CABOT MICROELECTRONICS CORP
Form 10-K
November 23, 2010

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-K

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2010
or
o 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 000-30205

CABOT MICROELECTRONICS CORPORATION
(Exact name of registrant as specified in its charter)

DELAWARE	36-4324765
(State of Incorporation)	(I.R.S. Employer Identification No.)
870 NORTH COMMONS DRIVE AURORA, ILLINOIS	60504
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (630) 375-6631

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	The NASDAQ Stock Market LLC

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes [X] 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 [X]

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 [X] No [ ]

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (Section 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 [X] No [ ]

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K 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 Form 10-K. [X]

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 definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer [X]	Accelerated filer [ ]	Non-accelerated filer [ ]	Smaller reporting company [ ]

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

The aggregate market value of the registrant's Common Stock held beneficially or of record by stockholders who are not affiliates of the registrant, based upon the closing price of the Common Stock on March 31, 2010, as reported by the NASDAQ Global Select Market, was approximately $875,948,700. For the purposes hereof, "affiliates" include all executive officers and directors of the registrant.

As of October 31, 2010, the Company had 22,939,516 shares of Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for the Annual Meeting of Stockholders to be held on March 8, 2011, are incorporated by reference in Part III of this Form 10-K to the extent stated herein.

This Form 10-K includes statements that constitute "forward-looking statements" within the meaning of federal securities regulations. For more detail regarding "forward-looking statements" see Item 7 of Part II of this Form 10-K.

CABOT MICROELECTRONICS CORPORATION
FORM 10-K
FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2010

index

PART I

ITEM 1. BUSINESS

OUR COMPANY

Cabot Microelectronics Corporation ("Cabot Microelectronics", "the Company", "us", "we", or "our"), which was incorporated in the state of Delaware in 1999, is the leading supplier of high-performance polishing slurries and a growing CMP pad supplier used in the manufacture of advanced integrated circuit (IC) devices within the semiconductor industry, in a process called chemical mechanical planarization (CMP). CMP is a polishing process used by IC device manufacturers to planarize or flatten many of the multiple layers of material that are deposited upon silicon wafers in the production of advanced ICs. Our products play a critical role in the production of advanced IC devices, thereby enabling our customers to produce smaller, faster and more complex IC devices with fewer defects.

We currently operate predominantly in one industry segment – the development, manufacture and sale of CMP consumables. We develop, produce and sell CMP slurries for polishing many of the conducting and insulating materials used in IC devices, and also for polishing certain components in hard disk drives, specifically rigid disk substrates and magnetic heads. In addition, we develop, manufacture and sell CMP polishing pads, which are used in conjunction with slurries in the CMP process. We are also pursuing other demanding surface modification applications outside of the semiconductor and hard disk drive industries for which we believe our capabilities and knowledge may provide value in improved surface performance or productivity.

In February 2009, we acquired Epoch Material Co., Ltd. (Epoch), which previously was a consolidated subsidiary of Eternal Chemical Co., Ltd. (Eternal). Epoch is a Taiwan-based company specializing primarily in the development, manufacture and sale of copper CMP consumables. We believe the acquisition of Epoch provides an excellent opportunity to strengthen and grow our core CMP consumables business, primarily in the area of copper CMP slurries, and enhances our ability to innovate, deliver and support high-performing, world-class products to our customers around the world.

CMP PROCESS WITHIN IC DEVICE MANUFACTURING

IC devices are components in a wide range of electronic systems for computing, communications, manufacturing and transportation. Individual consumers most frequently encounter IC devices as microprocessors in their desktop or laptop computers and as memory chips in computers, tablet PCs, cell phones and digital cameras. The multi-step manufacturing process for IC devices typically begins with a circular wafer of pure silicon, with the first manufacturing step referred to as a “wafer start”. A large number of identical IC devices, or dies, are manufactured on each wafer at the same time. The first steps in the manufacturing process build transistors and other electronic components on the silicon wafer. These are isolated from each other using a layer of insulating material, most often silicon dioxide, to prevent electrical signals from bridging from one transistor to another. These components are then wired together using conducting materials such as aluminum or copper in a particular sequence to produce a functional IC device with specific characteristics. When the conducting wiring on one layer of the IC device is completed, another layer of insulating material is added. The process of alternating insulating and conducting layers is repeated until the desired wiring within the IC device is achieved. At the end of the process, the wafer is cut into the individual dies, which are then packaged to form individual chips.

Demand for CMP consumable products for IC devices is primarily based on the number of wafer starts by semiconductor manufacturers and the type and complexity of the IC devices they produce. To enhance the performance of IC devices, IC device manufacturers have progressively increased the number and density of electronic components and wiring layers in each IC device. As a result, the number of wires and the number of discrete wiring layers have increased. As the complexity of IC devices has increased, the demand for CMP consumable products has also increased. As semiconductor technology has advanced and performance requirements of IC devices have increased, the percentage of IC devices that utilize CMP in the manufacturing process has increased steadily over time. We believe that CMP is used in the majority of all IC devices made today, and we expect that the use of CMP will continue to increase in the future.

index

In the CMP polishing process, CMP consumables are used to remove excess material that is deposited during the IC manufacturing process, and to level and smooth the surfaces of the layers of IC devices, via a combination of chemical reactions and mechanical abrasion, leaving minimal residue or defects on the surface, and leaving only the material necessary for circuit integrity. CMP slurries are liquid solutions generally composed of high-purity deionized water and a proprietary mix of chemical additives and engineered abrasives that chemically and mechanically interact at an atomic level with the surface material of the IC device. CMP pads are engineered polymeric materials designed to distribute and transport the slurry to the surface of the wafer and distribute it evenly across the wafer. Grooves are cut into the surface of the pad to facilitate distribution of the slurry. During the CMP process the wafer is typically held on a rotating carrier, which is pressed down against a rotating polishing table and spun in a circular motion. The portion of the table that comes in contact with the wafer is covered by a polishing pad. A CMP slurry is continuously applied to the polishing pad to facilitate and enhance the polishing process. Hard disk drive manufacturers use similar processes to smooth the surface of substrate disks before depositing magnetic media onto the disk.

An effective CMP process is achieved through technical optimization of the CMP consumables in conjunction with an appropriately designed CMP process. Prior to introducing new or different CMP slurries or pads into its manufacturing process, an IC device manufacturer generally requires the product to be qualified in its processes through an extensive series of tests and evaluations. These qualifications are intended to ensure that the CMP consumable product will function properly within the customers' overall manufacturing processes. These tests and evaluations may require minor changes to the CMP process or the CMP slurry or pad. While this qualification process varies depending on numerous factors, it is generally quite costly and may take six months or longer to complete. IC device manufacturers usually take into account the cost, time required and impact on production when they consider implementing or switching to a new CMP slurry or pad.

CMP enables IC device manufacturers to produce smaller, faster and more complex IC devices with a greater density of transistors and other electronic components than is possible without CMP. By enabling IC device manufacturers to make smaller IC devices, CMP also allows them to increase the number of IC devices that fit on a wafer. This increase in the number of IC devices per wafer in turn increases the throughput, or the number of IC devices that can be manufactured in a given time period, and thereby reduces the cost per device. CMP also helps reduce the number of defective or substandard IC devices produced, which increases the device yield. Improvements in throughput and yield reduce an IC device manufacturer's unit production costs, and reducing costs is one of the highest priorities of a semiconductor manufacturer as the return on its significant investment in manufacturing capacity can be enhanced by lower unit costs. More broadly, sustained growth in the semiconductor industry traditionally has been fueled by enhanced performance and lower unit costs, making IC devices more affordable in an expanding range of applications.

