

KLA TENCOR CORP
Form 10-K
August 08, 2013
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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 30, 2013

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 000-09992

KLA-TENCOR CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

04-2564110

(I.R.S. Employer
Identification Number)

One Technology Drive, Milpitas, California

95035

(Address of Principal Executive Offices)

(Zip Code)

Registrant's Telephone Number, Including Area Code: (408) 875-3000

Securities Registered Pursuant to Section 12(b) of the Act:

Title of Each Class

Name of Each Exchange on Which Registered

Common Stock, \$0.001 par value per share

The NASDAQ Global Select Market

Securities Registered Pursuant to Section 12(g) of
the Act:

None

(Title of Class)

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 Section 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 and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this

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Form 10-K. ☒

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

Large accelerated filer ☒

Accelerated filer ☐

Non-accelerated filer ☐ (Do not check if a smaller reporting company)

Smaller reporting company ☐

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

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the registrant based upon the closing price of the registrant’s stock, as of December 31, 2012, was approximately \$7.9 billion.

The registrant had 165,731,911 shares of common stock outstanding as of July 18, 2013.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the 2013 Annual Meeting of Stockholders to be held on November 6, 2013 (“Proxy Statement”), and to be filed pursuant to Regulation 14A within 120 days after the registrant’s fiscal year ended June 30, 2013, are incorporated by reference into Part III of this report.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This report contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements other than statements of historical fact may be forward-looking statements. You can identify these and other forward-looking statements by the use of words such as “may,” “will,” “could,” “would,” “should,” “expects,” “plans,” “anticipates,” “relies,” “believes,” “estimates,” “predicts,” “potential,” “continue,” “thinks,” “seeks,” or the negative of such terms, or other comparable terminology. Forward-looking statements also include the assumptions underlying or relating to any of the foregoing statements. Such forward-looking statements include, among others, forecasts of the future results of our operations; orders for our products and capital equipment generally; sales of semiconductors; the allocation of capital spending by our customers (and, in particular, the percentage of spending that our customers allocate to process control); growth of revenue in the semiconductor industry, the semiconductor capital equipment industry and our business; technological trends in the semiconductor industry; future developments or trends in the global capital and financial markets; our future product offerings and product features; the success and market acceptance of new products; timing of shipment of backlog; the future of our product shipments and our product and service revenues; our future gross margins; our future research and development expenses and selling, general and administrative expenses; our ability to successfully maintain cost discipline; international sales and operations; our ability to maintain or improve our existing competitive position; success of our product offerings; creation and funding of programs for research and development; attraction and retention of employees; results of our investment in leading edge technologies; the effects of hedging transactions; the effect of the sale of trade receivables and promissory notes from customers; our future income tax rate; future payments of dividends to our stockholders; the completion of any acquisitions of third parties, or the technology or assets thereof; benefits received from any acquisitions and development of acquired technologies; sufficiency of our existing cash balance, investments and cash generated from operations to meet our operating and working capital requirements; and the adoption of new accounting pronouncements.

Our actual results may differ significantly from those projected in the forward-looking statements in this report. Factors that might cause or contribute to such differences include, but are not limited to, those discussed in Item 1A, “Risk Factors” in this Annual Report on Form 10-K, as well as in Item 1, “Business” and Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in this report. You should carefully review these risks and also review the risks described in other documents we file from time to time with the Securities and Exchange Commission, including the Quarterly Reports on Form 10-Q that we will file in the fiscal year ending June 30, 2014. You are cautioned not to place undue reliance on these forward-looking statements, and we expressly assume no obligation and do not intend to update the forward-looking statements in this report after the date hereof.

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PART I

ITEM 1. BUSINESS

The Company

KLA-Tencor Corporation (“KLA-Tencor” or the “Company” and also referred to as “we” or “our”) is a leading supplier of process control and yield management solutions for the semiconductor and related nanoelectronics industries. Our products are also used in a number of other high technology industries, including the light emitting diode (“LED”) and data storage industries, as well as general materials research.

Within our primary area of focus, our comprehensive portfolio of defect inspection and metrology products, and related service, software and other offerings, helps integrated circuit (“IC” or “chip”) manufacturers manage yield throughout the entire semiconductor fabrication process—from research and development to final volume production. These products and solutions are designed to help customers accelerate their development and production ramp cycles, to achieve higher and more stable semiconductor die yields, and to improve overall profitability.

KLA-Tencor’s products and services are used by the vast majority of bare wafer, IC, lithography reticle (“reticle” or “mask”) and disk manufacturers around the world. These customers turn to us for inline wafer and IC defect monitoring, review and classification; reticle defect inspection and metrology; packaging and interconnect inspection; critical dimension (“CD”) metrology; pattern overlay metrology; film thickness, surface topography and composition measurements; measurement of in-chamber process conditions, wafer shape and stress metrology; computational lithography tools; and overall yield and fab-wide data management and analysis systems. Our advanced products, coupled with our unique yield management services, allow us to deliver the solutions our customers need to accelerate their yield learning rates and significantly reduce their risks and costs.

Certain industry and technical terms used in this section are defined in the subsection entitled “Glossary” found at the end of this Item 1.

KLA-Tencor was formed in April 1997 through the merger of KLA Instruments Corporation and Tencor Instruments, two long-time leaders in the semiconductor equipment industry that originally began operations in 1975 and 1976, respectively.

Additional information about KLA-Tencor is available on our website at www.kla-tencor.com. Our Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, are available free of charge on our website as soon as reasonably practicable after we electronically file them with or furnish them to the Securities and Exchange Commission (“SEC”). Information contained on our website is not part of this Annual Report on Form 10-K or our other filings with the SEC. Additionally, these filings may be obtained through the SEC’s website (www.sec.gov), which contains reports, proxy and information statements, and other information regarding issuers that file electronically. Documents that are not available through the SEC’s website may also be obtained by mailing a request to the U.S. Securities and Exchange Commission, Office of FOIA/PA Operations, 100 F Street N.E., Mail Stop 2736, Washington, DC 20549, by submitting a request via email to the SEC at foiapa@sec.gov or by sending a fax to the SEC at 1-202-772-9337.

Industry

General Background

The semiconductor industry is KLA-Tencor’s core focus. The semiconductor fabrication process begins with a bare silicon wafer—a round disk that is typically 150 millimeters, 200 millimeters or 300 millimeters (usually referred to as “6 inch”, “8 inch” or “12 inch” wafers, respectively) in diameter, about as thick as a credit card and gray in color. The process of manufacturing wafers is in itself highly sophisticated, involving the creation of large ingots of silicon by pulling them out of a vat of molten silicon. The ingots are then sliced into wafers. Prime silicon wafers are then polished to a mirror finish. Other, more specialized wafers, such as epitaxial silicon (“epi”) and silicon-on-insulator (“SOI”), are also common in the semiconductor industry.

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The manufacturing cycle of an IC is grouped into three phases: design, fabrication and testing. IC design involves the architectural layout of the circuit, as well as design verification and reticle generation. The fabrication of a chip is accomplished by depositing a series of film layers that act as conductors, semiconductors or insulators on bare wafers. The deposition of these film layers is interspersed with numerous other process steps that create circuit patterns, remove portions of the film layers, and perform other functions such as heat treatment, measurement and inspection. Most advanced chip designs require hundreds of individual steps, many of which are performed multiple times. Most chips consist of two main structures: the lower structure, typically consisting of transistors or capacitors which perform the “smart” functions of the chip; and the upper “interconnect” structure, typically consisting of circuitry which connects the components in the lower structure. When all of the layers on the wafer have been fabricated, each chip on the wafer is tested for functionality. The wafer is then cut into individual devices, and those chips that passed functional testing are packaged. Final testing is performed on all packaged chips.

Current Trends

The rapid growth of consumer demand for mobile devices, including smartphones, tablets and portable PCs, is currently driving the electronics industry and, as a result, the semiconductor industry as well. Contained within each of these latest consumer devices are advanced semiconductors that are helping enable the features consumers want in device performance, such as battery management and speed, at a lower cost. Alongside this market growth, the industry continues to witness a high rate of change in technology, with the emergence of new techniques and architectures in production today, such as three-dimensional (“3-D”) transistors, advanced patterning lithography and semiconductors with critical dimensions at 28 nanometer and below. KLA-Tencor's inspection and measurement technologies play a key role in enabling the success of our customers' advanced semiconductor manufacturing processes.

Companies that anticipate future market demands by developing and refining new technologies and manufacturing processes are better positioned to lead in the semiconductor market. Accelerating the yield ramp and maximizing production yields of high-performance devices are key goals of modern semiconductor manufacturing. Ramping to high-volume production ahead of competitors can dramatically increase the revenue an IC manufacturer realizes for a given product. During past industry cycles, semiconductor manufacturers generally contended with a few key new technologies or market trends, such as a specific design rule shrink. In today's market, driven by consumer demand for low-cost electronic goods, the leading semiconductor manufacturers are investing in simultaneous production integration of multiple new process technologies, some requiring new substrate and film materials, new geometries and advanced lithography techniques.

While many of these technologies have been adopted at the development and pilot production stages of chip manufacturing, significant challenges and risks associated with each technology have affected their adoption into full-volume production. For example, as design rules decrease, yields become more sensitive to the size and density of defects, while device performance characteristics (namely speed, capacity or power management) become more sensitive to parameters such as linewidth and film thickness variation. New process materials, such as high-k dielectrics, SOI wafers and immersion lithography-capable photoresists, require extensive characterization before they can be used in the manufacturing process. Moving several of these advanced technologies into production at once only adds to the risks that chipmakers face.

The continuing evolution of semiconductor devices to smaller geometries and more complex multi-level circuitry has significantly increased the performance and cost requirements of the capital equipment used to manufacture these devices. Construction of an advanced wafer fabrication facility today can cost over \$5 billion, substantially more than previous-generation facilities. In addition, chipmakers are demanding increased productivity and higher returns from their manufacturing equipment and are also seeking ways to extend the performance of their existing equipment. By developing new process control and yield management tools that help chipmakers accelerate the adoption of these new technologies into volume production, we enable our customers to better leverage these increasingly expensive facilities and significantly improve their return on investment (“ROI”). Once customers' production lines are operating at high volume, our tools help ensure that yields are stable and process excursions are identified for quick resolution. In addition, the move to each new generation's smaller design rules, coupled with new materials and device innovation, has increased in-process variability, which requires an increase in inspection and metrology sampling.

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KLA-Tencor systems not only analyze defectivity and metrology issues at critical points in the wafer, reticle and IC manufacturing processes, but also provide information to our customers so that they can identify and address the underlying process problems. The ability to locate the source of defects and resolve the underlying process issues enables our customers to improve control over their manufacturing processes. This helps them increase their yield of high-performance parts and deliver their products to market faster—thus maximizing their profit. With our broad portfolio of application-focused technologies and our dedicated yield technology expertise, we are in position to be a key supplier of comprehensive yield management solutions for customers' next-generation products, helping our customers respond to the challenges posed by shrinking device sizes, the transition to new production materials, new device and circuit architecture, more demanding lithography processes, the transition from 300 millimeter to 450 millimeter wafers, and new back-end packaging techniques.

Products

KLA-Tencor is engaged primarily in the design, manufacture and marketing of process control and yield management solutions for the semiconductor and related nanoelectronics industries and provide a comprehensive portfolio of defect inspection and metrology products, and related service, software and other offerings.

KLA-Tencor's defect inspection and metrology products and related offerings can be broadly categorized into the following groups: Chip Manufacturing, Wafer Manufacturing, Reticle Manufacturing, Complementary Metal-Oxide-Semiconductor ("CMOS") Image Sensor Manufacturing, LED Manufacturing, Data Storage Media/Head Manufacturing, Microelectromechanical Systems ("MEMS") Manufacturing, and General Purpose/Lab Applications. We also provide refurbished KLA-Tencor tools as part of our K-T Certified™ program for customers manufacturing larger design-rule devices, as well as comprehensive service and support for our products. The more significant of these products are included in the product table at the end of this "Products" section. Every year, we introduce a number of new products; some of the new products we introduced in the fiscal year ended June 30, 2013 are described below.

Chip Manufacturing

KLA-Tencor's comprehensive portfolio of defect inspection and metrology products, and related service, software and other offerings, helps chip manufacturers manage yield throughout the entire semiconductor fabrication process—from research and development to final volume production. These products and solutions are designed to help customers accelerate their development and production ramp cycles, to achieve higher and more stable semiconductor die yields, and to improve overall profitability.

Front-End Defect Inspection

KLA-Tencor's front-end defect inspection tools cover a broad range of yield applications within the IC manufacturing environment, including: research and development; incoming wafer qualification; reticle qualification; and tool, process and line monitoring. Patterned and unpatterned wafer inspectors find particles, pattern defects and electrical issues on the front surface, back surface and edge of the wafer, allowing engineers to detect and monitor critical yield excursions. Fabs rely on our high sensitivity reticle inspection systems to identify defects in reticles at an early stage, to prevent reticle defects from printing on production wafers. The defect data generated by our inspectors is compiled and reduced to relevant root-cause and yield-analysis information with our suite of data management tools. By implementing our front-end defect inspection and analysis systems, chipmakers are able to take quick corrective action, resulting in faster yield improvement and better time to market.

During the fiscal year ended June 30, 2013, we launched several front-end defect inspection products that help accelerate yield for next-generation design node devices:

Patterned Wafer Inspection

NanoPoint™ for the 2900 Series broadband optical wafer defect inspectors is a family of technologies that enables the rapid discovery and high sensitivity monitoring of yield-critical defects by leveraging critical patterns on the system. NanoPoint can indicate the need for mask re-design within hours, potentially accelerating the identification and resolution of design issues from months to days.

The eS805™ Series electron-beam wafer defect inspection systems capture physical and electrical defects on a broad range of materials, layers and structures and feature a new image computer, new auto-focus subsystem and higher beam current densities.

Macro Inspection

The BDR300™, a module for the CIRCL™ cluster tool, inspects and reviews the back side of the wafer for defects, which can agglomerate and cause patterning problems on the wafer's front side, and prevents chuck contamination before the wafer enters the litho track.

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Unpatterned Wafer/Surface Inspection

The Surfscan® SP3 450 is our first unpatterned wafer inspection system capable of inspecting 450mm wafers. This system is designed to provide defect detection and surface quality characterization capabilities, enabling quality control for the 450mm substrate manufacturing process and development for manufacturers of 450mm process equipment.

Reticle Inspection

The X5.2™ is a reticle defect and pattern degradation inspection system for IC fabs supporting 28nm and beyond design nodes, with extendibility to non-critical masks for the 20nm node.

The Teron™ 611 includes a new laser and optical sub-components which improve the defect signal-to-noise ratio for mask inspection in IC fabs for the 20nm node and beyond.

The products that we launched during the fiscal year ended June 30, 2013 further strengthened our broad range of offerings that support the front-end defect inspection market. In the field of patterned wafer inspection, we offer our 2900 Series, 2830 Series, 2820 Series and 2810 Series systems (for broadband optical defect inspection); our Puma™ 9650 Series, Puma 9500 Series and Puma 9100 Series systems (for narrowband optical defect inspection); and our eS805 Series and eS800 Series systems (for electron-beam defect inspection). In the field of unpatterned wafer and surface inspection, we offer the Surfscan SP3 Series and the Surfscan SP2 Series (wafer defect inspection systems for process tool qualification and monitoring using blanket films and bare wafers); and the SURFmonitor™ (integrated on the Surfscan SP3 Series and an optional module for the Surfscan SP2 Series), which enables surface quality measurements and capture of low-contrast defects. For reticle inspection, we offer our X5.2 and Teron 611 products, which are photomask inspection systems that allow IC fabs to qualify incoming reticles and inspect production reticles for contaminants and other process-related changes. In addition, we offer a number of other products for the front-end defect inspection market, as reflected in the product table at the conclusion of this “Products” section.

Back-End Defect Inspection

KLA-Tencor offers standalone inspection systems for various applications in the field of semiconductor packaging (i.e., at the back-end of the semiconductor manufacturing process). Our Component Inspector (“CI”) products inspect various semiconductor components that are handled in a tray, such as microprocessors or memory chips. Component inspection capability includes 3-D coplanarity inspection, measurement of the evenness of the contacts and two-dimensional surface inspection. The ICOS® CI-T620 offers scalability to a wide range of packages and sizes and increased system throughput.

Defect Review

KLA-Tencor’s defect review systems capture high resolution images of the defects detected by inspection tools. These images enable defect classification, helping chipmakers to identify and resolve yield issues. KLA-Tencor’s suite of defect inspectors, defect review and classification tools and data management systems form a broad solution for finding, identifying and tracking yield-critical defects and process issues. The eDR™-7000 is an electron-beam wafer defect review and classification system that utilizes a third-generation immersion column and an advanced stage to quickly and accurately re-locate, image and classify yield-critical defects.

Metrology

KLA-Tencor’s array of metrology solutions addresses IC, substrate and medical device manufacturing, as well as scientific research and other applications. Precise metrology and control of pattern dimensions, film thicknesses, layer-to-layer alignment, pattern placement, surface topography and electro-optical properties are important in many industries as critical dimensions narrow, film thicknesses shrink to countable numbers of atomic layers and devices become more complex.

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During the fiscal year ended June 30, 2013, we launched several metrology products that help accelerate yield for next-generation design node devices:

Overlay Metrology

The Archer™ 500 is an overlay metrology system for the development and high volume manufacturing of advanced patterning processes. The Archer 500 tool includes new illumination options that enable overlay measurements on a wide range of lithography layers and a new multi-layer target that provides comprehensive feedback on layer-to-layer and within-layer overlay error for complex patterning technologies.

Optical CD and Shape Metrology

The SpectraShape™ 9000 utilizes an array of optical technologies and a new high intensity light source to characterize and monitor the critical dimension (CD) and shapes of 3-D transistors, memory cells and other complex features used in high-performance IC devices.

The products that we launched during the fiscal year ended June 30, 2013 strengthened our broad range of offerings that support the metrology market. The Archer Series of overlay metrology tools enable characterization of overlay error on lithography process layers for advanced patterning technologies. The SpectraShape family of optical CD and shape metrology systems fully characterize and monitor the critical dimensions and 3-D shapes of geometrically complex features incorporated by some IC manufacturers in their latest generation devices. Finally, the Aleris™ family of film metrology tools provides reliable and precise measurement of film thickness, refractive index, stress and composition for a broad range of film layers. In addition, we offer a number of other products for the metrology market, as reflected in the product table at the conclusion of this “Products” section.

In-Situ Process Monitoring

KLA-Tencor’s SensArray® SensorWafers are a portfolio of advanced wireless temperature monitoring wafers that capture the effect of the process environment on production wafers. These SensorWafers provide unique insight into thermal uniformity and profile temperature under real production conditions. SensArray products are used in many semiconductor and flat panel display fabrication processes, including lithography, etch and deposition.

