a percentage of revenue net revenue R&D increased by 0.5% during fiscal 2020 compared to fiscal 2019.

R&D expense increased by $53.7 million, or 40.3%, during fiscal 2019 compared to fiscal 2018. This increase was driven by full period R&D expense from acquisitions in the past; in particular, the AW business and targeted investments to support the

demand of our Wireless and Fiber products. As a percentage of net revenue R&D increased by 1.3% during fiscal 2019 compared to fiscal 2018.

We believe that continuing our investments in R&D is critical to attaining our strategic objectives. We plan to continue to invest in R&D and new products that will further differentiate us in the marketplace.

Selling, General and Administrative

SG&A expense decreased by $28.5 million, or 8.3%, in fiscal 2020 compared to fiscal 2019. This decrease was primarily due to a decrease in the fair value of the earn-out liability of $29.5 million related to the RPC Photonics, Inc. (RPC) acquisition, driven by the lower-than-expected rate of adoption by Android customers further compounded by the macroeconomic impact of COVID-19 and the reduction in net expenses driven by our recent restructuring activities and on-going cost reduction efforts. Offset by costs incurred for intellectual property protection and prosecution during the period. As a percentage of net revenue, SG&A decreased 8.3% in fiscal 2020.

SG&A expense increased by $19.6 million, or 6.1%, in fiscal 2019 compared to fiscal 2018. This increase was primarily due to incremental SG&A expense from the AW business acquired in fiscal 2018 and on-going investment in upgrading our ERP and related systems, partially offset by the decrease of acquisition related costs from high levels a year ago, a decrease in the fair value of our RPC earn-out liability of $5.9 million, the reduction in net expenses driven by our recent restructuring activities and on-going cost reduction efforts. As a percentage of net revenue, SG&A decreased 6.7% in fiscal 2019.

We intend to continue to focus on reducing our SG&A expense as a percentage of net revenue. However, we have in the recent past experienced, and may continue to experience in the future, certain charges unrelated to our core operating performance, such as acquisitions and integration related expenses and litigation expenses, which could increase our SG&A expenses and potentially impact our profitability expectations in any particular quarter.

Amortization of Acquired Technologies and Intangibles

Amortization of acquired technologies and intangibles for fiscal 2020 decreased $4.7 million, or 6.4%, to $67.8 million from $72.5 million in fiscal 2019. This decrease is primarily due to the impact from intangible assets becoming fully amortized in fiscal 2020.

Amortization of acquired technologies and intangibles for fiscal 2019 increased $24.8 million, or 52.0%, to $72.5 million from $47.7 million in fiscal 2018. This increase is primarily due to the acquisition of RPC in October 2018, and a full period of amortization from the acquisition of AW, acquired in the third quarter of fiscal 2018, which contributed a $34.7 million incremental charge; partially offset by the impact of intangible assets becoming fully amortized in 2018 and 2019.

Acquired In-Process Research and Development

In accordance with authoritative guidance, we recognize acquired in-process and development (IPR&D) at fair value as of the acquisition date, and subsequently account for it as an indefinite-lived intangible asset until completion or abandonment of the associated research and development efforts. We periodically review the stage of completion and likelihood of success of each IPR&D project. The nature of the efforts required to develop IPR&D projects into commercially viable products principally relates to the completion of all planning, designing, prototyping, verification and testing activities that are necessary to establish that the products can be produced to meet their design specifications, including functions, features and technical performance requirements.

In connection with the AW acquisition, we recorded IPR&D assets of $9.0 million at their fair value and account for them as indefinite-lived intangible assets that shall last until the completion or abandonment of the associated research and development projects. During the third quarter of fiscal 2019, the IPR&D activities were completed and transferred to developed technology, with an estimated useful life of 6 years. See “Note 10. Acquired Developed Technology and Other Intangibles” of the notes to our Consolidated Financial Statements for more detail.

Restructuring and Related Charges

From time to time we have initiated strategic restructuring events primarily intended to reduce costs, consolidate our operations, rationalize the manufacturing of our products and align our businesses in response to market conditions. We estimate annualized gross cost savings of approximately $36.2 million excluding any one-time charges as a result of the recent restructuring activities. Refer to “Note 13. Restructuring and Related Charges” for more information.

As of June 27, 2020, our total restructuring accrual was $6.5 million.

During fiscal 2020, we recorded $3.5 million in restructuring and related charges. These charges are a combination of new and previously announced restructuring plans and are primarily the result of the following:

i. During the fourth quarter of fiscal 2020, we updated our NSE, including AW Restructuring plan to include additional headcount to further drive operational improvement consistent with the original plan. As a result, a net restructuring charge of $3.5 million, for approximately 60 employees primarily in R&D and SG&A functions located in North America, Europe and Asia was recorded in the year ended June 27, 2020. Payments related to the severance and benefits accrual are expected to be paid by the end of the fourth quarter of fiscal 2021.

During fiscal 2019, we recorded $15.4 million in restructuring and related charges. The charges are a combination of new and previously announced restructuring plans and are primarily the result of the following:

i. During the first quarter of fiscal 2019, Management approved restructuring and workforce reduction plans within our Network Service and Enablement (NSE) business, including actions related to the recently acquired AW business (NSE, including AW Restructuring plan). These actions further drive our strategy for organizational alignment and consolidation as part of our continued commitment to a more cost effective and agile organization and to improve overall profitability of the NSE business. Included in these restructuring plans are specific actions to consolidate and integrate the newly acquired AW business within the NSE business segment. During the third quarter of fiscal 2019, we updated the plan to include additional headcount primarily to transfer a portion of the manufacturing operations related to the recently acquired AW business to a contract manufacturer. As a result, a total restructuring charge of $16.1 million, for approximately 240 employees primarily in manufacturing, R&D and SG&A functions located in North America, Latin America, Europe and Asia was recorded in the year ended June 29, 2019. Payments related to the severance and benefits accrual are expected to be paid by the end of the fourth quarter of fiscal 2020.

Interest Income and Other Income, Net

Interest income and other income, net was $9.6 million in fiscal 2020 as compared to $6.2 million in fiscal 2019. This $3.4 million increase was primarily driven by a $5.1 million favorable foreign exchange impact as the balance sheet hedging program provided a more favorable offset to the remeasurement of underlying foreign exchange exposures during fiscal 2020, offset by a decrease of $1.0 million in interest income due to lower yields on money market funds and deposits during fiscal 2020.

Interest income and other income, net was $6.2 million in fiscal 2019 as compared to $9.7 million in fiscal 2018. This $3.5 million decrease was primarily driven by a decrease in interest income in the amount of $7.9 million during fiscal 2019 due to a decrease in the investment balance in the US and a much lower yield on money market funds in China, offset by a loss on repurchase of our 2033 Notes in the amount of $5.0 million during fiscal 2018 with no such loss recorded in fiscal 2019.

Interest Expense

Interest expense decreased by $0.6 million, or 1.7%, during fiscal 2020 compared to fiscal 2019. This was primarily due to a decrease in debt discount accretion from the 2033 Notes as the notes were fully redeemed or converted in the second quarter of fiscal 2019.

Interest expense decreased by $13.0 million, or 27.5%, during fiscal 2019 compared to fiscal 2018. This was primarily due to a decrease in debt discount accretion from the 2033 Notes as the notes were fully redeemed or converted in the second quarter of fiscal 2019, offset by the accretion of debt discount from the issuance of the 2023 Notes in the fourth quarter of fiscal 2018.

Provision for Income Tax

Fiscal 2020 Tax Expense

We recorded an income tax expense of $65.3 million for fiscal 2020. The expected tax expense derived by applying the federal statutory rate to our income before income taxes for fiscal 2020 differed from the income tax expense recorded primarily as a result of domestic and foreign losses that were not realized due to valuation allowances and to a $32.5 million charge for withholding taxes expected to be paid on the repatriation of $324.0 million of foreign earnings that we do not consider to be permanently reinvested. During the third quarter of fiscal 2020, which included changing our intent with regard to the indefinite reinvestment of such foreign earnings, we initially accrued $31.6 million for withholding taxes expected to be paid on the repatriation of $316.4 million of accumulated foreign earnings that we no longer considers to be permanently reinvested as of the third quarter. During the Fiscal year 2020, we paid $19.5 million withholding income tax on the repatriation of foreign earnings. In light of the economic uncertainty caused by COVID-19, we reevaluated our historic assertion on foreign earnings and no longer consider a majority of these earnings to be permanently reinvested. The repatriation of these earnings increases available cash in the U.S. and provides greater U.S. financial flexibility to assist us in navigating the expected downturn in the economy. The foreign earnings are being repatriated to the U.S. without incurring any significant additional U.S current or deferred tax expense.

On March 27, 2020, the House passed the Coronavirus Aid, Relief, and Economic Security Act (The CARES Act), also known as the Third COVID-19 Supplemental Relief bill, and the president signed the legislation into law. Tax provisions of the

Act include the deferral of certain payroll taxes, relief for retaining employees, and other provisions. The provisions of the legislation did not have a significant impact on the effective tax rate or the income tax payable and deferred income tax positions. We continue to monitor additional guidance issued by the U.S. Treasury Department, the Internal Revenue Service and others.

Based on a jurisdiction by jurisdiction review of anticipated future income and due to the continued economic uncertainty in the industry, management has determined that in many of our jurisdictions, it is more likely than not that our net deferred tax assets will not be realized in those jurisdictions. During fiscal 2020, the valuation allowance for deferred tax assets increased by $0.2 million primarily related to the business acquired during the year.

We are routinely subject to various federal, state and foreign audits by taxing authorities. We believe that adequate amounts have been provided for any adjustments that may result from these examinations.

Fiscal 2019 Tax Expense

We recorded an income tax expense of $31.5 million for fiscal 2019. The expected tax expense derived by applying the federal statutory rate to our income before income taxes for fiscal 2019 differed from the income tax expense recorded primarily as a result of domestic and foreign losses that were not realized due to valuation allowances.

Based on a jurisdiction by jurisdiction review of anticipated future income and due to the continued economic uncertainty in the industry, management has determined that in many of our jurisdictions, it is more likely than not that our net deferred tax assets will not be realized in those jurisdictions. During fiscal 2019, the valuation allowance for deferred tax assets increased by $23.2 million primarily due to the net increase of deferred tax assets resulting from the inclusion of our foreign subsidiaries in the US tax return as a consequence of U.S. Tax Cuts and Jobs Act enacted in December 2017.

We are routinely subject to various federal, state and foreign audits by taxing authorities. We believe that adequate amounts have been provided for any adjustments that may result from these examinations.

Fiscal 2018 Tax Expense

We recorded an income tax expense of $12.9 million for fiscal 2018. The expected tax expense derived by applying the federal statutory rate to our income before income taxes for fiscal 2018 differed from the income tax expense recorded primarily as a result of domestic and foreign losses that were not realized due to valuation allowances.

On December 22, 2017, the U.S. Tax Cuts and Jobs Act was enacted. Income tax effects resulting from changes in tax laws were accounted for by us in accordance with the authoritative guidance and the effects were recorded as a component of the provision for income taxes from continuing operations. The law has significantly changed the way the U.S. taxes corporations. The Act repealed the alternative minimum tax (AMT) for corporations and provided that the existing AMT credit carryforwards would be refunded in 2022 if not utilized. As a result, we recognized a benefit of $4.5 million for the year ended June 30, 2018 for the release of the valuation allowance previously maintained against the AMT credit deferred tax asset. As a result, our deferred tax liability associated with indefinite-lived intangible assets was offset against these indefinite-lived deferred tax assets, resulting in a benefit of $2.0 million for the year ended June 30, 2018 due to release of the valuation allowance.

The Act imposed a deemed repatriation of our foreign subsidiaries' post-1986 earnings and profits (E&P) which had previously been deferred from U.S. income tax. The deemed repatriation was reported in our fiscal 2018 U.S. Tax return. We completed the calculation of the total post-1986 foreign E&P for all foreign subsidiaries during the quarter ended December 29, 2018. The change in estimate did not materially impact our financial statements.

The Act reduced the U.S. federal corporate tax rate from 35% to 21% as of January 1, 2018. We have remeasured our U.S. deferred tax assets and liabilities which resulted in a net reduction of $734.9 million of our net deferred tax assets and an equal and offsetting reduction to the valuation allowance against these deferred tax assets.

Upon adoption of the new guidance on share-based payment awards, we had $117.7 million of net operating loss carryforwards resulting from excess tax benefit deductions. The deferred tax asset recorded for these net operating loss carryforwards was fully offset by a corresponding increase in valuation allowance, resulting in no impact to opening accumulated deficit. In addition, due to the full valuation allowance on the U.S. deferred tax assets, there was no impact to the income tax provision from excess tax benefits for the year ended June 30, 2018.

Based on a jurisdiction by jurisdiction review of anticipated future income and due to the continued economic uncertainty in the industry, management has determined that in many of our jurisdictions, it is more likely than not that our net deferred tax assets will not be realized in those jurisdictions. During fiscal 2018, the valuation allowance for deferred tax assets decreased by $712.9 million primarily due to the remeasurement of the US deferred tax assets and liabilities related to U.S. Tax Cuts and Jobs Act.

We are routinely subject to various federal, state and foreign audits by taxing authorities. We believe that adequate amounts have been provided for any adjustments that may result from these examinations.

Operating Segment Information (*in millions*):

	2020	2019	Change	Percentage Change	2019	2018	Change	Percentage Change
NE								
Net revenue	$ 746.7	$ 737.8	$ 8.9	1.2 %	$ 737.8	$ 539.1	$ 198.7	36.9 %
Gross profit	482.4	473.3	9.1	1.9 %	473.3	334.3	139.0	41.6 %
Gross margin	64.6%	64.2%			64.2%	62.0%		
SE								
Net revenue	$ 102.7	$ 103.4	$ (0.7)	(0.7)%	$ 103.4	$ 118.5	$ (15.1)	(12.7)%
Gross profit	68.8	71.0	(2.2)	(3.1)%	71.0	82.6	(11.6)	(14.0)%
Gross margin	67.0%	68.7%			68.7%	69.7%		
NSE								
Net revenue	$ 849.4	$ 841.2	$ 8.2	1.0 %	$ 841.2	$ 657.6	$ 183.6	27.9 %
Operating income	108.8	99.6	9.2	9.2 %	99.6	43.6	56.0	128.4 %
Operating margin	12.8%	11.8%			11.8%	6.6%		
OSP								
Net revenue	$ 286.9	$ 289.1	$ (2.2)	(0.8)%	$ 289.1	$ 218.1	$ 71.0	32.6 %
Gross profit	153.0	145.8	7.2	4.9 %	145.8	115.2	30.6	26.6 %
Gross margin	53.3%	50.4%			50.4%	52.8%		
Operating income	102.1	98.0	4.1	4.2 %	98.0	78.2	19.8	25.3 %
Operating margin	35.6%	33.9%			33.9%	35.9%		

Network Enablement

NE gross margin increased 0.4% during fiscal 2020 to 64.6% from 64.2% in fiscal 2019. This increase was primarily due to higher revenue volume and gross margin improvement from favorable product mix in our Lab Instrument products.

NE gross margin increased 2.2% during fiscal 2019 to 64.2% from 62.0% in fiscal 2018. This increase was primarily due to higher revenue volume and gross margin improvement from a favorable product mix in our Field Instrument and Lab Instrument products driven by both organic revenue growth from our fiber and acquired AW business product offerings.

Service Enablement

SE gross margin decreased 1.7% during fiscal 2020 to 67.0% from 68.7% in fiscal 2019. This decrease was primarily due to lower revenue and unfavorable product mix from the continued run-off of higher margin Mature Assurance solutions.

SE gross margin decreased 1.0% during fiscal 2019 to 68.7% from 69.7% in fiscal 2018. This decrease was primarily due to lower revenue and an unfavorable product mix from the continued run-off of higher margin Mature Assurance solutions and declines in revenue from Data Center products.

Network and Service Enablement

NSE operating margin increased 1.0% during fiscal 2020 to 12.8% from 11.8% in fiscal 2019. The increase in operating margin was primarily driven by continuing efficient cost management including restructuring, cost synergies realized from our acquisitions, lower travel expenses as a result of COVID-19 as well as the benefit of higher operating leverage from increased revenue volumes.

NSE operating margin increased 5.2% during fiscal 2019 to 11.8% from 6.6% in fiscal 2018. The increase in operating margin was primarily driven by continuing efficient cost management, including restructuring, cost synergies realized from the acquisition as well as the benefit of higher operating leverage from increased revenue volume due to the acquired AW business.

Optical Security and Performance Products

OSP gross margin increased by 2.9% during fiscal 2020 to 53.3% from 50.4% in fiscal 2019. This increase was primarily due to operational efficiencies in manufacturing partially offset by unfavorable product mix from decreased revenue contribution from our Anti-Counterfeiting products.

OSP gross margin decreased by 2.4% during fiscal 2019 to 50.4% from 52.8% in fiscal 2018. This decrease was primarily due to an unfavorable product mix from the increasing revenue contribution from 3D Sensing products within our consumer and industrial product portfolio with inherently lower gross margins.

OSP operating margin increased 1.7% during fiscal 2020 to 35.6% from 33.9% in fiscal 2019. The increase in operating margin was primarily due to higher gross margins as discussed above offset by targeted investments in our operating expenses as we expand our 3D sensing products within our Consumer and Industrial product portfolio.

OSP operating margin decreased 2.0% during fiscal 2019 to 33.9% from 35.9% in fiscal 2018. The decrease in operating margin was primarily due to lower gross margins as discussed above and targeted investments in our operating expenses as we expand our 3D Sensing products within our consumer industrial product portfolio.

Liquidity and Capital Resources

We believe that our existing cash balances and investments will be sufficient to meet our liquidity and capital spending requirements over the next twelve months. However, there are a number of factors that could positively or negatively impact our liquidity position, including:

- global economic conditions which affect demand for our products and services and impact the financial stability of our suppliers and customers;
- impact of the COVID-19 pandemic on our financial condition;
- changes in accounts receivable, inventory or other operating assets and liabilities which affect our working capital;
- increase in capital expenditure to support the revenue growth opportunity of our business;
- changes in customer payment terms and patterns, which typically results in customers delaying payments or negotiating favorable payment terms to manage their own liquidity positions;
- timing of payments to our suppliers;
- factoring or sale of accounts receivable;
- volatility in fixed income and credit market which impact the liquidity and valuation of our investment portfolios;
- volatility in foreign exchange market which impacts our financial results;
- possible investments or acquisitions of complementary businesses, products or technologies;
- issuance or repurchase of debt or equity securities, which may include open market purchases of our 2023 Notes and/or 2024 Notes prior to their maturity or of our common stock;
- potential funding of pension liabilities either voluntarily or as required by law or regulation;
- compliance with covenants and other terms and conditions related to our financing arrangements;
- and the risks and uncertainties detailed in Item 1A “Risk Factors” section of our Annual Report on Form 10-K.

Cash Investments

Our cash investments are made in accordance with an investment policy approved by the Audit Committee of our Board of Directors. In general, our investment policy requires that securities purchased be rated A-1/P-1, A/A2 or better. Our policy allows an allocation to securities rated A-2/P-2, BBB/Baa2 or better, so long as such allocation below A-1/P-1, A/A2 but minimum A-2/P-2, BBB/Baa2 does not exceed 10% of any investment portfolio. Securities that are downgraded subsequent to purchase are

evaluated and may be sold or held at management's discretion. No security may have an effective maturity that exceeds 37 months, and the average duration of our holdings may not exceed 18 months. At any time, no more than 5.0% or $5.0 million, whichever is greater, of each of our investment portfolios may be concentrated in a single issuer other than the U.S. or sovereign governments or agencies. Our investments in debt securities and marketable equity securities are primarily classified as available-for-sale investments or trading assets and are recorded at fair value. The cost of securities sold is based on the specific identification method. Unrealized gains and losses on available-for-sale investments are recorded as other comprehensive (loss) income and are reported as a separate component of stockholders' equity. We did not hold any investments in auction rate securities, mortgage backed securities, collateralized debt obligations, or variable rate demand notes at June 27, 2020. As of June 27, 2020, U.S. subsidiaries owned approximately 53.8% of our cash and cash equivalents, short-term investments and restricted cash. The recent COVID-19 pandemic has caused disruption in global capital markets and over time may impact our ability to obtain credit and/or negotiate acceptable financing terms.

As of June 27, 2020, the majority of our cash investments have maturities of 90 days or less and are of high credit quality. Although we intend to hold these investments to maturity, in the event that we are required to sell any of these securities under adverse market conditions, losses could be recognized on such sales. During the years ended June 27, 2020, we have not realized material investment losses but can provide no assurance that the value or the liquidity of our investments will not be impacted by adverse conditions in the financial markets. In addition, we maintain cash balances in operating accounts that are with third party financial institutions. These balances in the U.S. may exceed the Federal Deposit Insurance Corporation (FDIC) insurance limits. While we monitor the cash balances in our operating accounts and adjust the cash balances as appropriate, these cash balances could be impacted if the underlying financial institutions fail.

Revolving Credit Facility

On May 5, 2020, we entered into a credit agreement (the Credit Agreement) with Wells Fargo Bank, National Association (Wells Fargo) as administrative agent, and other lender related parties. The Credit Agreement provides for a $300 million senior secured revolving credit facility, which matures on March 1, 2023. The Credit Agreement also provides that, under certain circumstances, we may incur term loans or increase the aggregate principal amount of revolving commitments by an aggregate amount of up to $200 million plus additional amounts so long as our secured net leverage ratio, determined on a pro forma basis does not exceed 1.50:1.00. The proceeds from the credit facility established under the Credit Agreement will be used for working capital and other general corporate purposes. The obligations under the Credit Agreement are secured by substantially all of our assets.

Amounts outstanding under the Credit Agreement accrue interest at a rate equal to either, at our election, LIBOR plus a margin of 1.75% to 2.50% per annum, or a specified base rate plus a margin of 0.75% to 1.50%, in each case, depending on our consolidated secured leverage ratio. We are required to pay commitment fee on the unutilized portion of the facility which ranges between 0.30% and 0.40% per annum depending on our consolidated secured leverage ratio. As of June 27, 2020, we had no amounts outstanding under the Credit Agreement. Refer to "Note 11. Debt" for more information.

During fiscal 2019, we fully repurchased and redeemed our 0.625% Senior Convertible Notes. Refer to "Note 11. Debt" for more information.

Year Ended June 27, 2020

As of June 27, 2020, our combined balance of cash and cash equivalents and restricted cash increased by $17.0 million to $547.4 million from $530.4 million as of June 29, 2019.

Cash provided by operating activities was $135.6 million, consisted of net income of $28.7 million adjusted for non-cash or non-operating charges (e.g., depreciation, amortization of intangibles, stock-based compensation, amortization of debt issuance cost and discount and net change in fair value of contingent liabilities), including changes in deferred tax balances which totaled $160.8 million, offset by changes in operating assets and liabilities that used $53.9 million. Changes in our operating assets and liabilities related primarily to a decrease in accrued expenses and other current and non-current liabilities of $52.8 million comprised primarily of a decrease in customer deposit and net payments of lease liability and pension obligations, a decrease in accounts payable of $9.2 million driven by timing of purchases and related payments, a decrease in accrued payroll and related expenses of $7.0 million due to timing of salary and related payments, and an increase in accounts receivable of $5.1 million primarily driven by higher volume of billing. This was partially offset by cash inflows from a decrease in other current and non-current assets of $10.6 million, an increase in deferred revenue of $5.9 million primarily due to the amortization of support agreements and the release of revenue upon customer acceptance, and a decrease in inventories of $3.7 million.

Cash used in investing activities was $29.8 million, primarily related to $31.9 million of cash used for capital expenditures and $2.5 million cash used for acquisitions. This was partially offset by $4.6 million proceeds from sales of assets.

Cash used in financing activities was $71.7 million, primarily resulting from $44.4 million of cash used to repurchase common stock, $21.0 million in withholding tax payment on vesting of restricted stock awards, $6.8 million of cash used to pay acquisition related holdback, $2.7 million in payment of financing obligations, $1.6 million in issuance cost of the credit agreement, and $0.7 million of cash used to pay acquisition related to contingent consideration. This was offset by $5.5 million in proceeds from the exercise of stock options and the issuance of common stock under our Amended and Restated 1998 Employee Stock Purchase Plan (the ESPP).

Year Ended June 29, 2019

As of June 29, 2019, our combined balance of cash and cash equivalents and restricted cash decreased by $93.9 million to $530.4 million from $624.3 million as of June 30, 2018.