PRECISION POLISHING

Through our Engineered Surface Finishes (ESF) business, we are applying our technical expertise in CMP consumables and polishing techniques developed for the semiconductor industry to demanding applications in other industries where shaping, enabling and enhancing the performance of surfaces is critical to success.

Many of the production processes currently used in precision machining and polishing have been based on traditional, labor-intensive techniques, which are being replaced by computer-controlled, deterministic processes. Our wholly-owned subsidiary, QED Technologies International, Inc. (QED), is a leading provider of deterministic finishing technology for the precision optics industry. We believe precision optics are pervasive, serving several existing large markets such as semiconductor equipment, aerospace, defense, security and telecommunications.

4

index

OUR PRODUCTS

CMP CONSUMABLES FOR IC DEVICES

We develop, produce and sell CMP slurries for a wide range of polishing applications of materials that conduct electrical signals, including tungsten, copper, aluminum and tantalum (commonly referred to as “copper barrier” or “barrier”). Slurries for polishing tungsten are used heavily in the production of memory devices for a multitude of end applications such as computers, MP3 players, cellphones, gaming devices, digital photography and digital video recorders, as well as in mature logic applications such as those used in automobiles. Our most advanced slurries for tungsten polishing are designed to be customized to provide customers greater flexibility, improved performance and a reduced cost of ownership. Our slurries for polishing copper and barrier materials are used primarily in the production of advanced IC logic devices such as microprocessors for computers, and devices for graphic systems, gaming systems and communication devices. These products include different slurries for polishing the copper film and the thin barrier layer used to separate copper from the adjacent insulating material. These same copper and barrier slurries are now being used in the CMP process for memory devices as well. We offer multiple products for each technology node to enable different integration schemes depending on specific customer needs.

We also develop, manufacture and sell slurry products used to polish the dielectric insulating materials that separate conductive layers within logic and memory IC devices. Our core slurry products for these materials are primarily used for high volume applications called Interlayer Dielectric or ILD. Our advanced dielectrics products are designed to meet the more stringent and complex performance requirements of lower-volume, more specialized dielectric polishing applications at advanced technology nodes.

We develop, produce and sell CMP polishing pads, which are consumable materials that work in conjunction with CMP slurries in the CMP polishing process. We believe that CMP polishing pads represent a natural adjacency to our CMP slurry business, since the technologies are closely related and utilize the same technical and sales infrastructure. We believe our unique pad material and our continuous pad manufacturing process enable us to produce a pad with a longer pad life, greater consistency from pad to pad, and enhanced performance, resulting in lower cost of ownership for our customers. We are producing and selling pads that can be used on a variety of polishing tools, over a range of applications including tungsten, copper and dielectrics, over a range of technology nodes, and on both 200mm and 300mm wafers.

CMP CONSUMABLES FOR THE DATA STORAGE INDUSTRY

We develop and produce CMP slurries for polishing the materials that coat rigid disks and magnetic heads used in hard disk drives for computer and other data storage applications, which represent an extension of our core CMP slurry technology and manufacturing capabilities established for the semiconductor industry. We believe CMP significantly improves the surface finish of these coatings, resulting in greater storage capacity of the hard disk drive systems, and also improves the production efficiency of manufacturers of hard disk drives by helping increase their throughput and yield.

PRECISION OPTICS PRODUCTS

Through our QED subsidiary, we design and produce precision polishing and metrology systems for advanced optic applications that allow customers to attain near-perfect shape and surface finish on a range of optical components such

as mirrors, lenses and prisms. Historically, advanced optics have been produced using labor-intensive artisan processes, and variability has been common. QED has automated the polishing process for advanced optics to enable rapid, deterministic and repeatable surface correction to the most demanding levels of precision in dramatically less time than with traditional means. QED's polishing systems use Magneto-Rheological Finishing (MRF), a proprietary surface figuring and finishing technology, which employs magnetic fluids and sophisticated computer technology to polish a variety of shapes and materials. Its metrology systems use Subaperture Stitching Interferometry (SSI) technology that captures precise metrology data for large and/or strongly curved optical parts and an Aspheric Stitching Interferometer (ASI), which is designed to measure increasingly complex shapes, including non-spherical surfaces, or aspheres.

index

STRATEGY

We collaborate closely with our customers to design and manufacture products that offer innovative and reliable solutions to our customers' challenges and we strive to consistently and reliably deliver and support these products around the world. We continue to focus on the execution of our primary strategy of strengthening and growing our core CMP consumables business within the semiconductor and hard disk drive industries. We are also leveraging our expertise in CMP process and slurry formulation to expand our ESF business in the optics and electronic substrates markets.

STRENGTHEN AND GROW OUR CORE CMP CONSUMABLES BUSINESS

As the leader in the CMP slurry industry, we intend to grow our core CMP consumables business through the execution of our three strategic initiatives – maintaining our technological leadership, striving for operations excellence and connecting with our customers. We believe our strong financial position allows us to fund growth opportunities in our core CMP consumables business through internally developed technologies as well as through potential acquisitions of technologies and businesses such as our acquisition of Epoch in fiscal 2009.

Technology Leadership: We believe that technology and innovation are vital to success in our CMP consumables business and we devote significant resources to research and development. We continue to develop and produce new CMP products to address existing and new CMP applications and we have built a strong, worldwide intellectual property portfolio to protect our investment in these new products. We believe our new product pipeline contains a number of high-value products that will provide our customers with enabling solutions across a number of CMP application areas at advanced technology nodes. We need to stay ahead of the rapid technological advances in the electronics industry in order to deliver a broad line of CMP consumables products that meet or exceed our customers' evolving needs. We have established research and development facilities in the United States, Japan, Taiwan and Singapore in order to meet our customers' technology needs on a global basis.

Operations Excellence: We believe that product and supply chain quality is critical to success in our business. Our customers demand increasing performance of our products in terms of product quality and consistency. We strive to drive out variation in our products and processes in order to increase quality, productivity and efficiency, and improve the uniformity and consistency of performance of our CMP consumable products. Our global manufacturing sites are managed to ensure we have the people, training and systems needed to support the unique industry demands for product quality. To support our operations excellence initiative, we have adopted the concepts of Six Sigma across our Company. Six Sigma is a systematic, data-driven approach and methodology for improving quality by reducing variability. We believe our Six Sigma initiatives have contributed to significant, sustained improvement in productivity in our operations over the past six fiscal years, which we believe contributed to the improvement in our gross profit margin in fiscal 2010. We also have extended our Six Sigma initiative to include joint projects with customers and vendors. We continue to make improvements to our supply chain to improve the quality and consistency of our products, processes and raw materials, as well as to expand our production capacity.

Connecting With Our Customers: We believe that building close relationships with our customers is a key to achieving long-term success in our business. We collaborate with our customers on joint projects to identify and develop new and better CMP consumables, to integrate our products into their manufacturing processes, and to assist them with supply, warehousing and inventory management. Our customers demand a highly reliable supply source, and we believe we have a competitive advantage because of our ability to timely deliver high-quality products and service from the early stages of product development through the high-volume commercial use of our products. We

strategically locate our research facilities and clean rooms, manufacturing operations and the related technical and customer support teams to be responsive to our customers' needs. We believe our extensive research and development facilities in close proximity to our customers provides a competitive advantage as our customers are able to test our CMP products on their wafers in our facilities during periods of strong semiconductor industry demand, rather than diverting their production resources from producing IC devices to testing CMP products. In addition, we recently announced we have entered into a non-binding memorandum of understanding with the Gyeonggi Province of South Korea to potentially establish manufacturing and research and development capabilities there, in close proximity to some of the largest manufacturers of memory devices in the world.

index

The following are some examples of the successful execution of our strategic initiatives during fiscal 2010.