Lithography Modeling

KLA-Tencor’s PROLITH™ product line provides researchers at advanced IC manufacturers, lithography hardware suppliers, track companies and material providers with virtual lithography software to explore critical-feature designs, manufacturability and process-limited yield of proposed lithographic technologies without the time and expense of printing hundreds of test wafers using experimental materials and prototype process equipment.

During the fiscal year ended June 30, 2013, we introduced PROLITH X4.1 and PROLITH X4.2, which enable large-scale lithography simulations to troubleshoot challenging issues in extreme ultra-violet (“EUV”), multi-patterning and other advanced optical lithography technologies.

Wafer Manufacturing

KLA-Tencor’s portfolio of products focused on the demands of wafer manufacturers includes inspection, metrology and data management systems. Specialized inspection tools assess surface quality and detect, count and bin defects during the wafer manufacturing process and as a critical part of outgoing inspection. Wafer geometry tools ensure that the wafer is extremely flat and uniform in thickness, with precisely controlled surface topography. Specifications for wafer defectivity, geometry and surface quality are tightening as the dimensions of transistors become so small that the geometry of the substrate can substantially affect transistor performance.

Our wafer inspection portfolio is anchored by the Surfscan SP3 Series and includes the Surfscan SP3 450 launched in July 2012 to support early 450mm development activity at substrate and process tool manufacturers. The Surfscan SP3 Series and the Surfscan SP2 Series are defect inspection systems designed to enable development and production monitoring of polished wafers, epi wafers and engineered substrates. The SURFmonitor module characterizes wafer surface quality and captures the low-contrast defects. The WaferSight™ platform offers bare wafer geometry and nanotopography metrology capabilities. Other products that we offer for the wafer manufacturing market are highlighted in the product table at the conclusion of this “Products” section.

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Reticle Manufacturing

Error-free reticles, or masks, are necessary to achieving high semiconductor device yields, since reticle defects can be replicated in every die on production wafers. KLA-Tencor offers high sensitivity reticle inspection and metrology systems for mask shops, designed to help them manufacture reticles that are free of pattern defects that could print on the wafers and meet pattern placement and critical dimension uniformity specifications.

Our reticle inspection portfolio includes the Teron 600 Series for development and manufacturing of advanced optical and EUV masks, the TeraScan™ 500XR system for mask shop production of reticles for the 32nm node and above and our X5.2 and Teron 611 products for reticle defect monitoring capability for IC fabs. These products include the capability for mapping critical dimension uniformity across the reticle. In April 2013, we introduced the Teron 630, which incorporates advanced imaging modes, third-generation database modeling and new detectors to enable defect inspection of optical and EUV reticles during both development phase and production at mask shops. In addition, we offer the LMS IPRO line of reticle metrology systems for measuring pattern placement error. If the pattern on the reticle is displaced from its intended location, overlay error can result on the wafer, which can lead to electrical continuity issues affecting yield, performance or reliability of the IC device.

CMOS Image Sensor Manufacturing

Image sensors are devices that convert light into electrical signal, primarily for use in cameras. As yield-limiting defects can occur at any step in the assembly process, inspecting the filter or micro-lens layers can help reduce materials waste and cycle time.

CMOS image sensor manufacturing is supported by our 8900 defect inspection system. The 8900 is designed to enable capture of a wide variety of defect types, with adjustable sensitivity and throughput settings for cost-effective defect management from initial product development through volume production of color filter arrays.

LED and Compound Semiconductor Manufacturing

LEDs are becoming more commonly used in solid-state lighting, television and notebook backlighting, and automotive applications. As LED device makers target aggressive cost and performance targets, they place significant emphasis on improved process control and yield during the manufacturing process.

KLA-Tencor offers a portfolio of three systems to help LED manufacturers reduce production costs and increase product output: Candela® 8620, Klarity® LED and ICOS WI-2280. The Candela 8620 substrate and epi wafer inspection system provides automated inspection and quality control of LED substrates, detecting defects that can impact device performance, yield and field reliability. Klarity LED is an automated defect data management and analysis system for LED yield enhancement. The ICOS WI-2280 system is a patterned wafer inspection tool that is designed specifically for defect inspection and two-dimensional metrology for LED applications.

The primary products for compound semiconductor manufacturing include Candela CS20 and the P-Series Stylus Profiler, used for the inspection of substrates, epi-layers and process films.

Data Storage Media/Head Manufacturing

Advancements in data storage are being driven by a wave of innovative consumer electronics with small form factors and immense storage capacities, as well as an increasing need for high-volume storage options to back up new methods of remote computing and networking (such as cloud computing). Our process control and yield management solutions are designed to enable customers to rapidly understand and resolve complex manufacturing problems, which can help improve time to market and product yields. In the front-end and back-end of thin-film head wafer manufacturing, we offer the same process control equipment that we serve to the semiconductor industry. In addition, we offer an extensive range of test equipment and surface profilers with particular strength in photolithography. In substrate and media manufacturing, we offer metrology and defect inspection solutions with KLA-Tencor's optical surface analyzers.

MEMS Manufacturing

The increasing demand for MEMS technology is coming from diverse industries such as automotive, space and consumer electronics. MEMS have the potential to revolutionize nearly every product category by bringing together silicon-based microelectronics with micromachining technology, making possible the realization of complete systems-on-a-chip. KLA-Tencor offers tools and techniques for this emerging market, such as defect inspection and review, optical inspection and surface profiling, which were first developed for the integrated circuit industry.

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General Purpose/Lab Applications

A range of industries, including general scientific and materials research and optoelectronics, require measurements of surface topography to either control their processes or research new material characteristics. Typical measurement parameters that our tools address include flatness, roughness, curvature, peak-to-valley, asperity, waviness, texture, volume, sphericity, slope, density, stress, bearing ratio and distance (mainly in the micron to nanometer range).

K-T Certified

K-T Certified is our certified refurbished tools program that delivers fully refurbished and tested KLA-Tencor tools to our customers with guaranteed performance. In addition to high-quality pre-owned 300mm and sub-200mm tools for the integrated circuit, reticle, substrate, MEMS and data storage markets, K-T Certified also offers system software and hardware performance upgrades to extend the capabilities of existing equipment. When a customer needs to move to the next manufacturing node, K-T Certified can help maximize the value of the customer's existing assets through K-T Certified's repurchase, trade-in and redeployment services.

K-T Services

Our K-T Services program enables our customers in all business sectors to maintain the high performance and productivity of our products through a flexible portfolio of services. Whether a manufacturing site is producing integrated circuits, wafers or reticles, K-T Services delivers yield management expertise spanning advanced technology nodes, including collaboration with customers to determine the best products and services to meet technology requirements and optimize cost of ownership. Our comprehensive services include: proactive management of tools to identify and improve performance; expertise in optics, image processing and motion control with worldwide service engineers, 24/7 technical support teams and knowledge management systems; and an extensive parts network to ensure worldwide availability of parts.

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Product Table

The following table presents a representative list of the products that we offered during the course of the fiscal year ended June 30, 2013:

MARKETS	APPLICATIONS	PRODUCTS
Chip Manufacturing		2900 Series, 2830 Series, 2820 Series, 2810 Series
	Patterned Wafer	Puma™ 9650, Puma 9500 Series, Puma 9100 Series eS805™ Series, eS800 Series CIRCL™ with LDS 3400, CV310i, BDR300™ and INS modules
Front-End Defect Inspection	Macro and Edge	VisEdge® product family LDS Series 8900
	Unpatterned Wafer/Surface	Surfscan® SP3 Series, Surfscan SP2 Series SURFmonitor™ X5.2™
Back-End Defect Inspection Defect Review	Reticle	Teron™ 600 Series
	Data Management	Klarity® product family
	Component Inspection	ICOS® CI product family
	Electron-beam	eDR™-7000 Series
	Overlay	Archer™ Series
Metrology	Optical CD and Shape	SpectraCD™ Series SpectraShape™ product family
	Film Thickness/Index	Aleris™ product family SpectraFx™ Series
	Wafer Geometry and Topography	WaferSight™ Series SURFmonitor
	Ion Implant and Anneal	Therma-Probe®
	Surface Metrology	HRP® -350
In-Situ Process Monitoring	Resistivity	P-Series product family
	Data Management	RS product family
	Lithography	K-T Analyzer®
	Plasma Etch	SensArray® product family
Lithography Modeling	Implant and Wet	SensArray product family
	Virtual Lithography Software	SensArray PlasmaSuite PROLITH™ and related product families

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MARKETS AND APPLICATIONS

Wafer Manufacturing

Surface and Defect Inspection

Wafer Geometry and Nanotopography Metrology

Data Management

Reticle Manufacturing

Defect Inspection

Pattern Placement Metrology

CMOS Image Sensors Manufacturing

Defect Inspection

LED and Compound Semiconductor Manufacturing

Patterned Wafer Inspection

Defect Inspection (substrates and epi wafers)

Surface Metrology

Data Management

Data Storage Media/Head Manufacturing

Thin-Film Head Metrology and Inspection

Virtual Lithography

In-Situ Process Monitoring

Transparent and Metal Substrate Inspection

Yield Management

MEMS Manufacturing

Surface Metrology: Stylus Profiling

Sealing Inspection

Defect Review

General Purpose/Lab Applications

Surface Metrology: Stylus Profiling

Surface Metrology: Optical Profiling

Process Chamber Conditions

PRODUCTS

Surfscan SP3 Series, Surfscan SP2 Series

SURFmonitor

WaferSight Series

SURFmonitor

FabVision™

TeraScan™XR

Teron 600 Series

X5.2

LMS IPRO Series

8900

ICOS WI product family

Candela® product family, P-Series product family

P-Series product family

Klarity LED

Puma 91xx Series

Aleris product family

HRP -250

SpectraCD 200

Archer Series

K-T Analyzer

P-Series product family

PROLITH

SensArray product family

Candela product family

Klarity Defect

P-Series product family

IRIS

IRIS

P-Series product family

Alpha-Step® product family

MicroXAM Series

SensArray product family

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Customers

To support our growing global customer base, we maintain a significant presence throughout Asia, the United States and Europe, staffed with local sales and applications engineers, customer and field service engineers and yield management consultants. We count among our largest customers the leading semiconductor manufacturers in each of these regions.

For the fiscal years ended June 30, 2013, 2012 and 2011, the following customers each accounted for more than 10% of total revenues:

Year ended June 30,

2013	2012	2011
Intel Corporation	Samsung Electronics Co., Ltd.	Intel Corporation
Taiwan Semiconductor Manufacturing Company Limited	Taiwan Semiconductor Manufacturing Company Limited	Samsung Electronics Co., Ltd.
		Taiwan Semiconductor Manufacturing Company Limited

Our business depends upon the capital expenditures of semiconductor manufacturers, which in turn is driven by the current and anticipated market demand for ICs and products utilizing ICs. We do not consider our business to be seasonal in nature, but it is cyclical with respect to the capital equipment procurement practices of semiconductor manufacturers, and it is impacted by the investment patterns of such manufacturers in different global markets. Downturns in the semiconductor industry or slowdowns in the worldwide economy could have a material adverse effect on our future business and financial results.

Sales, Service and Marketing

Our sales, service and marketing efforts are aimed at building long-term relationships with our customers. We focus on providing a single and comprehensive resource for the full breadth of process control and yield management products and services. Our customers benefit from the simplified planning and coordination, as well as the increased equipment compatibility, that are realized as a result of dealing with a single supplier for multiple products and services. Our revenues are derived primarily from product sales, mostly through our direct sales force.

We believe that the size and location of our field sales, service and applications engineering, and marketing organizations represent a competitive advantage in our served markets. We have direct sales forces in Asia, the United States and Europe. We maintain an export compliance program that is designed to meet the requirements of the United States Departments of Commerce and State.

As of June 30, 2013, we employed approximately 2,310 sales and related personnel, service engineers and applications engineers. In addition to sales and service offices in the United States, we conduct sales, marketing and services out of wholly-owned subsidiaries or branches in other countries, including Belgium, China, France, Germany, Hong Kong, India, Israel, Italy, Japan, Singapore, South Korea, Taiwan and the United Kingdom. International revenues accounted for approximately 70%, 79% and 81% of our total revenues in the fiscal years ended June 30, 2013, 2012 and 2011, respectively. Additional information regarding our revenues from foreign operations for our last three fiscal years can be found in Note 16, "Segment Reporting and Geographic Information" to the Consolidated Financial Statements.

We believe that sales outside the United States will continue to be a significant percentage of our total revenues. Our future performance will depend, in part, on our ability to continue to compete successfully in Asia, one of the largest markets for our equipment. Our ability to compete in this area is dependent upon the continuation of favorable trading relationships between countries in the region and the United States, and our continuing ability to maintain satisfactory relationships with leading semiconductor companies in the region.

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International sales and operations may be adversely affected by the imposition of governmental controls, restrictions on export technology, political instability, trade restrictions, changes in tariffs and the difficulties associated with staffing and managing international operations. In addition, international sales may be adversely affected by the economic conditions in each country and by fluctuations in currency exchange rates, which fluctuations may negatively impact our ability to compete on price with local providers or the value of revenues we generate from our international business. Although we attempt to manage some of the currency risk inherent in non-U.S. dollar product sales through hedging activities, there can be no assurance that such efforts will be adequate. These factors, as well as any of the other risk factors related to our international business and operations that are described in Item 1A, “Risk Factors,” could have a material adverse effect on our future business and financial results.

Backlog

Our shipment backlog for systems and associated warranty totaled \$817 million and \$947 million as of June 30, 2013 and 2012, respectively, and primarily consists of sales orders where written customer requests have been received and the delivery is anticipated within the next 12 months. Orders for service contracts and unreleased products are excluded from shipment backlog. All orders are subject to cancellation or delay by the customer, often with limited or no penalties. We make adjustments for shipment backlog obtained from acquired companies, sales order cancellations, customer delivery date changes and currency adjustments. Shipment backlog is not subject to normal accounting controls for information that is either reported in or derived from our basic financial statements. In addition, the concept of shipment backlog is not defined in the accounting literature, making comparisons between periods and with other companies difficult and potentially misleading.

Our revenue backlog, which includes sales orders where physical deliveries have been completed, but for which revenue has not been recognized pursuant to our policy for revenue recognition, totaled \$271 million and \$286 million as of June 30, 2013 and 2012, respectively. Orders for service contracts are excluded from revenue backlog.

Because customers can potentially change delivery schedules or delay or cancel orders, and because some orders are received and shipped within the same quarter, our shipment backlog at any particular date is not necessarily indicative of business volumes or actual sales for any succeeding periods. The cyclicity of the semiconductor industry combined with the lead times from our suppliers sometimes result in timing disparities between, on the one hand, our ability to manufacture, deliver and install products and, on the other, the requirements of our customers. In our efforts to balance the requirements of our customers with the availability of resources, management of our operating model and other factors, we often must exercise discretion and judgment as to the timing and prioritization of manufacturing, deliveries and installations of products, which may impact the timing of revenue recognition with respect to such products.

Research and Development

The market for yield management and process monitoring systems is characterized by rapid technological development and product innovation. These technical innovations are inherently complex and require long development cycles and appropriate professional staffing. We believe that continued and timely development of new products and enhancements to existing products are necessary to maintain our competitive position. Accordingly, we devote a significant portion of our human and financial resources to research and development programs and seek to maintain close relationships with customers to remain responsive to their needs. In addition, we may enter into certain strategic development and engineering programs whereby certain government agencies or other third parties fund a portion of our research and development costs. As of June 30, 2013, we employed approximately 1,395 research and development personnel.

Our key research and development activities during the fiscal year ended June 30, 2013 involved the development of process control and yield management equipment aimed at addressing the challenges posed by shrinking device sizes, the transition to new production materials, new device and circuit architecture, more demanding lithography processes, the transition from 300 millimeter to 450 millimeter wafers, and new back-end packaging techniques. For information regarding our research and development expenses during the last three fiscal years, including costs offset by our strategic development and engineering programs, see Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in this Annual Report on Form 10-K.

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The strength of our competitive positions in many of our existing markets is largely due to our leading technology, which is the result of our continuing significant investments in product research and development. Even during down cycles in the semiconductor industry, we have remained committed to significant engineering efforts toward both product improvement and new product development in order to enhance our competitive position. New product introductions, however, may contribute to fluctuations in operating results, since customers may defer ordering existing products, and, if new products have reliability or quality problems, those problems may result in reduced orders, higher manufacturing costs, delays in acceptance of and payment for new products, and additional service and warranty expenses. There can be no assurance that we will successfully develop and manufacture new products, or that new products introduced by us will be accepted in the marketplace. If we do not successfully introduce new products, our results of operations will be adversely affected.

Manufacturing, Raw Materials and Supplies

We perform system design, assembly and testing in-house and utilize an outsourcing strategy for the manufacture of components and major subassemblies. Our in-house manufacturing activities consist primarily of assembling and testing components and subassemblies that are acquired through third-party vendors and integrating those subassemblies into our finished products. Our principal manufacturing activities take place in the United States (Milpitas, California), Singapore, Israel, Belgium, Germany and China. As of June 30, 2013, we employed approximately 980 manufacturing personnel.

Some critical parts, components and subassemblies (collectively, “parts”) that we use are designed by us and manufactured by suppliers in accordance with our specifications, while other parts are standard commercial products. We use numerous vendors to supply parts and raw materials for the manufacture and support of our products. Although we make reasonable efforts to ensure that these parts and raw materials are available from multiple suppliers, this is not always possible, and certain parts and raw materials included in our systems may be obtained only from a single supplier or a limited group of suppliers. Through our business interruption planning, we endeavor to minimize the risk of production interruption by, among other things, monitoring the financial condition of suppliers of key parts and raw materials, identifying (but not necessarily qualifying) possible alternative suppliers of such parts and materials, and ensuring adequate inventories of key parts and raw materials are available to maintain manufacturing schedules.

Although we seek to reduce our dependence on sole and limited source suppliers, in some cases the partial or complete loss of certain of these sources, or disruptions within our suppliers' often-complex supply chains, could disrupt scheduled deliveries to customers, damage customer relationships and have a material adverse effect on our results of operations.

Competition

The worldwide market for process control and yield management systems is highly competitive. In each of our product markets, we face competition from established and potential competitors, some of which may have greater financial, research, engineering, manufacturing and marketing resources than we have, such as Applied Materials, Inc., ASML Holding N.V. and Hitachi High-Technologies Corporation. We may also face future competition from new market entrants from other overseas and domestic sources. We expect our competitors to continue to improve the design and performance of their current products and processes and to introduce new products and processes with improved price and performance characteristics. We believe that, to remain competitive, we will require significant financial resources to offer a broad range of products, to maintain customer service and support centers worldwide, and to invest in product and process research and development.