Cash provided by operating activities was $138.8 million, consisted of net income of $5.4 million adjusted for non-cash or non-operating charges (e.g., depreciation, amortization of intangibles, stock-based compensation, amortization of debt issuance cost and discount, and discount and net change in fair value of contingent liabilities) which totaled $172.3 million, including changes in deferred tax balances, offset by changes in operating assets and liabilities that used $38.9 million. Changes in our operating assets and liabilities related primarily to a decrease in accrued expenses and other current and non-current liabilities of $22.3 million primarily due to a decrease in customer deposit and other accrued liabilities, an increase in accounts receivable of $17.8 million primarily driven by higher volume of billing and timing of collections, an increase in inventories of $15.4 million due to inventory build-up to support revenue growth for our Wireless, fiber and 3D sensing product offerings, and a decrease in deferred revenue of $3.1 million primarily due to a decrease in current deferred revenue. This was partially offset by cash inflows from an increase in accounts payable of $8.7 million driven by increased inventory purchases and timing of payments, an increase in accrued payroll and related expenses of $5.9 million due to timing of salary and bonus payments, and an increase in income taxes payable of $5.0 million.

Cash provided by investing activities was $80.6 million, primarily related to $167.2 million of net sales and maturities of available-for-sale debt securities and $5.4 million proceeds from sales of assets, offset by $47.0 million cash used for acquisitions and $45.0 million of cash used for capital expenditures.

Cash used in financing activities was $300.4 million, primarily resulting from $276.9 million used for repurchase of our 2033 Notes, $11.2 million of cash used to repurchase common stock, $15.5 million in withholding tax payment on vesting of restricted stock awards and $2.2 million in payment of financing obligations and issuance costs of our 1.75% senior convertible Notes. This was offset by $5.4 million in proceeds from the exercise of stock options and the issuance of common stock under our Amended and Restated 1998 Employee Stock Purchase Plane (the ESPP).

Contractual Obligations

The following summarizes our contractual obligations at June 27, 2020, and the effect such obligations are expected to have on our liquidity and cash flow over the next five years (*in millions*):

	Payments due by period				
	Total	**Less than 1 year**	**1 - 3 years**	**3 - 5 years**	**More than 5 years**
Asset retirement obligations—expected cash payments	$ 4.0	$ 0.9	$ 1.3	$ 0.3	$ 1.5
Debt:					
2023 1.75% senior convertible notes	225.0	—	225.0	—	—
2024 1% senior convertible notes	460.0	—	—	460.0	—
Short-term debt	2.8	2.8	—	—	—
Estimated interest payments	32.7	9.5	18.6	4.6	—
Purchase obligations [1]	99.8	87.9	11.8	0.1	—
Operating lease obligations [2]	44.7	12.8	16.2	8.2	7.5
Non-cancelable leaseback obligations [1]	31.6	2.8	5.3	4.8	18.7
Royalty payment	3.9	0.7	1.7	1.2	0.3
Pension and post-retirement benefit payments [2]	109.9	8.6	12.7	12.0	76.6
Total	$ 1,014.4	$ 126.0	$ 292.6	$ 491.2	$ 104.6

(1) Refer to “Note 18. Commitments and Contingencies” for more information.

(2) Refer to “Note 12. Leases” for more information.

(3) Refer to “Note 17. Employee Pension and Other Benefit Plans” for more information.

Purchase obligations represent legally-binding commitments to purchase inventory and other commitments made in the normal course of business to meet operational requirements. Of the $99.8 million of purchase obligations as of June 27, 2020, $40.9 million are related to inventory and the other $58.9 million are non-inventory items.

As of June 27, 2020, our other non-current liabilities primarily relate to asset retirement obligations, pension and financing obligations which are presented in various lines in the preceding table.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements, as such term is defined in rules promulgated by the SEC, that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that are material to investors.

Employee Defined Benefit Plans and Other Post-retirement Benefits

We sponsor significant qualified and non-qualified pension plans for certain past and present employees in the U.K. and Germany. We also are responsible for the non-pension post-retirement benefit obligation assumed from a past acquisition. Most of these plans have been closed to new participants and no additional service costs are being accrued, except for certain plans in Germany assumed in connection with an acquisition during fiscal 2010.

The U.K. plan is partially funded and the other plans, which were initially established as “pay-as-you-go” plans, are unfunded. As of June 27, 2020, our pension plans were underfunded by $109.9 million since the PBO exceeded the fair value of plan assets. Similarly, we had a liability of $0.4 million related to our non-pension post-retirement benefit plan.

We anticipate future annual outlays related to the German plans will approximate estimated future benefit payments. These future benefit payments have been estimated based on the same actuarial assumptions used to measure our projected benefit obligation and currently are forecasted to range between $4.9 million and $7.7 million per annum. In addition, we expect to contribute approximately $1.8 million to the U.K. plan during fiscal 2021.

During fiscal 2020, we (amounts represented as £ and $ denote GBP and USD, respectively) contributed £0.5 million or approximately $0.6 million, while in fiscal 2019, we contributed £0.5 million or approximately $0.6 million to its U.K. pension plan. These contributions allowed us to comply with regulatory funding requirements.

A key actuarial assumption in calculating the net periodic cost and the PBO is the discount rate. Changes in the discount rate impact the interest cost component of the net periodic benefit cost calculation and PBO due to the fact that the PBO is calculated on a net present value basis. Decreases in the discount rate will generally increase pre-tax cost, recognized expense and the PBO. Increases in the discount rate tend to have the opposite effect. We estimate a 50-basis point decrease or increase in the discount rate would cause a corresponding increase or decrease, respectively, in the PBO of approximately $9.1 million based upon data as of June 27, 2020.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Exchange Risk

We use foreign exchange forward contracts to hedge foreign currency risk associated with foreign currency denominated monetary assets and liabilities, primarily certain short-term intercompany receivables and payables. Our foreign exchange forward contracts are accounted for as derivatives whereby the fair value of the contracts are reflected as other current assets or other current liabilities and the associated gains and losses are reflected in interest and other income, net in the Consolidated Statements of Operations. Our hedging programs reduce, but do not eliminate, the impact of currency exchange rate movements. The gains and losses on those derivatives are expected to be offset by re-measurement gains and losses on the foreign currency denominated monetary assets and liabilities.

As of June 27, 2020, we had forward contracts that were effectively closed but not settled with the counterparties by year end. The fair value of these contracts of $2.2 million and $1.5 million is reflected as prepayments and other current assets and other current liabilities in the Consolidated Balance Sheets as of June 27, 2020, respectively.

The forward contracts outstanding and not effectively closed, with a term of less than 120 days, were transacted near year end; therefore, the fair value of the contracts is not significant. As of June 27, 2020 and June 29, 2019, the notional amounts of the forward contracts that we held to purchase foreign currencies were $146.4 million and $117.8 million, respectively, and the notional amounts of forward contracts that we held to sell foreign currencies were $22.0 million and $31.3 million, respectively.

The counterparties to these hedging transactions are creditworthy multinational banks. The risk of counterparty nonperformance associated with these contracts is not considered to be material. Notwithstanding our efforts to mitigate some foreign exchange risks, we do not hedge all of our foreign currency exposures, and there can be no assurances that our mitigating activities related to the exposures that we do hedge will adequately protect us against the risks associated with foreign currency fluctuations.

Investments

We maintain an investment portfolio in a variety of financial instruments, including, but not limited to, U.S. government and agency securities, corporate obligations, money market funds, asset-backed securities, and other investment-grade securities. The majority of these investments pay a fixed rate of interest. The securities in the investment portfolio are subject to market price risk due to changes in interest rates, perceived issuer creditworthiness, marketability, and other factors. These investments are generally classified as available-for-sale and, consequently, are recorded on our Consolidated Balance Sheets at fair value with unrealized gains or losses reported as a separate component of Other comprehensive (loss) income.

Investments in both fixed-rate and floating-rate interest earning instruments carry a degree of interest rate risk. The fair market values of our fixed-rate securities decline if interest rates rise, while floating-rate securities may produce less income than expected if interest rates fall. Due in part to these factors, our future investment income may be less than expectations because of changes in interest rates or we may suffer losses in principal if we sell securities that have experienced a decline in market value because of changes in interest rates. As of June 27, 2020, a hypothetical 100 basis point increase or decrease in interest rates would not result in a material change in the fair value of our available-for-sale debt instruments held that are sensitive to changes in interest rates.

We seek to mitigate the credit risk of our portfolio of fixed-income securities by holding only high-quality, investment-grade obligations with effective maturities of 37 months or less. We also seek to mitigate marketability risk by holding only highly liquid securities with active secondary or resale markets. However, the investments may decline in value or marketability due to changes in perceived credit quality or changes in market conditions.

Debt

The fair values of our 2023 and 2024 Notes are subject to interest rate and market price risk due to the convertible feature of the Notes and other factors. Generally, the fair value of fixed interest rate debt will increase as interest rates fall and decrease as interest rates rise. The fair value of the Notes may also increase as the market price of our stock rises and decrease as the market price of our stock falls. Changes in interest rates and our stock price affect the fair value of the Notes but does not impact our financial position, cash flows or results of operations. Based on quoted market prices, as of June 27, 2020, the fair value of the 2023 Notes was $251.4 million and the fair value of the 2024 Notes was approximately $523.3 million. Refer to "Note 11. Debt" for more information.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Viavi Solutions Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Viavi Solutions Inc. and its subsidiaries (the "Company") as of June 27, 2020 and June 29, 2019, and the related consolidated statements of operations, of comprehensive loss, of stockholders' equity and of cash flows for each of the three years in the period ended June 27, 2020, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of June 27, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of June 27, 2020 and June 29, 2019**,** and the results of its operations and its cash flows for each of the three years in the period ended June 27, 2020 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of June 27, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it accounts for leases as of June 30, 2019.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, 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 the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. 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.

Definition and Limitations of Internal Control over Financial Reporting

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.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue Recognition - Identifying and Evaluating Performance Obligations in Certain Customer Contracts in the Network Enablement and Service Enablement Reportable Segments

As described in Notes 1 and 19 to the consolidated financial statements, the Company had $1,136.3 million of revenue for the year ended June 27, 2020 of which $746.7 million and $102.7 million related to the Network Enablement and Service Enablement segments, respectively. The Company's revenue recognition is determined by management through the following steps: 1) identification of the contract with a customer; 2) identification of the performance obligations in the contract; 3) determination of the transaction price; 4) allocation of the transaction price to the performance obligations in the contract; and 5) recognition of revenue when (or as) the performance obligations are satisfied. Certain of the Company's contracts with customers include performance obligations consisting of a variety of products and services and may involve a significant level of integration and interdependency between performance obligations. Identifying and evaluating whether products and services are considered distinct performance obligations may require significant management judgment, particularly in the Network Enablement and Service Enablement reportable segments due to the nature of the products and service offerings.

The principal considerations for our determination that performing procedures relating to revenue recognition - identifying and evaluating performance obligations in certain customer contracts in the Network Enablement and Service Enablement reportable segments is a critical audit matter are the significant judgment by management in identifying and evaluating performance obligations, which in turn led to a high degree of auditor judgment and effort in performing procedures and evaluating audit evidence obtained related to whether such performance obligations were appropriately identified and evaluated by management.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included, among others, (i) testing the effectiveness of internal controls relating to the revenue recognition process, including internal controls related to the identification and evaluation of performance obligations in contracts with customers, and (ii) testing, on a sample basis, the completeness and accuracy of management's identification and evaluation of performance obligations in certain customer contracts in the Network Enablement and Service Enablement reportable segments.

/s/ PricewaterhouseCoopers LLP

San Jose, California
August 24, 2020

We have served as the Company's auditor since 2005.

VIAVI SOLUTIONS INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in millions, except per share data)

	Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018
Revenues:			
Product revenue	$ 1,005.2	$ 1,004.2	$ 772.5
Service revenue	131.1	126.1	103.2
Total net revenue	1,136.3	1,130.3	875.7
Cost of revenues:			
Product cost of revenue	388.5	394.8	310.6
Service cost of revenue	49.8	49.7	50.0
Amortization of acquired technologies	32.7	34.4	26.7
Total cost of revenues	471.0	478.9	387.3
Gross profit	665.3	651.4	488.4
Operating expenses:			
Research and development	193.6	187.0	133.3
Selling, general and administrative	315.0	343.5	323.9
Amortization of other intangibles	35.1	38.1	21.0
Restructuring and related charges	3.5	15.4	8.3
Total operating expenses	547.2	584.0	486.5
Income from operations	118.1	67.4	1.9
Interest and other income, net	9.6	6.2	9.7
Interest expense	(33.7)	(34.3)	(47.3)
Income (loss) from continuing operations before income taxes	94.0	39.3	(35.7)
Provision for income taxes	65.3	31.5	12.9
Income (loss) from continuing operations, net of taxes	28.7	7.8	(48.6)
Loss from discontinued operations, net of taxes	—	(2.4)	—
Net income (loss)	$ 28.7	$ 5.4	$ (48.6)
Net income (loss) per share from - basic:			
Continuing operations	$ 0.13	$ 0.03	$ (0.21)
Discontinued operations	—	(0.01)	—
Net income (loss)	$ 0.13	$ 0.02	$ (0.21)
Net income (loss) per share from - diluted:			
Continuing operations	$ 0.12	$ 0.03	$ (0.21)
Discontinued operations	—	(0.01)	—
Net income (loss)	$ 0.12	$ 0.02	$ (0.21)
Shares used in per-share calculations:			
Basic	229.4	228.1	227.1
Diluted	233.7	231.2	227.1

The accompanying Notes to the Consolidated Financial Statements are an integral part of these statements.

VIAVI SOLUTIONS INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(in millions)

	Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018
Net income (loss)	$ 28.7	$ 5.4	$ (48.6)
Other comprehensive loss:			
Net change in cumulative translation adjustment, net of tax	(28.6)	(27.0)	(8.5)
Net change in available-for-sale investments, net of tax:			
Unrealized holding gains (losses) arising during period	(0.1)	0.3	(0.6)
Less: reclassification adjustments included in net income	—	0.5	0.1
Net change in defined benefit obligation, net of tax:			
Unrealized actuarial losses arising during period	(5.4)	(7.3)	(2.8)
Amortization of actuarial losses	2.8	1.8	1.5
Net change in accumulated other comprehensive loss	(31.3)	(31.7)	(10.3)
Comprehensive loss	$ (2.6)	$ (26.3)	$ (58.9)

The accompanying Notes to the Consolidated Financial Statements are an integral part of these statements.

VIAVI SOLUTIONS INC.
CONSOLIDATED BALANCE SHEETS
(in millions, except share and par value data)

	June 27, 2020	June 29, 2019
ASSETS		
Current assets:		
Cash and cash equivalents	$ 539.0	$ 521.5
Short-term investments	1.5	1.5
Restricted cash	3.5	3.5
Accounts receivable, net	235.5	237.7
Inventories, net	83.3	102.7
Prepayments and other current assets	50.8	49.9
Total current assets	913.6	916.8
Property, plant and equipment, net	172.5	179.9
Goodwill, net	381.4	381.1
Intangibles, net	148.1	211.6
Deferred income taxes	105.4	108.4
Other non-current assets	55.3	17.3
Total assets	$ 1,776.3	$ 1,815.1
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 53.0	$ 63.4
Accrued payroll and related expenses	51.4	58.7
Deferred revenue	54.6	55.3
Accrued expenses	22.6	34.2
Short-term debt	2.8	—
Other current liabilities	48.4	72.4
Total current liabilities	232.8	284.0
Long-term debt	600.9	578.8
Other non-current liabilities	231.2	226.5
Commitments and contingencies (Note 18)		
Stockholders' equity:		
Preferred stock, $0.001 par value; 1 million shares authorized, no shares issued or outstanding at June 27, 2020 and June 29, 2019.	—	—
Common stock, $0.001 par value; 1 billion shares authorized; 228 million shares at June 27, 2020 and 229 million shares at June 29, 2019, issued and outstanding	0.2	0.2
Additional paid-in capital	70,274.3	70,244.7
Accumulated deficit	(69,397.2)	(69,384.5)
Accumulated other comprehensive loss	(165.9)	(134.6)
Total stockholders' equity	711.4	725.8
Total liabilities and stockholders' equity	$ 1,776.3	$ 1,815.1

The accompanying Notes to the Consolidated Financial Statements are an integral part of these statements.

VIAVI SOLUTIONS INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in millions)

	Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018
OPERATING ACTIVITIES:			
Net income (loss)	$ 28.7	$ 5.4	$ (48.6)
Adjustments to reconcile net (loss) income to net cash provided by operating activities:			
Depreciation expense	40.0	39.7	35.7
Amortization of acquired technologies and other intangibles	67.8	72.5	47.7
Stock-based compensation	44.6	38.2	30.5
Amortization of debt issuance costs and accretion of debt discount	22.2	22.7	36.4
Amortization of discount and premium on investments, net	—	—	0.3
Net change in fair value of contingent liabilities	(31.5)	(5.9)	—
Loss (Gain) on sales of investments	—	0.5	—
Loss on disposal of long-lived assets	0.1	1.4	2.1
Loss on extinguishment of debt	—	—	5.0
Other	5.7	5.1	2.2
Changes in operating assets and liabilities, net of acquisitions:			
Accounts receivable	(5.1)	(17.8)	(53.2)
Inventories	3.7	(15.4)	(5.5)
Other current and non-currents assets	10.6	0.1	3.9
Accounts payable	(9.2)	8.7	13.2
Income taxes payable	—	5.0	1.1
Deferred revenue, current and non-current	5.9	(3.1)	7.3
Deferred taxes, net	11.9	(1.9)	(6.8)
Accrued payroll and related expenses	(7.0)	5.9	(3.0)
Accrued expenses and other current and non-current liabilities	(52.8)	(22.3)	(2.3)
Net cash provided by operating activities	135.6	138.8	66.0
INVESTING ACTIVITIES:			
Purchases of available-for-sale investments	—	—	(382.9)
Maturities of available-for-sale investments	—	47.3	438.3
Sales of available-for-sale investments	—	119.9	204.7
Acquisition of businesses, net of cash acquired	(2.5)	(47.0)	(509.9)
Capital expenditures	(31.9)	(45.0)	(42.5)
Proceeds from the sale of assets	4.6	5.4	5.8
Net cash (used in) provided by investing activities	(29.8)	80.6	(286.5)
FINANCING ACTIVITIES:			
Proceeds from issuance of senior convertible debt	—	—	225.0
Payment of debt issuance costs	(1.6)	(0.5)	(1.7)
Repurchase and retirement of common stock	(44.4)	(11.2)	(40.8)
Payment of financing obligations	(2.7)	(1.7)	(1.3)
Redemption of convertible debt	—	(276.9)	(353.3)
Proceeds from exercise of employee stock options and employee stock purchase plan	5.5	5.4	4.9
Withholding tax payment on vesting of restricted stock awards	(21.0)	(15.5)	(13.3)
Payment of acquisition related holdback	(6.8)	—	—
Payment of acquisition related contingent consideration	(0.7)	—	—
Net cash used in financing activities	(71.7)	(300.4)	(180.5)
Effect of exchange rates on cash, cash equivalents and restricted cash	(17.1)	(12.9)	2.9
Net increase (decrease) in cash, cash equivalents and restricted cash	17.0	(93.9)	(398.1)
Cash, cash equivalents and restricted cash at beginning of period [1]	530.4	624.3	1,022.4
Cash, cash equivalents and restricted cash at end of period [2]	$ 547.4	$ 530.4	$ 624.3
Supplemental disclosure of cash flow information			
Cash paid for interest	$ 11.3	$ 11.8	$ 11.2
Cash paid for income taxes	$ 50.6	$ 29.8	$ 24.4

(1) These amounts include both current and non-current balances of restricted cash totaling $8.9 million, $12.9 million and $18.0 million as of June 29, 2019, June 30, 2018 and July 1, 2017, respectively.

(2) These amounts include both current and non-current balances of restricted cash totaling $8.4 million, $8.9 million and $12.9 million as of June 27, 2020, June 29, 2019 and June 30, 2018, respectively.

The accompanying Notes to the Consolidated Financial Statements are an integral part of these statements.

VIAVI SOLUTIONS INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in millions)

	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total
	Shares	Amount				
Balance at July 1, 2017	227.6	$ 0.2	$ 70,184.4	$ (69,288.5)	$ (92.6)	$ 803.5
Net loss	—	—	—	(48.6)	—	(48.6)
Other Comprehensive loss	—	—	—	—	(10.3)	(10.3)
Shares issued under employee stock plans, net of tax effects	3.5	—	(8.4)	—	—	(8.4)
Stock-based compensation	—	—	30.5	—	—	30.5
Repurchases of common stock	(4.4)	—	—	(40.9)	—	(40.9)
Issuance of senior convertible notes	—	—	34.6	—	—	34.6
Cumulative adjustment from adoption of ASU 2016-09 (Topic 718)	—	—	0.6	(0.6)	—	—
Reacquisition of 2033 Notes equity component	—	—	(25.5)	—	—	(25.5)
Balance at June 30, 2018	226.7	$ 0.2	$ 70,216.2	$ (69,378.6)	$ (102.9)	$ 734.9
Net income	—	—	—	5.4	—	5.4
Other comprehensive loss	—	—	—	—	(31.7)	(31.7)
Shares issued under employee stock plans, net of tax effects	3.2	—	(10.1)	—	—	(10.1)
Stock-based compensation	—	—	38.6	—	—	38.6
Repurchase of common stock	(1.1)	—	—	(11.3)	—	(11.3)
Balance at June 29, 2019	228.8	$ 0.2	$ 70,244.7	$ (69,384.5)	$ (134.6)	$ 725.8
Cumulative adjustment for adoption of ASU 2016-02 (Topic 842)	—	—	—	3.0		3.0
Net income	—	—	—	28.7	—	28.7
Other comprehensive loss	—	—	—	—	(31.3)	(31.3)
Shares issued under employee stock plans, net of tax effects	3.2	—	(15.3)	—	—	(15.3)
Stock-based compensation	—	—	44.9	—	—	44.9
Repurchase of common stock	(3.7)	—	—	(44.4)	—	(44.4)
Balance at June 27, 2020	228.3	$ 0.2	$ 70,274.3	$ (69,397.2)	$ (165.9)	$ 711.4

The accompanying Notes to the Consolidated Financial Statements are an integral part of these statements.

Note 1. Basis of Presentation

Description of Business

Viavi Solutions, Inc. (VIAVI, also referred to as the Company), is a global provider of network test, monitoring and assurance solutions to communications service providers, enterprises, network equipment manufacturers, civil government, military and avionics customers, supported by a worldwide channel community including VIAVI Velocity Partners. The Company's Velocity program (Velocity) allows the Company to optimize the use of direct or partner sales depending on application and sales volume. Velocity expands the Company's reach into new market segments as well as expands the Company's capability to sell and deliver solutions. VIAVI delivers end-to-end visibility across physical, virtual and hybrid networks, enabling customers to optimize connectivity, quality of experience and profitability. VIAVI is also a leader in high performance thin film optical coatings, providing light management solutions to anti-counterfeiting, 3D sensing, electronics, automotive, defense and instrumentation markets.

Fiscal Years

The Company utilizes a 52-53-week fiscal year ending on the Saturday closest to June 30th. The Company's 2020, 2019 and 2018 fiscal years were 52-week fiscal years ending on June 27, 2020, June 29, 2019 and June 30, 2018, respectively.

Principles of Consolidation

The Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) and include the Company and its wholly-owned subsidiaries. All inter-company accounts and transactions have been eliminated.

Reclassification of Prior Period Balances

Certain reclassifications have been made to prior period amounts to conform to the current-year presentation. These reclassifications have no effect on the reported net income (loss) for the fiscal years ending on June 27, 2020, June 29, 2019 and June 30, 2018.

Use of Estimates

The preparation of the Company's Consolidated Financial Statements in conformity with U.S. GAAP requires management to make estimates and assumptions that effect the reported amount of assets and liabilities at the date of the financial statements, the reported amount of net revenues and expenses and the disclosure of commitments and contingencies during the reporting periods. Estimates are based on historical factors, current circumstances and the experience and judgment of management. Under changed conditions the Company's reported financial positions or results of operations may be materially impacted when using different estimates and assumptions, particularly with respect to significant accounting policies. If estimates or assumptions differ from actual results, subsequent periods are adjusted to reflect more readily available information. Actual results may differ from these estimates due to the uncertainty around the magnitude, duration and effects of the COVID-19 pandemic, as well as other factors.