- Through our Six Sigma initiatives and through other mechanisms, we have driven sustained improvements in our supply chain operations.
  - o In fiscal 2010, we improved manufacturing yields for our CMP slurry products. The improvement in yields combined with an increase in the utilization of our manufacturing capacity helped us achieve our highest gross profit margin since fiscal 2003.
  - o We achieved a record level of productivity improvement in fiscal 2010 and have reduced product variation by more than 90 percent over the past six years.
  - o We successfully achieved a sustained period of high production levels, following a period of great volatility in fiscal 2009.
- We continued to grow our pad business, increasing pad revenue nearly 70%, from $17.7 million in fiscal 2009 to $29.9 million in fiscal 2010.
  - o We successfully transitioned a portion of our manufacturing activity to the on-site production facility within one of Taiwan Semiconductor Manufacturing Company's (TSMC) fabs. This has enabled us to reduce logistics and packaging costs as well as improve our turnaround time to fill TSMC orders.
  - o We continued to make progress in the development of new pad products. We are alpha testing our next generation pad platform, the D200, with a small number of customers and we have a number of customers evaluating product extensions within our existing D100 product portfolio.
- We continued to capture customer feedback through a variety of avenues, including customer-supplied scorecards and Company-initiated surveys. We use the feedback from our customers to drive further improvements in our business to increase customer satisfaction.
  - o Our customer satisfaction performance, based on customer-supplied scorecards and our own surveys, has continued to improve year after year.
  - o We continued to receive customer awards recognizing the Company as a key supplier, including supplier awards from a number of key customers including TSMC, Intel, United Microelectronics Corporation (UMC) and Samsung.

LEVERAGE OUR EXPERTISE INTO NEW MARKETS - ENGINEERED SURFACE FINISHES BUSINESS

In addition to strengthening and growing our core CMP business, we continue to pursue development of our ESF business. We believe we can leverage our expertise in CMP consumables for the semiconductor industry to develop products for demanding polishing applications in other industries that are synergistic to our CMP consumables business. We are focusing on opportunities in precision optics and electronic substrates.

Similar to our core CMP business, our ESF business is technology driven. For example, we believe our QED subsidiary is the technology leader in deterministic finishing for the precision optics industry. In fiscal 2010, QED commercialized its new ASI technology, which enables customers to measure complex optical shapes, including steeply non-spherical surfaces.

INDUSTRY TRENDS

SEMICONDUCTOR INDUSTRY

We believe the semiconductor industry continues to demonstrate several clear trends: the semiconductor business demonstrates cyclical growth; there is constant pressure to reduce costs; and the customer base is consolidating.

7

index

The cyclical nature of the semiconductor industry is closely tied to the global economy as well as to supply and demand within the industry. The semiconductor industry experienced significant growth during our fiscal 2010, following its contraction in fiscal 2009 due to the severe global recession. This strong industry recovery positively affected the demand for our products. We began to see signs of recovery in the semiconductor industry during the second half of fiscal 2009 as semiconductor manufacturers began to replenish inventories in response to improvement in the underlying demand. In response to this increase in underlying demand, semiconductor manufacturers have increased their production of IC devices to levels which may require additions to their production capacity, which could positively affect the future demand for our products. Although the timing and pace of a broad global economic recovery remains uncertain, we believe that semiconductor industry demand will grow over the long term based on increased usage of IC devices and an expanding range of uses of these devices. We also believe that our Company is well positioned to operate successfully over a range of demand environments as we have successfully navigated our business through a number of industry cycles in the past.

As the demand for more advanced and lower cost electronic devices grows, there is continued pressure on IC device manufacturers to reduce their costs. Many manufacturers reduce costs by pursuing ever-increasing scale in their operations. In addition, manufacturers seek ways to increase their production yield while reducing their production costs regardless of the number of units they produce. They look for CMP consumables products with improved quality and performance that reduce their overall cost of ownership, they pursue ways to use less CMP materials, and they also aggressively pursue price reductions on the materials they buy. This pressure on manufacturers to reduce costs has also led a number of integrated device manufacturers to continually increase the use of foundries where they can outsource some or all of their manufacturing to reduce their fixed costs. This approach also leads to increasing scale and lower costs for these foundries.

The number of semiconductor manufacturers continues to decline both through mergers and acquisitions as well as through alliances among different companies. Smaller manufacturers do not appear to have the technology or resources necessary to compete with the large manufacturers on the global basis needed in today's market. Many of our customers are forming consortia and research and development alliances to better manage the high cost of their development activities.

CMP CONSUMABLES INDUSTRY

Demand for CMP consumables is primarily driven by wafer starts, so the CMP consumables industry reflects the cyclicality of the semiconductor industry as well as changes in global economic conditions. Our financial results for fiscal years 2010 and 2009 clearly demonstrated these effects. We saw the benefits of increased production levels in the semiconductor industry in fiscal 2010 as our revenues in fiscal 2010 increased over 40% from fiscal 2009. This was in stark contrast to the first half of our fiscal 2009 when we saw the adverse effects of the global economic recession that caused our revenues for the first six months of fiscal 2009 to decrease over 42% from the comparable period of fiscal 2008. Over the long term, we anticipate the worldwide market for CMP consumables used by IC device manufacturers will grow as a result of expected long term growth in wafer starts, growth in the percentage of IC devices produced that require CMP, an increase in the number of CMP polishing steps required to produce these devices and the introduction of new materials in the manufacture of semiconductor devices.

We expect the anticipated growth in demand will be somewhat mitigated by increased efficiencies in CMP consumable usage as customers seek to reduce their costs. Semiconductor manufacturers look for ways to lower the cost of CMP consumables in their production operations, including diluting slurry or reducing the slurry flow rate during production to reduce the total amount of slurry used, and extending the polishing time before replacing pads.

As semiconductor technology continues to advance, we believe that CMP technical solutions are becoming more complex, and leading-edge technologies generally require some customization by customer, tool set and process integration approach. Leading-edge device designs are introducing more materials and processes into next generation chips, and these new materials and processes must be considered in developing CMP solutions. As a result, customers are selecting suppliers earlier in their development processes and are maintaining preferred supplier relationships through production. We believe that close collaboration between customers and suppliers offers the best opportunity for optimal CMP solutions. We also believe that research and development programs are important as we develop innovative, high-performing and more cost-effective CMP solutions.

index

COMPETITION

We compete in the CMP consumables industry, which is characterized by rapid advances in technology and demanding product quality and consistency requirements. We face competition from other CMP consumables suppliers, and we also may face competition in the future from significant changes in technology or emerging technologies. However, we believe we are well positioned to continue our leadership in the CMP slurry industry, and to continue to grow our CMP pad business. We believe we have the experience, scale, capabilities and infrastructure that are required for success, and we work closely with the largest customers in the semiconductor industry to meet their growing expectations.

Our CMP slurry competitors range from small companies that compete with a single product and/or in a single geographic region to divisions of global companies with multiple lines of CMP products for IC manufacturers. However, we believe we have more CMP slurry business than any other provider. In our view, we are the only CMP slurry supplier today that serves a broad range of customers by offering and supporting a full line of CMP slurry products for all major applications over a range of technologies, and that has a proven track record of supplying these products globally in high volumes with the attendant required high level of technical support services.