We believe that, while price and delivery are important competitive factors, the customers' overriding requirement is for systems that easily and effectively incorporate automated and highly accurate inspection and metrology capabilities into their existing manufacturing processes to enhance productivity. Significant competitive factors in the market for process control and yield management systems include system performance, ease of use, reliability, installed base and technical service and support, as well as overall cost of ownership.

Management believes that we are well positioned in the market with respect to both our products and services. However, any loss of competitive position could negatively impact our prices, customer orders, revenues, gross margins and market share, any of which would negatively impact our operating results and financial condition.

Acquisitions and Alliances

We continuously evaluate strategic acquisitions and alliances to expand our technologies, product offerings and distribution capabilities. Acquisitions involve numerous risks, including management issues and costs in connection with integration of the operations, technologies and products of the acquired companies, and the potential loss of key employees of the acquired companies. The inability to manage these risks effectively could negatively impact our operating results and financial condition.

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Patents and Other Proprietary Rights

We protect our proprietary technology through reliance on a variety of intellectual property laws, including patent, copyright and trade secret. We have filed and obtained a number of patents in the United States and abroad and intend to continue pursuing the legal protection of our technology through intellectual property laws. In addition, from time to time we acquire license rights under United States and foreign patents and other proprietary rights of third parties, and we attempt to protect our trade secrets and other proprietary information through confidentiality and other agreements with our customers, suppliers, employees and consultants and through other security measures.

Although we consider patents and other intellectual property significant to our business, due to the rapid pace of innovation within the process control and yield management systems industry, we believe that our protection through patent and other intellectual property rights is less important than factors such as our technological expertise, continuing development of new systems, market penetration, installed base and the ability to provide comprehensive support and service to customers worldwide.

No assurance can be given that patents will be issued on any of our applications, that license assignments will be made as anticipated, or that our patents, licenses or other proprietary rights will be sufficiently broad to protect our technology. No assurance can be given that any patents issued to or licensed by us will not be challenged, invalidated or circumvented or that the rights granted thereunder will provide us with a competitive advantage. In addition, there can be no assurance that we will be able to protect our technology or that competitors will not be able to independently develop similar or functionally competitive technology.

Environmental Matters

We are subject to a variety of federal, state and local governmental laws and regulations related to the protection of the environment, including without limitation the management of hazardous materials that we use in our business operations. Compliance with these environmental laws and regulations has not had, and is not expected to have, a material effect on our capital expenditures, financial condition, results of operations or competitive position.

However, any failure to comply with environmental laws and regulations may subject us to a range of consequences, including fines, suspension of certain of our business activities, limitations on our ability to sell our products, obligations to remediate environmental contamination, and criminal and civil liabilities or other sanctions. In addition, changes in environmental laws and regulations could require us to invest in potentially costly pollution control equipment, alter our manufacturing processes or use substitute materials. Our failure to comply with these laws and regulations could subject us to future liabilities.

Employees

As of June 30, 2013, we employed approximately 5,820 people. None of our employees are represented by a labor union; however, our employees in the German operations of our MIE business unit are represented by an employee work council. We have not experienced work stoppages and believe that our employee relations are good.

Competition is intense in the recruiting of personnel in the semiconductor and semiconductor equipment industry. We believe that our future success will depend, in part, on our continued ability to hire and retain qualified management, marketing and technical employees.

Glossary

This section provides definitions for certain industry and technical terms commonly used in our business, which are used elsewhere in this Item 1:

back-end	Process steps that make up the second half of the semiconductor manufacturing process, from contact through completion of the wafer prior to electrical test.
broadband	An illumination source with a wide spectral bandwidth.
critical dimension (CD)	The dimension of a specified geometry (such as the width of a patterned line or the distance between two lines) that must be within design tolerances in order to maintain semiconductor device performance consistency.

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design rules	Rules that set forth the allowable dimensions of particular features used in the design and layout of integrated circuits.
die	The term for a single semiconductor chip on a wafer.
electron-beam	An illumination source comprised of a stream of electrons emitted by a single source.
epitaxial silicon (epi)	A substrate technology based on growing a crystalline silicon layer on top of a silicon wafer. The added layer, where the structure and orientation are matched to those of the silicon wafer, includes dopants (impurities) to imbue the substrate with special electronic properties.
excursion	For a manufacturing step or process, a deviation from normal operating conditions that can lead to decreased performance or yield of the final product.
fab	The main manufacturing facility for processing semiconductor wafers.
front-end	The processes that make up the first half of the semiconductor manufacturing process, from wafer start through final contact window processing.
in-situ	Refers to processing steps or tests that are done without moving the wafer. Latin for “in original position.”
interconnect	A highly conductive material, usually copper or aluminum, that carries electrical signals to different parts of a die.
lithography	A process in which a masked pattern is projected onto a photosensitive coating that covers a substrate.
mask shop	A manufacturer that produces the reticles used by semiconductor manufacturers.
metrology	The science of measurement to determine dimensions, quantity or capacity. In the semiconductor industry, typical measurements include critical dimension, overlay and film thickness.
microelectromechanical systems (MEMS)	Micron-sized mechanical devices powered by electricity, created using processes similar to those used to manufacture IC devices.
micron	A metric unit of linear measure that equals 1/1,000,000 meter (10^{-6} m), or 10,000 angstroms (the diameter of a human hair is approximately 75 microns).
nanometer (nm)	One billionth (10^{-9}) of a meter.
narrowband	An illumination source with a narrow spectral bandwidth, such as a laser.
patterned	For semiconductor manufacturing and industries using similar processing technologies, refers to substrates that have electronic circuits (transistors, interconnects, etc.) fabricated on the surface.

photoresist	A radiation-sensitive material that, when properly applied to a variety of substrates and then properly exposed and developed, masks portions of the substrate with a high degree of integrity.
process control	The ability to maintain specifications of product and equipment during manufacturing operations.
reticle	A very flat glass plate that contains the patterns to be reproduced on a wafer.
silicon-on-insulator (SOI)	A substrate technology comprised of a thin top silicon layer separated from the silicon substrate by a thin insulating layer of glass or silicon dioxide, used to improve performance and reduce the power consumption of IC circuits.

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substrate	A wafer on which layers of various materials are added during the process of manufacturing semiconductor devices or circuits.
unpatterned	For semiconductor manufacturing and industries using similar processing technologies, refers to substrates that do not have electronic circuits (transistors, interconnects, etc.) fabricated on the surface. These can include bare silicon wafers, other bare substrates or substrates on which blanket films have been deposited.
yield management	The ability of a semiconductor manufacturer to oversee, manage and control its manufacturing processes so as to maximize the percentage of manufactured wafers or die that conform to pre-determined specifications.

The definitions above are from internal sources, as well as the SEMATECH Dictionary of Semiconductor Terms.

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ITEM 1A. RISK FACTORS

A description of factors that could materially affect our business, financial condition or operating results is provided below.

Risks Associated with Our Industry

The semiconductor equipment industry is highly cyclical. The purchasing decisions of our customers are highly dependent on the economies of both the local markets in which they are located and the semiconductor industry worldwide. If we fail to respond to industry cycles, our business could be seriously harmed.

The timing, length and severity of the up-and-down cycles in the semiconductor equipment industry are difficult to predict. The cyclical nature of the primary industry in which we operate is largely a function of our customers' capital spending patterns and need for expanded manufacturing capacity, which in turn are affected by factors such as capacity utilization, consumer demand for products, inventory levels and our customers' access to capital. This cyclicity affects our ability to accurately predict future revenue and, in some cases, future expense levels. During down cycles in our industry, the financial results of our customers may be negatively impacted, which could result not only in a decrease in, or cancellation or delay of, orders (which are generally subject to cancellation or delay by the customer with limited or no penalty) but also a weakening of their financial condition that could impair their ability to pay for our products or our ability to recognize revenue from certain customers. Our ability to recognize revenue from a particular customer may also be negatively impacted by the customer's funding status, which could be weakened not only by adverse business conditions or inaccessibility to capital markets for any number of macroeconomic or company-specific reasons, but also by funding limitations imposed by the customer's unique corporate structure. Any of these factors could negatively impact our business, operating results and financial condition.

When cyclical fluctuations result in lower than expected revenue levels, operating results may be adversely affected and cost reduction measures may be necessary in order for us to remain competitive and financially sound. During periods of declining revenues, as was experienced during fiscal year 2009, we must be in a position to adjust our cost and expense structure to prevailing market conditions and to continue to motivate and retain our key employees. If we fail to respond, or if our attempts to respond fail to accomplish our intended results, then our business could be seriously harmed. Furthermore, any workforce reductions and cost reduction actions that we adopt in response to down cycles may result in additional restructuring charges, disruptions in our operations and loss of key personnel. In addition, during periods of rapid growth, we must be able to increase manufacturing capacity and personnel to meet customer demand. We can provide no assurance that these objectives can be met in a timely manner in response to industry cycles. Each of these factors could adversely impact our operating results and financial condition.

In addition, our management typically provides quarterly forecasts for certain financial metrics, which, when made, are based on business and operational forecasts that are believed to be reasonable at the time. However, largely due to the cyclicity of our business and the industries in which we operate, and the fact that business conditions in our industries can change very rapidly as part of these cycles, our actual results may vary (and have varied in the past) from forecasted results. These variations can occur for any number of reasons, including, but not limited to, unexpected changes in the volume or timing of customer orders, product shipments or product acceptances; an inability to adjust our operations rapidly enough to adapt to changing business conditions; or a different than anticipated effective tax rate. The impact on our business of delays or cancellations of customer orders may be exacerbated by the short lead times that our customers expect between order placement and product shipment. This is because order delays and cancellations may lead not only to lower revenues, but also, due to the advance work we must do in anticipation of receiving a product order in order to meet the expected lead times, to significant inventory write-offs and manufacturing inefficiencies that decrease our gross margin. Any of these factors could materially and adversely affect our financial results for a particular quarter and could cause those results to differ materially from financial forecasts we have previously provided. We provide these forecasts with the intent of giving investors and analysts a better understanding of management's expectations for the future, but parties reviewing such forecasts must recognize that such forecasts are comprised of, and are themselves, forward-looking statements subject to the risks and uncertainties described in this Item 1A and elsewhere in this report and in our other public filings and public statements. If our operating or financial results for a particular period differ from our forecasts or the expectations of

investment analysts, or if we revise our forecasts, the market price of our common stock could decline.

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Ongoing changes in the technology industry, as well as the semiconductor industry in particular, could expose our business to significant risks.

The semiconductor equipment industry and other industries that we serve are constantly developing and changing over time. Many of the risks associated with operating in these industries are comparable to the risks faced by all technology companies, such as the uncertainty of future growth rates in the industries that we serve, pricing trends in the end-markets for consumer electronics and other products (which place a growing emphasis on our customers' cost of ownership), changes in our customers' capital spending patterns and, in general, an environment of constant change and development, including decreasing product and component dimensions; use of new materials; and increasingly complex device structures, applications and process steps. If we fail to appropriately adjust our cost structure and operations to adapt to any of these trends, or, with respect to technological advances, if we do not timely develop new technologies and products that successfully anticipate and address these changes, we could experience a material adverse effect on our business, financial condition and operating results.

In addition, we face a number of risks specific to ongoing changes in the semiconductor industry, as the significant majority of our sales are made to semiconductor manufacturers. Some of the trends that our management monitors in operating our business include the following:

- the increasing cost of building and operating fabrication facilities and the impact of such increases on our customers' investment decisions;
- differing market growth rates and capital requirements for different applications, such as memory, logic and foundry;
- the emergence of disruptive technologies that change the prevailing semiconductor manufacturing processes (or the economics associated with semiconductor manufacturing) and, as a result, also impact the inspection and metrology requirements associated with such processes;
- the possible introduction of integrated products by our larger competitors that offer inspection and metrology functionality in addition to managing other semiconductor manufacturing processes;
- changes in semiconductor manufacturing processes that are extremely costly for our customers to implement and, accordingly, impact the amount of their budgets that are available for process control equipment;
- the bifurcation of the semiconductor manufacturing industry into (a) leading edge manufacturers driving continued research and development into next-generation products and technologies and (b) other manufacturers that are content with existing (including previous generation) products and technologies;
- the ever escalating cost of next-generation product development, which may result in joint development programs between us and our customers to help fund such programs that could restrict our control of, ownership of and profitability from the products and technologies developed through those programs;
- the potential industry transition from 300mm to 450mm wafers; and
- the entry by some semiconductor manufacturers into collaboration or sharing arrangements for capacity, cost or risk with other manufacturers, as well as increased outsourcing of their manufacturing activities, and greater focus only on specific markets or applications, whether in response to adverse market conditions or other market pressures.

Any of the changes described above may negatively affect our customers' rate of investment in the capital equipment that we produce, which could result in downward pressure on our prices, customer orders, revenues and gross margins. If we do not successfully manage the risks resulting from any of these or other potential changes in our industries, our business, financial condition and operating results could be adversely impacted.

We are exposed to risks associated with a highly concentrated customer base.

Our customer base, particularly in the semiconductor industry, historically has been, and is becoming increasingly, highly concentrated. In this environment, orders from a relatively limited number of manufacturers have accounted for, and are expected to continue to account for, a substantial portion of our sales. This increasing concentration exposes our business, financial condition and operating results to a number of risks, including the following:

The mix and type of customers, and sales to any single customer, may vary significantly from quarter to quarter and from year to year, which exposes our business and operating results to increased volatility tied to individual customers.

- New orders from our foundry customers in the past several years constituted a significant portion of our total orders. This concentration increases the impact that future business or technology changes within the foundry

industry may have on our business, financial condition and operating results.

In a highly concentrated business environment, if a particular customer does not place an order, or if they delay or cancel orders, we may not be able to replace the business. Furthermore, because our products are configured to customer specifications, any changes, delays or cancellations of orders may result in significant, non-recoverable costs.

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In recent years, our customer base has become increasingly concentrated due to corporate consolidation, acquisitions and business closures. As a result of this consolidation, the customers that survive the consolidation represent a greater portion of our sales. Those surviving customers may have more aggressive policies regarding engaging alternative, second-source suppliers for the products we serve and, in addition, may seek, and on occasion receive, pricing, payment, intellectual property-related, or other commercial terms that are less favorable to us. Any of these changes could negatively impact our prices, customer orders, revenues and gross margins.

Certain customers have undergone significant ownership changes, experienced management changes or have outsourced manufacturing activities, any of which may result in additional complexities in managing customer relationships and transactions.

The highly concentrated business environment also increases our exposure to risks related to the financial condition of each of our customers. For example, as a result of the challenging economic environment during fiscal year 2009, we were (and in some cases continue to be) exposed to additional risks related to the continued financial viability of certain of our customers. To the extent our customers experience liquidity issues in the future, we may be required to incur additional bad debt expense with respect to receivables owed to us by those customers. In addition, customers with liquidity issues may be forced to discontinue operations or may be acquired by one of our customers, and in either case such event would have the effect of further consolidating our customer base.

Any of these factors could have a material adverse effect on our business, financial condition and operating results.

Risks Related to Our Business Model and Capital Structure

If we do not develop and introduce new products and technologies in a timely manner in response to changing market conditions or customer requirements, our business could be seriously harmed.

Success in the semiconductor equipment industry depends, in part, on continual improvement of existing technologies and rapid innovation of new solutions. For example, the size of semiconductor devices continues to shrink, and the industry is currently transitioning to the use of new materials and innovative fab processes. While we expect these trends will increase our customers' reliance on diagnostic products such as ours, we cannot be sure that these trends will directly improve our business. These and other evolving customer needs require us to respond with continued development programs and to cut back or discontinue older programs, which may no longer have industry-wide support. Technical innovations are inherently complex and require long development cycles and appropriate staffing of highly qualified employees. Our competitive advantage and future business success depend on our ability to accurately predict evolving industry standards, to develop and introduce new products that successfully address changing customer needs, to win market acceptance of these new products and to manufacture these new products in a timely and cost-effective manner.

In this environment, we must continue to make significant investments in research and development in order to enhance the performance, features and functionality of our products, to keep pace with competitive products and to satisfy customer demands. Substantial research and development costs typically are incurred before we confirm the technical feasibility and commercial viability of a new product, and not all development activities result in commercially viable products. There can be no assurance that revenues from future products or product enhancements will be sufficient to recover the development costs associated with such products or enhancements. In addition, we cannot be sure that these products or enhancements will receive market acceptance or that we will be able to sell these products at prices that are favorable to us. Our business will be seriously harmed if we are unable to sell our products at favorable prices or if the market in which we operate does not accept our products.

In addition, the complexity of our products exposes us to other risks. We regularly recognize revenue from a sale upon shipment of the applicable product to the customer (even before receiving the customer's formal acceptance of that product) in certain situations, including sales of products for which installation is considered perfunctory, transactions in which the product is sold to an independent distributor and we have no installation obligations, and sales of products where we have previously delivered the same product to the same customer location and that prior delivery has been accepted. However, our products are very technologically complex and rely on the interconnection of numerous subcomponents (all of which must perform to their respective specifications), so it is conceivable that a product for which we recognize revenue upon shipment may ultimately fail to meet the overall product's required specifications. In such a situation, the customer may be entitled to certain remedies, which could materially and

adversely affect our operating results for various periods and, as a result, our stock price.

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Our success is dependent in part on our technology and other proprietary rights. If we are unable to maintain our lead or protect our proprietary technology, we may lose valuable assets.

Our success is dependent in part on our technology and other proprietary rights. We own various United States and international patents and have additional pending patent applications relating to some of our products and technologies. The process of seeking patent protection is lengthy and expensive, and we cannot be certain that pending or future applications will actually result in issued patents or that issued patents will be of sufficient scope or strength to provide meaningful protection or commercial advantage to us. Other companies and individuals, including our larger competitors, may develop technologies and obtain patents relating to our business that are similar or superior to our technology or may design around the patents we own, adversely affecting our business. In addition, we at times engage in collaborative technology development efforts with our customers and suppliers, and these collaborations may constitute a key component of certain of our ongoing technology and product research and development projects. The termination of any such collaboration, or delays caused by disputes or other unanticipated challenges that may arise in connection with any such collaboration, could significantly impair our research and development efforts, which could have a material adverse impact on our business and operations.

We also maintain trademarks on certain of our products and services and claim copyright protection for certain proprietary software and documentation. However, we can give no assurance that our trademarks and copyrights will be upheld or successfully deter infringement by third parties.

While patent, copyright and trademark protection for our intellectual property is important, we believe our future success in highly dynamic markets is most dependent upon the technical competence and creative skills of our personnel. We attempt to protect our trade secrets and other proprietary information through confidentiality and other agreements with our customers, suppliers, employees and consultants and through other security measures. We also maintain exclusive and non-exclusive licenses with third parties for strategic technology used in certain products. However, these employees, consultants and third parties may breach these agreements, and we may not have adequate remedies for wrongdoing. In addition, the laws of certain territories in which we develop, manufacture or sell our products may not protect our intellectual property rights to the same extent as do the laws of the United States. In any event, the extent to which we can protect our trade secrets through the use of confidentiality agreements is limited, and our success will depend to a significant extent on our ability to innovate ahead of our competitors.