COVID-19

A novel strain of coronavirus (COVID-19) was first identified in Wuhan, China by the Chinese government in December 2019, and subsequently declared an international pandemic by the World Health Organization (WHO) in March 2020. The worldwide spread of the COVID-19 virus has resulted in a global slowdown of economic activity which is likely to decrease demand for a broad variety of goods and services, including from our customers, while also continuing to disrupt sales channels and marketing activities for an unknown period of time until the disease is contained. While, the Company expects this to have a negative impact to our sales and our results of operations, the Company is not aware of any specific event or circumstances that would require an update to the estimates or judgments or a revision of the carrying value of assets or liabilities as of the date of issuance of this Annual Report on Form 10-K. These estimates may change, as new events occur and additional information becomes available. Actual results may differ materially from these estimates assumptions or conditions due to risks and uncertainties, including uncertainty in the current economic environment due to the COVID-19.

Cash and Cash Equivalents

The Company considers highly liquid instruments such as treasury bills, commercial paper and other money market instruments with original maturities of 90 days or less at the time of purchase to be cash equivalents. Cash equivalents also include certain term deposits with financial institutions that the Company can liquidate with 30 days' advance notice without incurring penalties.

Restricted Cash

At June 27, 2020 and June 29, 2019, the Company's short-term restricted cash balances were $3.5 million and $3.5 million, respectively. The Company's long-term restricted cash balances, included in other non-current assets in the Company's consolidated balance sheets, were $4.9 million and $5.4 million as of June 27, 2020 and June 29, 2019, respectively. These balances primarily include interest-bearing investments in bank certificates of deposit and money market funds which act as collateral supporting the issuance of letters of credit and performance bonds for the benefit of third parties. Refer to "Note 18. Commitments and Contingencies" for more information.

Investments

The Company's investments are primarily investments in debt securities, which are classified as available-for-sale investments or trading securities, recorded at fair value. The cost of securities sold is based on the specific identified method. Unrealized gains and losses resulting from changes in fair value on available-for-sale investments, net of tax, are reported within accumulated other comprehensive (loss).

The Company periodically reviews these debt investments for impairment. If a debt security's fair value is below amortized cost and the Company either intends to sell the security or it is more likely than not that the Company will be required to sell the security before its anticipated recovery, the Company records an other-than-temporary impairment charge to current earnings for the entire amount of the impairment. If a debt security's fair value is below amortized cost and the Company does not expect to recover the entire amortized cost of the security, the Company separates the other-than-temporary impairment into (i) the portion of the loss related to credit factors, or the credit loss portion, and (ii) the portion of the loss that is not related to credit factors, or the non-credit loss portion. The credit loss portion is the difference between the amortized cost of the security and the Company's best estimate of the present value of the cash flows expected to be collected from the debt security. The non-credit loss portion is the residual amount of the other-than-temporary impairment. The credit loss portion is recorded as a charge to income (loss), and the non-credit loss portion is recorded as a separate component of other comprehensive (loss) income.

The Company's short-term investments are classified as current assets, include certain securities with stated maturities of longer than twelve months, are highly liquid and available to support its current operations.

Fair Value of Financial Instruments

For assets and liabilities measured at fair value, fair value is the price to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. When determining fair value, the Company considers the principle or most advantageous market in which it would transact, and the Company considers assumptions that market participants would use when pricing asset or liabilities.

The three levels of inputs that may be used to measure fair value are:

- Level 1: Quoted market prices for identical instruments in active markets for identical assets or liabilities.
- Level 2: Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in less active markets or model-derived valuations. All significant inputs used in the Company's valuations, such as discounted cash flows, are observable or derived from or corroborated with observable market data for substantially the full term of the assets or liabilities.
- Level 3: Unobservable inputs to the valuation methodology that are significant to the measurement of the fair value of assets or liabilities. Level 3 inputs and valuation models are monitored and reviewed by the Company to help ensure the fair value measurements are reasonable and consistent with market experience in similar asset classes.

Estimates of fair value of fixed-income securities are based on third party, market-based pricing sources which the Company believes to be reliable. These estimates represent the third parties' good faith opinion as to what a buyer in the marketplace would

pay for a security in a current sale. For instruments that are not actively traded, estimates may be based on current treasury yields adjusted by an estimated market credit spread for the specific instrument. The fair value of the Company's 1.75% Senior Convertible Notes due 2023 and 1.00% Senior Convertible Notes due 2024 fluctuates with interest rates and with the market price of the Company's stock, but does not affect the carrying value of the debt on the balance sheet. The fair value of earn-out liabilities are determined using a Monte Carlo Simulation that includes significant unobservable inputs such as the risk-adjusted discount rate, gross profit volatility, and projected financial forecast of acquired business over the earn-out period.

Our other current financial assets and current financial liabilities have fair values that approximate their carrying values.

Inventories

The Company's inventory is valued at standard cost, which approximates actual cost computed on a first-in, first-out basis, not in excess of net realizable value. On a quarterly basis, the Company assesses the value of its inventory and writes down those inventories determined to be obsolete or in excess of its forecasted usage to their market value. The Company's estimates of realizable value are based upon management analysis and assumptions including, but not limited to, forecasted sales levels by product, expected product life cycle, product development plans and future demand requirements. The Company's product line management personnel play a key role in its excess review process by providing updated sales forecasts, managing product transitions and working with manufacturing to minimize excess inventory. Differences between actual market conditions and customer demand to the Company's forecasts, may create favorable or unfavorable inventory positions, and may result in additional inventory write-downs or higher than expected income from operations. The Company's inventory amounts include material, labor, and manufacturing overhead costs.

Leases

The Company determines if an arrangement is a lease or contains a lease at inception. Operating lease liabilities are recognized based on the present value of the remaining lease payments, discounted using the discount rate for the lease at the commencement date. If the rate implicit in the lease is not readily determinable for our operating leases, the Company uses an incremental borrowing rate based on information available at the commencement date to determine the present value of future lease payments. The lease term is the non-cancelable period of the lease and includes options to extend or terminate the lease when it is reasonably certain that an option will be exercised. Operating right-of-use (ROU) assets are recognized at commencement based on the amount of the initial measurement of the lease liability. Operating ROU assets also include any lease payments made prior to lease commencement and exclude lease incentives. Lease expense is recognized on a straight-line basis over the lease term.

Operating ROU assets are included in other non-current assets and lease liabilities are included in other current liabilities and other non-current liabilities in the Company's consolidated balance sheets. Lease and non-lease components for all leases are accounted for separately. The Company does not recognize ROU assets and lease liabilities for leases with a lease term of twelve months or less.

Property, Plant and Equipment

Property, plant and equipment are stated at cost, net of accumulated depreciation. Depreciation is computed using a straight-line method, over the estimated useful lives of the assets: building and improvements 10 to 50 years; machinery and equipment 2 to 20 years; and furniture, fixtures, software and office equipment 2 to 10 years.

Leasehold improvements are amortized on the straight-line method over the lesser of the estimated useful lives of the asset or the initial lease term.

Demonstration units are amortized on the straight-line method and are Company products used for demonstration purposes for existing and prospective customers. These assets are generally not intended to be sold and have an estimated useful life of 3 to 5 years.

Costs related to software acquired, developed or modified solely to meet the Company's internal requirements and for which there are no substantive plans to market are capitalized in accordance with the authoritative guidance on accounting for the costs of computer software developed or obtained for internal use. Only costs incurred after the preliminary planning stage of the project and after management has authorized and committed funds to the project are eligible for capitalization. Costs capitalized for computer software developed or obtained for internal use are included in Property, plant and equipment, net, on the Company's Consolidated Balance Sheets.

Goodwill

Goodwill represents the excess of the purchase price paid, over the net fair value of assets acquired and liabilities assumed, to purchase an enterprise or asset. The Company tests goodwill for impairment at the reporting unit level at least annually, during the fourth quarter of each fiscal year, or more frequently if events or changes in circumstances indicate that the asset may be impaired.

The accounting guidance provides the Company with the option to perform a qualitative assessment to determine whether further impairment testing is necessary. The qualitative assessment considers events and circumstances that might indicate that a reporting unit's fair value is less than its carry amount. These events and circumstances include, macro-economic conditions, such as a significant adverse change in the Company's operating environment, industry or market considerations; entity-specific events such as increasing costs, declining financial performance, or loss of key personnel; or other events, such as the sale of a reporting unit, adverse regulatory developments or a sustained decrease in the Company's stock price.

If it is determined, as a result of the qualitative assessment, that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, a quantitative test is required. Otherwise, no further testing is required.

Under the quantitative test, if the carrying amount of the reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment loss is recorded in the Consolidated Statements of Operations as impairment of goodwill. Measurement of the fair value of a reporting unit is based on one or more of the following fair value measures: using present value techniques of estimated future cash flows or using valuation techniques based on multiples of earnings or revenue, or a similar performance measure. Refer to "Note 9. Goodwill" for more information.

Intangible Assets

In connection with the Company's acquisitions, the Company generally recognize assets for customer relationships, acquired developed technologies, patents, proprietary know-how, trade secrets, in-process research and development (IPR&D) and trademarks and trade names. Finite lived intangible assets are amortized using the straight-line method over the estimated economic useful lives of the assets, which is the period during which expected cash flows support the fair value of such intangible assets. Refer to "Note 10. Acquired Developed Technology and Other Intangibles" for more information.

Long-lived Assets

Long-lived assets, including intangible assets and property and equipment, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of any asset or asset group may not be recoverable. Such an evaluation is performed at the lowest identifiable level of cash flows independent of other assets. An impairment loss would be recognized when estimated undiscounted future cash flows generated from the assets are less than their carrying amount. Measurement of an impairment loss would be based on the excess of the carrying amount of the asset or asset group over its estimated fair value. Estimates of future cash flow require significant judgment based on anticipated future and operating results, which are subject to variability and change.

Pension and Other Postretirement Benefits

The funded status of the Company's retirement-related benefit plans is recognized on the Consolidated Balance Sheets. The funded status is measured as the difference between the fair value of plan assets and the benefit obligation at fiscal year end, the measurement date. For defined benefit pension plans, the benefit obligation is the projected benefit obligation (PBO) and for the non-pension postretirement benefit plan the benefit obligation is the accumulated postretirement benefit obligation (APBO). The PBO represents the actuarial present value of benefits expected to be paid upon its employee's retirement. The APBO represents the actuarial present value of postretirement benefits attributed to employee services already rendered. Unfunded or partially funded plans, with the benefit obligation exceeding the fair value of plan assets, are aggregated and recorded as a retirement and non-pension postretirement benefit obligation equal to this excess. The current portion of the retirement-related benefit obligation represents the actuarial present value of benefits payable in the next 12 months in excess of the fair value of plan assets, measured on a plan-by-plan basis. This liability is recorded in other current liabilities in the Consolidated Balance Sheets.

Net periodic pension cost is recorded in the Consolidated Statements of Operations and includes service cost, interest cost, expected return on plan assets, amortization of prior service cost (credit), and (gains) losses previously recognized as a component of accumulated other comprehensive (loss) income. Service cost represents the actuarial present value of participant benefits attributed to services rendered by employees in the current year. Interest cost represents the time value of money cost associated

with the passage of time. (Gains) losses arise as a result of differences between actual experience and assumptions or as a result of changes in actuarial assumptions. Prior service cost (credit) represents the cost of benefit improvements attributable to prior service granted in plan amendments. (Gains) losses and prior service cost (credit) not recognized as a component of net periodic pension cost in the Consolidated Statements of Operations as they arise are recognized as a component of accumulated other comprehensive (loss) income on the Consolidated Balance Sheets, net of tax. Those (gains) losses and prior service cost (credit) are subsequently recognized as a component of net periodic pension cost pursuant to the recognition and amortization provisions of the authoritative guidance.

The measurement of the benefit obligation and net periodic pension cost is based on the Company's estimates and actuarial valuations provided by third-party actuaries and are approved by management. These valuations reflect the terms of the plans and use participant-specific information such as compensation, age and years of service, as well as certain assumptions, including estimates of discount rates, expected return on plan assets, rate of compensation increases and mortality rates. The Company evaluates these assumptions periodically but not less than annually. In estimating the expected return on plan assets, the Company considers historical returns on plan assets, diversification of plan investments, adjusted for forward-looking considerations, inflation assumptions and the impact of the active management of the plan's invested assets.

The Company measures its benefit obligation and plan assets using the month-end date of June 30, which is closest to the Company's fiscal year-end.

Concentration of Credit and Other Risks

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents, short-term investments, restricted cash, trade receivables and foreign currency forward contracts. The Company's cash and cash equivalents and short-term investments are held in safekeeping by large, creditworthy financial institutions. The Company invests its excess cash primarily in U.S. government and agency bonds securities, corporate securities, money market funds, asset-backed securities, other investment-grade securities and certificates of deposit.

The Company has established guidelines relative to credit ratings, diversification and maturities that seek to maintain the safety and liquidity of these investments. The Company's foreign exchange derivative instruments expose the Company to credit risk to the extent that the counterparties may be unable to meet the terms of the agreements. The Company seeks to mitigate such risk by limiting its counterparties to major financial institutions and by spreading such risk across several major financial institutions. Potential risk of loss with any one counterparty resulting from such risk is monitored by the Company on an ongoing basis.

The Company maintains an allowance for doubtful accounts for estimated losses resulting from the inability of its customers to make required payments. When the Company becomes aware that a specific customer is unable to meet its financial obligations, the Company records a specific allowance to reflect the level of credit risk in the customer's outstanding receivable balance. In addition, the Company records additional allowances based on certain percentages of aged receivable balances. These percentages consider a variety of factors including, but not limited to, current economic trends, historical payment and bad debt write-off experience. The Company classifies bad debt expenses as selling, general and administrative (SG&A) expense.

The Company is not able to predict changes in the financial stability of its customers. Any material changes in the financial status of any one customer or a group of customers could have a material adverse effect on the Company's results of operations and financial condition. Although such losses have been within management's expectations to date, there can be no assurance that such allowances will continue to be adequate. The Company has significant trade receivables concentrated in the telecommunications industry. While the Company's allowance for doubtful accounts balance is based on historical loss experience along with anticipated economic trends, unanticipated financial instability in the telecommunications industry could lead to higher than anticipated losses.

As of June 27, 2020 and June 29, 2019, no customer represented 10% or more of the Company's total accounts receivable, net.

During fiscal 2020, 2019 and 2018, one customer generated 10% or more of total net revenues. Refer to "Note 19. Operating Segments and Geographic Information" for more information.

The Company relies on a limited number of suppliers and contract manufacturers for a number of key components and sub-assemblies contained in the Company's products.

The Company generally uses a rolling twelve-month forecast based on anticipated product orders, customer forecasts, product order history and backlog to determine its materials requirements for any one period. Lead times for the parts and components that the Company orders may vary significantly and depend on factors such as the specific supplier, contract terms and demand for a component at any given time. If the forecast does not meet actual demand, the Company may have surplus or dearth of some materials and components, as well as excess inventory purchase commitments. The Company could experience reduced or delayed product shipments or incur additional inventory write-downs and cancellation charges or penalties, which may result in increased costs and have a material adverse impact on the Company's results of operations.

Foreign Currency Forward Contracts

The Company conducts its business and sells its products to customers primarily in North America, Europe, Asia and South America. In the normal course of business, the Company's financial position is routinely subject to market risks associated with foreign currency rate fluctuations due to balance sheet positions in foreign currencies. The Company evaluates foreign exchange risks and utilizes foreign currency forward contracts to reduce such risks, hedging the gains or losses generated by the re-measurement of significant foreign currency denominated monetary assets and liabilities. The fair value of these contracts is reflected as other current assets or liabilities and the change in fair value of these foreign currency forward contracts is recorded as gain or loss in the Company's Consolidated Statements of Operations as a component of interest and other income, net. The gain or loss from the change in fair value of these foreign currency forward contracts largely offsets the change in fair value of the foreign currency denominated monetary assets or liabilities, which is also recorded as a component of Interest and other income, net.

Foreign Currency Translation

Assets and liabilities of non-U.S. subsidiaries that operate in a local currency environment, where that local currency is the functional currency, are translated into U.S. dollars at exchange rates in effect at the balance sheet date, with the resulting translation adjustments directly recorded as a component of Accumulated other comprehensive loss on the Consolidated Balance Sheets. Income and expense accounts are translated at exchange rates from the prior month end, which are deemed to approximate the exchange rate when the income and expense is recognized. Gains and losses from re-measurement of monetary assets and liabilities that are denominated in currencies other than the respective functional currencies are included in the Consolidated Statements of Operations as a component of Interest and other income, net.

Revenue Recognition

The Company derives revenue from a diverse portfolio of network solutions and optical technology products and services, as follows:

- *Products:* Network Enablement (NE) and Service Enablement (SE) products include instruments, microprobes and perpetual software licenses that support the development, production, maintenance and optimization of network systems. NE and SE are collectively referred to as Network and Service Enablement (NSE). The Company's Optical Security and Performance (OSP) products include proprietary pigments used for optical security and optical filters used in commercial and government 3D Sensing applications.
- *Services:* The Company also offers a range of product support and professional services designed to comprehensively address customer requirements. These include repair, calibration, extended warranty, software support, technical assistance, training and consulting services. Implementation services provided in conjunction with hardware or software solution projects include sale of the products along with project management, set-up and installation.

Steps of revenue recognition

The Company accounts for revenue in accordance with the revenue standard, in which the following five steps are applied to recognize revenue:

1. *Identify the contract with a customer:* Generally, the Company considers customer purchase orders which, in some cases are governed by master sales or other purchase agreements, to be the customer contract. All of the following criteria must be met before the Company considers an agreement to qualify as a contract with a customer under the revenue standard: (i) it must be approved by all parties; (ii) each party’s rights regarding the goods and services to be transferred can be identified; (iii) the payment terms for the goods and services can be identified; (iv) the customer has the ability and intent to pay and collection of substantially all of the consideration is probable; and, (v) the agreement has commercial substance. The Company utilizes judgment to determine the customer’s ability and intent to pay, which is based upon various factors including the customer’s historical payment experience or credit and financial information and credit risk management measures implemented by the Company.

2. *Identify the performance obligations in the contract:* The Company assesses whether each promised good or service is distinct for the purpose of identifying the various performance obligations in each contract. Promised goods and services are considered distinct provided that: (i) the customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer and (ii) the Company's promise to transfer the good or service to the customer is separately identifiable or distinct from other promises in the contract. The Company's performance obligations consist of a variety of products and services offerings which include networking equipment; proprietary pigment, optical filters, proprietary software licenses; support and maintenance which includes hardware support that extends beyond the Company's standard warranties, software maintenance, installation, professional and implementation services, and training.

   Identifying and evaluating whether products and services are considered distinct performance obligations may require significant judgment particularly in NSE due to the nature of the product and service offerings. The Company may enter into contracts that involve a significant level of integration and interdependency between a software license and installation services. Judgment may be required to determine whether the software license is considered distinct in the context of the contract and accounted for separately, or not distinct in the context of the contract and accounted for together with the installation service.

3. *Determine the transaction price:* Transaction price reflects the amount of consideration to which the Company expects to be entitled in exchange for transferring goods or services to the customer. The Company’s contracts may include terms that could cause variability in the transaction price including rebates, sales returns, market incentives and volume discounts. Variable consideration is generally accounted for at the portfolio level and estimated based on historical information. If a contract includes a variable amount, the price adjustments are estimated at contract inception. In both cases, estimates are updated at the end of each reporting period as additional information becomes available.

4. *Allocate the transaction price to performance obligations in the contract:* If the contract contains a single performance obligation, the entire transaction price is allocated to that performance obligation. Many of the Company’s contracts include multiple performance obligations with a combination of distinct products and services, maintenance and support, professional services and/or training. Contracts may also include rights or options to acquire future products and/or services, which are accounted for as separate performance obligations by the Company, only if the right or option provides the customer with a material right that it would not receive without entering into the contract. For contracts with multiple performance obligations, the Company allocates the total transaction value to each distinct performance obligation based on relative standalone selling price (SSP). Judgment is required to determine the SSP for each distinct performance obligation. The best evidence of SSP is the observable price of a good or service when the Company sells that good or service separately under similar circumstances to similar customers. If a directly observable price is not available, the SSP must be estimated based on multiple factors including, but not limited to, historical pricing practices, internal costs, and profit objectives as well as overall market conditions.

5. *Recognize revenue when (or as) performance obligations are satisfied:* Revenue is recognized at the point in time control is transferred to the customer. For hardware sales, transfer of control to the customer typically occurs at the point the product is shipped or delivered to the customer's designated location. For software license sales transfer of control to the customer typically occurs upon shipment, electronic delivery, or when the software is available for download by the customer. For sales of implementation service and solution contracts or in instances where software is sold along with essential installation services, transfer of control occurs and revenue is typically recognized upon customer acceptance. In certain instances, acceptance is deemed to have occurred if all acceptance provisions lapse, or if the Company has evidence that all acceptance provisions will be, or have been, satisfied. For fixed-price support and extended warranty contracts, or certain software arrangements which provide customers with a right to access over a discrete period, control is deemed to transfer over time and revenue is recognized on a straight-line basis over the contract term due to the stand-ready nature of the performance obligation. Revenue from hardware repairs and calibration services outside of an extended warranty or support contract is recognized at the time of completion of the related service. For other professional services or time-based labor contracts, revenue is recognized as the Company performs the services and the customers receive and/or consume the benefits.

Revenue policy and practical expedients

The following policy and practical expedient elections have been made by the Company under the revenue standard:

- Revenue-based taxes as assessed by governmental authorities have been excluded from the measurement of transaction price(s).
- Shipping and handling activities performed after the customer obtains control of the good are treated as activities to fulfill the promise (cost of fulfillment). Therefore, the Company does not evaluate whether the shipping and handling activities are promised services.
- Incremental costs of obtaining contracts that would have been recognized within one year or less are recognized as an expense when incurred. These costs are included in SG&A expense. The costs of obtaining contracts where the amortization period for recognition of the expense is beyond a year are capitalized and recognized over the revenue recognition period of the original contract.
- The portfolio approach is used for certain types of variable consideration for contracts with similar characteristics. The methodology is used when the effects on the financial statements of applying this guidance to the portfolio would not differ materially from applying this guidance to the individual contracts within that portfolio.
- If at contract inception, the expected period between the transfer of promised goods or services and payment is within one year or less, the Company forgoes adjustment for the impact of significant financing component for the contract.

Disaggregation of Revenue

The Company's revenue is presented on a disaggregated basis on the Consolidated Statements of Operations and in "Note 19. Operating Segments and Geographic Information". This information includes revenue from reportable segments and a break-out of products and services for which the nature and timing of the revenue as characterized above is generally at a point in time and over time, respectively.

Warranty

The Company provides reserves for the estimated costs of product warranties at the time revenue is recognized. It estimates the costs of its warranty obligations based on its historical experience of known product failure rates, use of materials to repair or replace defective products, and service delivery costs incurred in correcting product failures. In addition, from time to time, specific warranty accruals may be made if unforeseen technical problems arise.

Shipping and Handling Costs

The Company records costs related to shipping and handling of revenue in cost of sales for all periods presented.

Advertising Expense

The Company expenses advertising costs as incurred. Advertising costs totaled $3.7 million, $2.6 million and $2.6 million in fiscal 2020, 2019 and 2018, respectively.

Research and Development Expense

Costs related to research and development (R&D), which primarily consists of labor and benefits, supplies, facilities, consulting and outside service fees, are charged to expense as incurred. The authoritative guidance allows for capitalization of software development costs incurred after a product's technological feasibility has been established until the product is available for general release to the public. The Company believe its software development process is completed concurrent with the establishment of technological feasibility. As such, software development costs have been expensed as incurred.

Stock-Based Compensation

Stock-based compensation expense is measured at the grant date based on the fair value of the award. The Company recognizes stock-based compensation cost over the award's requisite service period on a straight-line basis. No compensation cost is recognized for awards forfeited by employees who do not render requisite service.

The fair value of restricted stock units (RSUs) and performance-based restricted stock units (PSUs) that do not contain a market condition, is equal to the market value of the Company's common stock on the grant date. The fair value of PSUs that contain a market condition (MSU) is estimated using the Monte Carlo simulation option-pricing model. MSUs have vesting requirements tied to either the performance of the Company's stock as compared to the Nasdaq telecommunications index or the performance of the Company's operating results, and could vest at a higher or lower rate, or not at all, based on relative performance described. The Company estimates the fair value of stock options and Employee Stock Purchase Plan (ESPP) purchase rights using the Black-Scholes Merton (BSM) option-pricing model. This option-pricing model requires the input of assumptions, including the award's expected life and the price volatility of the underlying stock.

The Company does not apply expected forfeiture rate and accounts for forfeitures as they occur. The total fair value of the equity awards is recorded on a straight-line basis, over the requisite service period of the awards for each separate vesting period of the award, except for MSUs which are amortized based upon the graded vesting method.

Income Taxes

In accordance with the authoritative guidance on accounting for income taxes, the Company recognizes income taxes using an asset and liability approach. This approach requires the recognition of taxes payable or refundable for the current year and deferred tax liabilities and assets for future tax consequences of events that have been recognized in the Company's consolidated financial statements or tax returns. The measurement of current and deferred taxes is based on provisions of the enacted tax law and the effects of future changes in tax laws or rates are not anticipated.