With respect to CMP polishing pads, a single entity has held the dominant market position for a number of years. A number of other companies are attempting to enter this market, providing potentially viable product alternatives. We believe our pad materials and our continuous pad manufacturing process have enabled us to produce a pad with a longer pad life, lower defectivity and greater consistency for our customers, thus reducing their total pad cost. We believe this has fueled significant growth in sales of our pad products and we are currently alpha testing with our customers our next generation of pad products which we believe could offer our customers an even better solution over a broad range of applications. We believe we are now the second largest seller of polishing pads in the world.

Our QED subsidiary operates in the precision optics industry. There are few direct competitors of QED because its technology is relatively new and unique. We believe QED's technology provides a competitive advantage to customers in the precision optics industry which still relies heavily on traditional artisan-based methods of fabrication.

CUSTOMERS, SALES AND MARKETING

Within the semiconductor industry, our customers are primarily producers of logic IC devices, producers of memory IC devices and IC foundries. Often, logic and memory companies outsource some or all of the production of their devices to foundries, which provide contract manufacturing services, in order to avoid the high cost of process development, constructing and operating a fab, or in cases where they need additional capacity.

Based upon our own observations and customer survey results, we believe the following factors influence our customers' CMP buying decisions: overall cost of ownership, which represents the cost to purchase, use and maintain a product; product quality and consistency; product yield and performance; engineering support; and delivery/supply assurance. We believe that greater customer sophistication in the CMP process, more demanding integration schemes, additional and unique polishing materials and cost pressures will add further demands on CMP consumable suppliers. When these factors are combined with our customers' desires to gain purchasing leverage and lower their cost of ownership, we believe that only the most reliable, innovative, cost effective, service driven CMP consumables suppliers will thrive.

We use an interactive approach to build close relationships with our customers in a variety of areas and we have customer-focused teams located in each major geographic region of sales. Our sales process begins long before the

actual sale of our products and occurs on a number of levels. Due to the long lead times from research and development to product commercialization and sales, we have research teams that collaborate with customers on emerging applications years before the products are required by the market. We also have development teams that coordinate with our customers, using our research and development facilities and capabilities to design CMP products tailored to their precise needs. Next, our applications engineers work with customers to integrate our products into their manufacturing processes. Finally, as part of our sales process, our logistics and sales personnel provide supply, warehousing and inventory management for our customers.

index

We market our products primarily through direct sales to our customers, although we use distributors in select areas. We believe this strategy is one way we can achieve our goal of connecting more closely with our customers.

Our QED subsidiary supports customers in the semiconductor equipment, aerospace, defense, security and telecommunications markets. QED counts among its worldwide customers leading precision optics manufacturers, major semiconductor original equipment manufacturers, the United States government and its contractors.

In fiscal 2010, our five largest customers accounted for approximately 48% of our revenue, with TSMC and UMC accounting for approximately 18% and 11% of our revenue, respectively. For additional information on concentration of customers, refer to Note 2 of "Notes to the Consolidated Financial Statements" included in Item 8 of Part II of this Form 10-K.

RESEARCH, DEVELOPMENT AND TECHNICAL SUPPORT

We believe that technology is vital to success in our CMP business and in our ESF business, and we plan to continue to devote significant resources to research, development and technical support (R&D), and balance our efforts between the shorter-term market needs and the longer-term investments required of us as a technology leader. We develop and formulate new and enhanced CMP consumables and new CMP processes tailored to our customers' needs. We work closely with our customers at their facilities to identify their specific technology and manufacturing challenges and to translate these challenges into viable CMP process solutions.

Our technology efforts are currently focused on five main areas that span the early conceptual stage of product development involving new materials, processes and designs several years in advance of commercialization, through to continuous improvement of already commercialized products in daily use in our customers' manufacturing facilities. These five areas are:

- Research related to fundamental CMP technology;
- Development and formulation of new and enhanced CMP consumables products, including collaborating on joint development projects with our customers;
- Process development to support rapid and effective commercialization of new products;
- Technical support of CMP products in our customers' manufacturing facilities; and
- Evaluation and development of new polishing and metrology applications outside of the semiconductor industry.

Our research in CMP slurries and pads addresses a breadth of complex and interrelated performance criteria that relate to the functional performance of the chip, our customers' manufacturing yields, and their overall cost of ownership. We design slurries and pads that are capable of polishing one or more materials of differing hardness, sometimes at the same time, that make up the semiconductor circuitry. Additionally, our products must achieve the desired surface conditions at high polishing rates, high processing yields and low consumables costs in order to earn acceptable system economics for our customers. As dimensions become smaller and as materials and designs increase in complexity, these challenges require significant investments in R&D.

We also commit internal R&D resources to our ESF business. We believe that application areas we are currently developing, such as precision optics and electronic substrates, represent natural adjacencies to our core CMP business and technology. Products under development include products used to polish silicon and silicon-carbide wafers to improve the surface quality of these wafers and reduce the customers' total cost of ownership.

10

index

We believe that a competitive advantage may be gained through technology leadership, and that our investments in R&D provide us with leading-edge polishing and metrology capabilities to support the most advanced and challenging customer technology requirements on a global basis. In fiscal 2010, 2009 and 2008, we incurred approximately $51.8 million, $48.2 million and $49.2 million, respectively, in R&D expenses. We believe our Six Sigma initiatives in our R&D efforts allow us to conduct more research at a lower cost. Investments in property, plant and equipment to support our R&D efforts are capitalized and depreciated over their useful lives. We operate a R&D facility in Aurora, Illinois, that is staffed by a team that includes experts from the semiconductor industry and scientists from key disciplines required for the development of high-performance CMP consumable products. This facility features a Class 1 clean room and advanced equipment for product development, including 300 mm polishing and metrology capabilities, the experimental results from which we believe correlate with what our customers experience when using our products in their factories. In addition, we operate a technology center in Japan, which includes 300 mm polishing, metrology and slurry development capability, which we believe enhances our ability to provide optimized CMP solutions to our customers in the Asia Pacific region. Epoch also has R&D capability, including a clean room with 200 mm polishing capability. All of these facilities underscore our commitment both to continuing to invest in our technology infrastructure to maintain our technology leadership, and to becoming even more responsive to the needs of our customers. Other examples of this commitment include our QED research facility in Rochester, New York, as well as our laboratory in Singapore that provides additional slurry formulation capability to support the data storage industry.

RAW MATERIALS SUPPLY

Metal oxides, such as silica and alumina, are significant raw materials we use in many of our CMP slurries. In the interest of supply assurance, our strategy is to secure multiple sources of raw materials and qualify and monitor those sources as necessary to ensure our supply of raw materials remains uninterrupted. Also, we have entered into multi-year supply agreements with a number of suppliers for the purchase of raw materials, including agreements with Cabot Corporation, which is not a related party, for the purchase of certain amounts and types of fumed silica and fumed alumina. For additional information regarding these agreements, refer to “Tabular Disclosure of Contractual Obligations”, included in “Management’s Discussion and Analysis of Financial Condition and Results of Operations”, in Item 7 of Part II of this Form 10-K.