Our future performance depends, in part, upon our ability to continue to compete successfully worldwide.

Our industry includes large manufacturers with substantial resources to support customers worldwide. Some of our competitors are diversified companies with greater financial resources and more extensive research, engineering, manufacturing, marketing, and customer service and support capabilities than we possess. We face competition from companies whose strategy is to provide a broad array of products and services, some of which compete with the products and services that we offer. These competitors may bundle their products in a manner that may discourage customers from purchasing our products, including pricing such competitive tools significantly below our product offerings. In addition, we face competition from smaller emerging semiconductor equipment companies whose strategy is to provide a portion of the products and services that we offer, using innovative technology to sell products into specialized markets. The strength of our competitive positions in many of our existing markets is largely due to our leading technology, which is the result of continuing significant investments in product research and development. However, we may enter new markets, whether through acquisitions or new internal product development, in which competition is based primarily on product pricing, not technological superiority. Further, some new growth markets that emerge may not require leading technologies. Loss of competitive position in any of the markets we serve, or an inability to sell our products on favorable commercial terms in new markets we may enter, could negatively affect our prices, customer orders, revenues, gross margins and market share, any of which would negatively affect our operating results and financial condition.

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Our business would be harmed if we do not receive parts sufficient in number and performance to meet our production requirements and product specifications in a timely and cost-effective manner.

We use a wide range of materials in the production of our products, including custom electronic and mechanical components, and we use numerous suppliers to supply these materials. We generally do not have guaranteed supply arrangements with our suppliers. Because of the variability and uniqueness of customers' orders, we do not maintain an extensive inventory of materials for manufacturing. Through our business interruption planning, we seek to minimize the risk of production and service interruptions and/or shortages of key parts by, among other things, monitoring the financial stability of key suppliers, identifying (but not necessarily qualifying) possible alternative suppliers and maintaining appropriate inventories of key parts. Although we make reasonable efforts to ensure that parts are available from multiple suppliers, key parts may be available only from a single supplier or a limited group of suppliers. Also, key parts we obtain from some of our suppliers incorporate the suppliers' proprietary intellectual property; in those cases we are increasingly reliant on third parties for high-performance, high-technology components, which reduces the amount of control we have over the availability and protection of the technology and intellectual property that is used in our products. In addition, if certain of our key suppliers experience liquidity issues and are forced to discontinue operations, which is a heightened risk during economic downturns, that would affect their ability to deliver parts and could result in delays for our products. Similarly, especially with respect to suppliers of high-technology components, our suppliers themselves have increasingly complex supply chains, and delays or disruptions at any stage of their supply chains may prevent us from obtaining parts in a timely manner and result in delays for our products. Our operating results and business may be adversely impacted if we are unable to obtain parts to meet our production requirements and product specifications, or if we are only able to do so on unfavorable terms. Furthermore, a supplier may discontinue production of a particular part for any number of reasons, including the supplier's financial condition or business operational decisions, which would require us to purchase, in a single transaction, a large number of such discontinued parts in order to ensure that a continuous supply of such parts remains available to our customers. Such "end-of-life" parts purchases could result in significant expenditures by us in a particular period, and ultimately any unused parts may result in a significant inventory write-off in a future period, either of which could have a material and adverse impact on our financial condition and results of operations for the applicable periods.

If we fail to operate our business in accordance with our business plan, our operating results, business and stock price may be significantly and adversely impacted.

We attempt to operate our business in accordance with a business plan that is established annually, revised frequently (generally quarterly), and reviewed by management even more frequently (at least monthly). Our business plan is developed based on a number of factors, many of which require estimates and assumptions, such as our expectations of the economic environment, future business levels, our customers' willingness and ability to place orders, lead-times, and future revenue and cash flow. Our budgeted operating expenses, for example, are based in part on our future revenue expectations. However, our ability to achieve our anticipated revenue levels is a function of numerous factors, including the volatile and cyclical nature of our primary industry, customer order cancellations, macroeconomic changes, operational matters regarding particular agreements, our ability to manage customer deliveries and resources for the installation and acceptance of our products (for products where customer acceptance is required before we can recognize revenue from such sales), our ability to manage delays or accelerations by customers in taking deliveries and the acceptance of our products (for products where customer acceptance is required before we can recognize revenue from such sales), our ability to operate our business and sales processes effectively, and a number of the other risk factors set forth in this Item 1A.

Because our expenses are in most cases relatively fixed in the short term, any revenue shortfall below expectations could have an immediate and significant adverse effect on our operating results. Similarly, if we fail to manage our expenses effectively or otherwise fail to maintain rigorous cost controls, we could experience greater than anticipated expenses during an operating period, which would also negatively affect our results of operations. If we fail to operate our business consistent with our business plan, our operating results in any period may be significantly and adversely impacted. Such an outcome could cause customers, suppliers or investors to view us as less stable, or could cause us to fail to meet financial analysts' revenue or earnings estimates, any of which could have a material adverse impact on

our business, financial condition or stock price.

In addition, our management is constantly striving to balance the requirements and demands of our customers with the availability of resources, the need to manage our operating model and other factors. In furtherance of those efforts, we often must exercise discretion and judgment as to the timing and prioritization of manufacturing, deliveries, installations and payment scheduling. Any such decisions may impact our ability to recognize revenue, including the fiscal period during which such revenue may be recognized, with respect to such products, which could have a material adverse effect on our business, financial condition or stock price.

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There can be no assurance that we will continue to declare cash dividends at all or in any particular amounts. Our Board of Directors first instituted a quarterly dividend during the fiscal year ended June 30, 2005. Since that time, we have announced several increases in the amount of our quarterly dividend level. We intend to continue to pay quarterly dividends subject to capital availability and periodic determinations by our Board of Directors that cash dividends are in the best interest of our stockholders and are in compliance with all laws and agreements applicable to the declaration and payment of cash dividends by us. Future dividends may be affected by, among other factors: our views on potential future capital requirements for investments in acquisitions and the funding of our research and development; legal risks; stock repurchase programs; changes in federal and state income tax laws or corporate laws; and changes to our business model. Our dividend payments may change from time to time, and we cannot provide assurance that we will continue to declare dividends at all or in any particular amounts. A reduction in our dividend payments could have a negative effect on our stock price.

There are risks associated with our outstanding indebtedness.

As of June 30, 2013, we had \$750 million aggregate principal amount of outstanding indebtedness represented by our senior notes that will mature in 2018, and we may incur additional indebtedness in the future. Our ability to pay interest and repay the principal for our indebtedness is dependent upon our ability to manage our business operations and the other risk factors discussed in this section. There can be no assurance that we will be able to manage any of these risks successfully.

In addition, changes by any rating agency to our outlook or credit rating could negatively affect the value and liquidity of both our debt and equity securities. Factors that can affect our credit rating include changes in our operating performance, the economic environment, conditions in the semiconductor and semiconductor equipment industries, our financial position, and changes in our business strategy.

In certain circumstances involving a change of control followed by a downgrade of the rating of our senior notes, we will be required to make an offer to repurchase the senior notes at a purchase price equal to 101% of the aggregate principal amount of the notes repurchased, plus accrued and unpaid interest. We cannot make any assurance that we will have sufficient financial resources at such time or will be able to arrange financing to pay the repurchase price of the senior notes. Our ability to repurchase the senior notes in such event may be limited by law, by the indenture associated with the senior notes, or by the terms of other agreements to which we may be party at such time. If we fail to repurchase the senior notes as required by the indenture, it would constitute an event of default under the indenture governing the senior notes which, in turn, may also constitute an event of default under other of our obligations. We are exposed to risks related to our commercial terms and conditions, including our indemnification of third parties, as well as the performance of our products.

Although our standard commercial documentation sets forth the terms and conditions that we intend to apply to commercial transactions with our business partners, counterparties to such transactions may not explicitly agree to our terms and conditions. In situations where we engage in business with a third party without an explicit master agreement regarding the applicable terms and conditions, or where the commercial documentation applicable to the transaction is subject to varying interpretations, we may have disputes with those third parties regarding the applicable terms and conditions of our business relationship with them. Such disputes could lead to a deterioration of our commercial relationship with those parties, costly and time-consuming litigation, or additional concessions or obligations being offered by us to resolve such disputes, or could impact our revenue or cost recognition. Any of these outcomes could materially and adversely affect our business, financial condition and results of operations.

In addition, in our commercial agreements, from time to time in the normal course of business we indemnify third parties with whom we enter into contractual relationships, including customers and lessors, with respect to certain matters. We have agreed, under certain conditions, to hold these third parties harmless against specified losses, such as those arising from a breach of representations or covenants, other third party claims that our products when used for their intended purposes infringe the intellectual property rights of such other third parties, or other claims made against certain parties. We may be compelled to enter into or accrue for probable settlements of alleged indemnification obligations, or we may be subject to potential liability arising from our customers' involvements in legal disputes. In addition, notwithstanding the provisions related to limitations on our liability that we seek to include in our business agreements, the counterparties to such agreements may dispute our interpretation or application of

such provisions, and a court of law may not interpret or apply such provisions in our favor, any of which could result in an obligation for us to pay material damages to third parties and engage in costly legal proceedings. It is difficult to determine the maximum potential amount of liability under any indemnification obligations, whether or not asserted, due to our limited history of prior indemnification claims and the unique facts and circumstances that are likely to be involved in any particular claim. Our business, financial condition and results of operations in a reported fiscal period could be materially and adversely affected if we expend significant amounts in defending or settling any purported claims, regardless of their merit or outcomes.

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We are also exposed to potential costs associated with unexpected product performance issues. Our products and production processes are extremely complex and thus could contain unexpected product defects, especially when products are first introduced. Unexpected product performance issues could result in significant costs being incurred by us, including increased service or warranty costs, providing product replacements for (or modifications to) defective products, litigation related to defective products, product recalls, or product write-offs or disposal costs. These costs could be substantial and could have an adverse impact upon our business, financial condition and operating results. In addition, our reputation with our customers could be damaged as a result of such product defects, which could reduce demand for our products and negatively impact our business.

Furthermore, we occasionally enter into volume purchase agreements with our larger customers, and these agreements may provide for certain volume purchase incentives, such as credits toward future purchases. We believe that these arrangements are beneficial to our long-term business, as they are designed to encourage our customers to purchase higher volumes of our products. However, these arrangements could require us to recognize a reduced level of revenue for the products that are initially purchased, to account for the potential future credits or other volume purchase incentives. As a result, these volume purchase arrangements, while expected to be beneficial to our business over time, could materially and adversely affect our results of operations in near-term periods, including the revenue we can recognize on product sales and therefore our gross margins.

There are risks associated with our receipt of government funding for research and development.

We are exposed to additional risks related to our receipt of external funding for certain strategic development programs from various governments and government agencies, both domestically and internationally. Governments and government agencies typically have the right to terminate funding programs at any time in their sole discretion, so there is no assurance that these sources of external funding will continue to be available to us in the future. In addition, under the terms of these government grants, the applicable granting agency typically has the right to audit the costs that we incur, directly and indirectly, in connection with such programs. Any such audit could result in modifications to, or even termination of, the applicable government funding program. For example, if an audit were to identify any costs as being improperly allocated to the applicable program, those costs would not be reimbursed, and any such costs that had already been reimbursed would have to be refunded. We do not know the outcome of any future audits. Any adverse finding resulting from any such audit could lead to penalties (financial or otherwise), termination of funding programs, suspension of payments, fines and suspension or prohibition from receiving future government funding from the applicable government or government agency, any of which could adversely impact our operating results, financial condition and ability to operate our business.

We have recorded significant restructuring, inventory write-off and asset impairment charges in the past and may do so again in the future, which could have a material negative impact on our business.

During the fiscal year ended June 30, 2009, we recorded material restructuring charges of \$38.7 million related to our global workforce reduction, large excess inventory write-offs of \$85.6 million, and material impairment charges of \$446.7 million related to our goodwill and purchased intangible assets. If we again encounter challenging economic conditions once again, we may implement additional cost reduction actions, discontinue certain business operations or make other organizational changes, which would require us to take additional, potentially material, restructuring charges related to, among other things, employee terminations or exit costs. We may also be required to write-off additional inventory if our product build plans or usage of service inventory decline. Also, as our lead times from suppliers increase (due to the increasing complexity of the parts and components they provide) and the lead times demanded by our customers decrease (due to the time pressures they face when introducing new products or technology or bringing new facilities into production), we may be compelled to increase our commitments, and therefore our risk exposure, to inventory purchases to meet our customers' demands in a timely manner, and that inventory may need to be written-off if demand for the underlying product declines for any reason. Such additional write-offs could constitute material charges.

As noted above, we recorded a material charge during the fiscal year ended June 30, 2009 related to the impairment of our goodwill and purchased intangible assets. Goodwill represents the excess of costs over the net fair value of net assets acquired in a business combination. Goodwill is not amortized, but is instead tested for impairment at least annually in accordance with authoritative guidance for goodwill. Purchased intangible assets with estimable useful

lives are amortized over their respective estimated useful lives using the straight-line method, and are reviewed for impairment in accordance with authoritative guidance for long-lived assets. The valuation of goodwill and intangible assets requires assumptions and estimates of many critical factors, including revenue and market growth, operating cash flows, market multiples, and discount rates. A substantial decline in our stock price, or any other adverse change in market conditions, particularly if such change has the effect of changing one of the critical assumptions or estimates we previously used to calculate the value of our goodwill or intangible assets (and, as applicable, the amount of any previous impairment charge), could result in a change to the estimation of fair value that could result in an additional impairment charge.

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Any such additional material charges, whether related to restructuring or goodwill or purchased intangible asset impairment, may have a material negative impact on our operating results and related financial statements.

We are exposed to risks related to our financial arrangements with respect to receivables factoring and banking arrangements.

We enter into factoring arrangements with financial institutions to sell certain of our trade receivables and promissory notes from customers without recourse. In addition, we maintain bank accounts with several domestic and foreign financial institutions, any of which may prove not to be financially viable. If we were to stop entering into these factoring arrangements, our operating results, financial condition and cash flows could be adversely impacted by delays or failures in collecting trade receivables. However, by entering into these arrangements, and by engaging these financial institutions for banking services, we are exposed to additional risks. If any of these financial institutions experiences financial difficulties or is otherwise unable to honor the terms of our factoring or deposit arrangements, we may experience material financial losses due to the failure of such arrangements or a lack of access to our funds, any of which could have an adverse impact upon our operating results, financial condition and cash flows.

We are subject to the risks of additional government actions in the event we were to breach the terms of any settlement arrangement into which we have entered.

In connection with the settlement of certain government actions and other legal proceedings related to our historical stock option practices, we have explicitly agreed as a condition to such settlements that we will comply with certain laws, such as the books and records provisions of the federal securities laws. If we were to violate any such law, we might not only be subject to the significant penalties applicable to such violation, but our past settlements may also be impacted by such violation, which could give rise to additional government actions or other legal proceedings. Any such additional actions or proceedings may require us to expend significant management time and incur significant accounting, legal and other expenses, and may divert attention and resources from the operation of our business.

These expenditures and diversions, as well as an adverse resolution of any such action or proceeding, could have a material adverse effect on our business, financial condition and results of operations.

General Commercial, Operational, Financial and Regulatory Risks

We are exposed to risks associated with a weakening in the condition of the financial markets and the global economy.

The severe tightening of the credit markets, turmoil in the financial markets and weakening of the global economy that were experienced during the fiscal year ended June 30, 2009 contributed to slowdowns in the industries in which we operate, which slowdowns could recur or worsen if economic conditions were to deteriorate again.

The markets for semiconductors, and therefore our business, are ultimately driven by the global demand for electronic devices by consumers and businesses. Economic uncertainty frequently leads to reduced consumer and business spending, which caused our customers to decrease, cancel or delay their equipment and service orders from us in the economic slowdown during fiscal year 2009. In addition, the tightening of credit markets and concerns regarding the availability of credit that accompanied that slowdown made it more difficult for our customers to raise capital, whether debt or equity, to finance their purchases of capital equipment, including the products we sell. Reduced demand, combined with delays in our customers' ability to obtain financing (or the unavailability of such financing), has at times in the past several years adversely affected our product and service sales and revenues and therefore has harmed our business and operating results, and our operating results and financial condition may again be adversely impacted if economic conditions decline from their current levels.

In addition, a decline in the condition of the global financial markets could adversely impact the market values or liquidity of our investments. Our investment portfolio includes corporate and government securities, money market funds and other types of debt and equity investments. Although we believe our portfolio continues to be comprised of sound investments due to the quality and (where applicable) credit ratings and government guarantees of the underlying investments, a decline in the capital and financial markets would adversely impact the market value of our investments and their liquidity. If the market value of such investments were to decline, or if we were to have to sell some of our investments under illiquid market conditions, we may be required to recognize an impairment charge on such investments or a loss on such sales, either of which could have an adverse effect on our financial condition and operating results.

If we are unable to timely and appropriately adapt to changes resulting from difficult macroeconomic conditions, our business, financial condition or results of operations may be materially and adversely affected.

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A majority of our annual revenues are derived from outside the United States, and we maintain significant operations outside the United States. We are exposed to numerous risks as a result of the international nature of our business and operations.

A majority of our annual revenues are derived from outside the United States, and we maintain significant operations outside the United States. We expect that these conditions will continue in the foreseeable future. Managing global operations and sites located throughout the world presents a number of challenges, including but not limited to:

- managing cultural diversity and organizational alignment;
- exposure to the unique characteristics of each region in the global semiconductor market, which can cause capital equipment investment patterns to vary significantly from period to period;
- periodic local or international economic downturns;
- potential adverse tax consequences, including withholding tax rules that may limit the repatriation of our earnings, and higher effective income tax rates in foreign countries where we do business;
- government controls, either by the United States or other countries, that restrict our business overseas or the import or export of semiconductor products or increase the cost of our operations;
- tariffs or other trade barriers (including those applied to our products or to parts and supplies that we purchase);
- political instability, natural disasters, legal or regulatory changes, acts of war or terrorism in regions where we have operations or where we do business;
- fluctuations in interest and currency exchange rates. Fluctuations in currency exchange rates may adversely impact our ability to compete on price with local providers or the value of revenues we generate from our international business. Although we attempt to manage near-term currency risks through the use of hedging instruments, there can be no assurance that such efforts will be adequate;
- longer payment cycles and difficulties in collecting accounts receivable outside of the United States;
- difficulties in managing foreign distributors (including monitoring and ensuring our distributors' compliance with all applicable United States and local laws); and
- inadequate protection or enforcement of our intellectual property and other legal rights in foreign jurisdictions.