The authoritative guidance provides for recognition of deferred tax assets if the realization of such deferred tax assets is more likely than not to occur based on an evaluation of both positive and negative evidence and the relative weight of the evidence. With the exception of certain international jurisdictions, the Company has determined that at this time it is more likely than not that deferred tax assets attributable to the remaining jurisdictions will not be realized, primarily due to uncertainties related to its ability to utilize its net operating loss carryforwards before they expire. Accordingly, the Company has established a valuation allowance for such deferred tax assets. If there is a change in the Company's ability to realize its deferred tax assets for which a valuation allowance has been established, then its tax provision may decrease in the period in which it determines that realization is more likely than not. Likewise, if the Company determines that it is not more likely than not that its deferred tax assets will be realized, then a valuation allowance may be established for such deferred tax assets and the Company's tax provision may increase in the period in which the Company make the determination.

The authoritative guidance on accounting for uncertainty in income taxes prescribes the recognition threshold and measurement attributes for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Additionally, it provides guidance on recognition, classification, and disclosure of tax positions. The Company is subject to income tax audits by the respective tax authorities in the jurisdictions in which it operates. The determination of tax liabilities in each of these jurisdictions requires the interpretation and application of complex and sometimes uncertain tax laws and regulations. The Company recognizes liabilities based on its estimate of whether, and the extent to which, additional tax liabilities are more likely than not. If the Company ultimately determines that the payment of such a liability is not necessary, then it reverses the liability and recognizes a tax benefit during the period it is determined no longer necessary.

The recognition and measurement of current taxes payable or refundable and deferred tax assets and liabilities requires that the Company make certain estimates and judgments. Changes to these estimates or a change in judgment may have a material impact on the Company's tax provision in a future period.

Restructuring Accrual

In accordance with authoritative guidance on accounting for costs associated with exit or disposal activities, generally costs associated with restructuring activities are recognized when they are incurred. A liability for post-employment benefits for workforce reductions related to restructuring activities is recorded when payment is probable, and the amount is reasonably estimable. The Company continually evaluates the adequacy of the remaining liabilities under its restructuring initiatives. Although the Company believes that these estimates accurately reflect the costs of its restructuring plans, actual results may differ, thereby requiring the Company to record additional liabilities or reverse a portion of existing liabilities.

Contingencies

The Company is subject to various potential loss contingencies arising in the ordinary course of business. In determining a loss contingency, the Company considers the likelihood of loss or impairment of an asset or the incurrence of a liability, as well as its ability to reasonably estimate the amount of loss. An estimated loss is accrued when it is probable that an asset has been impaired, a liability has been incurred and the amount of loss can be reasonably estimated. The Company regularly evaluates current information available to determine whether such accruals should be adjusted and whether new accruals are required.

Contingent liabilities include contingent consideration in connection with the Company's acquisitions, which represent earn-out payments and is recognized at fair value on the acquisition date and is remeasured each reporting period with subsequent adjustments recognized in the SG&A expense of the Company's Consolidated Statements of Operations. Contingent consideration is valued using significant Level 3 inputs, that are not observable in the market pursuant to fair value measurement accounting. While the Company believes the estimates and assumptions are reasonable, there is significant judgment and uncertainty involved.

Asset Retirement Obligations

Asset Retirement Obligations (ARO) are legal obligations associated with the retirement of long-lived assets pertaining to leasehold improvements. These liabilities are initially recorded at fair value and the related asset retirement costs are capitalized by increasing the asset carrying value and ARO by the same amount. Asset retirement costs are subsequently depreciated over the useful lives of the related assets. Subsequent to initial recognition, the Company records period-to-period changes in the ARO liability resulting from the passage of time and revisions to either the timing or the amount of the original estimate of undiscounted cash flows. The Company derecognizes ARO liabilities when the related obligations are settled. As of June 27, 2020, and June 29, 2019, the Consolidated Balance Sheets included ARO of $0.9 million and $0.4 million, respectively, in other current liabilities and $3.1 million and $3.2 million, respectively, in other non-current liabilities.

	Balance at Beginning of Period	Liabilities Incurred	Liabilities Settled	Accretion Expense	Revisions to Estimates	Balance at End of Period
Year ended June 27, 2020	$ 3.6	$ 0.3	$ —	$ 0.1	$ —	$ 4.0
Year ended June 29, 2019	$ 3.7	$ 0.4	$ (0.1)	$ 0.1	$ (0.5)	$ 3.6

Note 2. Recently Issued Accounting Pronouncements

Recent Accounting Pronouncements Adopted

In 2016, the Financial Accounting Standards Board (FASB) issued guidance on the financial reporting requirements for leasing arrangements, ASC 842 - *Leases*. ASC 842 requires lessees to recognize operating leases with a term greater than one year on their balance sheets as ROU assets and corresponding lease liabilities, measured at the present value of the lease payments. In the first quarter of fiscal 2020 the Company adopted this standard using the modified retrospective approach. The Company elected to apply the optional transition approach of not adjusting comparative period financial statements for the adoption impact. The Company also elected the package of practical expedients to not reassess whether a contract contains a lease, lease classification and accounting for initial direct costs. Adoption of the leasing standard resulted in $35.5 million of ROU assets and $37.0 million of lease liabilities on June 30, 2019. In addition, the Company recorded an adjustment to accumulated deficit, net of taxes, of $3.0 million from the recognition of previously deferred profit under sale-leaseback arrangements and de-recognition of related real estate assets of $7.1 million and financing obligations of $10.1 million. The adoption of the new standard did not have a material impact on the Company's Consolidated Statements of Operations and Statements of Cash Flows. For additional information refer to "Note 12. Leases."

Recent Accounting Pronouncements Not Yet Adopted

In June 2016, the FASB issued guidance that changes the accounting for recognizing impairments of financial assets. Under the new guidance, credit losses for certain types of financial instruments will be estimated based on expected losses. The new guidance also modifies the impairment models for available-for-sale debt securities and for purchased financial assets with credit deterioration since their origination. The guidance is effective for the Company in the first quarter of fiscal 2021 and earlier adoption is permitted. The Company does not expect the adoption of this standard will have a material impact on its Consolidated Financial Statements.

In August 2020, the FASB issued guidance which simplifies the accounting for financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts on an entity's own equity. The guidance allows for either full retrospective adoption or modified retrospective adoption. The guidance is effective for the Company in the first quarter of fiscal year 2023 and early adoption is permitted. The Company is evaluating the impact of adoption of this guidance will have on its Consolidated Financial Statements.

In December 2019, the FASB issued guidance which simplifies the accounting for income taxes, eliminates certain exceptions within ASC 740, *Income Taxes*, and clarifies certain aspects of the current guidance to promote consistency among reporting entities. The guidance is effective for the Company in the first quarter of fiscal year 2022 and early adoption is permitted. The Company is evaluating the effects that the adoption of this guidance will have on its Consolidated Financial Statements.

In August 2018, the FASB issued guidance to amend the disclosure requirements related to defined benefit pension and other post-retirement plans. Some of the changes include adding a disclosure requirement for significant gains and losses related to changes in the benefit obligation for the period, and removing the amounts in accumulated other comprehensive income expected to be recognized as components of net periodic benefit cost over the next fiscal year. This guidance is effective for the Company in the first quarter of fiscal 2022 and early adoption is permitted. The Company is evaluating the impact of adopting this new accounting guidance on its Consolidated Financial Statements.

Note 3. Earnings Per Share

Basic net income (loss) per share is computed by dividing net income (loss) for the period by the weighted average number of common shares outstanding during the period. Diluted net income (loss) per share is computed by dividing net income (loss) for the period by the weighted average number of shares of common stock and potentially dilutive common stock outstanding during the period. The dilutive effect of outstanding ESPP purchase rights, RSUs, PSUs, MSUs and options is reflected in diluted net income (loss) per share by application of the treasury stock method. The calculation of diluted net income (loss) per share excludes all anti-dilutive common shares.

VIAVI SOLUTIONS INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following table sets forth the computation of basic and diluted net income (loss) per share (*in millions, except per share data*):

	Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018
Numerator:			
Income (loss) from continuing operations, net of taxes	$ 28.7	$ 7.8	$ (48.6)
Loss from discontinued operations, net of taxes	—	(2.4)	—
Net income (loss)	$ 28.7	$ 5.4	$ (48.6)
Denominator:			
Weighted-average shares outstanding:			
Basic	229.4	228.1	227.1
Shares issuable assuming conversion of convertible notes [(1)]	1.2	—	—
Effect of dilutive securities from stock-based benefit plans	3.1	3.1	—
Diluted	233.7	231.2	227.1
Net income (loss) per share from - basic:			
Continuing operations	$ 0.13	$ 0.03	$ (0.21)
Discontinued operations	—	(0.01)	—
Net income (loss)	$ 0.13	$ 0.02	$ (0.21)
Net income (loss) per share from - diluted:			
Continuing operations	$ 0.12	$ 0.03	$ (0.21)
Discontinued operations	—	(0.01)	—
Net income (loss)	$ 0.12	$ 0.02	$ (0.21)

(1) Represents the number of shares that would be issued if the Company's Senior Convertible Notes had been converted. The par amount of the Company's convertible notes is payable in cash equal to the principal amount of the notes plus any accrued and unpaid interest and the "in-the money" conversion benefit feature above the conversion price is payable in cash, shares of the Company's common stock or a combination of both, at the Company's election.

The following table sets forth the weighted-average potentially dilutive securities excluded from the computation of the diluted net income (loss) per share because their effect would have been anti-dilutive (*in millions*):

	Years Ended		
	June 27, 2020 (4)	June 29, 2019 (2)(3)(4)	June 30, 2018 (1)(2)(3)(4)
Stock options and ESPP	—	0.1	1.6
Full Value Awards	0.2	0.4	7.3
Total potentially dilutive securities	0.2	0.5	8.9

(1) As the Company incurred a net loss from continuing operations in the period, potential dilutive securities from employee stock options, ESPP, RSUs , PSUs and MSUs have been excluded from the diluted net loss per share computations as their effects were deemed anti-dilutive.

(2) The Company's 0.625% Senior Convertible Notes due 2033 are not included in the table above. The par amount of convertible notes is payable in cash equal to the principal amount of the notes plus any accrued and unpaid interest and then the "in-the-money" conversion benefit feature at the conversion price above $11.28 per share is payable in cash, shares of the Company's common stock or a combination of both at the Company's election. In October 2018, the 2033 Notes were fully redeemed and any potential dilution effect of the Notes was realized upon the Company settling the "in-the-money" conversion benefit feature of the Notes with shares of common stock. Refer to "Note 11. Debt" for more details.

(3) The Company's 1.00% Senior Convertible Notes due 2024 are not included in the table above. The par amount of convertible notes is payable in cash equal to the principal amount of the notes plus any accrued and unpaid interest and then the "in-the-money" conversion benefit feature at the conversion

price above $13.22 per share is payable in cash, shares of the Company's common stock or a combination of both at the Company's election. Refer to "Note 11. Debt" for more details.

(4) The Company's 1.75% Senior Convertible Notes due 2023 are not included in the table above. The par amount of convertible notes is payable in cash equal to the principal amount of the notes plus any accrued and unpaid interest and then the "in-the-money" conversion benefit feature at the conversion price above $13.94 per share is payable in cash, shares of the Company's common stock or a combination of both at the Company's election. Refer to "Note 11. Debt" for more details.

Note 4. Accumulated Other Comprehensive Loss

The Company's accumulated other comprehensive (loss) income consists of the accumulated net unrealized gains and losses on available-for-sale investments, foreign currency translation adjustments and change in unrealized components of defined benefit obligations.

Changes in accumulated other comprehensive (loss) income by component, net of tax, were as follows (*in millions*):

	Unrealized gains (losses) on available-for-sale investments (1)	Foreign currency translation adjustments	Change in unrealized components of defined benefit obligations, net of tax (2)	Total
Beginning balance as of June 29, 2019	$ (5.0)	$ (101.0)	$ (28.6)	$ (134.6)
Other comprehensive (loss) income before reclassification	(0.1)	(28.6)	(5.4)	(34.1)
Amounts reclassified from accumulated other comprehensive (loss) income	—	—	2.8	2.8
Net current period other comprehensive (loss) income	(0.1)	(28.6)	(2.6)	(31.3)
Ending balance as of June 27, 2020	$ (5.1)	$ (129.6)	$ (31.2)	$ (165.9)

(1) Activity before reclassifications to the Consolidated Statements of Operations during the fiscal year ended June 27, 2020 primarily relates to unrealized loss from available-for-sale securities. The amount reclassified out of accumulated other comprehensive (loss) income represents the gross realized loss from available-for-sale securities included as "Interest and other income, net" in the Consolidated Statement of Operations for the year ended June 27, 2020. There was no tax impact for fiscal year 2020.

(2) Activity before reclassifications to the Consolidated Statements of Operations during the fiscal year ended June 27, 2020 relates to the unrealized actuarial loss of $5.7 million, net of income tax benefit of $0.3 million. The amount reclassified out of accumulated other comprehensive (loss) income represents the amortization of actuarial losses included as a component of SG&A in the Consolidated Statement of Operations for the year ended June 27, 2020. Refer to "Note 17. Employee Pension and Other Benefit Plans" for more details on the computation of net periodic cost for pension plans.

Note 5. Acquisitions

3Z Telecom, Inc. Acquisition

On May 31, 2019 (3Z Close Date), the Company acquired all of the equity of 3Z Telecom, Inc. (3Z) for approximately $23.2 million in cash and contingent consideration (earn-out) liability of up to $7.0 million in cash based on the achievement of certain net revenue targets over approximately a two year period, subsequent to the 3Z Close Date. The $23.2 million cash consideration is subject to final cash and net working capital adjustments and includes escrow payments of $4.3 million, which are reserved for potential breaches of representations and warranties. The acquisition of 3Z expands the Company's Field Instrument offerings.

The 3Z acquisition meets the definition of a business and has been accounted for in accordance with the authoritative guidance on business combinations; therefore, the tangible and intangible assets acquired and liabilities assumed were recorded at fair value on the acquisition date. Acquisition related costs incurred were not material.

The fair value of consideration transferred for the 3Z acquisition consists of the following *(in millions)*:

Cash consideration paid at closing	$ 18.9
Escrow payments	4.3
Fair value of contingent consideration	5.5
Total purchase consideration	$ 28.7

The fair value of the earn-out payments at the 3Z Close Date was determined by applying a risk-neutral framework using a Monte Carlo Simulation, which includes inputs not observable in the market, and therefore represents a Level 3 measurement. The fair value of the Company's earn-out liabilities is further discussed in "Note 8. Fair Value Measurements."

The identified tangible and intangible assets acquired, as of the 3Z Close Date, were as follows *(in millions)*:

Tangible assets acquired:	$	4.1
Intangible assets acquired:		
Developed technology		4.4
Customer relationships		7.9
Customer backlog		0.1
Goodwill		12.2
Total consideration transferred	$	28.7

The allocation of the purchase price to tangible assets, based on the estimated fair values of assets acquired and liabilities assumed on the 3Z Close Date, was as follows *(in millions)*:

Cash	$	2.2
Total other assets		3.6
Total liabilities		(1.7)
Net tangible assets acquired	$	4.1

Acquired intangible assets are classified as Level 3 assets for which fair value is derived from a valuation based on inputs that are unobservable and significant to the overall fair value measurement. The fair values of acquired customer relationships and developed technology were determined based on the excess earnings method and relief from royalty method, respectively, variations of the income approach. The intangible assets are being amortized over their estimated useful lives, which range from five to six years. Customer backlog will be fully amortized within one year.

Goodwill arising from this acquisition is primarily attributed to sales of future products and services of 3Z. Goodwill has been assigned to the NE segment and is not deductible for tax purposes.

Results of operations of 3Z have been included in the Company's Consolidated Financial Statements subsequent to the date of acquisition. Proforma or historical post-acquisition results of operations have not been presented because the effect of the acquisition was not material to prior period financial statements.

RPC Photonics, Inc. Acquisition

On October 30, 2018 (RPC Close Date), the Company acquired all of the equity interest of RPC Photonics, Inc. (RPC) for approximately $33.4 million in cash and an additional earn-out of up to $53.0 million in cash based on the achievement of certain gross profit targets over approximately a four year period, subsequent to the RPC Close Date. The $33.4 million cash consideration includes escrow payments of $3.5 million, which are reserved for potential breaches of representations and warranties. The acquisition of RPC expands the Company's 3D Sensing offerings. The allocation of the purchase price was completed in the fourth quarter of fiscal 2019.

The RPC acquisition met the definition of a business and the acquisition has been accounted for in accordance with the authoritative guidance on business combinations; therefore, the tangible and intangible assets acquired and liabilities assumed were recorded at fair value on the acquisition date. Acquisition related costs incurred were not material.

The fair value of consideration transferred for the RPC acquisition consists of the following *(in millions)*:

Cash consideration paid at closing	$	29.9
Escrow payments		3.5
Fair value of contingent consideration		36.2
Total purchase consideration	$	69.6

The fair value of the earn-out payments at the RPC Close Date was determined by applying a risk-neutral framework using a Monte Carlo Simulation, which includes inputs that are not observable in the market, and therefore represents a Level 3 measurement. The fair value of this earn-out is discussed further in “Note 8. Fair Value Measurements”.

The identified tangible and intangible assets acquired, as of the RPC Close Date, were as follows *(in millions)*:

Tangible assets acquired:	$	5.7
Intangible assets acquired:		
Developed technology		15.7
Customer relationships		14.0
Customer backlog		0.3
Goodwill		33.9
Total consideration transferred	$	69.6

The allocation of the purchase price to tangible assets, based on the estimated fair values of assets acquired and liabilities assumed on the RPC Close Date, was as follows *(in millions)*:

Cash	$	1.8
Other current assets		1.8
Property and equipment		2.6
Total liabilities		(0.5)
Net tangible assets acquired	$	5.7

Acquired intangible assets are classified as Level 3 assets for which fair value is derived from a valuation based on inputs that are unobservable and significant to the overall fair value measurement. The fair values of acquired customer relationships and developed technology were determined based on the excess earnings method and relief from royalty method, respectively, variations of the income approach. The intangible assets are being amortized over their estimated useful lives that range from six to seven years. Customer backlog will be fully amortized within one year.

Goodwill arising from this acquisition is primarily attributed to sales of future products and services of RPC. Goodwill has been assigned to the OSP segment and is not deductible for tax purposes.

Results of operations of RPC have been included in the Company’s Consolidated Financial Statements subsequent to the date of acquisition. Proforma or historical post-acquisition results of operations have not been presented because the effect of the acquisition was not material to prior period financial statements.

AvComm and Wireless Test and Measurement Acquisition

On March 15, 2018 (AW Close Date), the Company completed the acquisition of the AW Business of Cobham plc. (AW) for $466.8 million in cash. The acquired business has been integrated into the Company’s NE segment.

The Company accounted for the transaction in accordance with the authoritative guidance on business combinations; therefore, the tangible and intangible assets acquired and liabilities assumed are recorded at fair value on the acquisition date. The allocation of the purchase price was completed in March 2019.

The identified intangible assets acquired, were as follows *(in millions)*:

Tangible assets acquired:	$	59.0
Intangible assets acquired:		
Developed technology		113.5
Customer relationships		75.0
Trade names		28.0
In-process research and development		9.0
Customer backlog		6.5
Goodwill		175.8
Total consideration transferred	$	466.8

The allocation of the purchase price was as follows *(in millions)*:

Cash	$	16.1
Accounts receivable		43.0
Inventory		33.5
Property and equipment		33.5
Other assets		6.1
Accounts payable		(10.9)
Other liabilities		(28.4)
Deferred revenue		(10.2)
Deferred tax liabilities		(23.7)
Net tangible assets acquired	$	59.0

Acquired intangible assets are classified as Level 3 assets for which fair value is derived from valuation based on inputs that are unobservable and significant to the overall fair value measurement. The fair value of acquired developed technology, customer relationships, trade names, acquired IPR&D and order backlog was determined based on the income approach, discounted cash flow method. The intangible assets, except IPR&D, are being amortized over their estimated useful lives that range from three to six years. Order backlog was fully amortized within one year of the AW Close Date.

In accordance with authoritative guidance, the Company recognized an IPR&D asset at fair value as of March 15, 2018. The IPR&D is accounted for as an indefinite-lived intangible asset until project completion or abandonment of the research and development projects. During the three months ended March 30, 2019, the IPR&D activities were completed and transferred to developed technology, with an estimated useful life of 6 years.

Goodwill arising from this acquisition is primarily attributed to sales of future products and services and the assembled workforce of AW. Goodwill has been assigned to the NE segment and is partially deductible for tax purposes.

Trilithic, Inc. Acquisition

On August 9, 2017 (Trilithic Close Date), the Company completed the acquisition of Trilithic Inc. (Trilithic) for $56.4 million in cash. The acquisition has been integrated into the Company's NE segment.

The Company accounted for the transaction in accordance with the authoritative guidance on business combinations; therefore, the tangible and intangible assets acquired and liabilities assumed were recorded at fair value on the acquisition date. The allocation of the purchase price was completed during the first quarter of fiscal 2019.

The identified intangible assets acquired, were as follows *(in millions)*:

Net tangible assets acquired	$	11.8
Intangible assets acquired:		
Developed technology		15.5
Customer relationships		11.0
Other		0.3
Goodwill		17.8
Total purchase price	$	56.4

The allocation of the purchase price was as follows *(in millions)*:

Cash	$	0.2
Accounts receivable		3.2
Inventory		10.1
Property and equipment		1.2
Accounts payable		(1.7)
Other liabilities, net of other assets		(1.2)
Net tangible assets acquired	$	11.8

Acquired intangible assets are classified as Level 3 assets for which fair value is derived from valuation based on inputs that are unobservable and significant to the overall fair value measurement. The fair value of acquired developed technology, customer relationships, and other intangible assets was determined based on an income approach, discounted cash flow method. The intangible assets are being amortized over their estimated useful lives that range from three to five years for the acquired developed technology and customer relationships.

Goodwill arising from this acquisition is primarily attributed to sales of future products and services and the assembled workforce of Trilithic. Goodwill has been assigned to the NE segment and is not deductible for tax purposes.

Trilithic's results of operations have been included in the Company's Consolidated Financial Statements subsequent to the date of acquisition.

Other Acquisitions:

During the twelve months ended June 27, 2020, the Company completed a business acquisition for total consideration of approximately $10.7 million, of which $5.2 million cash was paid at close and $5.5 million in payments to be made based on the occurrence of future events. The fair value of earn-out liabilities is discussed further in "Note 8. Fair Value Measurements".

In connection with this acquisition, the Company recorded approximately $6.2 million of developed technology and customer relationships and $1.4 million of deferred tax liability resulting from the acquisitions. The acquired developed technology and customer relationship assets are being amortized over their estimated useful lives of six years.

During the twelve months ended June 29, 2019, the Company completed various asset acquisitions for total consideration of approximately $7.7 million, of which $5.1 million cash was paid at close and $2.6 million in payments to be made based on the occurrence of future events. The fair value of earn-out liabilities is discussed further in "Note 8. Fair Value Measurements".

These acquisitions were accounted for as asset acquisitions, as substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset. In connection with these acquisitions, the Company recorded approximately $7.6 million of developed technology and $2.4 million of deferred tax liability resulting from these acquisitions. The acquired developed technology assets are being amortized over their estimated useful lives which range from five to ten years.

Note 6. Balance Sheet and Other Details

Contract Balances

Unbilled Receivables: The Company records a receivable when an unconditional right to consideration exists and transfer of control has occurred, such that only the passage of time is required before payment of consideration is due. Timing of revenue recognition may differ from the timing of customer invoicing. Payment terms vary based on product or service offerings and payment is generally required within 30 to 90 days from date of invoicing. Certain performance obligations may require payment before delivery of the service to the customer.

Contract assets: A Contract Asset is recognized when a conditional right to consideration exists and transfer of control has occurred. Contract Assets include fixed fee professional services, where the transfer of services has occurred in advance of the Company's right to invoice. Contract Assets, included in accounts receivable, net, on the Consolidated Balance Sheets, are not material to the Consolidated Financial Statements. Contract Asset balances will fluctuate based upon the timing of transfer of services, billings and customers' acceptance of contractual milestones.