INTELLECTUAL PROPERTY

Our intellectual property is important to our success and ability to compete. As of October 31, 2010, we had 201 active U.S. patents and 82 pending U.S. patent applications. In most cases we file counterpart foreign patent applications. Many of these patents are important to our continued development of new and innovative products for CMP and related processes, as well as for new businesses. Our patents have a range of duration and we do not expect to lose any material patent through expiration in the next five years. We attempt to protect our intellectual property rights through a combination of patent, trademark, copyright and trade secret laws, as well as employee and third party nondisclosure and assignment agreements. We vigorously and proactively pursue parties that attempt to compromise our investments in research and development by infringing our intellectual property. For example, in January 2007, we filed a legal action against DuPont Air Products NanoMaterials LLC (DA Nano), a competitor of ours, charging that DA Nano’s manufacture and marketing of certain CMP slurries infringe certain CMP slurry patents that we own, as a counterclaim to DA Nano’s filing an action charging that those patents are invalid. In July 2010, a jury trial was completed in connection with this ongoing litigation where the validity of all of our patents at issue in the matter was upheld. We believe this is important because the testing of these patents through the U.S. judicial process has increased the strength of our intellectual property and our ability to enforce it. However, we were disappointed that

the jury did not find that DA Nano's products at issue infringe on our patents. In November 2010, we filed a Notice of Appeal regarding infringement, and DA Nano filed a cross-appeal. With respect to the same patents, we have been successful before the United States International Trade Commission in prohibiting the importation and sale within the United States of infringing products by another competitor.

index

Most of our intellectual property has been developed internally, but we also may acquire intellectual property from others to enhance our intellectual property portfolio. These enhancements may be via licenses or assignments or we may acquire certain proprietary technology and intellectual property when we make acquisitions, such as through our acquisitions of Epoch, QED and Surface Finishes Co. We believe these technology rights continue to enhance our competitive advantage by providing us with future product development opportunities and expanding our already substantial intellectual property portfolio.

ENVIRONMENTAL MATTERS

Our facilities are subject to various environmental laws and regulations, including those relating to air emissions, wastewater discharges, the handling and disposal of solid and hazardous wastes, and occupational safety and health. We believe that our facilities are in substantial compliance with applicable environmental laws and regulations. By utilizing Six Sigma in our environmental management system process, we believe we have improved operating efficiencies while protecting the environment. Our operations in the United States, Japan, Singapore, Wales and Taiwan are ISO 14001 certified, which requires that we implement and operate according to various procedures that demonstrate our dedication to waste reduction, energy conservation and other environmental concerns. We are committed to maintaining these certifications and are actively pursuing ISO 18001 Safety and Health certification for our existing operations over the next two years. We will also obtain additional certifications, as applicable, in the areas in which we do business. We have incurred, and will continue to incur, capital and operating expenditures and other costs in complying with these laws and regulations in both the United States and abroad. However, we currently do not anticipate that the future costs of environmental compliance will have a material adverse effect on our business, financial condition or results of operations.

EMPLOYEES

We believe we have a world-class team of employees who make our Company successful. As of October 31, 2010, we employed 933 individuals, including 493 in operations, 229 in research and development and technical, 96 in sales and marketing and 115 in administration. None of our employees are covered by collective bargaining agreements. We have not experienced any work stoppages and in general consider our relations with our employees to be good.

FINANCIAL INFORMATION ABOUT GEOGRAPHIC AREAS

We sell our products worldwide. Our geographic coverage allows us to utilize our business and technical expertise from a worldwide workforce, provides stability to our operations and revenue streams to offset geography-specific economic trends, and offers us an opportunity to take advantage of new markets for products.

For more financial information about geographic areas, see Note 19 of “Notes to the Consolidated Financial Statements” included in Item 8 of Part II of this Form 10-K.

AVAILABLE INFORMATION

Our annual reports on Form 10-K, quarterly reports on Form 10-Q, definitive proxy statements on Form 14A, current reports on Form 8-K, and any amendments to those reports are made available free of charge on our Company website, www.cabotcmp.com, as soon as reasonably practicable after such reports are filed with the Securities and

Exchange Commission (SEC). Statements of changes in beneficial ownership of our securities on Form 4 by our executive officers and directors are made available on our Company website by the end of the business day following the submission to the SEC of such filings. In addition, the SEC's website (http://www.sec.gov) contains reports, proxy statements, and other information that we file electronically with the SEC.

index

ITEM 1A. RISK FACTORS

We do not believe there have been any material changes in our risk factors since the filing of our Annual Report on Form 10-K for the fiscal year ended September 30, 2009. However, we may update our risk factors in our SEC filings from time to time for clarification purposes or to include additional information, at management's discretion, even when there have been no material changes.

RISKS RELATING TO OUR BUSINESS

DEMAND FOR OUR PRODUCTS FLUCTUATES AND OUR BUSINESS MAY BE ADVERSELY AFFECTED BY WORLDWIDE ECONOMIC AND INDUSTRY CONDITIONS

Our business is affected by economic and industry conditions and our revenue is dependent upon semiconductor demand. Semiconductor demand, in turn, is impacted by semiconductor industry cycles, and these cycles can dramatically affect our business. These cycles may be characterized by rapid increases or decreases in product demand, excess or low customer inventories, and rapid changes in prices of IC devices. In the first half of fiscal 2009, our business was significantly impacted by the global economic recession. We first began to see significant adverse effects of this in our fourth quarter of fiscal 2008 as the reduction in end user demand for IC devices caused semiconductor manufacturers to reduce their production, which reduced the demand for our CMP consumables products. Weakness in the U.S. and global economy and stress in the financial markets caused a significant decrease in demand for our products during the first half of fiscal 2009, and our revenue decreased dramatically from revenue earned in fiscal 2008. Demand for our products increased significantly during the second half of fiscal 2009 and this strength in demand continued throughout fiscal 2010. While we continue to see positive signs of growth in the semiconductor industry, it is difficult to predict trends due to our limited visibility to future customer orders. If the global economy falters and conditions begin to deteriorate again, we could experience material adverse impacts on our results of operations and financial condition.

Adverse global economic conditions may have other negative effects on our Company such as:

- The ability of our customers to pay their obligations to us may be adversely affected causing a negative impact on our cash flows and our results of operations as evidenced by the bankruptcy filings of a small number of our customers in fiscal 2009.
- The carrying value of our goodwill and other intangible assets may decline in value, which could harm our financial position and results of operations.
- Our suppliers may not be able to fulfill their obligations to us, which could harm our production process and our business.

Some additional factors that affect demand for our products include customers’ production of logic versus memory devices, customers’ specific manufacturing process integration schemes, share gains and losses and pricing changes by us and our competitors.

WE HAVE A NARROW PRODUCT RANGE AND OUR PRODUCTS MAY BECOME OBSOLETE, OR TECHNOLOGICAL CHANGES MAY REDUCE OR LIMIT INCREASES IN THE CONSUMPTION OF CMP SLURRIES AND PADS

Our business is substantially dependent on a single class of products, CMP slurries, which account for the majority of our revenue. Our business in CMP pads is also developing and growing. Our business would suffer if these products

became obsolete or if consumption of these products decreased. Our success depends on our ability to keep pace with technological changes and advances in the semiconductor industry and to adapt, improve and customize our products for advanced IC applications in response to evolving customer needs and industry trends. Since its inception, the semiconductor industry has experienced rapid technological changes and advances in the design, manufacture, performance and application of IC devices, and our customers continually pursue lower cost of ownership of materials consumed in their manufacturing processes, including CMP slurries and pads. We expect these technological changes and advances, and this drive toward lower costs, will continue in the future. Potential technology developments in the semiconductor industry, as well as our customers' efforts to reduce consumption of CMP consumables and to possibly reuse or recycle these products, could render our products less important to the IC device manufacturing process.

index

A SIGNIFICANT AMOUNT OF OUR BUSINESS COMES FROM A LIMITED NUMBER OF LARGE CUSTOMERS AND OUR REVENUE AND PROFITS COULD DECREASE SIGNIFICANTLY IF WE LOST ONE OR MORE OF THESE CUSTOMERS

Our customer base is concentrated among a limited number of large customers. One or more of these principal customers could stop buying CMP consumables from us or could substantially reduce the quantity of CMP consumables purchased from us. Our principal customers also hold considerable purchasing power, which can impact the pricing and terms of sale of our products. Any deferral or significant reduction in CMP consumables sold to these principal customers, or a significant number of smaller customers, could seriously harm our business, financial condition and results of operations.