Any of the factors above could have a significant negative impact on our business and results of operations.

We might be involved in claims or disputes related to intellectual property or other confidential information that may be costly to resolve, prevent us from selling or using the challenged technology and seriously harm our operating results and financial condition.

As is typical in the semiconductor equipment industry, from time to time we have received communications from other parties asserting the existence of patent rights, copyrights, trademark rights or other intellectual property rights which they believe cover certain of our products, processes, technologies or information. In addition, we occasionally receive notification from customers who believe that we owe them indemnification or other obligations related to intellectual property claims made against such customers by third parties. With respect to intellectual property infringement disputes, our customary practice is to evaluate such infringement assertions and to consider whether to seek licenses where appropriate. However, we cannot ensure that licenses can be obtained or, if obtained, will be on acceptable terms or that costly litigation or other administrative proceedings will not occur. The inability to obtain necessary licenses or other rights on reasonable terms could seriously harm our results of operations and financial condition. Furthermore, we may potentially be subject to claims by customers, suppliers or other business partners, or by governmental law enforcement agencies, related to our receipt, distribution and/or use of third-party intellectual property or confidential information. Legal proceedings and claims, regardless of their merit, and associated internal investigations with respect to intellectual property or confidential information disputes are often expensive to prosecute, defend or conduct; may divert management's attention and other company resources; and/or may result in restrictions on our ability to sell our products, settlements on significantly adverse terms or adverse judgments for damages, injunctive relief, penalties and fines, any of which could have a significant negative effect on our business, results of operations and financial condition. There can be no assurance regarding the outcome of future legal proceedings, claims or investigations. The instigation of legal proceedings or claims, our inability to favorably resolve or settle such proceedings or claims, or the determination of any adverse findings against us or any of our employees in connection with such proceedings or claims could materially and adversely affect our business, financial condition

and results of operations, as well as our business reputation.

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We are exposed to various risks related to the legal (including environmental), regulatory and tax environments in which we perform our operations and conduct our business.

We are subject to various risks related to compliance with new, existing, different, inconsistent or even conflicting laws, rules and regulations enacted by legislative bodies and/or regulatory agencies in the countries in which we operate and with which we must comply, including environmental, safety, antitrust, anti-corruption/anti-bribery, unclaimed property and export control regulations. Our failure or inability to comply with existing or future laws, rules or regulations, or changes to existing laws, rules or regulations (including changes that result in inconsistent or conflicting laws, rules or regulations), in the countries in which we operate could result in violations of contractual or regulatory obligations that may adversely affect our operating results, financial condition and ability to conduct our business. From time to time, we may receive inquiries or audit notices from governmental or regulatory bodies, or we may participate in voluntary disclosure programs, related to legal, regulatory or tax compliance matters, and these inquiries, notices or programs may result in significant financial cost (including investigation expenses, defense costs, assessments and penalties), reputational harm and other consequences that could materially and adversely affect our operating results and financial condition.

Our properties and many aspects of our business operations are subject to various domestic and international environmental laws and regulations, including those that control and restrict the use, transportation, emission, discharge, storage and disposal of certain chemicals, gases and other substances. Any failure to comply with applicable environmental laws, regulations or requirements may subject us to a range of consequences, including fines, suspension of certain of our business activities, limitations on our ability to sell our products, obligations to remediate environmental contamination, and criminal and civil liabilities or other sanctions. In addition, changes in environmental regulations (including regulations relating to climate change and greenhouse gas emissions) could require us to invest in potentially costly pollution control equipment, alter our manufacturing processes or use substitute (potentially more expensive and/or rarer) materials. Further, we use hazardous and other regulated materials that subject us to risks of strict liability for damages caused by any release, regardless of fault. We also face increasing complexity in our manufacturing, product design and procurement operations as we adjust to new and prospective requirements relating to the materials composition of our products, including restrictions on lead and other substances and requirements to track the sources of certain metals and other materials. The cost of complying, or of failing to comply, with these and other regulatory restrictions or contractual obligations could adversely affect our operating results, financial condition and ability to conduct our business.

In addition, we may from time to time be involved in legal proceedings or claims regarding employment, contracts, product performance, product liability, antitrust, environmental regulations, securities, unfair competition and other matters (in addition to proceedings and claims related to intellectual property matters, which are separately discussed elsewhere in this Item 1A). These legal proceedings and claims, regardless of their merit, may be time-consuming and expensive to prosecute or defend, divert management's attention and resources, and/or inhibit our ability to sell our products. There can be no assurance regarding the outcome of current or future legal proceedings or claims, which could adversely affect our operating results, financial condition and ability to operate our business.

New regulations related to "conflict minerals" may force us to incur additional expenses, may result in damage to our business reputation and may adversely impact our ability to conduct our business.

In August 2012, under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the SEC adopted new requirements for companies that use certain minerals and derivative metals (referred to as "conflict minerals," regardless of their actual country of origin) in their products. Some of these metals are commonly used in electronic equipment and devices, including our products. These new requirements require companies to investigate, disclose and report whether or not such metals originated from the Democratic Republic of Congo or adjoining countries. We have an extremely complex supply chain, with numerous suppliers (many of whom are not obligated by the new law to investigate their own supply chains) for the components and parts used in each of our products. As a result, we may incur significant costs to comply with the diligence and disclosure requirements, including costs related to determining the source of any of the relevant metals used in our products. In addition, because our supply chain is so complex, we may not be able to sufficiently verify the origin of all the relevant metals used in our products through the due diligence procedures that we implement, which may harm our business reputation. Though we do not

anticipate that our customers will need to know our conflict mineral status to satisfy their own SEC reporting obligations (if any), we may also face difficulties in satisfying customers if they nonetheless require that we prove or certify that our products are “conflict free.” Key components and parts that can be shown to be “conflict free” may not be available to us in sufficient quantity, or at all, or may only be available at significantly higher cost to us. If we are not able to meet customer requirements, customers may choose to disqualify us as a supplier. Any of these outcomes could adversely impact our business, financial condition or operating results.

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We depend on key personnel to manage our business effectively, and if we are unable to attract, retain and motivate our key employees, our sales and product development could be harmed.

Our employees are vital to our success, and our key management, engineering and other employees are difficult to replace. We generally do not have employment contracts with our key employees. Further, we do not maintain key person life insurance on any of our employees. The expansion of high technology companies worldwide has increased demand and competition for qualified personnel. If we are unable to retain key personnel, or if we are not able to attract, assimilate and retain additional highly qualified employees to meet our needs in the future, our business and operations could be harmed.

We outsource a number of services to third-party service providers, which decreases our control over the performance of these functions. Disruptions or delays at our third-party service providers could adversely impact our operations. We outsource a number of services, including our transportation and logistics management of spare parts and certain accounting functions, to domestic and overseas third-party service providers. While outsourcing arrangements may lower our cost of operations, they also reduce our direct control over the services rendered. It is uncertain what effect such diminished control will have on the quality or quantity of products delivered or services rendered, on our ability to quickly respond to changing market conditions, or on our ability to ensure compliance with all applicable domestic and foreign laws and regulations. In addition, many of these outsourced service providers, including certain hosted software applications that we use for confidential data storage, employ “cloud computing” technology for such storage (which refers to an information technology hosting and delivery system in which data is not stored within the user's physical infrastructure but instead are delivered to and consumed by the user as an Internet-based service). These providers' cloud computing systems may be susceptible to “cyber incidents,” such as intentional cyber attacks aimed at theft of sensitive data or inadvertent cyber-security compromises, that are outside of our control. If we do not effectively develop and manage our outsourcing strategies, if required export and other governmental approvals are not timely obtained, if our third-party service providers do not perform as anticipated, or do not adequately protect our data from cyber-related security breaches, or if there are delays or difficulties in enhancing business processes, we may experience operational difficulties (such as limitations on our ability to ship products), increased costs, manufacturing or service interruptions or delays, loss of intellectual property rights or other sensitive data, quality and compliance issues, and challenges in managing our product inventory or recording and reporting financial and management information, any of which could materially and adversely affect our business, financial condition and results of operations.

We rely upon certain critical information systems for our daily business operation. Our inability to use or access these information systems at critical points in time could unfavorably impact the timeliness and efficiency of our business operations.

Our global operations are linked by information systems, including telecommunications, the internet, our corporate intranet, network communications, email and various computer hardware and software applications. Despite our implementation of network security measures, our tools and servers are vulnerable to computer viruses, break-ins and similar disruptions from unauthorized tampering with our computer systems and tools located at customer sites, or could be subject to system failures or malfunctions for other reasons. System failures or malfunctioning, such as difficulties with our customer relationship management (“CRM”) system, could disrupt our operations and our ability to timely and accurately process and report key components of our financial results. Our enterprise resource planning (“ERP”) system is integral to our ability to accurately and efficiently maintain our books and records, record transactions, provide critical information to our management, and prepare our financial statements. Any disruptions or difficulties that may occur in connection with our ERP system or other systems (whether in connection with the regular operation, periodic enhancements, modifications or upgrades of such systems or the integration of our acquired businesses into such systems) could adversely affect our ability to complete important business processes, such as the evaluation of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act of 2002. Any such event could have an adverse effect on our business, operating results and financial condition. Acquisitions are an important element of our strategy but, because of the uncertainties involved, we may not find suitable acquisition candidates and we may not be able to successfully integrate and manage acquired businesses. We are also exposed to risks in connection with strategic alliances into which we may enter.

In addition to our efforts to develop new technologies from internal sources, part of our growth strategy is to pursue acquisitions and acquire new technologies from external sources. As part of this effort, we may make acquisitions of, or significant investments in, businesses with complementary products, services and/or technologies. There can be no assurance that we will find suitable acquisition candidates or that acquisitions we complete will be successful. In addition, we may use equity to finance future acquisitions, which would increase our number of shares outstanding and be dilutive to current stockholders.

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If we are unable to successfully integrate and manage acquired businesses or if acquired businesses perform poorly, then our business and financial results may suffer. It is possible that the businesses we have acquired, as well as businesses that we may acquire in the future, may perform worse than expected or prove to be more difficult to integrate and manage than expected. In addition, we may lose key employees of the acquired companies. As a result, risks associated with acquisition transactions may give rise to a material adverse effect on our business and financial results for a number of reasons, including:

- we may have to devote unanticipated financial and management resources to acquired businesses;
 - the combination of businesses may cause the loss of key personnel or an interruption of, or loss of momentum in, the activities of our company and/or the acquired business;
- we may not be able to realize expected operating efficiencies or product integration benefits from our acquisitions; we may experience challenges in entering into new market segments for which we have not previously manufactured and sold products;
- we may face difficulties in coordinating geographically separated organizations, systems and facilities;
 - the customers, distributors, suppliers, employees and others with whom the companies we acquire have business dealings may have a potentially adverse reaction to the acquisition;
- we may have to write-off goodwill or other intangible assets; and
- we may incur unforeseen obligations or liabilities in connection with acquisitions.

At times, we may also enter into strategic alliances with customers, suppliers or other business partners with respect to development of technology and intellectual property. These alliances typically require significant investments of capital and exchange of proprietary, highly sensitive information. The success of these alliances depends on various factors over which we may have limited or no control and requires ongoing and effective cooperation with our strategic partners. Mergers and acquisitions and strategic alliances are inherently subject to significant risks, and the inability to effectively manage these risks could materially and adversely affect our business, financial condition and operating results.

Disruption of our manufacturing facilities or other operations, or in the operations of our customers, due to earthquake, flood, other natural catastrophic events, health epidemics or terrorism could result in cancellation of orders, delays in deliveries or other business activities, or loss of customers and could seriously harm our business. We have significant manufacturing operations in the United States, Singapore, Israel, Belgium, Germany and China. In addition, our business is international in nature, with our sales, service and administrative personnel and our customers located in numerous countries throughout the world. Operations at our manufacturing facilities and our assembly subcontractors, as well as our other operations and those of our customers, are subject to disruption for a variety of reasons, including work stoppages, acts of war, terrorism, health epidemics, fire, earthquake, volcanic eruptions, energy shortages, flooding or other natural disasters. Such disruption could cause delays in, among other things, shipments of products to our customers, our ability to perform services requested by our customers, or the installation and acceptance of our products at customer sites. We cannot ensure that alternate means of conducting our operations (whether through alternate production capacity or service providers or otherwise) would be available if a major disruption were to occur or that, if such alternate means were available, they could be obtained on favorable terms.

In addition, as part of our cost-cutting actions, we have consolidated several operating facilities. Our California operations are now primarily centralized in our Milpitas facility. The consolidation of our California operations into a single campus could further concentrate the risks related to any of the disruptive events described above, such as acts of war or terrorism, earthquakes, fires or other natural disasters, if any such event were to impact our Milpitas facility. We are predominantly uninsured for losses and interruptions caused by terrorist acts and acts of war. If international political instability continues or increases, our business and results of operations could be harmed.

The threat of terrorism targeted at, or acts of war in, the regions of the world in which we do business increases the uncertainty in our markets. Any act of terrorism or war that affects the economy or the semiconductor industry could adversely affect our business. Increased international political instability in various parts of the world, disruption in air transportation and further enhanced security measures as a result of terrorist attacks may hinder our ability to do business and may increase our costs of operations. We maintain significant manufacturing and research and

development operations in Israel, an area that has historically experienced a high degree of political instability, and we are therefore exposed to risks associated with future instability in that region. Such instability could directly impact our ability to operate our business (or our customers' ability to operate their business) in the affected region, cause us to incur increased costs in transportation, make such transportation unreliable, increase our insurance costs, and cause international currency markets to fluctuate. This same instability could have the same effects on our suppliers and their ability to timely deliver their products. If international political instability continues or increases in any region in which we do business, our business and results of operations could be harmed. We are predominantly uninsured for losses and interruptions caused by terrorist acts and acts of war.

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We self insure certain risks including earthquake risk. If one or more of the uninsured events occurs, we could suffer major financial loss.

We purchase insurance to help mitigate the economic impact of certain insurable risks; however, certain other risks are uninsurable or are insurable only at significant cost or cannot be mitigated with insurance. An earthquake could significantly disrupt our manufacturing operations, a significant portion of which are conducted in California, an area highly susceptible to earthquakes. It could also significantly delay our research and engineering efforts on new products, much of which is also conducted in California. We take steps to minimize the damage that would be caused by an earthquake, but there is no certainty that our efforts will prove successful in the event of an earthquake. We self insure earthquake risks because we believe this is a prudent financial decision based on our large cash reserves and the high cost and limited coverage available in the earthquake insurance market. Certain other risks are also self-insured either based on a similar cost-benefit analysis, or based on the unavailability of insurance. If one or more of the uninsured events occurs, we could suffer major financial loss.

We are exposed to foreign currency exchange rate fluctuations. Although we hedge certain currency risks, we may still be adversely affected by changes in foreign currency exchange rates or declining economic conditions in these countries.

We have some exposure to fluctuations in foreign currency exchange rates, primarily the Euro and the Japanese Yen. We have international subsidiaries that operate and sell our products globally. In addition, an increasing proportion of our manufacturing activities are conducted outside of the United States, and many of the costs associated with such activities are denominated in foreign currencies. We routinely hedge our exposures to certain foreign currencies with certain financial institutions in an effort to minimize the impact of certain currency exchange rate fluctuations, but these hedges may be inadequate to protect us from currency exchange rate fluctuations. To the extent that these hedges are inadequate, or if there are significant currency exchange rate fluctuations in currencies for which we do not have hedges in place, our reported financial results or the way we conduct our business could be adversely affected. Furthermore, if a financial counterparty to our hedges experiences financial difficulties or is otherwise unable to honor the terms of the foreign currency hedge, we may experience material financial losses. We are exposed to fluctuations in interest rates and the market values of our portfolio investments; impairment of our investments could harm our earnings. In addition, we and our stockholders are exposed to risks related to the volatility of the market for our common stock.

Our investment portfolio primarily consists of both corporate and government debt securities that have a maximum effective maturity of three years. The longer the duration of these securities, the more susceptible they are to changes in market interest rates and bond yields. As market interest rates and bond yields increase, those securities with a lower yield-at-cost show a mark-to-market unrealized loss. We have the ability to realize the full value of all these investments upon maturity. However, an impairment of the fair market value of our investments, even if unrealized, must be reflected in our financial statements for the applicable period and may therefore have a material adverse effect on our results of operations for that period.

In addition, the market price for our common stock is volatile and has fluctuated significantly during recent years. The trading price of our common stock could continue to be highly volatile and fluctuate widely in response to various factors, including without limitation conditions in the semiconductor industry and other industries in which we operate, fluctuations in the global economy or capital markets, our operating results or other performance metrics, or adverse consequences experienced by us as a result of any of the risks described elsewhere in this Item 1A. Volatility in the market price of our common stock could cause an investor in our common stock to experience a loss on the value of their investment in us and could also adversely impact our ability to raise capital through the sale of our common stock or to use our common stock as consideration to acquire other companies.

We are exposed to risks in connection with tax audits in various jurisdictions.

We are subject to tax audits in various jurisdictions, and such jurisdictions may assess additional income or other taxes against us. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related litigation could be materially different from our historical income tax provisions and accruals. The results of an audit or litigation could have a material adverse effect on our operating results or cash flows in the period or periods for which that determination is made.

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A change in our effective tax rate can have a significant adverse impact on our business.

A number of factors may adversely impact our future effective tax rates, such as the jurisdictions in which our profits are determined to be earned and taxed; the resolution of issues arising from tax audits with various tax authorities; changes in the valuation of our deferred tax assets and liabilities; adjustments to estimated taxes upon finalization of various tax returns; increases in expenses not deductible for tax purposes, including write-offs of acquired in-process research and development and impairment of goodwill in connection with acquisitions; changes in available tax credits; changes in stock-based compensation expense; changes in tax laws or the interpretation of such tax laws (for example, proposals for fundamental United States international tax reform; changes in generally accepted accounting principles; and the repatriation of earnings from outside the United States for which we have not previously provided for United States taxes. A change in our effective tax rate can adversely impact our results from operations.

Compliance with federal securities laws, rules and regulations, as well as NASDAQ requirements, is becoming increasingly complex, and the significant attention and expense we must devote to those areas may have an adverse impact on our business.

Federal securities laws, rules and regulations, as well as NASDAQ rules and regulations, require companies to maintain extensive corporate governance measures, impose comprehensive reporting and disclosure requirements, set strict independence and financial expertise standards for audit and other committee members and impose civil and criminal penalties for companies and their chief executive officers, chief financial officers and directors for securities law violations. These laws, rules and regulations have increased, and in the future are expected to continue to increase, the scope, complexity and cost of our corporate governance, reporting and disclosure practices, which could harm our results of operations and divert management's attention from business operations.