Gross receivables include both billed and Unbilled Receivables/Contract Assets. As of June 27, 2020 and June 29, 2019, the Company had total unbilled receivables (Unbilled Receivables/Contract Assets) of $3.8 million and $11.5 million, respectively

Deferred revenue: Deferred revenue consists of contract liabilities primarily related to support, solution deployment services, software maintenance, product, professional services, and training when the Company has a right to invoice or payments have been received and transfer of control has not occurred. Revenue is recognized on these items when the revenue recognition criteria are met, generally resulting in ratable recognition over the contract term. Contract liabilities are included in other current liabilities on the consolidated balance sheets.

The Company also has short-term and long-term deferred revenues related to undelivered hardware and professional services, consisting of installations and consulting engagements, which are recognized as the Company's performance obligations under the contract are completed and accepted by the customer.

The following tables summarize the activity related to deferred revenue, for the year ended June 27, 2020 (*in millions*):

		June 27, 2020
Deferred revenue:		
Balance at beginning of period	$	68.5
Revenue deferrals for new contracts [(1)]		107.5
Revenue recognized during the period [(2)]		(101.4)
Balance at end of period	$	74.6
Short-term deferred revenue	$	54.6
Long-term deferred revenue	$	20.0

(1) Included in these amounts is the impact from foreign currency exchange rate fluctuations.

(2) Revenue recognized during the period represents releases from the balance at the beginning of the period as well as releases from the following period quarter-end deferrals.

Remaining performance obligations: Remaining performance obligations represent the aggregate amount of the transaction price allocated to performance obligations not delivered or are incomplete, as of June 27, 2020. Remaining performance obligations include deferred revenue plus unbilled amounts not yet recorded. The aggregate amount of the transaction price allocated to remaining performance obligations does not include amounts owed under cancelable contracts where there is no substantive termination penalty.

Remaining performance obligation estimates are subject to change and are affected by several factors, including terminations, changes in the scope of contracts, periodic revalidation, adjustments for revenue that has not materialized, and adjustments for currency.

The value of the transaction price allocated to remaining performance obligations as of June 27, 2020, was $204.6 million. The Company expects to recognize 87% of remaining performance obligations as revenue within the next 12 months, and the remainder thereafter.

Accounts Receivable Allowances

The table below presents the activities and balances for allowance for doubtful accounts, as follows (*in millions*):

	Balance at Beginning of Period	Acquisitions (1)	Charged to Costs and Expenses	Deduction (2)	Balance at End of Period
Year Ended June 27, 2020	$ 2.0	$ —	$ 2.0	$ (1.0)	$ 3.0
Year Ended June 29, 2019	2.4	—	1.4	(1.8)	2.0
Year Ended June 30, 2018	1.6	0.7	(0.4)	0.5	2.4

(1) See “Note 5. Acquisitions” of the Notes to Consolidated Financial Statements for detail of acquisition.
(2) Represents the effect of currency translation adjustments and write-offs of uncollectible accounts, net of recoveries.

Inventories, Net

The following table presents the components of inventories, net, as follows (*in millions*):

	June 27, 2020	June 29, 2019
Finished goods	$ 30.0	$ 36.7
Work in process	22.5	26.5
Raw materials	30.8	39.5
Inventories, net	$ 83.3	$ 102.7

Prepayments and Other Current Assets

The following table presents the components of prepayments and other current assets, as follows (*in millions*):

	June 27, 2020	June 29, 2019
Prepayments	$ 10.9	$ 14.2
Assets held for sale	2.5	2.5
Advances to contract manufacturers	7.3	5.1
Refundable income taxes	10.8	8.9
Transaction tax receivables	10.6	11.8
Other current assets	8.7	7.4
Prepayments and other current assets	$ 50.8	$ 49.9

Property, Plant and Equipment, net

The following table presents the components of property, plant and equipment, net, as follows (*in millions*):

	June 27, 2020	June 29, 2019
Land	$ 16.8	$ 20.8
Buildings and improvements	22.9	36.9
Machinery and equipment	298.5	280.0
Furniture, fixtures, software and office equipment	74.3	103.5
Leasehold improvements	66.8	56.8
Construction in progress	15.6	31.1
Property, plant and equipment, gross	494.9	529.1
Less: Accumulated depreciation and amortization	(322.4)	(349.2)
Property, plant and equipment, net	$ 172.5	$ 179.9

Other current liabilities

The following table presents the components of other current liabilities, as follows (*in millions*):

	June 27, 2020	June 29, 2019
Customer prepayments	$ 0.5	$ 30.2
Restructuring accrual	6.5	8.6
Income tax payable	10.7	8.5
Warranty accrual	4.6	4.7
Transaction tax payable	3.2	3.8
Operating lease liabilities (Note 12)	11.7	—
Foreign exchange forward contracts liability	1.5	4.0
Other	9.7	12.6
Other current liabilities	$ 48.4	$ 72.4

Other Non-current Liabilities

The following table presents the components of other non-current liabilities, as follows (*in millions*):

	June 27, 2020	June 29, 2019
Pension and post-employment benefits	$ 102.7	$ 103.2
Deferred tax liability	23.9	14.6
Financing obligation	16.2	25.5
Fair value of contingent consideration (1)	9.4	37.7
Long-term deferred revenue	20.0	13.2
Operating lease liabilities (Note 12)	28.1	—
Uncertain tax position	11.6	13.6
Other	19.3	18.7
Other non-current liabilities	$ 231.2	$ 226.5

(1) See “Note 5. Acquisitions” and “Note 7. Investments and Forward Contracts” of the Notes to the Company’s Consolidated Financial Statements for more detail.

Interest Income and Other Income, net

The following table presents the components of interest income and other income, net, as follows (*in millions*):

	Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018
Interest income	$ 7.1	$ 8.1	$ 16.0
Foreign exchange gains (loss), net	2.1	(2.9)	(1.3)
Loss on extinguishment of debt [(1)]	—	—	(5.0)
Other income, net	0.5	1.5	0.1
Loss on sale of investments	(0.1)	(0.5)	(0.1)
Interest income and other income, net	$ 9.6	$ 6.2	$ 9.7

(1) In connection with the debt extinguishment, a loss of $5.0 million was recognized in fiscal 2018. Refer to "Note 11. Debt" for more information.

Note 7. Investments and Forward Contracts

Available-For-Sale Investments

The following table presents the Company's available-for-sale securities as of June 27, 2020 (*in millions*):

	Amortized Cost/ Carrying Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Available-for-sale debt securities:				
Asset-backed securities	$ 0.9	$ —	$ (0.4)	$ 0.5
Total available-for-sale debt securities	$ 0.9	$ —	$ (0.4)	$ 0.5

The Company generally classifies debt securities as available-for-sale and as cash equivalents, short-term investments, or other non-current assets based on the stated maturities; however, certain securities with stated maturities of longer than twelve months, which are highly liquid and available to support current operations are also classified as short-term investments. As of June 27, 2020, the total estimated fair value of $0.5 million was classified as other non-current assets.

In addition to the amounts presented above, the Company's short-term investments classified as trading securities related to the deferred compensation plan as of June 27, 2020, were $1.4 million, of which $0.3 million was invested in debt securities, $0.2 million was invested in money market instruments and funds and $0.9 million was invested in equity securities. Trading securities are reported at fair value, with the unrealized gains or losses resulting from changes in fair value recognized in the Company's Consolidated Statements of Operations as a component of interest and other income, net.

During the fiscal years ended June 27, 2020, June 29, 2019 and June 30, 2018, respectively, the Company recorded no other-than-temporary impairment charges in each respective period.

As of June 27, 2020, the Company's total gross unrealized losses on available-for-sale securities, aggregated by type of investment instrument, are as follows (*in millions*):

	Less than 12 Months	Greater than 12 Months	Total
Asset-backed securities	$ —	$ (0.4)	$ (0.4)
Total gross unrealized losses	$ —	$ (0.4)	$ (0.4)

As of June 27, 2020, the Company's debt securities classified as available-for-sale securities with contractual maturities are as follows (*in millions*):

	Amortized Cost/ Carrying Cost	Estimated Fair Value
Amounts maturing in more than 5 years	$ 0.9	$ 0.5
Total debt available-for-sale securities	$ 0.9	$ 0.5

As of June 29, 2019, the Company's available-for-sale securities are as follows (*in millions*):

	Amortized Cost/ Carrying Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Available-for-sale securities:				
Asset-backed securities	$ 0.9	$ —	$ (0.3)	$ 0.6
Total available-for-sale securities	$ 0.9	$ —	$ (0.3)	$ 0.6

As of June 29, 2019, the estimated fair value of $0.6 million was classified as other non-current assets.

In addition to the amounts presented above, as of June 29, 2019, the Company's short-term investments classified as trading securities, related to the deferred compensation plan, were $1.5 million, of which $0.4 million was invested in debt securities, $0.3 million was invested in money market instruments and funds and $0.8 million was invested in equity securities. Trading securities are reported at fair value, with the unrealized gains or losses resulting from changes in fair value recognized in the Company's Consolidated Statements of Operations as a component of interest and other income, net.

As of June 29, 2019, the Company's total gross unrealized losses on available-for-sale securities, aggregated by investment type, are as follows (*in millions*):

	Less than 12 Months	Greater than 12 Months	Total
Asset-backed securities	$ —	$ (0.3)	$ (0.3)
Total gross unrealized losses	$ —	$ (0.3)	$ (0.3)

Non-Designated Foreign Currency Forward Contracts

The Company has foreign subsidiaries that operate and sell the Company's products in various markets around the world. As a result, the Company is exposed to foreign exchange risks. The Company utilizes foreign exchange forward contracts to manage foreign currency risk associated with foreign currency denominated monetary assets and liabilities, primarily certain short-term intercompany receivables and payables, and to reduce the volatility of earnings and cash flows related to foreign-currency transactions. The Company does not use these foreign currency forward contracts for trading purposes.

As of June 27, 2020, the Company had forward contracts that were effectively closed but not settled with the counterparties by year end. Therefore, the fair value of these contracts of $2.2 million and $1.5 million is reflected as prepayments and other current assets and other current liabilities, respectively. As of June 29, 2019, the fair value of these contracts of $1.2 million and $4.0 million is reflected as prepayments and other current assets and other current liabilities, respectively.

The forward contracts outstanding and not effectively closed, with a term of less than 120 days, were transacted near year end; therefore, the fair value of the contracts is not significant. As of June 27, 2020 and June 29, 2019, the notional amounts of the forward contracts that Company held to purchase foreign currencies were $146.4 million and $117.8 million, respectively, and the notional amounts of forward contracts that Company held to sell foreign currencies were $22.0 million and $31.3 million, respectively.

The change in the fair value of these foreign currency forward contracts is recorded as gain or loss in the Company's Consolidated Statements of Operations as a component of interest and other income, net. The cash flows related to the settlement of foreign currency forward contracts are classified as operating activities. The foreign exchange forward contracts incurred loss of $0.8 million and $6.9 million for the years ended June 27, 2020 and June 29, 2019, respectively.

Note 8. Fair Value Measurements

Fair Value Measurements

The Company's assets and liabilities measured at fair value for the periods presented are as follows (*in millions*):

	June 27, 2020				June 29, 2019			
	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
Assets:								
Debt available-for-sale securities:								
Asset-backed securities	$ 0.5	$ —	$ 0.5	$ —	$ 0.6	$ —	$ 0.6	$ —
Total debt available-for-sale securities	0.5	—	0.5	—	0.6	—	0.6	—
Money market funds	334.6	334.6	—	—	322.9	322.9	—	—
Trading securities	1.4	1.4	—	—	1.5	1.5	—	—
Foreign currency forward contracts [(1)]	2.2	—	2.2	—	1.2	—	1.2	—
Total assets [(2)]	$ 338.7	$ 336.0	$ 2.7	$ —	$ 326.2	$ 324.4	$ 1.8	$ —
Liability:								
Foreign currency forward contracts [(3)]	$ 1.5	$ —	$ 1.5	$ —	$ 4.0	$ —	$ 4.0	$ —
Contingent consideration [(4)]	9.9	—	—	9.9	38.4	—	—	38.4
Total liabilities	$ 11.4	$ —	$ 1.5	$ 9.9	$ 42.4	$ —	$ 4.0	$ 38.4

(1) $2.2 million and $1.2 million in prepayments and other current assets on the Company's Consolidated Balance Sheets as of June 27, 2020 and June 29, 2019, respectively.

(2) Includes as of June 27, 2020, $327.2 million in cash and cash equivalents, $1.4 million in short-term investments, $3.4 million in restricted cash, $2.2 million in prepayments and other current assets, and $4.5 million in other non-current assets on the Company's Consolidated Balance Sheets. Includes as of June 29, 2019, $315.5 million in cash and cash equivalents, $1.5 million in short-term investments, $3.5 million in restricted cash, $1.2 million in prepayments and other current assets and $4.5 million in other non-current assets on the Company's Consolidated Balance Sheets.

(3) Includes $1.5 million and $4.0 million in other current liabilities on the Company's Consolidated Balance Sheets as of June 27, 2020 and June 29, 2019, respectively.

(4) Includes $9.4 million and $37.7 million in other non-current liabilities and $0.5 million and $0.7 million in other current liabilities as of June 27, 2020 and June 29, 2019, respectively.

The Company's Level 3 liabilities as of June 27, 2020, consist of contingent purchase consideration. The Company has aggregate contingent liabilities related to its business and asset acquisitions completed during fiscal 2020 and 2019. As of June 27, 2020 and June 29, 2019, the aggregate fair value of contingent consideration was $9.9 million and $38.4 million, respectively. The fair value of earn-out liabilities were determined using a Monte Carlo Simulation that includes significant unobservable inputs such as the risk-adjusted discount rate, gross profit volatility, and projected financial forecast of acquired business over the earn-out period. The fair value of contingent consideration liabilities is remeasured at each reporting period at the estimated fair value based on the inputs on the date of remeasurement, with the change in fair value recognized in the Selling, General and Administrative expense of the Consolidated Statements of Operations.

The following table provides a reconciliation of changes in fair value of the Company's Level 3 liabilities for the year ended June 27, 2020 and June 29, 2019, as follows (*in millions*):

	RPC	Other (1)	Total
Balance: June 30, 2018	$ —	$ —	$ —
Additions to Contingent Consideration	36.2	8.1	44.3
Change in Fair Value measurement	(5.9)	—	(5.9)
Balance: June 29, 2019	$ 30.3	$ 8.1	$ 38.4
Additions to Contingent Consideration	—	3.7	3.7
Change in Fair Value measurement	(29.6)	(1.9)	(31.5)
Payments of Contingent Consideration	(0.7)	—	(0.7)
Balance June 27, 2020	$ —	$ 9.9	$ 9.9

(1) See Note 5. Acquisitions and of the Notes to the Company's Consolidated Financial Statements for more detail.

In connection with the acquisition of RPC, the Company agreed to pay RPC's Securityholders up to $53.0 million over the subsequent 4-year period based on subsequent achievement of gross profit targets agreed upon at the time of close. The fair value of earn-out payments at the date of acquisition was $36.2 million.

As of June 27, 2020, the fair value of RPC related earn-out liability was remeasured to $0 million. The decrease in fair value of the earn-out liability of $29.6 million in fiscal 2020 was primarily due to the lower-than-expected rate of adoption by Android customers, which was further compounded by the macroeconomic impact of COVID-19. During fiscal 2020, the Company made a earn-out payment to RPC's Securityholders in the amount of $0.7 million. As of June 29, 2019, the fair value was remeasured to $30.3 million. The decrease in fair value of the earn-out liability of $5.9 million in fiscal 2019 was primarily due to revised projected forecast of RPC, primarily driven by rate of adoption assumptions.

Note 9. Goodwill

Changes in the carry value of goodwill allocated segment are as follows *(in millions)*:

	Network Enablement	Service Enablement	Optical Security and Performance Products	Total
Balance as of June 30, 2018 (1)	$ 328.0	$ —	$ 8.3	$ 336.3
Acquisitions (2)	12.2	—	33.9	46.1
Other	3.7	—	—	3.7
Currency translation and other adjustments	(5.0)	—	—	(5.0)
Balance as of June 29, 2019 (3)	$ 338.9	$ —	$ 42.2	$ 381.1
Acquisitions (2)	—	4.3	—	4.3
Currency translation and other adjustments	(4.0)	—	—	$ (4.0)
Balance as of June 27, 2020 (4)	$ 334.9	$ 4.3	$ 42.2	$ 381.4

(1) Gross goodwill balances for NE, SE and OSP were $629.9 million, $272.6 million and $92.8 million, respectively as of June 30, 2018. Accumulated impairment for NE, SE and OSP was $301.9 million, $272.6 million and $84.5 million, respectively as of June 30, 2018.

(2) See "Note 5. Acquisitions" of the Notes to Consolidated Financial Statement for additional information related to the Company's acquisitions.

(3) Gross goodwill balances for NE, SE and OSP were $640.8 million, $272.6 million and $126.7 million, respectively as of June 29, 2019. Accumulated impairment for NE, SE and OSP was $301.9 million, $272.6 million and $84.5 million, respectively as of June 29, 2019.

(4) Gross goodwill balances for NE, SE and OSP were $636.8 million, $276.9 million and $126.7 million, respectively as of June 27, 2020. Accumulated impairment for NE, SE and OSP was $301.9 million, $272.6 million and $84.5 million, respectively as of June 27, 2020.

Impairment of Goodwill

The Company tests goodwill at the reporting unit level for impairment annually, during the fourth quarter of each fiscal year, or more frequently if events or circumstances indicate that the asset may be impaired. The Company determined that, based on its organizational structure and the financial information that is provided to and reviewed by the Company's Chief Operating Decision Maker (CODM) during fiscal 2020, 2019 and 2018 and its reporting units were NE, SE and OSP.

No indications of impairment were identified for fiscal years ending on June 27, 2020, June 29, 2019 and June 30, 2018.

Note 10. Acquired Developed Technology and Other Intangibles

The following tables present details of the Company's acquired developed technology, customer relationships and other intangibles as of June 27, 2020, and June 29, 2019, (*in millions*):

As of June 27, 2020	Weighted-Average Remaining Useful Life	Gross Carrying Amount	Accumulated Amortization	Net
Acquired developed technology	*3.7 years*	$ 437.1	$ (341.6)	$ 95.5
Customer relationships	*2.6 years*	194.7	(154.1)	40.6
Other (1)	*2.0 years*	35.7	(23.7)	12.0
Total intangibles		$ 667.5	$ (519.4)	$ 148.1

As of June 29, 2019	Weighted-Average Remaining Useful Life	Gross Carrying Amount	Accumulated Amortization	Net
Acquired developed technology	*4.7 years*	$ 437.0	$ (311.1)	$ 125.9
Customer relationships	*3.1 years*	193.7	(126.3)	67.4
Other (1)	*3.3 years*	36.1	(17.8)	18.3
Total intangibles		$ 666.8	$ (455.2)	$ 211.6

(1) Other intangibles consist of customer backlog, non-competition agreements, patents, proprietary know-how and trade secrets, trademarks and trade names.

In connection with the AW acquisition, the Company recorded an IPR&D asset, at its fair value and subsequently accounts for it as an indefinite-lived asset until completion or abandonment of the associated research and development projects. During the third quarter of fiscal 2019 the IPR&D activities were completed and transferred to developed technology, with an estimated useful life of 6 years. Refer to "Note 5. Acquisitions" for more information related to acquisitions.

During fiscal 2020, 2019 and 2018, the Company recorded $67.8 million, $72.5 million and $47.7 million, respectively, of amortization related to acquired developed technology and other intangibles. The following table presents details of the Company's amortization (*in millions*):

	Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018
Cost of revenues	$ 32.7	$ 34.4	$ 26.7
Operating expense	35.1	38.1	21.0
Total	$ 67.8	$ 72.5	$ 47.7

Based on the carrying amount of acquired developed technology, customer relationships and other intangibles as of June 27, 2020, and assuming no future impairment of the underlying assets, the estimated future amortization is as follows (*in millions*):

Fiscal Years		
2021	$	63.9
2022		37.8
2023		24.1
2024		10.2
2025		6.6
Thereafter		5.5
Total amortization	$	148.1

Note 11. Debt

As of June 27, 2020 and June 29, 2019, the Company's long-term debt on the Consolidated Balance Sheets represented the carrying amount of the liability component, net of unamortized debt discounts and issuance cost, of the Senior Convertible Notes as discussed below. The following table presents the carrying amounts of the liability and equity components (*in millions*):

	June 27, 2020		June 29, 2019	
Principal amount of 1.00% Senior Convertible Notes	$	460.0	$	460.0
Principal amount of 1.75% Senior Convertible Notes		225.0		225.0
Unamortized discount of Senior Convertible Notes liability component		(79.1)		(99.8)
Unamortized Senior Convertible Notes debt issuance cost		(5.0)		(6.4)
Carrying amount of Senior Convertible Notes liability component	$	600.9	$	578.8
Carrying amount of Senior Convertible Notes equity component (1)	$	136.8	$	136.8

(1) Included in additional paid-in-capital on the Consolidated Balance Sheets.

Revolving Credit Facility

On May 5, 2020, we entered into a credit agreement (the Credit Agreement) with Wells Fargo Bank, National Association (Wells Fargo) as administrative agent, and other lender related parties. The Credit Agreement provides for a $300 million senior secured revolving credit facility, which matures on March 1, 2023. The Credit Agreement also provides that, under certain circumstances, we may incur term loans or increase the aggregate principal amount of revolving commitments by an aggregate amount of up to $200 million plus additional amounts so long as our secured net leverage ratio, determined on a pro forma basis does not exceed 1.50:1.00. The proceeds from the credit facility established under the Credit Agreement will be used for working capital and other general corporate purposes. The obligations under the Credit Agreement are secured by substantially all of our assets.

Amounts outstanding under the Credit Agreement accrue interest at a rate equal to either, at our election, LIBOR plus a margin of 1.75% to 2.50% per annum, or a specified base rate plus a margin of 0.75% to 1.50%, in each case, depending on our consolidated secured leverage ratio. We are required to pay commitment fee on the unutilized portion of the facility which ranges between 0.30% and 0.40% per annum depending on our consolidated secured leverage ratio. As of June 27, 2020, we had no amounts outstanding under the Credit Agreement.

Short-term Debt

As of June 27, 2020, the Company had short-term debt in the amount of $2.8 million, assumed as part of an acquisition completed during the period.

1.75% Senior Convertible Notes (2023 Notes)

On May 29, 2018, the Company issued $225.0 million aggregate principal amount of 1.75% Senior Convertible Notes due 2023 in a private offering to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. The Company issued $155.5 million aggregate principal of the 2023 Notes to certain holders of the 2033 Notes in exchange for $151.5 million principal of the 2033 Notes (the Exchange Transaction) and issued and sold $69.5 million aggregate principal amount of the 2023 Notes in a private placement to accredited institutional buyers (the Private Placement). The carrying value of the liability component at issuance was calculated as the present value of its cash flows using a discount rate of 5.3% based on the 5-year swap rate plus credit spread as of the issuance date. As of June 27, 2020, the expected remaining term of the 2023 Notes is 2.9 years.

The proceeds from the 2023 Notes Private Placement amounted to $67.3 million after issuance costs. The 2023 Notes are an unsecured obligation of the Company and bear interest at an annual rate of 1.75% payable in cash semi-annually in arrears on June 1st and December 1st of each year, beginning December 1, 2018. The 2023 Notes mature on June 1, 2023 unless earlier converted, redeemed or repurchased.

Under certain circumstances and during certain periods, the 2023 Notes may be converted at the option of the holders into cash up to the principal amount, with the remaining amount converted into cash, shares of the Company’s common stock, or a combination of cash and shares of the Company’s common stock at the Company’s election. The initial conversion price is $13.94 per share, representing a 37.5% premium to the closing sale price of the Company’s common stock on the pricing date, May 22, 2018, which will be subject to customary anti-dilution adjustments. Holders may convert the 2023 Notes at any time on or prior to the close of business on the business day immediately preceding March 1, 2023 in multiples of $1,000 principal amount, under the following circumstances:

- on any date during any calendar quarter beginning after September 30, 2018 (and only during such calendar quarter) if the closing price of the Company’s common stock was more than 130% of the then current conversion price for at least 20 trading days during the 30 consecutive trading-day period ending the last trading day of the previous calendar quarter;
- upon the occurrence of specified corporate events;
- if the Company is party to a specified transaction, a fundamental change or a make-whole fundamental change (each as defined in the indenture of the 2023 Notes); or
- during the five consecutive business-day period immediately following any ten consecutive trading-day period in which the trading price per $1,000 principal amount of the 2023 Notes for each day of such ten consecutive trading-day period was less than 98% of the product of the closing sale price of the Company’s common stock and the applicable conversion rate on such date.

During the periods from, and including, March 1, 2023, until the close of business on the business day immediately preceding June 1, 2023, holders may convert the 2023 Notes at any time, regardless of the foregoing circumstances.