In fiscal 2010, our five largest customers accounted for approximately 48% of our revenue, with Taiwan Semiconductor Manufacturing Company (TSMC) and United Microelectronics Corporation (UMC) accounting for approximately 18% and 11%, respectively, of our revenue. In fiscal 2009, our five largest customers accounted for approximately 42% of our revenue; with TSMC accounting for approximately 17% of our revenue. UMC accounted for less than 10% of our revenue in fiscal 2009.

OUR BUSINESS COULD BE SERIOUSLY HARMED IF OUR COMPETITORS DEVELOP SUPERIOR SLURRY PRODUCTS, OFFER BETTER PRICING TERMS OR SERVICE, OR OBTAIN CERTAIN INTELLECTUAL PROPERTY RIGHTS

Competition from other CMP slurry manufacturers could seriously harm our business and results of operations. Competition from other providers of CMP slurries could continue to increase, and opportunities exist for other companies to emerge as potential competitors by developing their own CMP slurry products. Increased competition has and may continue to impact the prices we are able to charge for our slurry products as well as our overall business. In addition, our competitors could have or obtain intellectual property rights which could restrict our ability to market our existing products and/or to innovate and develop new products.

ANY PROBLEM OR DISRUPTION IN OUR SUPPLY CHAIN, INCLUDING SUPPLY OF OUR MOST IMPORTANT RAW MATERIALS, OR IN OUR ABILITY TO MANUFACTURE AND DELIVER OUR PRODUCTS TO OUR CUSTOMERS, COULD ADVERSELY AFFECT OUR RESULTS OF OPERATIONS

We depend on our supply chain to enable us to meet the demands of our customers. Our supply chain includes the raw materials we use to manufacture our products, our production operations, and the means by which we deliver our products to our customers. Our business could be adversely affected by any problem or interruption in our supply of the key raw materials we use in our CMP slurries and pads, including fumed silica, which we use for certain of our slurries, or any problem or interruption that may occur during production or delivery of our products, such as weather-related problems or natural disasters.

For instance, Cabot Corporation continues to be our primary supplier of particular amounts and types of fumed silica. We believe it would be difficult to promptly secure alternative sources of key raw materials, including fumed silica, in the event one of our suppliers becomes unable to supply us with sufficient quantities of raw materials that meet the quality and technical specifications required by our customers. In addition, contractual amendments to the existing agreements with, or non-performance by, our suppliers, including any significant financial distress our suppliers may suffer, could adversely affect us. Also, if we change the supplier or type of key raw materials we use to

make our CMP slurries or pads, or are required to purchase them from a different manufacturer or manufacturing facility or otherwise modify our products, in certain circumstances our customers might have to requalify our CMP slurries and pads for their manufacturing processes and products. The requalification process could take a significant amount of time and expense to complete and could motivate our customers to consider purchasing products from our competitors, possibly interrupting or reducing our sales of CMP consumables to these customers.

index

WE ARE SUBJECT TO RISKS ASSOCIATED WITH OUR FOREIGN OPERATIONS

We currently have operations and a large customer base outside of the United States. Approximately 86%, 84% and 81% of our revenue was generated by sales to customers outside of the United States for fiscal 2010, 2009 and 2008, respectively. We encounter risks in doing business in certain foreign countries, including, but not limited to, adverse changes in economic and political conditions, fluctuation in exchange rates, compliance with a variety of foreign laws and regulations, as well as difficulty in enforcing business and customer contracts and agreements, including protection of intellectual property rights.

WE MAY PURSUE ACQUISITIONS OF, INVESTMENTS IN, AND STRATEGIC ALLIANCES WITH OTHER ENTITIES, WHICH COULD DISRUPT OUR OPERATIONS AND HARM OUR OPERATING RESULTS IF THEY ARE UNSUCCESSFUL

We expect to continue to make investments in companies, either through acquisitions, investments or alliances, in order to supplement our internal growth and development efforts. Acquisitions and investments, including our acquisition of Epoch Material Co., Ltd., a Taiwan-based company, the first closing of which we completed in the fiscal quarter ended March 31, 2009 and the final closing of which we completed in the fiscal quarter ended September 30, 2010, involve numerous risks, including the following: difficulties in integrating the operations, technologies, products and personnel of acquired companies; diversion of management's attention from normal daily operations of the business; increased risk associated with foreign operations; potential difficulties in entering markets in which we have limited or no direct prior experience and where competitors in such markets have stronger market positions; potential difficulties in operating new businesses with different business models; potential difficulties with regulatory or contract compliance in areas in which we have limited experience; initial dependence on unfamiliar supply chains or relatively small supply partners; insufficient revenues to offset increased expenses associated with acquisitions; potential loss of key employees of the acquired companies; or inability to effectively cooperate and collaborate with our alliance partners.

Further, we may never realize the perceived or anticipated benefits of a business combination or investments in other entities. Acquisitions by us could have negative effects on our results of operations, in areas such as contingent liabilities, gross profit margins, amortization charges related to intangible assets and other effects of accounting for the purchases of other business entities. Investments in and acquisitions of technology-related companies are inherently risky because these businesses may never develop, and we may incur losses related to these investments. In addition, we may be required to write down the carrying value of these acquisitions or investments to reflect other than temporary declines in their value, which could harm our business and results of operations.

BECAUSE WE HAVE LIMITED EXPERIENCE IN BUSINESS AREAS OUTSIDE OF CMP SLURRIES, EXPANSION OF OUR BUSINESS INTO NEW PRODUCTS AND APPLICATIONS MAY NOT BE SUCCESSFUL

An element of our strategy has been to leverage our current customer relationships and technological expertise to expand our CMP business from CMP slurries into other areas, such as CMP polishing pads. Additionally, pursuant to our Engineered Surface Finishes business, we are pursuing other surface modification applications. Expanding our business into new product areas could involve technologies, production processes and business models in which we have limited experience, and we may not be able to develop and produce products or provide services that satisfy customers' needs or we may be unable to keep pace with technological or other developments. Also, our competitors

may have or obtain intellectual property rights which could restrict our ability to market our existing products and/or to innovate and develop new products.

index

BECAUSE WE RELY HEAVILY ON OUR INTELLECTUAL PROPERTY, OUR FAILURE TO ADEQUATELY OBTAIN OR PROTECT IT COULD SERIOUSLY HARM OUR BUSINESS

Protection of intellectual property is particularly important in our industry because we develop complex technical formulas for CMP products that are proprietary in nature and differentiate our products from those of our competitors. Our intellectual property is important to our success and ability to compete. We attempt to protect our intellectual property rights through a combination of patent, trademark, copyright and trade secret laws, as well as employee and third-party nondisclosure and assignment agreements. Due to our international operations, we pursue protection in different jurisdictions, which may provide varying degrees of protection, and we cannot provide assurance that we can obtain adequate protection in each such jurisdiction. Our failure to obtain or maintain adequate protection of our intellectual property rights for any reason, including through the patent prosecution process or in the event of litigation related to such intellectual property, such as the current litigation between us and DuPont Air Products NanoMaterials (DA Nano), in which the validity of all of our patents at issue in the matter was recently upheld as further described above in Part I, Item 1 under the heading “Intellectual Property” and in Part I, Item 3 under the heading “Legal Proceedings”, could seriously harm our business. In addition, the costs of obtaining or protecting our intellectual property could negatively affect our operating results. For example, in fiscal 2010, costs associated with enforcing our intellectual property caused our operating expenses to increase.