A change in accounting standards or practices or a change in existing taxation rules or practices (or changes in interpretations of such standards, practices or rules) can have a significant effect on our reported results and may even affect reporting of transactions completed before the change is effective.

New accounting pronouncements and taxation rules and varying interpretations of accounting pronouncements and taxation rules have occurred and will continue to occur in the future. Changes to (or revised interpretations or applications of) existing tax or accounting rules or the questioning of current or past practices may adversely affect our reported financial results or the way we conduct our business.

For example, the adoption of the authoritative guidance for stock-based compensation, which required us to measure all employee stock-based compensation awards using a fair value method beginning in fiscal year 2006 and record such expense in our consolidated financial statements, has had a material impact on our consolidated financial statements, as reported under accounting principles generally accepted in the United States.

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ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Information regarding our principal properties as of June 30, 2013 is set forth below:

Location	Type	Principal Use	Square Footage	Ownership
Milpitas, CA	Office, plant and warehouse	Principal Executive Offices, Research, Engineering, Marketing, Manufacturing, Service and Sales Administration	727,302	Owned
Westwood, MA ⁽¹⁾	Office and plant	Engineering, Marketing, Manufacturing and Service	116,908	Leased
Leuven, Belgium ⁽¹⁾	Office, plant and warehouse	Research, Engineering, Marketing, Manufacturing and Service and Sales Administration	99,315	Owned
Shenzhen, China	Office and plant	Sales, Service and Manufacturing	33,571	Leased
Weilburg, Germany	Office and plant	Research, Engineering, Marketing, Manufacturing, Service and Sales Administration	138,119	Leased
Chennai, India	Office	Engineering	33,366	Owned
Migdal Ha'Emek, Israel	Office and plant	Research, Engineering, Marketing, Manufacturing, Service and Sales Administration	191,982	Owned
Yokohama, Japan	Office and warehouse	Sales and Service	37,418	Leased
Serangoon, Singapore ⁽²⁾	Office and plant	Sales, Service and Manufacturing	188,695	Owned
Hsinchu, Taiwan	Office	Sales and Service	73,676	Leased

(1) Portions of this property are sublet, are vacant and marketed to sublease, or are leased to third parties.

(2) We own the building at our location in Serangoon, Singapore, but the land on which this building resides is leased. As of June 30, 2013, we owned or leased a total of approximately 2.0 million square feet of space worldwide, including the locations listed above and office space for smaller sales and service offices in several locations throughout the world. Our operating leases expire at various times through December 31, 2021, subject to renewal, with some of the leases containing renewal option clauses at the fair market value, for additional periods up to five years. Additional information regarding these leases is incorporated herein by reference from Note 12, "Commitments and Contingencies" to the Consolidated Financial Statements. We believe our properties are adequately maintained and suitable for their intended use and that our production facilities have capacity adequate for our current needs.

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ITEM 3. LEGAL PROCEEDINGS

The information set forth below under Note 13, “Litigation and Other Legal Matters” to the Consolidated Financial Statements is incorporated herein by reference.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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PART II

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

Our common stock is listed and traded on the NASDAQ Global Select Market under the symbol "KLAC."

The prices per share reflected in the following table represent the high and low closing prices for our common stock on the NASDAQ Global Select Market for the periods indicated:

	Year ended June 30, 2013		Year ended June 30, 2012	
	High	Low	High	Low
First Fiscal Quarter	\$53.59	\$45.49	\$44.11	\$33.67
Second Fiscal Quarter	\$48.90	\$43.97	\$49.15	\$37.23
Third Fiscal Quarter	\$57.02	\$47.37	\$54.44	\$46.91
Fourth Fiscal Quarter	\$56.98	\$51.30	\$55.11	\$44.56

We paid dividends to holders of our common stock during each of the quarters in the fiscal years ended June 30, 2013 and 2012. The total amount of dividends paid during the fiscal years ended June 30, 2013 and 2012 was \$265.9 million and \$233.6 million, respectively, reflecting an increase during the fiscal year ended June 30, 2013 to the level of our quarterly dividend from \$0.35 to \$0.40 per share. On July 9, 2013, we announced that our Board of Directors had authorized a further increase in the level of our quarterly dividend from \$0.40 to \$0.45 per share. Following such announcement, during the first quarter of the fiscal year ending June 30, 2014, our Board of Directors approved a quarterly cash dividend of \$0.45 per share, which was declared on August 6, 2013 and will be paid on September 3, 2013 to our stockholders of record on August 16, 2013.

As of July 18, 2013, there were 504 holders of record of our common stock.

Equity Repurchase Plans

The following is a summary of stock repurchases for each month during the fourth quarter of the fiscal year ended June 30, 2013⁽¹⁾:

Period	Total Number of Shares Purchased ⁽²⁾	Average Price Paid per Share	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs ⁽³⁾
April 1, 2013 to April 30, 2013	494,567	\$ 52.88	6,616,230
May 1, 2013 to May 31, 2013	408,900	\$ 54.45	6,207,330
June 1, 2013 to June 30, 2013	355,600	\$ 55.95	5,851,730
Total	1,259,067	\$ 54.26	

In July 1997, our Board of Directors authorized us to systematically repurchase up to 17.8 million shares of our (1) common stock in the open market. This plan was put into place to reduce the dilution from our employee benefit and

incentive plans, such as our equity incentive and employee stock purchase plans, and to return excess cash to our stockholders. Our Board of Directors has authorized us to repurchase additional shares of our common stock under the repurchase program in February 2005 (up to 10.0 million shares), February 2007 (up to 10.0 million shares), August 2007 (up to 10.0 million shares), June 2008 (up to 15.0 million shares), February 2011 (up to 10.0 million shares), and November 2012 (up to 8.0 million shares), in each case in addition to the originally authorized 17.8 million shares described in the first sentence of this footnote.

(2) All shares were purchased pursuant to the publicly announced repurchase program described in footnote 1 above.

(3) Shares are reported based on the settlement date of the applicable repurchase.

(3) The stock repurchase program has no expiration date. Future repurchases of our common stock under our repurchase program may be effected through various different repurchase transaction structures, including isolated

open market transactions or systematic repurchase plans.

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Stock Performance Graph and Cumulative Total Return

The following graph compares the cumulative 5-year total return attained by stockholders on our common stock relative to the cumulative total returns of the S&P 500 Index (as required by SEC regulations) and the Philadelphia Semiconductor Index (PHLX). The graph tracks the performance of a \$100 investment in our common stock and in each of the indices (with the reinvestment of all dividends) from June 30, 2008 to June 30, 2013.

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	6/08	6/09	6/10	6/11	6/12	6/13
KLA-Tencor Corporation	100.00	63.79	71.79	106.96	134.25	156.70
S&P 500	100.00	73.79	84.43	110.35	116.36	140.32
PHLX Semiconductor	100.00	76.44	93.70	116.51	120.24	140.99

* Assumes \$100 invested on June 30, 2008 in stock or index, including reinvestment of dividends.

Our fiscal year ends June 30. The comparisons in the graph above are based upon historical data and are not necessarily indicative of, nor intended to forecast, future stock price performance.

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ITEM 6. SELECTED FINANCIAL DATA

The following tables include selected consolidated summary financial data for each of our last five fiscal years. This data should be read in conjunction with Item 8, “Financial Statements and Supplementary Data,” and Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in this Annual Report on Form 10-K.

(In thousands, except per share data)	Year ended June 30,				
	2013	2012	2011	2010	2009
Consolidated Statements of Operations:					
Total revenues	\$2,842,781	\$3,171,944	\$3,175,167	\$1,820,760	\$1,520,216
Income (loss) from operations	\$729,685	\$1,016,325	\$1,160,330	\$314,166	\$(577,941)
Net income (loss)	\$543,149	\$756,015	\$794,488	\$212,300	\$(523,368)
Cash dividends declared per share	\$1.60	\$1.40	\$1.00	\$0.60	\$0.60
Net income (loss) per share:					
Basic	\$3.27	\$4.53	\$4.75	\$1.24	\$(3.07)
Diluted	\$3.21	\$4.44	\$4.66	\$1.23	\$(3.07)
	As of June 30,				
	2013	2012	2011	2010	2009
Consolidated Balance Sheets:					
Cash, cash equivalents and marketable securities	\$2,918,881	\$2,534,444	\$2,038,535	\$1,534,044	\$1,329,884
Working capital	\$3,489,971	\$3,301,136	\$2,797,149	\$2,063,678	\$1,851,635
Total assets	\$5,287,357	\$5,100,308	\$4,675,521	\$3,907,056	\$3,609,538
Long-term debt	\$747,376	\$746,833	\$746,290	\$745,747	\$745,204
Total stockholders' equity	\$3,482,152	\$3,315,595	\$2,860,893	\$2,246,611	\$2,184,392

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

The following discussion of our financial condition and results of operations should be read in conjunction with our Consolidated Financial Statements and the related notes included in Item 8, "Financial Statements and Supplementary Data," in this Annual Report on Form 10-K. This discussion contains forward-looking statements, which involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of certain factors, including but not limited to those discussed in Item 1A, "Risk Factors" and elsewhere in this Annual Report on Form 10-K. (See "Special Note Regarding Forward-Looking Statements.")

CRITICAL ACCOUNTING ESTIMATES AND POLICIES

The preparation of our Consolidated Financial Statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions in applying our accounting policies that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We base these estimates and assumptions on historical experience, and evaluate them on an on-going basis to ensure that they remain reasonable under current conditions. Actual results could differ from those estimates. We discuss the development and selection of the critical accounting estimates with the Audit Committee of our Board of Directors on a quarterly basis, and the Audit Committee has reviewed our related disclosure in this Annual Report on Form 10-K. The items in our financial statements requiring significant estimates, judgments and assumptions are as follows:

Revenue Recognition. We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the selling price is fixed or determinable, and collectibility is reasonably assured. We derive revenue from three sources—sales of systems, spare parts and services. In general, we recognize revenue for systems when the system has been installed, is operating according to predetermined specifications and is accepted by the customer. When a customer delays installation for delivered products for which we have demonstrated a history of successful installation and acceptance, we recognize revenue upon customer acceptance. Under certain circumstances, however, we recognize revenue upon shipment, prior to acceptance from the customer, as follows:

- When the customer has previously accepted the same tool, with the same specifications, and when we can objectively demonstrate that the tool meets all of the required acceptance criteria.
- When system sales to independent distributors have no installation requirement, contain no acceptance agreement, and 100% payment is due based upon shipment.
- When the installation of the system is deemed perfunctory.

• When the customer withholds acceptance due to issues unrelated to product performance, in which case revenue is recognized when the system is performing as intended and meets predetermined specifications.

In circumstances in which we recognize revenue prior to installation, the portion of revenue associated with installation is deferred based on estimated fair value, and that revenue is recognized upon completion of the installation.

We enter into sales arrangements that may consist of multiple deliverables of our products and services where certain elements of the sales arrangement are not delivered and accepted in one reporting period. Judgment is required to properly identify the accounting units of the multiple deliverable transactions and to determine the manner in which revenue should be allocated among the accounting units. Additionally, judgment is required to interpret various commercial terms and determine when all criteria of revenue recognition have been met in order for revenue recognition to occur in the appropriate accounting period. While changes in the allocation of the estimated selling price between the accounting units will not affect the amount of total revenue recognized for a particular arrangement, any material changes in these allocations could impact the timing of revenue recognition, which could have a material effect on our financial position and results of operations.

Trade-in rights are occasionally granted to customers to trade in tools in connection with subsequent purchases. We estimate the value of the trade-in right and reduce the revenue recognized on the initial sale. This amount is recognized at the earlier of the exercise of the trade-in right or the expiration of the trade-in right.

Spare parts revenue is recognized when the product has been shipped, risk of loss has passed to the customer and collection of the resulting receivable is probable.

Service and maintenance contract revenue is recognized ratably over the term of the maintenance contract. Revenue from services performed in the absence of a maintenance contract, including consulting and training revenue, is recognized when the related services are performed and collectibility is reasonably assured.

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We sell stand-alone software that is subject to the software revenue recognition guidance. We periodically review selling prices to determine whether vendor-specific objective evidence (“VSOE”) exists, and in some situations where we are unable to establish VSOE for undelivered elements, such as post-contract service, revenue is recognized ratably over the term of the service contract.

We also defer the fair value of non-standard warranty bundled with equipment sales as unearned revenue.

Non-standard warranty includes services incremental to the standard 40-hour per week coverage for 12 months.

Non-standard warranty is recognized ratably as revenue when the applicable warranty term period commences.

The deferred system profit balance equals the amount of deferred system revenue that was invoiced and due on shipment, less applicable product and warranty costs. Deferred system revenue represents the value of products that have been shipped and billed to customers which have not met our revenue recognition criteria. Deferred system profit does not include the profit associated with product shipments to customers in Japan, to whom title does not transfer until customer acceptance. Shipments to customers in Japan are classified as inventory at cost until the time of acceptance.

Inventories. Inventories are stated at the lower of cost (on a first-in, first-out basis) or market. Demonstration units are stated at their manufacturing cost and written down to their net realizable value. Our manufacturing overhead standards for product costs are calculated assuming full absorption of forecasted spending over projected volumes, adjusted for excess capacity. Abnormal inventory costs such as costs of idle facilities, excess freight and handling costs, and spoilage are recognized as current period charges. We write down product inventory based on forecasted demand and technological obsolescence and parts inventory based on forecasted usage. These factors are impacted by market and economic conditions, technology changes, new product introductions and changes in strategic direction and require estimates that may include uncertain elements. Actual demand may differ from forecasted demand, and such differences may have a material effect on recorded inventory values.

Warranty. We provide standard warranty coverage on our systems for 40 hours per week for 12 months, providing labor and parts necessary to repair the systems during the warranty period. We account for the estimated warranty cost as a charge to costs of revenues when revenue is recognized. The estimated warranty cost is based on historical product performance and field expenses. Utilizing actual service records, we calculate the average service hours and parts expense per system and apply the actual labor and overhead rates to determine the estimated warranty charge. We update these estimated charges on a quarterly basis. The actual product performance and/or field expense profiles may differ, and in those cases we adjust our warranty accruals accordingly. See Note 12, “Commitments and Contingencies” to the Consolidated Financial Statements for a detailed description.

Allowance for Doubtful Accounts. A majority of our trade receivables are derived from sales to large multinational semiconductor manufacturers throughout the world. In order to monitor potential credit losses, we perform ongoing credit evaluations of our customers’ financial condition. An allowance for doubtful accounts is maintained for probable credit losses based upon our assessment of the expected collectibility of the accounts receivable. The allowance for doubtful accounts is reviewed on a quarterly basis to assess the adequacy of the allowance. We take into consideration (1) any circumstances of which we are aware of a customer’s inability to meet its financial obligations; and (2) our judgments as to prevailing economic conditions in the industry and their impact on our customers. If circumstances change, such that the financial conditions of our customers are adversely affected and they are unable to meet their financial obligations to us, we may need to record additional allowances, which would result in a reduction of our net income.

Stock-Based Compensation. We account for stock-based awards granted to employees for services based on the fair value of those awards. The fair value of stock-based awards is measured at the grant date and is recognized as expense over the employee’s requisite service period. The fair value is determined using a Black-Scholes valuation model for stock options and for purchase rights under our Employee Stock Purchase Plan and using the closing price of our common stock on the grant date for restricted stock units, adjusted to exclude the present value of dividends which are not accrued on the restricted stock units. The Black-Scholes option-pricing model requires the input of assumptions, including the option’s expected term and the expected price volatility of the underlying stock. The expected stock price volatility assumption is based on the market-based implied volatility from traded options of our common stock.

Accounting for Cash-Based Long-Term Incentive Compensation. Cash-based long-term incentive (“Cash LTI”) awards issued to employees under our Cash LTI program vest in four equal installments, with 25% of the aggregate amount of the Cash LTI award vesting on each yearly anniversary of the grant date over a four-year period. In order to receive payments under a Cash LTI award, participants must remain employed by us as of the applicable award vesting date. Compensation expense related to the Cash LTI awards is recognized over the vesting term, which is adjusted for the impact of estimated forfeitures.

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Contingencies and Litigation. We are subject to the possibility of losses from various contingencies. Considerable judgment is necessary to estimate the probability and amount of any loss from such contingencies. An accrual is made when it is probable that a liability has been incurred or an asset has been impaired and the amount of loss can be reasonably estimated. We accrue a liability and recognize as expense the estimated costs expected to be incurred over the next twelve months to defend or settle asserted and unasserted claims existing as of the balance sheet date. See Item 3, “Legal Proceedings” and Note 12, “Commitments and Contingencies” to the Consolidated Financial Statements for a detailed description.

Goodwill and Intangible Assets. We assess goodwill for impairment annually as well as whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Long-lived intangible assets are tested for recoverability whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. See Note 5, “Goodwill and Purchased Intangible Assets” to the Consolidated Financial Statements for a detailed description. Goodwill represents the excess of the purchase price over the fair value of the net tangible and identifiable intangible assets acquired in each business combination. We performed a qualitative assessment of the goodwill by reporting unit as of November 30, 2012 during the three months ended December 31, 2012 and concluded that there was no impairment. There have been no significant events or circumstances affecting the valuation of goodwill subsequent to the impairment test performed in the three months ended December 31, 2012. The next annual evaluation of the goodwill by reporting unit will be performed in the three months ending December 31, 2013.

If we were to encounter challenging economic conditions, such as a decline in our operating results, an unfavorable industry or macroeconomic environment, a substantial decline in our stock price, or any other adverse change in market conditions, we may be required to perform the two-step quantitative goodwill impairment analysis. In addition, if such conditions have the effect of changing one of the critical assumptions or estimates we use to calculate the value of our goodwill or intangible assets, we may be required to record goodwill and/or intangible asset impairment charges in future periods. It is not possible at this time to determine if any such future impairment charge would result or, if it does, whether such charge would be material to our results of operations.

Income Taxes. We account for income taxes in accordance with the authoritative guidance, which requires that deferred tax assets and liabilities be recognized using enacted tax rates for the effect of temporary differences between the book and tax bases of recorded assets and liabilities. The guidance also requires that deferred tax assets be reduced by a valuation allowance if it is more likely than not that a portion of the deferred tax asset will not be realized. We have determined that a valuation allowance is necessary against a portion of the deferred tax assets, but we anticipate that our future taxable income will be sufficient to recover the remainder of our deferred tax assets. However, should there be a change in our ability to recover our deferred tax assets, we could be required to record an additional valuation allowance against our deferred tax assets. This would result in an increase to our tax provision in the period in which we determine that the recovery is not probable.

On a quarterly basis, we provide for income taxes based upon an estimated annual effective income tax rate. The effective tax rate is highly dependent upon the geographic composition of worldwide earnings, tax regulations governing each region, availability of tax credits and the effectiveness of our tax planning strategies. We carefully monitor the changes in many factors and adjust our effective income tax rate on a timely basis. If actual results differ from these estimates, this could have a material effect on our financial condition and results of operations.