Holders of the 2023 Notes may require the Company to purchase all or a portion of the 2023 Notes upon the occurrence of a fundamental change at a price equal to 100% of the principal amount of the 2023 Notes to be purchased, plus accrued and unpaid interest to, but excluding the fundamental repurchase date. The Company may redeem all or a portion of the 2023 Notes for cash at any time on or after June 1, 2021, at a redemption price equal to 100% of the principal amount of the 2023 Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date under certain conditions.

In accordance with the authoritative accounting guidance, the Company separated the 2023 Notes into liability and equity components. The credit spread for the Company is based on the historical average “yield to worst” rate for BB rated issuers. The difference between the 2023 Notes principal and the carrying value of the liability component, representing the value of conversion premium assigned to the equity component, was recorded as a debt discount on the issuance date and is being accreted using the effective interest rate of 5.3% over the period from the issuance date through June 1, 2023 as a non-cash charge to interest expense. The carrying value of the liability component was determined to be $190.1 million, and the equity component, or debt discount, of the 2023 Notes was determined to be $34.9 million.

In connection with the issuance of the 2023 Notes, the Company incurred $2.2 million of issuance costs, which were bifurcated into the debt issuance costs, attributable to the liability component of $1.9 million and the equity issuance costs, attributable to the equity component of $0.3 million based on their relative values. The debt issuance costs were capitalized and are being amortized to interest expense using the effective interest rate method from issuance date through June 1, 2023. The equity issuance costs were netted against the equity component in additional paid-in capital at the issuance date. As of June 27, 2020, the unamortized portion of the debt issuance costs related to the 2023 Notes was $1.1 million, which was included as a direct reduction from the carrying amount of the debt on the Consolidated Balance Sheets.

Based on quoted market prices as of June 27, 2020 and June 29, 2019, the fair value of the 2023 Notes was approximately $251.4 million and $261.3 million, respectively. The 2023 Notes are classified within Level 2 as they are not actively traded in markets.

1.00% Senior Convertible Notes (2024 Notes)

On March 3, 2017, the Company issued $400 million aggregate principal amount of 1.00% Senior Convertible Notes due 2024 in a private offering to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. On March 22, 2017, the Company issued an additional $60 million upon exercise of the over-allotment option of the initial purchasers. The total proceeds from the 2024 Notes amounted to $451.1 million after issuance costs. The 2024 Notes are an unsecured obligation of the Company and bear interest at an annual rate of 1.00% payable in cash semi-annually in arrears on March 1 and September 1 of each year. The 2024 Notes mature on March 1, 2024 unless earlier converted or repurchased.

Under certain circumstances and during certain periods, the 2024 Notes may be converted at the option of the holders into cash up to the principal amount, with the remaining amount converted into cash, shares of the Company's common stock, or a combination of cash and shares of the Company's common stock at the Company's election. The initial conversion price is $13.22 per share, representing a 32.5% premium to the closing sale price of the Company's common stock on the pricing date, February 27, 2017, which will be subject to customary anti-dilution adjustments.

The 2024 Notes may be converted at any time on or prior to the close of business on the business day immediately preceding December 1, 2023, in multiples of $1,000 principal amount, at the option of the holder only under the following circumstances: (i) on any date during any calendar quarter beginning after June 30, 2017 (and only during such calendar quarter) if the closing price of VIAVI's common stock was more than 130% of the then current conversion price for at least 20 trading days (whether or not consecutive) during the 30 consecutive trading-day period ending on the last trading day of the previous calendar quarter, (ii)if the Company distributes to all or substantially all holders of its common stock rights or warrants (other than pursuant to a stockholder rights plan) entitling them to purchase, for a period of 45 calendar days or less, shares of VIAVI's common stock at a price less than the average closing sale price of VIAVI's common stock for the ten trading days preceding the declaration date for such distribution, (iii) if the Company distributes to all or substantially all holders of its common stock, cash or other assets, debt securities or rights to purchase our securities (other than pursuant to a stockholder rights plan), at a per share value exceeding 10% of the closing sale price of VIAVI's common stock on the trading day preceding the declaration date for such distribution, (iv) if the Company is party to a specified transaction, a fundamental change or a make-whole fundamental change (each as defined in the Indenture), or (v) during the five consecutive business-day period immediately following any 10 consecutive trading-day period in which the trading price per $1,000 principal amount of the Notes for each day during such 10 consecutive trading-day period was less than 98% of the product of the closing sale price of VIAVI's common stock and the applicable conversion rate on such date. During the periods from, and including, December 1, 2023 until the close of business on the business day immediately preceding the maturity date, holders of the Notes may convert the Notes regardless of the circumstances described in the immediately preceding sentence.

Holders of the 2024 Notes may require VIAVI to repurchase for cash all or a portion of the Notes upon the occurrence of a fundamental change (as defined in the Indenture) at a repurchase price equal to 100% of the principal amount of the 2024 Notes to be repurchased, plus accrued and unpaid interest to, but excluding, the date of repurchase.

The Indenture provides for customary events of default, including payment defaults, breaches of covenants, failure to pay certain judgments and certain events of bankruptcy, insolvency and reorganization. If an event of default occurs and is continuing, the principal amount of the 2024 Notes, plus accrued and unpaid interest, if any, may be declared immediately due and payable, subject to certain conditions set forth in the Indenture. These amounts automatically become due and payable if an event of default relating to certain events of bankruptcy, insolvency or reorganization occurs.

In accordance with the authoritative accounting guidance, the Company separated the 2024 Notes into liability and equity components. The carrying value of the liability component at issuance was calculated as the present value of its cash flows using a discount rate of 4.8% based on the 7-year swap rate plus credit spread as of the issuance date. The credit spread for the Company is based on the historical average "yield to worst" rate for BB rated issuers. The difference between the 2024 Notes principal and the carrying value of the liability component, representing the value of conversion premium assigned to the equity component, was recorded as a debt discount on the issuance date and is being accreted using the effective interest rate of 4.8% over the period from the issuance date through March 1, 2024 as a non-cash charge to interest expense. The carrying value of the liability component was determined to be $358.1 million, and the equity component, or debt discount, of the 2024 Notes was determined to be $101.9 million. As of June 27, 2020, the expected remaining term of the 2024 Notes is 3.7 years.

In connection with the issuance of the 2024 Notes, the Company incurred $8.9 million of issuance costs, which were bifurcated into the debt issuance costs (attributable to the liability component) of $6.9 million and the equity issuance costs (attributable to the equity component) of $2.0 million based on their relative values. The debt issuance costs were capitalized and are being amortized to interest expense using the effective interest rate method from issuance date through March 1, 2024. The equity issuance costs were netted against the equity component in additional paid-in capital at the issuance date. As of June 27, 2020, the unamortized portion of the debt issuance costs related to the 2024 Notes was $3.9 million, which was included as a direct reduction from the carrying amount of the debt on the Consolidated Balance Sheets.

Based on quoted market prices as of June 27, 2020 and June 29, 2019, the fair value of the 2024 Notes was approximately $523.3 million and $540.8 million, respectively. The 2024 Notes are classified within Level 2 as they are not actively traded in markets.

The Company was in compliance with all debt covenants as of June 27, 2020 and June 29, 2019.

Interest Expense

The following table presents the interest expense for contractual interest, amortization of debt issuance cost and accretion of debt discount (*in millions*):

	Years Ended		
	June 27, 2020	**June 29, 2019**	**June 30, 2018**
Interest expense-contractual interest	$ 8.5	$ 8.8	$ 7.7
Amortization of debt issuance cost	1.4	1.4	2.6
Accretion of debt discount	20.8	21.3	33.8

Note 12. Leases

The Company is a lessee in several operating leases, primarily real estate facilities for office space. The Company's lease arrangements are composed of operating leases with various expiration dates through March 31, 2030. The Company's leases do not contain any material residual value guarantees.

During the fiscal year ending on June 27, 2020, the total operating lease costs was $13.5 million. Total variable lease costs were immaterial During the fiscal year ending on June 27, 2020. The total operating costs were included in cost of revenues, research and development, and selling, general and administrative in the Company's Consolidated Statements of Operations.

As of June 27, 2020, the weighted-average remaining lease term was 5.2 years, and the weighted-average discount rate was 4.7%.

During the fiscal year ending on June 27, 2020, cash paid for amounts included in the measurement of operating lease liabilities was $15.7 million; and operating ROU assets obtained in exchange of new operating lease liabilities was $17.3 million.

The balance sheet information related to our operating leases is as follows (*in millions*):

	June 27, 2020
Other non-current assets	$ 40.5
Total operating ROU assets	$ 40.5
Other current liabilities	$ 11.7
Other non-current liabilities	28.1
Total operating lease liabilities	$ 39.8

Future minimum operating lease payments as of June 27, 2020 are as follows (*in millions*):

	Operating Leases
Fiscal 2021	$ 12.8
Fiscal 2022	10.2
Fiscal 2023	6.0
Fiscal 2024	4.6
Fiscal 2025	3.6
Thereafter	7.5
Total lease payments	$ 44.7
Less: Interest	(4.9)
Present value of lease liabilities	$ 39.8

Prior to the adoption of the new lease standard, future minimum undiscounted operating lease payments as of June 29, 2019, excluding non-lease components, were as follows (*in millions*):

	Operating Leases
Fiscal 2020	$ 11.7
Fiscal 2021	10.8
Fiscal 2022	7.4
Fiscal 2023	3.9
Fiscal 2024	2.5
Thereafter	5.3
Less: sublease income	(0.1)
Total lease payments	$ 41.5

Note 13. Restructuring and Related Charges

The Company has initiated various restructuring events primarily intended to reduce its costs, consolidate operations, streamline product manufacturing and address market conditions. The Company's restructuring charges primarily include severance and benefit costs to eliminate a specific number of positions, facilities and equipment costs to vacate facilities and consolidate operations and lease termination costs. The timing of associated cash payments is dependent upon the type of restructuring charge and can extend over multiple periods.

As of June 27, 2020 and June 29, 2019, the Company's total restructuring accrual was $6.5 million and $8.8 million, respectively. During fiscal years 2020, 2019 and 2018, the Company recorded restructuring and related charges of $3.5 million, $15.4 million and $8.3 million, respectively.

Summary of Restructuring Plans

The adjustments to the accrued restructuring expenses related to all of the Company's restructuring plans described below for the fiscal years ended June 27, 2020 were as follows *(in millions)*:

	Balance as of June 29, 2019	Fiscal Year 2020 Charges	Cash Settlements	Non-cash Settlements and Other Adjustments [2]	Balance as of June 27, 2020
Fiscal 2019 Plan					
NSE, including AW [1]	$ 8.7	$ 3.5	$ (5.2)	$ (0.5)	$ 6.5
Plans Prior to Fiscal 2019					
Other Plans [1]	0.1	—	—	(0.1)	—
Total [3]	$ 8.8	$ 3.5	$ (5.2)	$ (0.6)	$ 6.5

(1) Plan includes workforce reduction cost.

(2) Other adjustments including $0.2 million lease liability reclassification to Operating lease liability upon ASC 842 adoption.

(3) $6.5 million and $8.6 million in other current liabilities on the Consolidated Balance Sheets as of June 27, 2020 and June 29, 2019, respectively. $0.2 million in other non-current liabilities on the Consolidated Balance Sheets as of June 29, 2019.

Fiscal 2019 Plans

NSE, including AW Restructuring Plan

During the first quarter of fiscal 2019, Management approved restructuring and workforce reduction plans within its NSE business segment, including actions related to the recently acquired AW business. These actions further drive the Company's strategy for organizational alignment and consolidation as part of its continued commitment to a more cost effective and agile organization and to improve overall profitability in the Company's NSE business. Included in these restructuring plans are specific actions to consolidate and integrate the newly acquired AW business within the NSE business segment. The plan was re-approved in the third quarter of fiscal 2019 and the fourth quarter of fiscal 2020 to include additional headcount.

During the fourth quarter of fiscal 2020, we updated the plan to include additional headcount to further drive operational improvement. As a result, a net restructuring charge of $3.5 million, for approximately 60 employees primarily in R&D and SG&A functions located in North America, Europe and Asia was recorded in the year ended June 27, 2020. Payments related to the severance and benefits accrual are expected to be paid by the end of the fourth quarter of fiscal 2021.

Note 14. Income Taxes

The Company's income (loss) before income taxes consisted of the following (*in millions*):

	Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018
Domestic	$ (35.1)	$ (66.9)	$ (112.5)
Foreign	129.2	106.2	76.8
Income (loss) before income taxes	$ 94.1	$ 39.3	$ (35.7)

VIAVI SOLUTIONS INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The Company's income tax expense (benefit) consisted of the following (*in millions*):

	Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018
Federal:			
Current	$ —	$ —	$ (4.5)
Deferred	—	—	(1.7)
Total federal income tax (benefit)	—	—	(6.2)
State:			
Current	2.7	0.1	—
Deferred	—	—	(0.1)
Total state income tax (benefit) expense	2.7	0.1	(0.1)
Foreign:			
Current	50.1	33.3	22.0
Deferred	12.5	(1.9)	(2.8)
Total foreign income tax (benefit) expense	62.6	31.4	19.2
Total income tax expense	$ 65.3	$ 31.5	$ 12.9

The foreign current expense primarily relates to the Company's profitable operations in certain foreign jurisdictions and withholding tax paid on the repatriation of foreign earnings during the year. The foreign deferred tax benefit expense relates to the accrual of withholding tax on unrepatriated foreign earnings.

A reconciliation of the Company's income tax expense at the federal statutory rate to the income tax expense at the effective tax rate is as follows (*in millions*):

	Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018
Income tax (benefit) expense computed at federal statutory rate	$ 19.8	$ 8.3	$ (10.0)
Withholding Taxes	34.2	1.5	0.7
US Inclusion of foreign earnings	12.8	16.0	1.0
Tax Reform E&P Inclusion	—	—	14.3
Valuation allowance	0.7	1.0	13.0
Foreign rate differential	4.5	4.8	(1.1)
Reserves	2.3	3.5	0.4
AMT Tax Repeal	—	—	(4.5)
Permanent items	(0.3)	(1.4)	0.7
Fair value change of the earn-out liability	(6.6)	(1.3)	—
Reversal of previously accrued taxes	(3.7)	(1.2)	(1.2)
Research and experimentation benefits and other tax credits	(0.2)	—	(0.7)
State taxes	2.1	0.1	—
Other	(0.3)	0.2	0.3
Income tax expense	$ 65.3	$ 31.5	$ 12.9

The components of the Company's net deferred taxes consisted of the following (*in millions*):

	Balance as of		
	June 27, 2020	June 29, 2019	June 30, 2018
Gross deferred tax assets:			
Tax credit carryforwards	$ 159.5	$ 164.3	$ 158.8
Net operating loss carryforwards	1,118.6	1,206.9	1,219.0
Capital loss carryforwards	63.9	63.9	63.9
Inventories	20.3	9.6	4.2
Accruals and reserves	61.6	55.6	20.5
Acquisition-related items	45.1	42.1	31.5
Capitalized research costs	72.0	—	—
Other	44.6	43.1	43.8
Gross deferred tax assets	1,585.6	1,585.5	1,541.7
Valuation allowance	(1,405.5)	(1,405.3)	(1,382.1)
Deferred tax assets	180.1	180.2	159.6
Gross deferred tax liabilities:			
Acquisition-related items	(31.8)	(33.5)	(26.8)
Tax on unrepatriated earnings	(15.6)	(1.8)	(1.6)
Foreign branch taxes	(21.4)	(22.0)	—
Other	(29.8)	(29.1)	(37.4)
Deferred tax liabilities	(98.6)	(86.4)	(65.8)
Total net deferred tax assets	$ 81.5	$ 93.8	$ 93.8

As of June 27, 2020, the Company had federal, state and foreign tax net operating loss carryforwards of $4,752.2 million, $575.8 million and $590.2 million, respectively, and federal, state and foreign research and other tax credit carryforwards of $105.8 million, $52.6 million and $0.9 million, respectively. The tax net operating loss, tax credit and capital loss carryforwards will start to expire in calendar 2021 and at various other dates through 2038 if not utilized. In addition, a portion of the foreign tax net operating loss, tax credit and capital loss carryforwards have an indefinite carryforward period. Utilization of the tax net operating losses may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code and similar state and foreign provisions. Loss carryforward limitations may result in the expiration or reduced utilization of a portion of the Company's net operating losses. During the preparation of the fiscal 2019 US tax return, the Company elected to capitalize research and development costs as a result there is true-up adjustment to our estimated beginning of year capitalized research costs deferred tax asset of $37.5 million with an offsetting decrease in the beginning net operating loss carryforward deferred tax asset.

Foreign withholding taxes associated with the repatriation of earnings of foreign subsidiaries have not been provided on $9.3 million of undistributed earnings for certain foreign subsidiaries. The Company intends to reinvest these earnings indefinitely outside of the United States. The Company estimates that an additional $1.2 million of foreign withholding taxes would have to be provided if these earnings were repatriated back to the U.S.

During fiscal year 2020, in light of the economic uncertainty caused by COVID-19, the Company reevaluated its historic assertion on foreign earnings and no longer considers a majority of its earnings to be permanently reinvested resulting in a $32.5 million charge for withholding taxes expected to be paid on the repatriation of $324.0 million of foreign earnings that the Company does not consider to be permanently reinvested. During the third quarter of fiscal 2020, which included changing the Company's intent with regard to the indefinite reinvestment of such foreign earnings, the Company initially accrued $31.6 million for withholding taxes expected to be paid on the repatriation of $316.4 million of accumulated foreign earnings that it no longer considers to be permanently reinvested as of the third quarter. During the Fiscal year 2020, the Company paid $19.5 million withholding income tax on the repatriation of foreign earnings. The repatriation of these earnings increases available cash in the U.S. and provides greater U.S. financial flexibility to assist the Company in navigating the expected downturn in the economy.

The foreign earnings are being repatriated to the U.S. without incurring any significant additional U.S current or deferred tax expense.

On March 27, 2020, the House passed the Coronavirus Aid, Relief, and Economic Security Act (The CARES Act), also known as the Third COVID-19 Supplemental Relief bill, and the president signed the legislation into law. Tax provisions of the Act include the deferral of certain payroll taxes, relief for retaining employees, and other provisions. The provisions of the legislation did not have a significant impact on the effective tax rate or the income tax payable and deferred income tax positions of the Company. The Company continues to monitor additional guidance issued by the U.S. Treasury Department, the Internal Revenue Service and others.

During fiscal year 2018, the U.S. Tax Cuts and Jobs Act was enacted. Income tax effects resulting from changes in tax laws were accounted for by the Company in accordance with the authoritative guidance, which required that these tax effects be recognized in the period in which the law was enacted, and the effects were recorded as a component of the provision for income taxes from continuing operations. The law had significantly changed the way the U.S. taxes corporations. The Act repealed the alternative minimum tax (AMT) for corporations and provided that the existing AMT credit carryforwards would be fully refunded in 2022 if not utilized. As a result, the Company recognized a benefit of $4.5 million for the year ended June 30, 2018 for the release of the valuation allowance previously maintained against the AMT credit deferred tax asset. As a result, the Company's deferred tax liability associated with indefinite-lived intangible assets offset these indefinite-lived deferred tax assets, resulting in a benefit of $2.0 million for the year ended June 30, 2018 due to release of valuation allowance.

The Act imposed a deemed repatriation of the Company's foreign subsidiaries' post-1986 earnings and profits (E&P) which had previously been deferred from US income tax. This deemed repatriation was reported in the Company's fiscal 2018 U.S. tax return. The Company completed the calculation of the total post-1986 foreign E&P for all foreign subsidiaries during the quarter ended December 29, 2018. The change in estimate did not materially impact the Company's financial statements.

The Act reduced the U.S. federal corporate tax rate from 35% to 21% as of January 1, 2018. The Company remeasured its US deferred tax assets and liabilities which resulted in a net reduction of $734.9 million of our net deferred tax assets and an equal and offsetting reduction to the valuation allowance against these deferred tax assets.

Upon adoption of the new guidance on share-based payment awards in fiscal 2018, the Company had $117.7 million of net operating loss carryforwards resulting from excess tax benefit deductions. The deferred tax asset recorded for these net operating loss carryforwards was fully offset by a corresponding increase in valuation allowance, resulting in no impact to opening accumulated deficit. In addition, due to the full valuation allowance on the U.S. deferred tax assets, there was no impact to the income tax provision from excess tax benefits for the year ended June 30, 2018.

The valuation allowance increased by $0.2 million in fiscal 2020, increased by $23.2 million in fiscal 2019, and decreased by $712.9 million in fiscal 2018. The increase during fiscal 2020 was primarily due to the business acquired during the year. The increase during fiscal 2019 was primarily due to the net increase of deferred tax assets resulting from the inclusion of the Company's foreign subsidiaries in the U.S. tax return as a consequence of the U.S. Tax Cuts and Jobs Act. The decrease during fiscal 2018 was primarily due to the revaluation of the U.S. deferred tax assets as a result of the Act. The following table provides information about the activity of our deferred tax valuation allowance *(in millions)*:

Deferred Tax Valuation Allowance	Balance at Beginning of Period	Additions Charged to Expenses or Other Accounts (1)	Deductions Credited to Expenses or Other Accounts (2)	Balance at End of Period
Year Ended June 27, 2020	$ 1,405.3	$ 95.1	$ (94.9)	$ 1,405.5
Year Ended June 29, 2019	$ 1,382.1	$ 72.8	$ (49.6)	$ 1,405.3
Year Ended June 30, 2018	$ 2,095.0	$ 31.7	$ (744.6)	$ 1,382.1

(1) Additions include current year additions charged to expenses and current year build due to increases in net deferred tax assets, return to provision true-ups, other adjustments.

(2) Deductions include current year releases credited to expenses and current year reductions due to decreases in net deferred tax assets, return to provision true-ups, other adjustments and increases in deferred tax liabilities.

VIAVI SOLUTIONS INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

A reconciliation of unrecognized tax benefits between July 1, 2017 and June 27, 2020 is as follows (*in millions*):

Balance at July 1, 2017	$	38.9
Additions based on tax positions related to current year		4.4
Additions based on tax positions related to prior year		5.6
Reductions for lapse of statute of limitations		(0.3)
Balance at June 30, 2018		48.6
Additions based on tax positions related to current year		1.7
Additions based on tax positions related to prior year		7.3
Reduction based on tax positions related to prior year		(2.8)
Reductions for lapse of statute of limitations		(0.6)
Balance at June 29, 2019		54.2
Additions based on tax positions related to current year		2.2
Additions based on tax positions related to prior year		0.3
Reduction based on tax positions related to prior year		(3.8)
Reduction related to settlement		(0.4)
Reductions for lapse of statute of limitations		(0.5)
Balance at June 27, 2020	$	52.0

The unrecognized tax benefits relate primarily to the allocations of revenue and costs among the Company's global operations and the validity of some U.S. tax credits. Included in the balance of unrecognized tax benefits at June 27, 2020 are $8.5 million of tax benefits that, if recognized, would impact the effective tax rate. Also included in the balance of unrecognized tax benefits at June 27, 2020 are $39.9 million of tax benefits that, if recognized, would result in adjustments to the valuation allowance.

The Company's policy is to recognize accrued interest and penalties related to unrecognized tax benefits within the income tax provision. The amount of interest and penalties accrued as of June 27, 2020, June 29, 2019 and June 30, 2018 was approximately $2.7 million, $3.7 million, and $1.9 million, respectively. During fiscal 2020, the Company's accrued interest and penalties decreased by $0.9 million. The timing and resolution of income tax examinations is uncertain, and the amounts ultimately paid, if any, upon resolution of issues raised by the taxing authorities may differ from the amounts accrued for each year. Although we do not expect that our balance of gross unrecognized tax benefits will change materially in the next 12 months, given the uncertainty in the development of ongoing income tax examinations, we are unable to estimate the full range of possible adjustments to this balance.

The Company is routinely subject to various federal, state and foreign audits by taxing authorities. The Company believes that adequate amounts have been provided for any adjustments that may result from these examinations.

The following table summarizes the Company's major tax jurisdictions and the tax years that remain subject to examination by such jurisdictions as of June 27, 2020:

Tax Jurisdictions	Tax Years
United States*	2001 and onward
Canada	2019 and onward
China	2015 and onward
France	2017 and onward
Germany	2015 and onward
Korea	2015 and onward
United Kingdom	2019 and onward

*Although the Company is generally subject to a three-year statute of limitations in the U.S., tax authorities maintain the ability to adjust tax attribute carryforwards generated in earlier years.

Note 15. Stockholders' Equity

Repurchase of Common Stock

As of June 27, 2020, the Board of Directors authorized a stock repurchase program of up to $200 million of the Company's common stock through open market or private transactions before September 30, 2021.