WE MAY NOT BE ABLE TO MONETIZE OUR INVESTMENTS IN AUCTION RATE SECURITIES IN THE SHORT TERM AND WE COULD EXPERIENCE A DECLINE IN THEIR MARKET VALUE, WHICH COULD ADVERSELY AFFECT OUR FINANCIAL RESULTS

We owned auction rate securities (ARS) with an estimated fair value of $8.1 million ($8.3 million par value) at September 30, 2010, which were classified as Other Long-Term Assets on our Consolidated Balance Sheet. If current illiquidity in the ARS market does not lessen, if issuers of our ARS are unable to refinance the underlying securities, or are unable to pay debt obligations and related bond insurance fails, or if credit ratings decline or other adverse developments occur in the credit markets, then we may not be able to monetize these securities in the foreseeable future. We may also be required to further adjust the carrying value of these instruments through an impairment charge that may be deemed other-than-temporary which would adversely affect our financial results.

OUR INABILITY TO ATTRACT AND RETAIN KEY PERSONNEL COULD CAUSE OUR BUSINESS TO SUFFER

If we fail to attract and retain the necessary managerial, technical and customer support personnel, our business and our ability to maintain existing and obtain new customers, develop new products and provide acceptable levels of customer service could suffer. We compete with other industry participants for qualified personnel, particularly those with significant experience in the semiconductor industry. The loss of services of key employees could harm our business and results of operations.

RISKS RELATING TO THE MARKET FOR OUR COMMON STOCK

THE MARKET PRICE MAY FLUCTUATE SIGNIFICANTLY AND RAPIDLY

The market price of our common stock has fluctuated and could continue to fluctuate significantly as a result of factors such as: economic and stock market conditions generally and specifically as they may impact participants in the semiconductor and related industries; changes in financial estimates and recommendations by securities analysts who follow our stock; earnings and other announcements by, and changes in market evaluations of, us or participants in the semiconductor and related industries; changes in business or regulatory conditions affecting us or participants in the semiconductor and related industries; announcements or implementation by us, our competitors, or our customers of technological innovations, new products or different business strategies; and trading volume of our common stock.

index

ANTI-TAKEOVER PROVISIONS UNDER OUR CERTIFICATE OF INCORPORATION AND BYLAWS MAY DISCOURAGE THIRD PARTIES FROM MAKING AN UNSOLICITED BID FOR OUR COMPANY

Our certificate of incorporation, our bylaws, and various provisions of the Delaware General Corporation Law may make it more difficult or expensive to effect a change in control of our Company. For instance, our amended and restated certificate of incorporation provides for the division of our Board of Directors into three classes as nearly equal in size as possible with staggered three-year terms. Until April 2010, we had a rights plan which expired according to the terms of the plan.

We have adopted change in control arrangements covering our executive officers and other key employees. These arrangements provide for a cash severance payment, continued medical benefits and other ancillary payments and benefits upon termination of service of a covered employee's employment following a change in control, which may make it more expensive to acquire our Company.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

index

ITEM 2. PROPERTIES

Our principal U.S. facilities that we own consist of:

- a global headquarters and research and development facility in Aurora, Illinois, comprising approximately 200,000 square feet;
- a commercial dispersion plant and distribution center in Aurora, Illinois, comprising approximately 175,000 square feet;
- a commercial polishing pad manufacturing plant and offices in Aurora, Illinois, comprising approximately 48,000 square feet;
- an additional 13.2 acres of vacant land in Aurora, Illinois; and
- a facility in Addison, Illinois, comprising approximately 15,000 square feet.

In addition, we lease a facility in Rochester, New York, comprising approximately 21,000 square feet.

Our principal foreign facilities that we or our subsidiaries own consist of:

- a commercial dispersion plant, automated warehouse, research and development facility and offices in Kaohsiung County, Taiwan, comprising approximately 170,000 square feet;
- a commercial dispersion plant and distribution center in Geino, Japan, comprising approximately 113,000 square feet;
- a development and technical support facility in Geino, Japan, comprising approximately 20,000 square feet.

Our principal foreign facilities that we lease consist of:

- an office, research and development laboratory and polishing pad manufacturing plant in Hsin-Chu, Taiwan, comprising approximately 31,000 square feet;
- a commercial manufacturing plant, research and development facility and business office in Singapore, comprising approximately 24,000 square feet.

We believe that our facilities are suitable and adequate for their intended purpose and provide us with sufficient capacity and capacity expansion opportunities and technological capability to meet our current and expected demand in the foreseeable future. In fiscal 2011, we plan to increase our manufacturing capacity and add new capabilities in the Asia Pacific region. For example, we recently announced we have entered into a non-binding memorandum of understanding (MOU) with the Gyeonggi Province of South Korea to potentially establish manufacturing and research and development capabilities there. The MOU reflects a potential aggregate investment of approximately $10 million in Gyeonggi Province. In addition, we plan to expand our Geino, Japan dispersions plant to increase our manufacturing production capacity there.

index

ITEM 3. LEGAL PROCEEDINGS

While we are not involved in any legal proceedings that we believe will have a material impact on our consolidated financial position, results of operations or cash flows, we periodically become a party to legal proceedings in the ordinary course of business. For example, in January 2007, we filed a legal action against DuPont Air Products NanoMaterials LLC (DA Nano), a CMP slurry competitor, in the United States District Court for the District of Arizona, charging that DA Nano's manufacturing and marketing of CMP slurries infringe certain CMP slurry patents that we own. The affected DA Nano products include certain products used for tungsten CMP. We filed our infringement complaint as a counterclaim in response to an action filed by DA Nano in the same court in December 2006 that sought declaratory relief and alleged non-infringement, invalidity and unenforceability regarding some of the patents at issue in our complaint against DA Nano. DA Nano filed its complaint following our refusal of its request that we license to it our patents raised in its complaint. DA Nano's complaint did not allege any infringement by our products of intellectual property owned by DA Nano. From June 14 through July 8, 2010, a jury trial for the case was held. All of Cabot Microelectronics' patents at issue in the case were found valid. However, the jury found that DA Nano's products at issue do not infringe the asserted claims of these patents. In November 2010, we filed a Notice of Appeal regarding infringement, and DA Nano filed a cross-appeal. While the outcome of this and any legal matter cannot be predicted with certainty, we continue to believe that our claims and defenses in the pending action are meritorious, and we intend to continue to pursue and defend them.

index

EXECUTIVE OFFICERS OF THE REGISTRANT

Set forth below is information concerning our executive officers and their ages as of October 31, 2010.