In addition, the calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax regulations. In accordance with the authoritative guidance on accounting for uncertainty in income taxes, we recognize liabilities for uncertain tax positions based on the two-step process prescribed within the interpretation. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained in audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon ultimate settlement. We reevaluate these uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in facts or circumstances, changes in tax law, effectively settled issues under audit and new audit activity. Any change in these factors could result in the recognition of a tax benefit or an additional charge to the tax provision.

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Valuation of Marketable Securities. Our investments in available-for-sale securities are reported at fair value. Unrealized gains related to increases in the fair value of investments and unrealized losses related to decreases in the fair value are included in accumulated other comprehensive income (loss), net of tax, as reported on our Consolidated Statements of Stockholders' Equity. However, changes in the fair value of investments impact our net income only when such investments are sold or impairment is recognized. Realized gains and losses on the sale of securities are determined by specific identification of the security's cost basis. We periodically review our investment portfolio to determine if any investment is other-than-temporarily impaired due to changes in credit risk or other potential valuation concerns, which would require us to record an impairment charge in the period during which any such determination is made. In making this judgment, we evaluate, among other things, the duration of the investment, the extent to which the fair value of an investment is less than its cost, the credit rating and any changes in credit rating for the investment, default and loss rates of the underlying collateral, structure and credit enhancements to determine if a credit loss may exist. Our assessment that an investment is not other-than-temporarily impaired could change in the future due to new developments or changes in our strategies or assumptions related to any particular investment.

Effects of Recent Accounting Pronouncements

In June 2011, the Financial Accounting Standards Board ("FASB") issued an accounting standard update requiring an increase in the prominence of items reported in other comprehensive income. The amendment eliminated the option to present components of other comprehensive income as part of the statement of changes in stockholders' equity and required that total comprehensive income, the components of net income, and the components of other comprehensive income be presented in a single continuous statement of comprehensive income or in two separate but consecutive statements. The amendment became effective for our interim period ended September 30, 2012. In February 2013, the FASB issued an accounting standard update on the reporting of reclassifications out of accumulated other comprehensive income of various components, which was originally deferred by the FASB in December 2011. The February 2013 update does not change the current requirements for reporting net income or other comprehensive income in financial statements. However, this update requires an entity to present parenthetically (on the face of the financial statements, in the notes or, in some cases, cross-referenced to related footnote disclosures) significant amounts reclassified from each component of accumulated other comprehensive income and the income statement line items affected by the reclassification. The amendment reflected in the February 2013 update becomes effective prospectively in the first quarter of the Company's fiscal year ending June 30, 2014. Early adoption is permitted. The amendment reflected in the February 2013 update will not have an impact on our financial position, results of operations or cash flows as it is disclosure-only in nature.

In December 2011, the FASB issued an accounting standard update requiring enhanced disclosure about certain financial instruments and derivative instruments that are offset in the balance sheet or subject to an enforceable master netting arrangement or similar agreement. The disclosure requirement becomes effective retrospectively in the first quarter of our fiscal year ending June 30, 2014. We do not expect that the requirement will have an impact on our financial position, results of operations or cash flows as it is disclosure-only in nature.

In September 2011, the FASB issued an accounting standard update intended to simplify testing goodwill for impairment. The amendment allows an entity to first assess qualitative factors to determine whether it is necessary to perform the two-step quantitative goodwill impairment test. An entity will no longer be required to calculate the fair value of a reporting unit unless the entity determines, based on a qualitative assessment, that it is more likely than not that the fair value of the reporting unit is less than its carrying amount. The amendment, by its terms, became effective for annual and interim goodwill impairment tests performed for our fiscal year ended June 30, 2013, and early adoption was permitted. We elected to early adopt this accounting guidance at the beginning of the three months ended December 31, 2011 (see Note 5, "Goodwill and Purchased Intangible Assets," to the Condensed Consolidated Financial Statements for a detailed description).

EXECUTIVE SUMMARY

KLA-Tencor Corporation is a leading supplier of process control and yield management solutions for the semiconductor and related nanoelectronics industries. Our broad portfolio of defect inspection and metrology products, and related service, software and other offerings, primarily supports integrated circuit ("IC" or "chip") manufacturers throughout the entire semiconductor fabrication process, from research and development to final

volume production. We provide leading-edge equipment, software and support that enable IC manufacturers to identify, resolve and manage significant advanced technology manufacturing process challenges and obtain higher finished product yields at lower overall cost. In addition to serving the semiconductor industry, we also provide a range of technology solutions to a number of other high technology industries, including the light emitting diode (“LED”) and data storage industries, as well as general materials research.

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Our products and services are used by the vast majority of bare wafer, IC, lithography reticle (“reticle” or “mask”) and disk manufacturers around the world. Our products, services and expertise are used by our customers to measure and control nanometric-level manufacturing processes, and to detect, analyze and resolve critical product defects that arise in that environment. Our revenues are driven largely by our customers' spending on capital equipment and related maintenance services necessary to support key transitions in their underlying product technologies, or to increase their production volumes in response to market demand. Our semiconductor customers generally operate in one or more of the three major semiconductor markets -- memory, foundry and logic. All three of these markets are characterized by rapid technological changes and sudden shifts in end-user demand, which influence the level and pattern of our customers' spending on our products and services. Although capital spending in all three semiconductor markets has historically been very cyclical, the demand for more advanced and lower cost chips used in a growing number of consumer electronics, communications, data processing, and industrial and automotive products has resulted over the long term in a favorable demand environment for our process control and yield management solutions.

As a supplier to the global semiconductor and semiconductor-related industries, we are subject to the cyclical capital spending that characterizes these industries. The timing, length, intensity and volatility of the capacity-oriented capital spending cycles of our customers are unpredictable. In addition, our customer base continues to become more highly concentrated over time, thereby increasing the potential impact of a sudden change in capital spending by a major customer on our revenues and profitability. As our customer base becomes increasingly more concentrated, large orders from a relatively limited number of customers account for a substantial portion of our sales, which potentially exposes us to more volatility for revenues and earnings.

However, in addition to these trends of cyclicity and consolidation, the semiconductor industry has also been significantly impacted by constant technological innovation. The growing use of increasingly sophisticated semiconductor devices has caused many of our customers to invest in additional semiconductor manufacturing capabilities and capacity. These investments have included process control and yield management equipment and services and have had a significant favorable impact on our revenues over the long term.

Over the past three years, we experienced high levels of customer demand for our products, driven by the strong growth in increasingly sophisticated mobile devices incorporating advanced ICs. Our revenue levels in the next fiscal year will depend upon whether our customers maintain these levels of investment in process control equipment. Our earnings for the next fiscal year will depend not only on our revenue levels, but also on the amount of research and development spending required to meet our customers' technology roadmaps. We cannot predict the duration and sustainability of the recent favorable business conditions. We have continued to scale our production volumes and capacity to meet customer requirements and remain at risk of incurring significant inventory-related and other restructuring charges, if business conditions deteriorate. We believe that, over the long term, our customers will continue to invest in advanced technologies and new materials to enable smaller design rules and higher density applications, as well as to reduce cost. We expect that this in turn will drive long-term increased adoption of process control equipment and services that reduce semiconductor defectivity and improve manufacturing yields, reinforcing the longer-term growth drivers in our industry.

The following table sets forth some of our key consolidated financial information for each of our last three fiscal years:

(Dollar amounts in thousands)	Year ended June 30,				
	2013	2012	2011		
Total revenues	\$2,842,781	\$3,171,944	\$3,175,167		
Costs of revenues	\$1,237,452	\$1,330,016	\$1,259,243		
Gross margin percentage	56	% 58	% 60	%	
Net income	\$543,149	\$756,015	\$794,488		
Diluted income per share	\$3.21	\$4.44	\$4.66		

Revenue decreases from sales of both our defect inspection and metrology products for the fiscal year ended June 30, 2013 reflected typical cyclicity in capacity-oriented capital spending by logic and memory chip manufacturers, as well as delays in the procurement of next-generation equipment required to facilitate the transition to extreme ultraviolet lithography.

The results for the fiscal years ended June 30, 2012 and June 30, 2011 reflected the favorable conditions that we encountered as our customers, particularly the foundries, invested heavily in process control equipment to meet the strong demand driven by the mobile device markets and continued economic growth in Asia.

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Revenues and Gross Margin

	Year ended June 30,								
(Dollar amounts in thousands)	2013	2012	2011	FY13 vs. FY12		FY12 vs. FY11			
Revenues:									
Product	\$2,247,147	\$2,597,755	\$2,613,438	\$ (350,608)	(13)%	\$ (15,683)	(1)%		
Service	595,634	574,189	561,729	21,445	4 %	12,460	2 %		
Total revenues	\$2,842,781	\$3,171,944	\$3,175,167	\$ (329,163)		\$ (3,223)			
Costs of revenues	\$1,237,452	\$1,330,016	\$1,259,243	\$ (92,564)	(7)%	\$70,773	6 %		
Gross margin percentage	56	% 58	% 60	% (2)%	(2)%		

Product revenues

Our business is cyclical with respect to the capital equipment procurement practices of semiconductor manufacturers, with revenues impacted by the investment patterns of such manufacturers. Our product revenues in any particular period are significantly impacted by the amount of new orders that we receive during that period and, due to the duration of manufacturing and installation cycles, in the preceding periods.

Product revenues decreased in the fiscal year ended June 30, 2013 compared to the fiscal year ended June 30, 2012 as a result of a decline in overall semiconductor industry capital spending. Revenue decreases from sales of both our defect inspection and metrology products reflected typical cyclicalities in capacity-oriented capital spending by logic and memory chip manufacturers, as well as delays in the procurement of next-generation equipment required to facilitate the transition to extreme ultraviolet lithography.

Product revenues were substantially flat (decreasing by 1%) in the fiscal year ended June 30, 2012 compared to the fiscal year ended June 30, 2011. Revenues from sales of our metrology products increased year over year, primarily driven by the adoption of our latest-generation products to support advanced patterning lithography and the introduction of 3-D structures in leading edge designs, but that increase was offset by a decrease in defect inspection product revenues due to the timing of customer purchases and lower sales of product upgrades as we transitioned to our next-generation platforms. Each of these twelve-month periods was similarly highlighted by high volumes of shipment and installation of our products to satisfy customer demand for process control equipment, particularly among foundries, as our customers encountered high levels of demand for semiconductors from electronics end-markets.

Service revenues

Service revenues are generated from maintenance contracts, as well as billable time and material service calls made to our customers after the expiration of the warranty period. The amount of service revenues is generally a function of the number of post-warranty systems installed at our customers' sites and the utilization of those systems. Service revenues increased sequentially over the fiscal years ended June 30 2011, 2012 and 2013 as a result of an increase over that time period in the number of post-warranty systems installed at our customers' sites.

Revenues - Top Customers

The following customers each accounted for more than 10% of total revenues for the indicated periods:

Year ended June 30,		
2013	2012	2011
Intel Corporation	Samsung Electronics Co., Ltd.	Intel Corporation
Taiwan Semiconductor Manufacturing Company Limited	Taiwan Semiconductor Manufacturing Company Limited	Samsung Electronics Co., Ltd.
		Taiwan Semiconductor Manufacturing Company Limited

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Revenues by region

Revenues by region for the periods indicated were as follows:

	Year ended June 30,								
(Dollar amounts in thousands)	2013			2012			2011		
North America	\$846,125	30	%	\$675,034	21	%	\$610,955	19	%
Taiwan	936,445	33	%	872,583	28	%	864,378	27	%
Japan	310,204	11	%	415,475	13	%	413,208	13	%
Europe & Israel	211,121	7	%	323,902	10	%	340,249	11	%
Korea	292,724	10	%	611,462	19	%	480,488	15	%
Rest of Asia	246,162	9	%	273,488	9	%	465,889	15	%
Total	\$2,842,781	100	%	\$3,171,944	100	%	\$3,175,167	100	%

A significant portion of our revenues continues to be generated in Asia, where a substantial portion of the world's semiconductor manufacturing capacity is located, and we expect that trend to continue.

Gross margin

Our gross margin fluctuates with revenue levels and product mix and is affected by variations in costs related to manufacturing and servicing our products, including our ability to scale our operations efficiently and effectively in response to prevailing business conditions.

The following table summarizes the major factors that contributed to the changes in gross margin percentage:

	Gross Margin Percentage	
Fiscal year ended June 30, 2011	60.3	%
Revenue volume of products and service	(0.3))%
Mix of products and services sold	(0.7))%
Manufacturing labor, overhead and efficiencies	0.2	%
Other service and manufacturing costs	(1.4))%
Fiscal year ended June 30, 2012	58.1	%
Revenue volume of products and service	(1.9))%
Mix of products and services sold	0.4	%
Manufacturing labor, overhead and efficiencies	(0.1))%
Other service and manufacturing costs	—	%
Fiscal year ended June 30, 2013	56.5	%

Changes in gross margin percentage driven by revenue volume reflect our ability to leverage existing infrastructure to generate higher revenues. It also includes the effect of fluctuations in foreign exchange rates, average customer pricing and customer revenue deferrals associated with volume purchase agreements. Changes in gross margin percentage from mix of products and services sold reflect the impact of changes in the composition within product and service offerings. Changes in gross margin percentage from manufacturing labor, overhead and efficiencies reflect our ability to manage costs and drive productivity as we scale our manufacturing activity to respond to customer requirements; this includes the impact of capacity utilization, use of overtime and variability of cost structure. Changes in gross margin percentage from other service and manufacturing costs include the impact of customer support costs, including the efficiencies with which we deliver services to our customers, and the effectiveness with which we manage our production plans and inventory risk.

Our gross margin decreased to 56.5% during the fiscal year ended June 30, 2013 from 58.1% during the fiscal year ended June 30, 2012 primarily due to lower revenue volume, partially offset by more favorable mix of products and manufacturing efficiencies.

Our gross margin percentage decreased to 58.1% during the fiscal year ended June 30, 2012 from 60.3% during the fiscal year ended June 30, 2011 primarily due to less favorable mix of products and services sold, an increase in revenue deferrals associated with volume purchase agreements and an increase in inventory reserves related to product transitions.

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Engineering, Research and Development (“R&D”)

	Year ended June 30,							
(Dollar amounts in thousands)	2013	2012	2011	FY13 vs. FY12		FY12 vs. FY11		
R&D expenses	\$487,832	\$452,937	\$386,163	\$34,895	8 %	\$66,774	17 %	
R&D expenses as a percentage of total revenues	17	% 14	% 12	% 3	%	2	%	

In recent years, our R&D expenses have generally increased over time, primarily due to higher costs associated with advanced product and technology development projects. We incur significant costs associated with these projects, including engineering material costs, headcount and other expenses, as technological innovation is essential to our success. During certain periods, R&D expenses may fluctuate relative to product development phases and project timing.

R&D expenses during the fiscal year ended June 30, 2013 increased compared to the fiscal year ended June 30, 2012, primarily due to the stage and timing of our development projects, as described in the previous paragraph. R&D expenses during the fiscal year ended June 30, 2013 were impacted by an increase in engineering material and depreciation of \$26.1 million and an increase in employee-related expenses of \$9.0 million as a result of additional engineering headcount and annual compensation adjustments.

R&D expenses during the fiscal year ended June 30, 2012 increased compared to the fiscal year ended June 30, 2011, primarily due to an increase in employee-related expenses of \$24.8 million as a result of annual compensation adjustments and additional engineering headcount, an increase in engineering material costs of \$20.3 million for program development related to our next-generation defect inspection products, a decrease in external R&D funding of \$11.9 million and an increase in depreciation expense of \$5.3 million.

R&D expenses include the benefit of \$12.4 million, \$6.9 million and \$18.8 million of external funding received during the fiscal years ended June 30, 2013, 2012 and 2011, respectively, for certain strategic development programs, primarily from government grants. We expect our R&D expenses to increase with higher levels of business activity as we accelerate our investments in critical programs focusing on new technologies and enhancements to existing products.

Our future operating results will depend significantly on our ability to produce products and provide services that have a competitive advantage in our marketplace. To do this, we believe that we must continue to make substantial investments in our research and development. We remain committed to product development in new and emerging technologies as we address the yield challenges our customers face at future technology nodes.

Selling, General and Administrative (“SG&A”)

	Year ended June 30,							
(Dollar amounts in thousands)	2013	2012	2011	FY13 vs. FY12		FY12 vs. FY11		
SG&A expenses	\$387,812	\$372,666	\$369,431	\$15,146	4 %	\$3,235	1 %	
SG&A expenses as a percentage of total revenues	14	% 12	% 12	% 2	%	—	%	

SG&A expenses during the fiscal year ended June 30, 2013 were higher compared to the fiscal year ended June 30, 2012, primarily due to an increase of \$5.7 million in support costs related to product demonstrations and evaluations of our product by customers, as well as depreciation expense, an increase of \$3.6 million in travel expense due to the increasingly global nature of our customers, operations and business, an increase of \$2.1 million in employee-related compensation as a result of annual compensation adjustments and additional headcount and \$3.1 million in goodwill impairment, severance and other expenses that we recognized during the three months ended September 30, 2012 in connection with our decision to exit from the solar inspection business.

SG&A expenses during the fiscal year ended June 30, 2012 were slightly higher compared to the fiscal year ended June 30, 2011, primarily due to a decrease in bad debt recovery of \$10.7 million, an increase in expenses related to infrastructure of \$5.8 million to support current and anticipated business activities and an increase in consulting

expenses of \$3.3 million, partially offset by a decrease in legal expenses of \$8.8 million, reflecting the resolution of certain litigation matters during the three months ended March 31, 2012, and a decrease in employee-related expenses of \$8.2 million as a result of lower variable compensation.

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Interest Income and Other, Net and Interest Expense

(Dollar amounts in thousands)	Year ended June 30,				
	2013	2012	2011		
Interest income and other, net	\$15,112	\$11,966	\$4,064		
Interest expense	\$54,176	\$54,197	\$54,328		
Interest income and other, net as a percentage of total revenues	1	% —	% —		%
Interest expense as a percentage of total revenues	2	% 2	% 2		%

Interest income and other, net is comprised primarily of interest income earned on our investment and cash portfolio, realized gains or losses on sales of marketable securities, gains or losses from revaluation of certain foreign currency denominated assets and liabilities as well as foreign currency contracts, impairments associated with equity investments in privately-held companies, and interest related accruals (such as interest and penalty accruals related to our tax obligations). The increase in interest income and other, net during the fiscal year ended June 30, 2013 compared to the fiscal year ended June 30, 2012 was primarily attributable to a decrease in impairment charges of \$2.9 million for equity investments in privately-held companies, an increase in realized gains of marketable securities of \$1.2 million and an increase in foreign exchange related gains of \$1.9 million, partially offset by an increase of \$4.2 million in interest and penalty accruals related to uncertain tax positions.