The following table summarizes share repurchase activity related to the Company's stock repurchase program *(in millions, except per share amounts)*:

	Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018
Total number of shares repurchased	3.7	1.1	4.4
Average price per share	$ 11.99	$ 10.14	$ 9.25
Total purchase price	$ 44.4	$ 11.3	$ 40.9
Remaining authorization at end of period	$ 155.6	$ 51.4	$ 62.7

The total purchase price of these repurchases was reflected as a decrease to common stock based on the stated par value per share with the remainder charged to accumulated deficit. All common shares repurchased during fiscal 2020, 2019 and 2018 have been canceled and retired.

Preferred Stock

The Company's Board of Directors has authority to issue up to 1,000,000 shares of undesignated preferred stock and to determine the powers, preferences and rights and the qualifications, limitations or restrictions granted to or imposed upon any wholly unissued shares of undesignated preferred stock and to fix the number of shares constituting any series and the designation of such series, without the consent of the Company's stockholders. The preferred stock could be issued with voting, liquidation, dividend and other rights superior to those of the holders of common stock. Subsequent issuance of any preferred stock by the Company's Board of Directors, under some circumstances, could have the effect of delaying, deferring or preventing a change in control.

Note 16. Stock-Based Compensation

Stock-Based Benefit Plans

Stock Option Plans

On November 13, 2019, the Company's stockholders approved the amendment and restatement of the Company's Amended and Restated 2003 Equity Incentive Plan (the 2003 Plan, as most recently amended and restated, the Amended and Restated 2003 Plan). An additional 10.5 million shares were authorized under the re-approved 2003 plan effective as of November 13, 2019. The Amended and Restated 2003 Plan provides for the granting of stock options, stock appreciation rights (SARs), dividend equivalent rights, restricted stocks, restricted stock units, performance units and performance shares, the vesting of which may be time-based or upon satisfaction of performance criteria or other conditions.

As of June 27, 2020, the Company had 7.2 million shares subject to (i) stock options and Full Value Awards (defined below) issued and outstanding under the Amended and Restated 2003 Plan, (ii) inducement grants made in connection with the appointment of new CEO in fiscal 2016 and (iii) stock options and Full Value Awards issued and outstanding under various other plans the Company assumed through acquisitions. The exercise price for stock options is equal to the fair value of the underlying stock at the date of grant. The Company issues new shares of common stock upon exercise of stock options. Options generally become exercisable over a three- or four-year period and, if not exercised, expire from five to ten years after the date of grant.

As of June 27, 2020, 17.8 million shares of common stock, primarily under Amended and Restated 2003 Plan, were available for grant.

Employee Stock Purchase Plans

In June 1998, the Company adopted the ESPP, which became effective August 1, 1998 and provides eligible employees with the opportunity to acquire an ownership interest in the Company through periodic payroll deductions and provides a discounted purchase price as well as a look-back period. The ESPP is structured as a qualified employee stock purchase plan under Section 423 of the Internal Revenue Code of 1986. The ESPP will terminate upon the earlier of November 15, 2027 or the date on which all shares available for issuance have been sold. As of June 27, 2020, 2.9 million shares remained available for issuance. The ESPP as adopted provided for a 5% discount and a six months look-back period. In May 2019, the ESPP was amended to provide for a 15% discount.

Full Value Awards

Full Value Awards refer to RSUs, MSUs and PSUs that are granted without an exercise price and are converted to shares immediately upon vesting. Full Value Awards are time-based, performance-based with market conditions or other performance conditions and are expected to vest over one to four years. The fair value of the time-based RSUs is based on the closing market price of the Company's common stock on the date the award is granted.

Stock-Based Compensation

The impact on the Company's results of operations of recording stock-based compensation expense by function for fiscal 2020, 2019 and 2018 was as follows (*in millions*):

	Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018
Cost of revenue	$ 4.3	$ 3.8	$ 3.3
Research and development	7.7	6.1	4.9
Selling, general and administrative	32.6	28.3	22.3
Total stock-based compensation expense	$ 44.6	$ 38.2	$ 30.5

Approximately $1.2 million of stock-based compensation expense was capitalized to inventory at June 27, 2020.

Stock Option Activity

The following is a summary of stock option activities (*in millions, except per share amounts*):

	Options Outstanding	
	Number of Shares	Weighted-Average Exercise Price
Balance as of July 1, 2017	1.5	$ 6.16
Exercised	(0.2)	4.53
Balance as of June 30, 2018	1.3	6.42
Exercised	(0.1)	10.54
Balance as of June 29, 2019	1.2	5.95
Exercised	—	—
Balance as of June 27, 2020	1.2	$ 5.95
Expected to vest	1.2	$ 5.95

As of June 27, 2020, stock-based compensation expense related to stock options have been fully amortized and recognized.

The following table summarizes outstanding and exercisable options as of June 27, 2020.

	Options Outstanding				Options Exercisable			
Exercise Price	Number of Shares	Weighted Average Remaining Contractual Term (years)	Weighted Average Exercise Price	Aggregate Intrinsic Value (millions)	Number of Shares	Weighted Average Remaining Contractual Term (years)	Weighted Average Exercise Price	Aggregate Intrinsic Value (millions)
$5.95	1,180,257	3.64	5.95	$ 7.7	1,180,257	3.64	5.95	$ 7.7

The aggregate intrinsic value in the table above represents the total pre-tax intrinsic value, based on the Company's closing stock price of $12.50 as of June 27, 2020, which would have been received by the option holders had all option holders exercised their options as of that date. The total number of in-the-money options exercisable as of June 27, 2020 was 1.2 million.

Employee Stock Purchase Plan Activity

The expense related to the ESPP is recorded on a straight-line basis over the relevant subscription period.

The following summarizes the shares purchased and issued, pursuant to the Company's ESPP during the year ended June 27, 2020 and the fair value market value of the shares at the purchase date:

Purchase date	July 31, 2019	January 31, 2020
Shares issued	222,956	261,303
Fair market value at purchase date	$ 10.98	$ 14.45

As of June 27, 2020, there was $0.2 million of unrecognized stock-based compensation cost related to the ESPP that remains to be amortized. The cost will be recognized in the first quarter of fiscal 2021.

Full Value Awards Activity

A summary of the status of the Company's non-vested Full Value Awards as of June 27, 2020 and changes during the same period is presented below (*amount in millions, except per share amounts*):

	Full Value Awards			
	Performance Shares (1)	Non-Performance Shares	Total Number of Shares	Weighted-average Grant-dated Fair Value
Non-vested at July 1, 2017	1.0	6.3	7.3	$ 7.17
Awards granted	0.8	3.3	4.1	$ 10.01
Awards vested	(0.6)	(3.6)	(4.2)	$ 7.10
Awards forfeited	(0.1)	(0.7)	(0.8)	$ 8.01
Non-vested at June 30, 2018	1.1	5.3	6.4	$ 8.93
Awards granted	0.5	3.9	4.4	$ 11.52
Awards vested	(0.6)	(3.2)	(3.8)	$ 8.61
Awards forfeited	—	(0.3)	(0.3)	$ 9.63
Non-vested June 29, 2019	1.0	5.7	6.7	$ 10.81
Awards granted	0.7	3.2	3.9	$ 13.76
Awards vested	(0.7)	(3.4)	(4.1)	$ 10.40
Awards forfeited	—	(0.4)	(0.4)	$ 11.44
Non-vested June 27, 2020	1.0	5.1	6.1	$ 12.97

(1) Performance Shares refer to the Company's MSU and PSU awards, where the actual number of shares awarded upon vesting may be higher or lower than the target amount depending on the achievement of the relevant market conditions and performance goal achievement. The majority of MSUs vest

in equal annual installments over three to four years based on the attainment of certain total shareholder performance measures and the employee's continued service through the vest date. The aggregate grant-date fair value of MSUs granted during fiscal 2020, 2019 and 2018 was estimated to be $7.7 million, $6.2 million and $4.7 million, respectively, and was calculated using a Monte Carlo simulation. The Company did not grant any PSU awards in fiscal 2020 and 2019. The fair value of the PSUs granted in fiscal 2018 was $1.4 million. PSU awards vest based on the attainment of certain performance measures and the employee's continued service through the vest date.

As of June 27, 2020, $54.5 million of unrecognized stock-based compensation cost related to Full Value Awards remains to be amortized. That cost is expected to be recognized over an estimated amortization period of 1.7 years.

Valuation Assumptions

The Company estimates the fair value of the MSUs on the date of grant using a Monte Carlo simulation with the following assumptions:

	Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018
Volatility of common stock	30.4%	28.9%	30.1%
Average volatility of peer companies	52.5%	31.0%	32.6%
Average correlation coefficient of peer companies	0.1842	0.1383	0.1618
Risk-free interest rate	1.5%	2.6%	1.4%

The Company did not issue stock option grants during the fiscal years ended June 27, 2020, June 29, 2019 and June 30, 2018. The Company estimates the fair value ESPP purchase rights using a BSM valuation model. The fair value is estimated on the date of grant using the BSM option valuation model with the following weighted-average assumptions:

	Employee Stock Purchase Plans		
	June 27, 2020	June 29, 2019	June 30, 2018
Expected term (in years)	0.5	0.5	0.5
Expected volatility	27.6%	33.2%	28.0%
Risk-free interest rate	1.8%	2.3%	1.4%

Expected Term: The Company's expected term for stock options was calculated utilizing the simplified method in accordance with the authoritative guidance. The Company used the simplified method as the Company does not have sufficient historical share option exercise data due to the limited number of shares granted as well as changes in the Company's business following the Separation, rendering existing historical experience less reliable in formulating expectations for current grants. The Company's expected term for ESPP purchase rights is in line with the six months offerings periods provided for under the ESPP.

Expected Volatility: The expected volatility for stock options was based on the historical volatility of the Company's common stock and its peers. The expected volatility for ESPP purchase rights was based on the historical volatility of its stock price with similar expected term.

Risk-Free Interest Rate: The Company bases the risk-free interest rate used in the BSM valuation method on the implied yield currently available on U.S. Treasury zero-coupon issues with an equivalent remaining term.

Expected Dividend: The BSM valuation model calls for a single expected dividend yield as an input. The Company has not paid and does not anticipate paying any dividends in the near future.

Note 17. Employee Pension and Other Benefit Plans

Employee 401(k) Plans

The Company sponsors the Viavi Solutions 401(k) Plan (the 401(k) Plan), a defined contribution plan under ERISA, which provides retirement benefits for its eligible employees through tax deferred salary deductions. The 401(k) Plan allows employees to contribute up to 50% of their annual compensation, with contributions limited to $19,500 in calendar year 2020 as set by the Internal Revenue Service.

For all eligible employees, the Company offers a 401(k) Plan that provides a 100% match of employees' contributions up to the first 3% of annual compensation and 50% match on the next 2% of compensation. All matching contributions are made in cash and vest immediately. The Company's matching contributions to the 401(k) Plan were $4.9 million, $4.9 million and $4.2 million in fiscal 2020, 2019 and 2018, respectively.

Employee Defined Benefit Plans

The Company sponsors significant qualified and non-qualified pension plans for certain past and present employees in the U.K. and Germany including the plan assumed from AW acquisition. The Company also is responsible for the non-pension postretirement benefit obligation assumed from a past acquisition.

Most of the plans have been closed to new participants and no additional service costs are being accrued, except for certain plans in Germany assumed in connection with an acquisition during fiscal 2010. Benefits are generally based upon years of service and compensation or stated amounts for each year of service. As of June 27, 2020, the U.K. plan was partially funded while the other plans were unfunded. The Company's policy for funded plans is to make contributions equal to or greater than the requirements prescribed by law or regulation. For unfunded plans, the Company pays the postretirement benefits when due. Future estimated benefit payments are summarized below. No other required contributions are expected in fiscal 2021, but the Company, at its discretion, can make contributions to one or more of the defined benefit plans.

The Company accounts for its obligations under these pension plans in accordance with the authoritative guidance which requires the Company to record its obligation to the participants, as well as the corresponding net periodic cost. The Company determines its obligation to the participants and its net periodic cost principally using actuarial valuations provided by third-party actuaries. The obligation the Company records on its Consolidated Balance Sheets is reflective of the total PBO and the fair value of plan assets.

The following table presents the components of the net periodic benefit cost for the pension and benefits plans (*in millions*):

	Years Ended		
	June 27, 2020	**June 29, 2019**	**June 30, 2018**
Service cost	$ 0.3	$ 0.2	$ 0.2
Interest cost	1.9	2.5	2.7
Expected return on plan assets	(1.5)	(1.6)	(1.5)
Recognized net actuarial losses	2.8	1.8	1.5
Net periodic cost	$ 3.5	$ 2.9	$ 2.9

The Company's accumulated other comprehensive income includes unrealized net actuarial (gains)/losses. The amount expected to be recognized in net periodic benefit cost during fiscal 2021 is $2.1 million. Refer to "Note 18. Commitments and Contingencies" for further information on the provision for legal proceeding. The changes in the benefit obligations and plan assets of the pension and benefits plans were (*in millions*):

	Pension Benefit Plans	
	June 27, 2020	June 29, 2019
Change in benefit obligation		
Benefit obligation at beginning of year	$ 140.0	$ 136.7
Service cost	0.3	0.2
Interest cost	1.9	2.5
Actuarial (gains) losses	4.6	10.0
Benefits paid	(5.1)	(5.4)
Assumed benefit obligation from acquisition	—	—
Foreign exchange impact	(2.8)	(4.0)
Benefit obligation at end of year	$ 138.9	$ 140.0
Change in plan assets		
Fair value of plan assets at beginning of year	$ 29.9	$ 30.0
Actual return on plan assets	0.2	1.4
Employer contributions	4.8	5.1
Benefits paid	(5.0)	(5.4)
Foreign exchange impact	(0.9)	(1.2)
Fair value of plan assets at end of year	$ 29.0	$ 29.9
Funded status	$ (109.9)	$ (110.1)
Accumulated benefit obligation	$ 138.6	$ 139.7

	Pension Benefit Plans	
	June 27, 2020	June 29, 2019
Amount recognized in the Consolidated Balance Sheets at end of year:		
Current liabilities	$ 7.6	$ 7.3
Non-current liabilities	102.3	102.8
Net amount recognized at end of year	$ 109.9	$ 110.1
Amount recognized in accumulated other comprehensive (loss) income at end of year:		
Actuarial losses, net of tax	$ (31.2)	$ (28.6)
Net amount recognized at end of year	$ (31.2)	$ (28.6)
Other changes in plan assets and benefit obligations recognized in other comprehensive (loss) income:		
Net actuarial gain (loss)	$ (5.4)	$ (7.3)
Amortization of accumulated net actuarial losses	2.8	1.8
Total recognized in other comprehensive (loss) income	$ (2.6)	$ (5.5)

As of June 27, 2020 and June 29, 2019, the liability balances related to the post retirement benefit plan were $0.4 million and $0.4 million, respectively. The liability balances were included in other non-current liabilities on the Consolidated Balance Sheets.

During fiscal 2020, the Company (amounts represented as £ and $ denote GBP and USD, respectively) contributed £0.5 million or approximately $0.6 million, while in fiscal 2019, the Company contributed £0.5 million or approximately $0.6 million to its U.K. pension plan. These contributions allowed the Company to comply with regulatory funding requirements.

Assumptions

Underlying both the calculation of the PBO and net periodic cost are actuarial valuations. These valuations use participant-specific information such as salary, age, years of service, and assumptions about interest rates, compensation increases and other factors. At a minimum, the Company evaluates these assumptions annually and makes changes as necessary.

The discount rate reflects the estimated rate at which the pension benefits could be effectively settled. In developing the discount rate, the Company considered the yield available on an appropriate AA corporate bond index, adjusted to reflect the term of the scheme's liabilities as well as a yield curve model developed by the Company's actuaries.

The expected return on assets was estimated by using the weighted average of the real expected long-term return (net of inflation) on the relevant classes of assets based on the target asset mix and adding the chosen inflation assumption.

The following table summarizes the weighted average assumptions used to determine net periodic cost and benefit obligation for the Company's U.K. and German pension plans:

	Pension Benefit Plans		
	June 27, 2020	June 29, 2019	June 30, 2018
Used to determine net period cost at end of year:			
Discount rate	1.1%	1.4%	1.9%
Expected long-term return on plan assets	5.6	5.6	5.7
Rate of pension increase	2.3	2.3	2.3
Used to determine benefit obligation at end of year:			
Discount rate	1.0%	1.4%	1.9%
Rate of pension increase	2.2	2.3	2.3

Investment Policies and Strategies

The Company's investment objectives for its funded pension plan are to ensure that there are sufficient assets available to pay out members' benefits as and when they arise and that, should the plan be discontinued at any point in time, there would be sufficient assets to meet the discontinuance liabilities.

To achieve these objectives, the trustees of the U.K. pension plan are responsible for regularly monitoring the funding position and managing the risk by investing in assets expected to outperform the increase in value of the liabilities in the long term and by investing in a diversified portfolio of assets in order to minimize volatility in the funding position. The trustees invest in a range of frequently traded funds (pooled funds) rather than direct holdings in individual securities to maintain liquidity, achieve diversification and reduce the potential for risk concentration. The funded plan assets are managed by professional third-party investment managers.

Fair Value Measurement of Plan Assets

The following table sets forth the plan assets at fair value and the percentage of assets allocations as of June 27, 2020 (*in millions, except percentage data*):

	Target Allocation	Total	Percentage of Plan Assets	Fair value measurement as of June 27, 2020 Level 1	Level 2
Assets:					
Global equity	40%	$ 11.6	40.0%	$ —	$ 11.6
Fixed income	40%	10.9	37.6%	—	10.9
Other	20%	6.4	22.1%	—	6.4
Cash		0.1	0.3%	0.1	—
Total assets		$ 29.0	100.0%	$ 0.1	$ 28.9

The following table sets forth the plan's assets at fair value and the percentage of assets allocations as of June 29, 2019 (*in millions, except percentage data*).

	Target Allocation	Total	Percentage of Plan Assets	Fair value measurement as of June 29, 2019 Level 1	Level 2
Assets:					
Global equity	40%	$ 11.6	38.8%	$ —	$ 11.6
Fixed income	40%	11.5	38.5%	—	11.5
Other	20%	6.7	22.4%	—	6.7
Cash		0.1	0.3%	0.1	—
Total assets		$ 29.9	100.0%	$ 0.1	$ 29.8

The Company's pension assets consist of multiple institutional funds (pension funds) of which the fair values are based on the quoted prices of the underlying funds. Pension funds are classified as Level 2 assets since such funds are not directly traded in active markets.

Global equity consists of several index funds that invest primarily in U.K. equities and other overseas equities.

Fixed income consists of several funds that invest primarily in index-linked Gilts (over 5 year), sterling-denominated investment grade corporate bonds, and overseas government bonds.

Other consists of several funds that primarily invest in global equities, bonds, private equity, global real estate and infrastructure funds.

Future Benefit Payments

The following table reflects the total expected benefit payments to defined benefit pension plan participants. These payments have been estimated based on the same assumptions used to measure the Company's PBO at fiscal year end and include benefits attributable to estimated future compensation increases (*in millions*).

	Pension Benefit Plans
2021	$ 8.6
2022	6.0
2023	6.7
2024	6.1
2025	5.9
2026 - 2030	26.5
Thereafter	50.1
Total	$ 109.9

Timing of the payment relating to the legal proceeding, which is included in the above table under "Thereafter," is not yet determined. Refer to "Note 18. Commitments and Contingencies" for further information.

Note 18. Commitments and Contingencies

Royalty payment

In connection with the AW acquisition, the Company is obligated to make future minimum royalty payments of $2.3 million measured as of June 27, 2020 for the use of certain licensed technologies. Future minimum quarterly payments are scheduled at approximately $0.2 million through the second quarter of fiscal 2023 and $0.1 million thereafter until approximately the fourth quarter of fiscal 2026.

Purchase Obligations

Purchase obligations of $99.8 million as of June 27, 2020, represent legally-binding commitments to purchase inventory and other commitments made in the normal course of business to meet operational requirements. Although open purchase orders are considered enforceable and legally binding, the terms generally allow the option to cancel, reschedule and adjust the requirements based on the Company's business needs prior to the delivery of goods or performance of services. Obligations to purchase inventory and other commitments are generally expected to be fulfilled within one year.

The Company depends on a limited number of contract manufacturers, subcontractors, and suppliers for raw materials, packages and standard components. The Company generally purchases these single or limited source products through standard purchase orders or one-year supply agreements and has no significant long-term guaranteed supply agreements with such vendors. While the Company seeks to maintain a sufficient safety stock of such products and maintains on-going communications with its suppliers to guard against interruptions or cessation of supply, the Company's business and results of operations could be adversely affected by a stoppage or delay of supply, substitution of more expensive or less reliable products, receipt of defective parts or contaminated materials, increases in the price of such supplies, or the Company's inability to obtain reduced pricing from its suppliers in response to competitive pressures.

Financing Obligations

On August 21, 2007, the Company entered into a sale and lease-back of certain buildings and land in Santa Rosa, California (the Santa Rosa Transactions), under which we leased back certain buildings. The net cash proceeds received from the transaction were $32.2 million. The lease terms range from a one year lease with multiple renewal options to a ten years lease with two five years renewal options. These buildings did not qualify for sale and lease back accounting due to various forms of continuing involvement and as a result, they were accounted for as financing transactions.

In August 2012 and May 2019, the Company entered into two lease amendments to extend the term of the lease to August 31, 2032 with a 10 years renewal option. In the first quarter of fiscal 2020, the Company reassessed whether a sale would have occurred

on the date of adoption of ASC 842 and at which time, concluded that the buildings did not qualify for sale and lease back accounting in accordance with ASC 842. As a result, they were continuously accounted for as financing transactions.

As of June 27, 2020, $0.1 million was included in Other current liabilities, and $16.2 million was included in Other non-current liabilities. As of June 29, 2019, $1.1 million was included in Other current liabilities, and $21.8 million was included in Other non-current liabilities.

As of June 27, 2020, future minimum annual lease payments of Santa Rosa's non-cancelable leaseback agreements were as follows *(in millions)*:

2020	$	2.8
2021		2.9
2022		2.4
2023		2.4
2024		2.4
Thereafter		18.7
Total minimum leaseback payments	$	31.6

Guarantees

In accordance with authoritative guidance which requires that upon issuance of a guarantee, the guarantor must recognize a liability for the fair value of the obligation it assumes under that guarantee. In addition, disclosures about the guarantees that an entity has issued, including a tabular reconciliation of the changes of the entity's product warranty liabilities, are required.

The Company from time to time enters into certain types of contracts that contingently require the Company to indemnify parties against third-party claims. These contracts primarily relate to: (i) divestiture agreements, under which the Company may provide customary indemnifications to purchasers of the Company's businesses or assets; (ii) certain real estate leases, under which the Company may be required to indemnify property owners for environmental and other liabilities, and other claims arising from the Company's use of the applicable premises; and (iii) certain agreements with the Company's officers, directors and employees, under which the Company may be required to indemnify such persons for liabilities arising out of their employment relationship.

The terms of such obligations vary. Generally, a maximum obligation is not explicitly stated. Because the obligated amounts of these types of agreements often are not explicitly stated, the overall maximum amount of the obligations cannot be reasonably estimated. Historically, the Company has not been obligated to make significant payments for these obligations, and no liabilities have been recorded for these obligations on the Consolidated Balance Sheets as of June 27, 2020 and June 29, 2019.

Pursuant to the Separation and Distribution Agreement dated as of July 31, 2015 between the Company and Lumentum Holdings Inc. (Lumentum) and the Tax Matter Agreement dated as of July 31, 2015 between the Company and Lumentum, the Company is required to indemnify Lumentum and its subsidiaries for certain specified tax liabilities. During the second quarter of fiscal 2019, the Ontario Ministry of Finance denied the Company's appeal of an assessment of the applicable tax liabilities at which time the Company recorded a charge of $2.4 million to its discontinued operations.

Outstanding Letters of Credit and Performance Bonds

As of June 27, 2020, the Company had standby letters of credit of $7.4 million and performance bonds of $1.0 million collateralized by restricted cash.

Product Warranties

The Company provides reserves for the estimated costs of product warranties at the time revenue is recognized. In general, the Company offers its customers warranties up to three years and has accrued a reserve for the estimated costs of product warranties at the time revenue is recognized. It estimates the costs of its warranty obligations based on its historical experience of known product failure rates, use of materials to repair or replace defective products and service delivery costs incurred in correcting product failures. In addition, from time to time, specific warranty accruals may be made if unforeseen technical problems arise. The Company periodically assesses the adequacy of its recorded warranty liabilities and adjusts the amounts as necessary.

The following table presents the changes in the Company's warranty reserve during fiscal years 2020 and 2019 (*in millions*):

	Year Ended	
	June 27, 2020	June 29, 2019
Balance as of beginning of period	$ 8.7	$ 8.2
Provision for warranty	3.1	4.0
Utilization of reserve	(3.4)	(5.2)
Adjustments related to pre-existing warranties (including changes in estimates)	1.0	1.7
Balance as of end of period	$ 9.4	$ 8.7

Contingent Purchase Consideration

Contingent liabilities include contingent consideration in connection with the Company's acquisitions, which represent earn-out payments and is recognized at fair value on the acquisition date and is remeasured each reporting period with subsequent adjustments recognized in the consolidated statements of income. See "Note 5. Acquisitions" for additional information related to the Company's acquisitions. The Company discounts the contingent purchase consideration to present value using a risk adjusted interest rate at each reporting period. Contingent consideration is valued using significant Level 3 inputs, that are not observable in the market pursuant to fair value measurement accounting. While the Company believes the estimates and assumptions are reasonable, there is significant judgment and uncertainty involved.

The Company's Level 3 liabilities as of June 27, 2020, consist of contingent purchase consideration. The Company has aggregate contingent liabilities related to its business and asset acquisitions completed during fiscal 2020 and 2019. As June 27, 2020 and June 29, 2019, the aggregate fair value of contingent consideration was $9.9 million and $38.4 million, respectively. The fair value of earn-out liabilities were determined using a Monte Carlo Simulation that includes significant unobservable inputs such as the risk-adjusted discount rate, gross profit volatility, and projected financial forecast of acquired business over the earn-out period. See "Note 8. Fair Value Measurements" for additional information related to the Company's earn-outs.

Legal Proceedings

In June 2016, the Company received a court decision regarding the validity of an amendment to a pension deed of trust related to one of its foreign subsidiaries which the Company contends contained an error requiring the Company to increase the pension plan's benefit. The Company had subsequently further amended the deed to rectify the error. The court ruled that the amendment increasing the pension plan benefit was valid until the subsequent amendment. The Company estimated the liability to range from (amounts represented as £ denote GBP) £5.7 million to £8.4 million. The Company determined that the likelihood of loss to be probable and accrued £5.7 million as of July 2, 2016 in accordance with authoritative guidance on contingencies. The accrual is included as a component of other non-current liabilities, in the Company's Consolidated Statement of Operations and Consolidated Balance Sheets, respectively.

The Company pursued an appeal of the court decision. In March 2018, the appellate court affirmed the decision of the lower court. The Company is pursuing a deed of rectification claim and continues to pursue a claim against the U.K. law firm responsible for the error. As of June 27, 2020, the related accrued pension liability was £7.5 million or $9.2 million.

The Company is subject to a variety of claims and suits that arise from time to time in the ordinary course of its business. While management currently believes that resolving claims against the Company, individually or in aggregate, will not have a material adverse impact on its financial position, results of operations or statement of cash flows, these matters are subject to inherent uncertainties and management's view of these matters may change in the future. Were an unfavorable final outcome to occur, there exists the possibility of a material adverse impact on the Company's financial position, results of operations or cash flows for the period in which the effect becomes reasonably estimable.

Note 19. Operating Segments and Geographic Information

The Company evaluates its reportable segments in accordance with the authoritative guidance on segment reporting. The Company's Chief Executive Officer is the Company's Chief Operating Decision Maker (CODM), uses operating segment financial information to evaluate segment performance and to allocate resources.

The Company's reportable segments are:

(i) Network Enablement:

NE provides testing solutions that access the network to perform build-out and maintenance tasks. These solutions include instruments, software and services to design, build, activate, certify, troubleshoot and optimize networks. The Company also offers a range of product support and professional services such as repair, calibration, software support and technical assistance for its products. NE's avionics products provide test and measuring solutions for aviation, aerospace, government, defense, communications and public safety.

(ii) Service Enablement:

SE solutions are embedded systems that yield network, service and application performance data. These solutions—including instruments, microprobes and software—monitor, collect and analyze network data to reveal the actual customer experience and to identify opportunities for new revenue streams and network optimization.

(iii) Optical Security and Performance Products:

OSP provides innovative, precision, high performance optical products for anti-counterfeiting, consumer and industrial, government, automotive, industrial and other markets.

Segment Reporting

The CODM manages the Company in two broad business categories: NSE and OSP. The CODM evaluates segment performance of the NSE business based on the combined segment gross and operating margins. Operating expenses associated with the NSE business are not allocated to the individual segments within NSE, as they are managed centrally at the business unit level. The CODM evaluates segment performance of the OSP business based on segment operating margin. The Company allocates corporate-level operating expenses to its segment results, except for certain non-core operating and non-operating activities as discussed below.

The Company does not allocate stock-based compensation, acquisition-related charges, amortization of intangibles, restructuring and related charges, impairment of goodwill, non-operating income and expenses, changes in fair value of contingent consideration liabilities, or other charges unrelated to core operating performance to its segments because management does not include this information in its measurement of the performance of the operating segments. These items are presented as "Other Items" in the table below. Additionally, the Company does not specifically identify and allocate all assets by operating segment.

VIAVI SOLUTIONS INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Information on the Company’s reportable segments is as follows (*in millions*):

	Year Ended June 27, 2020					
	Network and Service Enablement					
	Network Enablement	Service Enablement	Network and Service Enablement	Optical Security and Performance Products	Other Items	Consolidated GAAP Measures
Product revenue	$ 669.1	$ 49.9	$ 719.0	$ 286.2	$ —	$ 1,005.2
Service revenue	77.6	52.8	130.4	0.7	—	131.1
Net revenue	$ 746.7	$ 102.7	$ 849.4	$ 286.9	$ —	$ 1,136.3
Gross profit	482.4	68.8	551.2	153.0	(38.9)	665.3
Gross margin	64.6%	67.0%	64.9%	53.3%		58.5%
Operating income			108.8	102.1	(92.8)	118.1
Operating margin			12.8%	35.6%		10.4%

	Year Ended June 29, 2019					
	Network and Service Enablement					
	Network Enablement	Service Enablement	Network and Service Enablement	Optical Security and Performance Products	Other Items	Consolidated GAAP Measures
Product revenue	$ 666.2	$ 49.7	$ 715.9	$ 288.3	$ —	$ 1,004.2
Service revenue	71.6	53.7	125.3	0.8	—	126.1
Net revenue	$ 737.8	$ 103.4	$ 841.2	$ 289.1	$ —	$ 1,130.3
Gross profit	473.3	71.0	544.3	145.8	(38.7)	651.4
Gross margin	64.2%	68.7%	64.7%	50.4%		57.6%
Operating income			99.6	98.0	(130.2)	67.4
Operating margin			11.8%	33.9%		6.0%

	Year Ended June 30, 2018					
	Network and Service Enablement					
	Network Enablement	Service Enablement	Network and Service Enablement	Optical Security and Performance Products	Other Items	Consolidated GAAP Measures
Product revenue	$ 497.1	$ 59.3	$ 556.4	$ 216.0	$ —	$ 772.5
Service revenue	42.0	59.2	101.2	2.1	—	103.2
Net revenue	$ 539.1	$ 118.5	$ 657.6	$ 218.1	$ —	$ 875.7
Gross profit	334.3	82.6	416.9	115.2	(43.7)	488.4
Gross margin	62.0%	69.7%	63.4%	52.8%		55.8%
Operating income			43.6	78.2	(119.9)	1.9
Operating margin			6.6%	35.9%		0.2%

VIAVI SOLUTIONS INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018
Corporate reconciling items impacting gross profit:			
Total segment gross profit	$ 704.2	$ 690.1	$ 532.1
Stock-based compensation	(4.3)	(3.8)	(3.3)
Amortization of intangibles	(32.7)	(34.4)	(26.7)
Other charges unrelated to core operating performance	(1.9)	(0.5)	(13.7)
GAAP gross profit	$ 665.3	$ 651.4	$ 488.4
Corporate reconciling items impacting operating income:			
Total segment operating income	$ 210.9	$ 197.6	$ 121.8
Stock-based compensation	(44.6)	(38.2)	(30.5)
Amortization of intangibles	(67.8)	(72.5)	(47.7)
Change in fair value of contingent liability (4)	31.5	5.9	—
Other charges unrelated to core operating performance (1)(2)(3)	(8.4)	(10.0)	(33.4)
Restructuring and related charges	(3.5)	(15.4)	(8.3)
GAAP operating income from continuing operations	$ 118.1	$ 67.4	$ 1.9

(1) During the years ended June 27, 2020, other charges unrelated to core operating performance primarily consisted of $1.4 million in acquisition related costs.

(2) During the years ended June 29, 2019, other charges unrelated to core operating performance primarily consisted of $5.0 million in acquisition related costs.

(3) During the years ended June 30, 2018, other charges unrelated to core operating performance primarily consisted of a $12.7 million in acquisition related costs and $12.4 million in amortization of inventory step-up.

(4) Refer to "Note 8. Fair Value Measurements" for further detail.

The Company operates primarily in three geographic regions: Americas, Asia-Pacific, and Europe, Middle East and Africa (EMEA). Net revenue is assigned to the geographic region and country where the Company's product is initially shipped. For example, certain customers may request shipment of product to a contract manufacturer in one country, which may differ from the location of their end customers. The following table presents net revenue by the three geographic regions the Company operates in and net revenue from countries that exceeded 10% of the Company's total net revenue *(in millions):*

	Years Ended								
	June 27, 2020			June 29, 2019			June 30, 2018		
	Product Revenue	Service Revenue	Total	Product Revenue	Service Revenue	Total	Product Revenue	Service Revenue	Total
Americas:									
United States	$ 288.3	$ 53.3	$ 341.6	$ 287.1	$ 55.0	$ 342.1	$ 282.6	$ 52.9	$ 335.5
Other Americas	57.8	15.4	73.2	69.4	14.8	84.2	64.2	16.8	81.0
Total Americas	$ 346.1	$ 68.7	$ 414.8	$ 356.5	$ 69.8	$ 426.3	$ 346.8	$ 69.7	$ 416.5
Asia-Pacific:									
Greater China	$ 238.2	$ 7.5	$ 245.7	$ 209.4	$ 7.2	$ 216.6	$ 126.6	$ 2.0	$ 128.6
Other Asia	108.0	14.5	122.5	142.3	13.3	155.6	78.3	6.9	85.2
Total Asia-Pacific	$ 346.2	$ 22.0	$ 368.2	$ 351.7	$ 20.5	$ 372.2	$ 204.9	$ 8.9	$ 213.8
EMEA:									
Switzerland	$ 64.5	$ 0.1	$ 64.6	$ 97.0	$ —	$ 97.0	$ 75.2	$ 0.1	$ 75.3
Other EMEA	248.4	40.3	288.7	199.0	35.8	234.8	145.6	24.5	170.1
Total EMEA	$ 312.9	$ 40.4	$ 353.3	$ 296.0	$ 35.8	$ 331.8	$ 220.8	$ 24.6	$ 245.4
Total net revenue	$ 1,005.2	$ 131.1	$ 1,136.3	$ 1,004.2	$ 126.1	$ 1,130.3	$ 772.5	$ 103.2	$ 875.7

VIAVI SOLUTIONS INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

SICPA Holding SA Company (SICPA), served by the Company's OSP segment, generated more than 10% of VIAVI net revenue from continuing operations during fiscal 2020, 2019 and 2018 as summarized below (*in millions*):

	Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018
SICPA - OSP customer	$ 139.9	$ 161.1	$ 129.3

Property, plant and equipment, net was identified based on the operations in the corresponding geographic areas (*in millions*):

	Years Ended	
	June 27, 2020	June 29, 2019
United States	$ 85.0	$ 89.4
Other Americas	1.6	1.6
China	43.8	49.0
Other Asia-Pacific	5.8	5.6
United Kingdom	30.1	23.8
Other EMEA	6.2	10.5
Total property, plant and equipment, net	$ 172.5	$ 179.9

Note 20. Selected Quarterly Financial Information (unaudited)

The following table presents the Company's selected quarterly financial information from the Consolidated Statements of Operations for fiscal 2020 and 2019 (*in millions, except per share data*):

	June 27, 2020	March 28, 2020	December 28, 2019	September 28, 2019	June 29, 2019	March 30, 2019	December 29, 2018	September 29, 2018
Net revenue	$ 266.6	$ 256.2	$ 313.7	$ 299.8	$ 289.7	$ 265.2	$ 306.9	$ 268.5
Gross profit	154.6	146.8	189.5	174.4	169.5	153.5	178.0	150.4
Net income (loss) from continuing operations, net of tax	26.7	(32.8)	28.0	6.8	12.5	(4.8)	15.4	(15.3)
Net income (loss) from discontinued operations, net of tax	—	—	—	—	—	—	(2.4)	—
Net income (loss)	$ 26.7	$ (32.8)	$ 28.0	$ 6.8	$ 12.5	$ (4.8)	$ 13.0	$ (15.3)
Net income (loss) per share from - basic:								
Continuing operations (1)	$ 0.12	$ (0.14)	$ 0.12	$ 0.03	$ 0.05	$ (0.02)	$ 0.07	$ (0.07)
Discontinued operations (1)	—	—	—	—	—	—	(0.01)	—
Net income (loss) (1)	$ 0.12	$ (0.14)	$ 0.12	$ 0.03	$ 0.05	$ (0.02)	$ 0.06	$ (0.07)
Net income (loss) per share from - diluted:								
Continuing operations (1)	$ 0.12	$ (0.14)	$ 0.12	$ 0.03	$ 0.05	$ (0.02)	$ 0.07	$ (0.07)
Discontinued operations (1)	—	—	—	—	—	—	(0.01)	—
Net income (loss) (1)	$ 0.12	$ (0.14)	$ 0.12	$ 0.03	$ 0.05	$ (0.02)	$ 0.06	$ (0.07)
Shares used in per-share calculation:								
Basic	228.1	230.0	230.0	229.4	228.7	228.3	228.3	227.2
Diluted	230.3	230.0	238.3	236.4	232.5	228.3	230.4	227.2

(1) Net income (loss) per share is computed independently for each of the fiscal quarters presented. Therefore, the sum of the quarterly basic and diluted net income (loss) per share amounts may not equal the annual basic and diluted net income (loss) per share amount for the full fiscal years.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

(a) EVALUATION OF DISCLOSURE CONTROL AND PROCEDURES

The SEC defines the term "disclosure controls and procedures" to mean a company's controls and other procedures that are designed to ensure that information required to be disclosed in the reports that it files or submits under the Exchange Act is recorded, processed, summarized, and reported, within the time periods specified in the SEC's rules and forms. "Disclosure controls and procedures" include, without limitation, controls and procedures designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Exchange Act of 1934, as amended, is accumulated and communicated to the issuer's management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. Our disclosure controls and procedures are designed to provide reasonable assurance that such information is accumulated and communicated to our management. Our management (with the participation of our Chief Executive Officer (CEO) and Chief Financial Officer (CFO)) has conducted an evaluation of the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act). Based on such evaluation, our CEO and our CFO have concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of the end of the period covered by this report. Based on such evaluation, our CEO and CFO have concluded that our disclosure controls and procedures were effective as of June 27, 2020.

(b) MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act). Our management, including our CEO and CFO, conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in the *Internal Control-Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on its evaluation under the framework in the *Internal Control-Integrated Framework* (2013), our management concluded that our internal control over financial reporting was effective as of June 27, 2020.

The effectiveness of the Company's internal control over financial reporting as of June 27, 2020 has been audited by our independent registered public accounting firm PricewaterhouseCoopers LLP, as stated in their report which appears in this Annual Report on Form 10-K under Item 8 Financial Statements and Supplementary Information.

(c) CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There were no changes in our internal control over financial reporting, as defined in Exchange Act Rule 13a-15(f), during the quarter ended June 27, 2020, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

(d) LIMITATIONS ON EFFECTIVENESS OF CONTROLS

Our management, including our CEO and CFO, does not expect that our disclosure controls and procedures or our internal controls will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within our company have been detected. Accordingly, our disclosure controls and procedures and our internal controls provide reasonable assurance of achieving their objectives.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information regarding the Company's executive officers and directors required by this Item is incorporated by reference to the section entitled "Proposal One—Elections of Directors" in the Company's Definitive Proxy Statement in connection with the 2020 Annual Meeting of Stockholders (the Proxy Statement), which will be filed with the Securities and Exchange Commission within 120 days of the fiscal year ended June 27, 2020. Information required by Item 405 of Regulation S-K is incorporated by reference to the section entitled "Beneficial Ownership Reporting Compliance" in the Proxy Statement.

The Company has adopted the "Viavi Code of Business Conduct" as its code of ethics, which is applicable to all employees, officers and directors of the Company. The full text of the Viavi Code of Business Conduct is available under Corporate Governance Information which can be found under the Investors tab on the Company's *website at www.viavisolutions.com*.

We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding amendment to, or waiver from, a provision of our Code of Business Conduct by posting such information on our investor relations website under the heading "Governance-Governance Documents" at *http://investor.viavisolutions.com/corporate-governance/default.aspx*.

ITEM 11. EXECUTIVE COMPENSATION

Information required by this item is incorporated by reference to the sections entitled "Executive Compensation," "Director Compensation," "Compensation Program Risk Assessment," "Corporate Governance—Compensation Committee Interlocks and Insider Participation," and "Compensation Committee Report" in the Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information regarding security ownership of certain beneficial owners and management is incorporated by reference to the section entitled “Security Ownership of Certain Beneficial Owners and Management” in the Proxy Statement.

Information regarding the Company’s stockholder approved and non-approved equity compensation plans is incorporated by reference to the section entitled “Equity Compensation Plans” in the Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information required by this item is incorporated by reference to the sections entitled “Certain Relationships and Related Person Transactions,” and “Code of Ethics,” “Director Independence,” and “Board Committees and Meetings” under the “Corporate Governance” heading in the Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information required by this item is incorporated by reference to the section entitled “Audit and Non-Audit Fees” in the Proxy Statement.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) The following items are filed as part of this Annual Report on Form 10-K:

(1) Financial Statements:

	Page
Report of Independent Registered Public Accounting Firm	47
Consolidated Statements of Operations — Years Ended June 27, 2020, June 29, 2019 and June 30, 2018	49
Consolidated Statements of Comprehensive (Loss) Income — Years Ended June 27, 2020, June 29, 2019 and June 30, 2018	50
Consolidated Balance Sheets — June 27, 2020 and June 29, 2019	51
Consolidated Statements of Cash Flows — Years Ended June 27, 2020, June 29, 2019 and June 30, 2018	52
Consolidated Statements of Stockholders' Equity — Years Ended June 27, 2020, June 29, 2019 and June 30, 2018	53
Notes to Consolidated Financial Statements	54

(2) Financial Statement Schedules: All financial statement schedules have been omitted because the required information is not present in amounts sufficient to require submission of the schedule, not applicable, or because the required information is included in the Consolidated Financial Statements or Notes thereto.

(3) Exhibits:
See Item 15(b)

(b) Exhibits:

The following exhibits are filed herewith or are incorporated by reference to exhibits previously filed with the Securities and Exchange Commission.

		Incorporated by Reference			Filed	Furnished
Exhibit No.	Exhibit Description	Form	Exhibit	Filing Date	Herewith	Not Filed
2.1	Stock Purchase Agreement by and among IFR Systems, Inc., Lockman Electronic Holdings Limited, Aeroflex Test Solutions Limited and Viavi Solutions Inc. dated as of February 1, 2018	8-K	2.1	2/2/2018		
2.2	Separation and Distribution Agreement by and between JDS Uniphase Corporation, Lumentum Holdings Inc. and Lumentum Operations LLC	8-K	2.3	8/5/2015		
3.1	Fourth Restated Certificate of Incorporation	8-K	3.1	11/20/2018		
3.2	Amended and Restated Bylaws of Viavi Solutions Inc.	10-Q	3.1	2/7/2018		
4.1	Stockholder's and Registration Rights Agreement by and between JDS Uniphase Corporation and Lumentum Holdings Inc.	8-K	4.1	8/5/2015		
4.2	Indenture, dated as of March 3, 2017 between Viavi Solutions Inc. and Wells Fargo Bank, National Association as Trustee	8-K	4.1	3/6/2017		
4.3	Form of 1.00% Senior Convertible Notes due 2024	8-K	4.2 (Incl. in 4.1)	3/6/2017		
4.4	Indenture, dated as of May 29, 2018 between Viavi Solutions Inc. and US Bank National Association as Trustee	8-K	4.1	5/29/2018		
4.5	Form of 1.75% Senior Convertible Notes due 2023	8-K	4.2 (Incl. in 4.1)	5/29/2018		
4.6	Description of Securities				X	

10.1	Employment Agreement between Oleg Khaykin and Viavi Solutions Inc. effective as of February 3, 2016	8-K	10.1	2/2/2016		
10.2	Employment Agreement between Amar Maletira and Viavi Solutions Inc. effective as of September 9, 2015	8-K	10.1	8/6/2015		
10.3	Amended and Restated 1998 Employee Stock Purchase Plan	10-K	10.3	8/27/2019		
10.4	Form of Indemnification Agreement	8-K	10.9	4/20/2015		
10.5	Restated 2003 Equity Incentive Plan	10-Q	10.1	2/6/2020		
10.6	2003 Equity Incentive Plan Form of Performance Unit Award Agreement (for the U.S.)	10-Q	10.1	2/6/2019		
10.7	Tax Matters Agreement by and between JDS Uniphase Corporation and Lumentum Holdings Inc.	8-K	10.1	8/5/2015		
10.8	Viavi Solutions Inc., Change of Control Benefits Plan, (Amended and Restated effective June 16, 2020)	8-K	10.1	6/22/2020		
10.9	Form of Option Grant Notice and Option Agreement, by and between the Registrant and Oleg Khaykin	S-8	99.1	2/11/2016		
10.10	2003 Equity Incentive Plan Form of Restricted Stock Unit Award Agreement	8-K	10.2	6/22/2020		
10.11	Viavi Solutions Inc. Executive Severance and Retention Plan	8-K	10.1	10/19/2015		
10.12	Credit Agreement, dated May 5, 2020 by Viavi Solutions Inc., the lenders party thereto and Wells Fargo N.A. as administrative agent	8-K	10.1	5/6/2020		
10.13	Form of Exchange Agreement between Viavi Solutions Inc. and Holders of 1.75% Senior Convertible Notes due 2023	8-K	10.1	5/29/2018		
10.14	Form of Subscription Agreement between Viavi Solutions Inc. and Holders of 1.75% Senior Convertible Notes due 2023	8-K	10.2	5/29/2018		
21.1	Subsidiaries of Viavi Solutions Inc.				X	
23.1	Consent of Independent Registered Public Accounting Firm (PricewaterhouseCoopers LLP)				X	
24.1	Power of Attorney (included on the signature page to the Report)					
31.1	Certification of the Chief Executive Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X	
31.2	Certification of the Chief Financial Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X	
32.1	Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2	Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
101.SCH	Inline XBRL Taxonomy Extension Schema Document				X	
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document				X	
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document				X	
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document				X	

101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document	X
104	The cover page from the Company’s Annual Report on Form 10-K for the fiscal year ended June 27, 2020, formatted in Inline XBRL.	X

ITEM 16. 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: August 24, 2020	VIAVI SOLUTIONS INC.	
	By:	/s/ AMAR MALETIRA
	Name:	Amar Maletira
	Title:	Executive Vice President and Chief Financial Officer (Duly Authorized Officer and Principal Financial and Accounting Officer)

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Oleg Khaykin and Amar Maletira, and each of them individually, as his or her attorney-in-fact, each with full power of substitution, for him or her in any and all capacities to sign any and all amendments to this Annual Report on Form 10-K, and to file the same with, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that said attorney-in-fact, or his or her substitute, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ OLEG KHAYKIN Oleg Khaykin	President and Chief Executive Officer (Principal Executive Officer)	August 24, 2020
/s/ AMAR MALETIRA Amar Maletira	Executive Vice President and Chief Financial Officer (Duly Authorized Officer and Principal Financial and Accounting Officer)	August 24, 2020
/s/ RICHARD BELLUZZO Richard Belluzzo	Chairman	August 24, 2020
/s/ KEITH BARNES Keith Barnes	Director	August 24, 2020
/s/ TOR BRAHAM Tor Braham	Director	August 24, 2020
/s/ TIMOTHY E. CAMPOS Timothy E. Campos	Director	August 24, 2020
/s/ DONALD COLVIN Donald Colvin	Director	August 24, 2020
/s/ MASOOD JABBAR Masood Jabbar	Director	August 24, 2020
/s/ LAURA BLACK Laura Black	Director	August 24, 2020
/s/ GLENDA DORCHAK Glenda Dorchak	Director	August 24, 2020