The increase in interest income and other, net during the fiscal year ended June 30, 2012 compared to the fiscal year ended June 30, 2011 was primarily attributable to a decrease in impairment charges of \$6.9 million for equity investments in privately-held companies and a decrease of \$4.1 million in interest and penalty accruals related to uncertain tax positions.

Interest expense is primarily attributable to the \$750 million aggregate principal amount of senior fixed rate notes that we issued in the fourth quarter of the fiscal year ended June 30, 2008.

Provision for Income Taxes

The following table provides details of income taxes:

(Dollar amounts in thousands)	Year ended June 30,				
	2013	2012	2011		
Income before income taxes	\$690,621	\$974,094	\$1,110,066		
Provision for income taxes	\$147,472	\$218,079	\$315,578		
Effective tax rate	21.4	% 22.4	% 28.4		%

The provision for income taxes differs from the statutory U.S. federal rate primarily due to foreign income with lower tax rates, the tax effects of employee stock activity, tax credits and state taxes.

Tax expense as a percentage of income during the fiscal year ended June 30, 2013 was 21.4% compared to 22.4% for the fiscal year ended June 30, 2012. Tax expense decreased primarily due to a decrease in the tax effects of employee stock activity, an increase in tax credits and an increase in the domestic manufacturing benefit, offset by an increase in tax reserves.

Tax expense as a percentage of income during the fiscal year ended June 30, 2012 was 22.4% compared to 28.4% for the fiscal year ended June 30, 2011. Tax expense decreased primarily due to a decrease in state tax expense, a decrease in tax reserves, and an increase in the percentage of our revenues that were earned outside the U.S. in jurisdictions with lower tax rates.

Our future effective income tax rate depends on various factors, such as tax legislation, the geographic composition of our pre-tax income, the amount of our pre-tax income as business activities fluctuate, non-deductible expenses incurred in connection with acquisitions, research and development credits as a percentage of aggregate pre-tax income, the domestic manufacturing deduction, non-taxable or non-deductible increases or decreases in the assets held within our Executive Deferred Savings Plan, the tax effects of employee stock activity and the effectiveness of our tax planning strategies.

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We had cumulative windfalls in excess of shortfalls of approximately \$6.9 million during the fiscal year ended June 30, 2013. We incurred \$11.9 million and \$15.2 million in additional tax expense during the fiscal years ended June 30, 2012 and 2011, respectively, due to shortfalls from employee stock activity. Windfall tax benefits arise when a company's tax deduction for employee stock activity exceeds book compensation for the same activity. A shortfall arises when the tax deduction is less than book compensation. Windfalls are recorded as increases to capital in excess of par value. Shortfalls are recorded as decreases to capital in excess of par value to the extent that cumulative windfalls exceed cumulative shortfalls. Shortfalls in excess of cumulative windfalls are recorded as provision for income taxes.

For the fiscal year ending June 30, 2014, cumulative shortfalls from employee stock activity may exceed cumulative windfalls from employee stock activity, and we may therefore report higher provision for income taxes as a result. Because we cannot determine all of the factors that will enter into our income tax expense computation for the fiscal year ending June 30, 2014, we cannot currently estimate this impact on our tax rate for the next fiscal year.

In the normal course of business, we are subject to tax audits in various jurisdictions, and such jurisdictions may assess additional income or other taxes against us. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related litigation could be materially different from our historical income tax provisions and accruals. The results of an audit or litigation could have a material adverse effect on our results of operations or cash flows in the period or periods for which that determination is made.

Liquidity and Capital Resources

	As of June 30,				
(Dollar amounts in thousands)	2013	2012	2011		
Cash and cash equivalents	\$985,390	\$751,294	\$711,329		
Marketable securities	1,933,491	1,783,150	1,327,206		
Total cash, cash equivalents and marketable securities	\$2,918,881	\$2,534,444	\$2,038,535		
Percentage of total assets	55	% 50	% 44		%

	Year ended June 30,				
(In thousands)	2013	2012	2011		
Net cash provided by operating activities	\$913,188	\$941,617	\$823,166		
Net cash used in investing activities	(241,447)) (528,891) (359,510)	
Net cash used in financing activities	(428,510)) (364,103) (300,155)	
Effect of exchange rate changes on cash and cash equivalents	(9,135)) (8,658) 17,910		
Net increase in cash and cash equivalents	\$234,096	\$39,965	\$181,411		

As of June 30, 2013, our cash, cash equivalents and marketable securities totaled \$2.9 billion, which is an increase of \$384 million from June 30, 2012. As of June 30, 2013, \$1.1 billion of our \$2.9 billion of cash, cash equivalents, and marketable securities were held by our foreign subsidiaries and branch offices. We currently intend to permanently reinvest \$939 million of the cash held by our foreign subsidiaries and branch offices. If, however, a portion of these funds were to be needed for our operations in the United States, we would be required to accrue and pay U.S. and foreign taxes of approximately 30%-50% of the funds repatriated. The amount of taxes due will depend on the amount and manner of the repatriation, as well as the location from where the funds are repatriated. We have accrued (but have not paid) U.S. taxes on the remaining cash of \$203 million of the \$1.1 billion held by our foreign subsidiaries and branch offices. As such, these funds can be returned to the U.S. without accruing any additional U.S. tax expense. The total amount of dividends paid during the fiscal years ended June 30, 2013, 2012 and 2011 was \$266 million, \$234 million and \$167 million, respectively. The increase in the amount of dividends paid during the fiscal year ended June 30, 2013 compared to the preceding fiscal years reflects the increase in the level of our quarterly dividend from \$0.35 to \$0.40 per share that was instituted during the three months ended September 30, 2012. On July 9, 2013, we announced that our Board of Directors had authorized a further increase in the level of our quarterly dividend from \$0.40 to \$0.45 per share.

The shares repurchased under our stock repurchase program have reduced our basic and diluted weighted-average shares outstanding. The decrease was partially offset by additional shares issued upon the exercise of employee stock

options and the vesting of employee restricted stock units and in connection with stock purchases under our Employee Stock Purchase Plan.

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We have historically financed our liquidity requirements through cash generated from operations.

Fiscal Year 2013 Compared to Fiscal Year 2012

Net cash provided by operating activities during the fiscal year ended June 30, 2013 decreased compared to the fiscal year ended June 30, 2012 from \$942 million to \$913 million primarily as a result of the following key factors:

- An increase in tax payments of approximately \$101 million compared to the fiscal year ended June 30, 2012 due to a change in the timing of when revenue is recognized for federal income tax purposes that resulted in lower tax payments during the fiscal year ended June 30, 2012 and

- A decrease in cash collections of approximately \$61 million primarily due to lower revenues during the fiscal year ended June 30, 2013 compared to the fiscal year ended June 30, 2012, partially offset by

- A decrease in accounts payable payments of approximately \$116 million during the fiscal year ended June 30, 2013 compared to the fiscal year ended June 30, 2012.

Net cash used in investing activities during the fiscal year ended June 30, 2013 decreased compared to the fiscal year ended June 30, 2012 from \$529 million to \$241 million, primarily as a result of a decrease in the use of cash for purchases of available-for-sale and trading securities, net of sales and maturities, of approximately \$305 million during the fiscal year ended June 30, 2013 compared to the fiscal year ended June 30, 2012.

Net cash used in financing activities during the fiscal year ended June 30, 2013 increased compared to the fiscal year ended June 30, 2012 from \$364 million to \$429 million, primarily as a result of the following key factors:

- An increase in dividend payments of \$32 million during the fiscal year ended June 30, 2013 compared to the fiscal year ended June 30, 2012, mainly due to an increase in the quarterly dividend payout amount that we announced in July 2012,

- An increase in common stock repurchases of \$9 million during the fiscal year ended June 30, 2013 compared to the fiscal year ended June 30, 2012, and

- A decrease in proceeds from the exercise of stock options of \$39 million during the fiscal year ended June 30, 2013 compared to the fiscal year ended June 30, 2012.

Fiscal Year 2012 Compared to Fiscal Year 2011

Net cash provided by operating activities during the fiscal year ended June 30, 2012 increased compared to the fiscal year ended June 30, 2011 from \$823 million to \$942 million, primarily as a result of the following key factors:

- A decrease in tax payments of approximately \$240 million, which includes a tax refund of \$40 million and a change in the timing of when revenue is recognized for federal income tax purposes, resulting in lower tax payments during the fiscal year ended June 30, 2012 compared to the fiscal year ended June 30, 2011. This decrease in tax payments was partially offset by

- A decrease in cash collections of approximately \$65 million during the fiscal year ended June 30, 2012 compared to the fiscal year ended June 30, 2011 and

- An increase in payroll expenses of approximately \$95 million during the fiscal year ended June 30, 2012 compared to the fiscal year ended June 30, 2011, mainly due to increases in employee headcount.

Net cash used in investing activities during the fiscal year ended June 30, 2012 increased compared to the fiscal year ended June 30, 2011 from \$360 million to \$529 million, primarily as a result of an increase in the use of cash for purchases of available-for-sale and trading securities, net of sales and maturities, of approximately \$147 million during the fiscal year ended June 30, 2012 compared to the fiscal year ended June 30, 2011.

Net cash used in financing activities during the fiscal year ended June 30, 2012 increased compared to the fiscal year ended June 30, 2011 from \$300 million to \$364 million, primarily as a result of the following key factors:

- An increase in dividend payments of \$66 million during the fiscal year ended June 30, 2012 compared to the fiscal year ended June 30, 2011, mainly due to an increase in the quarterly dividend payout amount that we announced in July 2011, and

- An increase in common stock repurchases of \$29 million during the fiscal year ended June 30, 2012 compared to the fiscal year ended June 30, 2011, partially offset by

- An increase in proceeds from the exercise of stock options of \$39 million during the fiscal year ended June 30, 2012 compared to the fiscal year ended June 30, 2011.

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Contractual Obligations

The following is a schedule summarizing our significant obligations to make future payments under contractual obligations as of June 30, 2013:

(In thousands)	Fiscal year ending June 30,							Other
	Total	2014	2015	2016	2017	2018	2019 and thereafter	
Long-term debt obligations ⁽¹⁾	\$750,000	\$—	\$—	\$—	\$—	\$750,000	\$—	\$—
Interest payment associated with long-term debt obligations	250,125	51,750	51,750	51,750	51,750	43,125	—	—
Purchase commitments	247,921	241,386	6,535	—	—	—	—	—
Non-current income tax payable ⁽²⁾	65,456	—	—	—	—	—	—	65,456
Operating leases	23,399	7,451	5,319	4,224	3,401	2,185	819	—
Cash long-term incentive program ⁽³⁾	61,020	15,255	15,255	15,255	15,255	—	—	—
Pension obligations	21,366	1,348	1,607	1,615	1,506	1,865	13,425	⁽⁴⁾ —
Total contractual cash obligations	\$1,419,287	\$317,190	\$80,466	\$72,844	\$71,912	\$797,175	\$14,244	\$65,456

(1) In April 2008, we issued \$750 million aggregate principal amount of senior notes due in 2018.

Represents the non-current income tax payable obligation and related accrued interest. We are unable to make a

(2) reasonably reliable estimate of the timing of payments in individual years beyond 12 months due to uncertainties in the timing of tax audit outcomes.

(3) Represents the amount committed under our cash long-term incentive program as of June 30, 2013. Expected payment after estimated forfeitures is approximately \$55 million.

(4) Represents benefits expected to be paid in fiscal years 2019 through 2023.

Starting in fiscal year 2013 we adopted a cash-based long-term incentive program for many of our employees as part of our employee compensation program. Cash-based long-term incentive (“Cash LTI”) awards issued to employees under the Cash Long-Term Incentive Plan (“Cash LTI Plan”) vest in four equal installments, with 25% of the aggregate amount of the Cash LTI award vesting on each yearly anniversary of the grant date over a four-year period. In order to receive payments under the Cash LTI Plan, participants must remain employed by us as of the applicable award vesting date.

We have agreements with financial institutions to sell certain of our trade receivables and promissory notes from customers without recourse. In addition, we periodically sell certain letters of credit (“LCs”), without recourse, received from customers in payment for goods.

The following table shows total receivables sold under factoring agreements and proceeds from sales of LCs for the indicated periods:

(In thousands)	Year ended June 30,		
	2013	2012	2011
Receivables sold under factoring agreements	\$144,307	\$368,894	\$313,578

Proceeds from sales of LCs	\$3,808	\$30,142	\$140,534
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Factoring and LC fees for the sale of certain trade receivables were recorded in interest income and other, net and were not material for the periods presented.

We maintain guarantee arrangements available through various financial institutions for up to \$25.5 million, of which \$23.3 million had been issued as of June 30, 2013, primarily to fund guarantees to customs authorities for value-added tax (“VAT”) and other operating requirements of our subsidiaries in Europe and Asia.

We maintain certain open inventory purchase commitments with our suppliers to ensure a smooth and continuous supply for key components. Our liability under these purchase commitments is generally restricted to a forecasted time-horizon as mutually agreed upon between the parties. This forecasted time-horizon can vary among different suppliers. Our open inventory purchase commitments were approximately \$248 million as of June 30, 2013 and are primarily due within the next 12 months. Actual expenditures will vary based upon the volume of the transactions and length of contractual service provided. In addition, the amounts paid under these arrangements may be less in the event that the arrangements are renegotiated or canceled. Certain agreements provide for potential cancellation penalties.

We provide standard warranty coverage on our systems for 40 hours per week for 12 months, providing labor and parts necessary to repair the systems during the warranty period. We account for the estimated warranty cost as a charge to costs of revenues when revenue is recognized. The estimated warranty cost is based on historical product performance and field expenses. The actual product performance and/or field expense profiles may differ, and in those cases we adjust our warranty accruals accordingly. The difference between the estimated and actual warranty costs tends to be larger for new product introductions as there is limited historical product performance to estimate warranty expense; our warranty charge estimates for more mature products with longer product performance histories tend to be more stable. Non-standard warranty coverage generally includes services incremental to the standard 40-hours per week coverage for 12 months. See Note 12, “Commitments and Contingencies” to the Consolidated Financial Statements for a detailed description.

Working capital increased to \$3.5 billion as of June 30, 2013, compared to \$3.3 billion as of June 30, 2012. This increase is primarily due to higher levels of cash and marketable securities as we generated significant cash flow from operations during the fiscal year ended June 30, 2013, as well as higher levels of accounts receivable and inventory that resulted from supporting elevated levels of business activity, which was partially offset by cash payments relating to our stock repurchases and dividend programs. As of June 30, 2013, our principal source of liquidity consisted of \$2.9 billion of cash, cash equivalents and marketable securities. Our liquidity is affected by many factors, some of which are based on the normal ongoing operations of the business, and others of which relate to the uncertainties of global and regional economies and the semiconductor and the semiconductor equipment industries. Although cash requirements will fluctuate based on the timing and extent of these factors, we believe that cash generated from operations, together with the liquidity provided by existing cash and cash equivalents balances, will be sufficient to satisfy our liquidity requirements for at least the next 12 months.

Our credit ratings and outlooks as of June 30, 2013 are summarized below:

Rating Agency	Rating	Outlook
Fitch	BBB	Stable
Moody's	Baa1	Stable
Standard & Poor's	BBB	Stable

Factors that can affect our credit ratings include changes in our operating performance, the economic environment, conditions in the semiconductor and semiconductor equipment industries, our financial position, and changes in our business strategy.

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Off-Balance Sheet Arrangements

Under our foreign currency risk management strategy, we utilize derivative instruments to protect our interests from unanticipated fluctuations in earnings and cash flows caused by volatility in currency exchange rates. This financial exposure is monitored and managed as an integral part of our overall risk management program, which focuses on the unpredictability of financial markets and seeks to reduce the potentially adverse effects that the volatility of these markets may have on our operating results. We continue our policy of hedging our current and forecasted foreign currency exposures with hedging instruments having tenors of up to 18 months (see Note 15, “Derivative Instruments and Hedging Activities” to the Consolidated Financial Statements for a detailed description). Our outstanding hedge contracts, with maximum maturity of 18 months, were as follows:

(In thousands)	As of June 30,	
	2013	2012
Cash flow hedge contracts		
Purchase	\$14,641	\$14,689
Sell	\$35,178	\$29,362
Other foreign currency hedge contracts		
Purchase	\$99,175	\$121,965
Sell	\$97,901	\$126,827

Indemnification Obligations. Subject to certain limitations, we are obligated to indemnify our current and former directors, officers and employees with respect to certain litigation matters and investigations that arise in connection with their service to us. These obligations arise under the terms of our certificate of incorporation, our bylaws, applicable contracts, and Delaware and California law. The obligation to indemnify generally means that we are required to pay or reimburse the individuals’ reasonable legal expenses and possibly damages and other liabilities incurred in connection with these matters. For example, we have paid or reimbursed legal expenses incurred in connection with the investigation of our historical stock option practices and the related litigation and government inquiries by a number of our current and former directors, officers and employees. Although the maximum potential amount of future payments we could be required to make under the indemnification obligations generally described in this paragraph is theoretically unlimited, we believe the fair value of this liability, to the extent estimable, is appropriately considered within the reserve we have established for currently pending legal proceedings.

We are a party to a variety of agreements pursuant to which we may be obligated to indemnify the other party with respect to certain matters. Typically, these obligations arise in connection with contracts and license agreements or the sale of assets, under which we customarily agree to hold the other party harmless against losses arising from, or provide customers with other remedies to protect against, bodily injury or damage to personal property caused by our products, non-compliance with our product performance specifications, infringement by our products of third-party intellectual property rights and a breach of warranties, representations and covenants related to matters such as title to assets sold, validity of certain intellectual property rights, non-infringement of third-party rights, and certain income tax-related matters. In each of these circumstances, payment by us is typically subject to the other party making a claim to and cooperating with us pursuant to the procedures specified in the particular contract. This usually allows us to challenge the other party’s claims or, in case of breach of intellectual property representations or covenants, to control the defense or settlement of any third-party claims brought against the other party. Further, our obligations under these agreements may be limited in terms of amounts, activity (typically at our option to replace or correct the products or terminate the agreement with a refund to the other party), and duration. In some instances, we may have recourse against third parties and/or insurance covering certain payments made by us.

It is not possible to predict the maximum potential amount of future payments under these or similar agreements due to the conditional nature of our obligations and the unique facts and circumstances involved in each particular agreement. Historically, payments made by us under these agreements have not had a material effect on our business, financial condition, results of operations or cash flows.

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ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to financial market risks, including changes in interest rates, foreign currency exchange rates and marketable equity security prices. To mitigate these risks, we utilize derivative financial instruments, such as foreign currency hedges. All of the potential changes noted below are based on sensitivity analyses performed on our financial position as of June 30, 2013. Actual results may differ materially.