NAME	AGE	POSITION
William P. Noglows	52	Chairman of the Board, President and Chief Executive Officer
H. Carol Bernstein	50	Vice President, Secretary and General Counsel
Yumiko Damashek	54	Vice President, Japan and Operations in Asia
William S. Johnson	53	Vice President and Chief Financial Officer
David H. Li	37	Vice President, Asia Pacific Region
Daniel J. Pike	47	Vice President, Corporate Development
Stephen R. Smith	51	Vice President, Marketing
Clifford L. Spiro	56	Vice President, Research and Development
Adam F. Weisman	48	Vice President, Business Operations
Daniel S. Wobby	47	Vice President, Global Sales
Thomas S. Roman	49	Principal Accounting Officer and Corporate Controller

WILLIAM P. NOGLOWS has served as our Chairman, President and Chief Executive Officer since November 2003. Mr. Noglows had previously served as a director of our Company from January 2000 until April 2002. Prior to joining us, Mr. Noglows served as an Executive Vice President of Cabot Corporation from 1998 to June 2003. Prior to that, Mr. Noglows held various management positions at Cabot Corporation including General Manager of Cabot Corporation's Cab-O-Sil Division, where he was one of the primary founders of our Company when our business was a division of Cabot Corporation, and was responsible for identifying and encouraging the development of the CMP application. Mr. Noglows received his B.S. in Chemical Engineering from the Georgia Institute of Technology. Mr. Noglows is also a director of Littelfuse, Inc.

H. CAROL BERNSTEIN has served as our Vice President, Secretary and General Counsel since August 2000. From January 1998 until joining us, Ms. Bernstein served as the General Counsel and Director of Industrial Technology Development of Argonne National Laboratory, which is operated by the University of Chicago for the United States Department of Energy. From May 1985 until December 1997, she served in various positions with the IBM Corporation, culminating in serving as an Associate General Counsel, and was the Vice President, Secretary and General Counsel of Advantis Corporation, an IBM joint venture. Ms. Bernstein received her B.A. from Colgate University and her J.D. from Northwestern University; she is a member of the Bar of the States of Illinois and New York.

YUMIKO DAMASHEK has served as our Vice President, Japan and Operations in Asia since June 2008. Previously, Ms. Damashek served as Managing Director of Japan since November 2005. Prior to joining us, Ms. Damashek served as President for Celerity Japan, Inc. Prior to that, she held various leadership positions at Global Partnership Creation, Inc. and Millipore Corporation. Ms. Damashek received her B.A. from the University of Arizona and her M.B.A. from San Diego State University.

WILLIAM S. JOHNSON has served as our Vice President and Chief Financial Officer since April 2003. Prior to joining us, Mr. Johnson served as Executive Vice President and Chief Financial Officer for Budget Group, Inc. from

August 2000 to March 2003. Before that, Mr. Johnson spent 16 years at BP Amoco in various senior finance and management positions, the most recent of which was President of Amoco Fabrics and Fibers Company. Mr. Johnson received his B.S. in Mechanical Engineering from the University of Oklahoma and his M.B.A. from the Harvard Business School.

DAVID H. LI has served as our Vice President, Asia Pacific Region since June 2008. Prior to that, Mr. Li served as Managing Director of Korea and China since February 2007. Previously, Mr. Li served as our Global Business Director for Tungsten and Advanced Dielectrics from 2005 to February 2007. Mr. Li held a variety of leadership positions for us in operations, sourcing and investor relations between 1998 and 2005. Prior to joining us, Mr. Li worked for UOP in marketing and process engineering. Mr. Li received a B.S. in Chemical Engineering from Purdue University and an M.B.A. from Northwestern University - Kellogg School of Management.

index

DANIEL J. PIKE has served as our Vice President of Corporate Development since January 2004 and prior to that was our Vice President of Operations from December 1999. Mr. Pike served as Director of Global Operations for a division of Cabot Corporation from 1996 to 1999. Prior to that, Mr. Pike worked for FMC Corporation in various marketing and finance positions. Mr. Pike received his B.S. in Chemical Engineering from the University of Buffalo and his M.B.A. from the Wharton School of Business of the University of Pennsylvania.

STEPHEN R. SMITH has served as our Vice President of Marketing since September 2006, and previously was our Vice President of Marketing and Business Management since April 2005 and our Vice President of Sales and Marketing from October 2001. Prior to joining us, Mr. Smith served as Vice President, Sales & Business Development for Buildpoint Corporation from 2000 to October 2001. Prior to that, Mr. Smith spent 17 years at Tyco Electronics Group, formerly known as AMP Incorporated, in various management positions. Mr. Smith earned a B.S. in Industrial Engineering from Grove City College and an M.B.A. from Wake Forest University.

CLIFFORD L. SPIRO has served as Vice President of Research and Development since December 2003. Prior to joining us, Dr. Spiro served as Vice President of Research and Development at Ondeo-Nalco from 2001 through November 2003. Prior to that, Dr. Spiro held research and development management and senior technology positions at the General Electric Company from 1980 through 2001, the most recent of which was Global Manager – Technology for Business Development. Dr. Spiro received his B.S. in Chemistry from Stanford University and his Ph.D. in Chemistry from the California Institute of Technology.

ADAM F. WEISMAN has served as our Vice President of Business Operations since September 2006, and prior to that was our Vice President of Operations. Before joining us, Mr. Weisman held various engineering and senior operations management positions with the General Electric Company from 1988 through 2004, including having served as the General Manager of Manufacturing for GE Plastics - Superabrasives, and culminating in serving as the Executive Vice President of Operations for GE Railcar Services. Prior to joining GE, he worked as an engineering team leader and pilot plant manager for E.I. Du Pont de Nemours & Company. Mr. Weisman holds a B.S. in Ceramic Engineering from Alfred University.

DANIEL S. WOBBY has served as our Vice President of Global Sales since June 2008. Prior to that, Mr. Wobby served as Vice President, Asia Pacific Region since September 2005. Previously, Mr. Wobby served as Vice President, Greater China and Southeast Asia starting in February 2004 and as Corporate Controller and Principal Accounting Officer from 2000 to 2004. From 1989 to 2000, Mr. Wobby held various accounting and operations positions with Cabot Corporation culminating in serving as Director of Finance. Mr. Wobby earned a B.S. in Accounting from St. Michael’s College and an M.B.A. from the University of Chicago.

THOMAS S. ROMAN has served as our Corporate Controller and Principal Accounting Officer since February 2004 and previously served as our North American Controller. Prior to joining us in April 2000, Mr. Roman was employed by FMC Corporation in various financial reporting, tax and audit positions. Before that, Mr. Roman worked for Gould Electronics and Arthur Andersen LLP. Mr. Roman is a C.P.A. and earned a B.S. in Accounting from the University of Illinois and an M.B.A. from DePaul University’s Kellstadt Graduate School of Business.

index

PART II

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

Our common stock has traded publicly under the symbol "CCMP" since our initial public offering in April 2000, currently on the NASDAQ Global Select Market, and formerly the NASDAQ National Market. The following table sets forth the range of quarterly high and low closing sales prices for our common stock.

		HIGH	LOW
Fiscal 2009			
	First Quarter	32.39	20.23
	Second Quarter	26.96	19.01
	Third Quarter	31.50	24.52
	Fourth Quarter	36.04	26.94
Fiscal 2010			
	First Quarter	35.47	30.59
	Second Quarter	37.83	31.99
	Third Quarter	42.69	34.18
	Fourth Quarter	36.65	29.81
Fiscal 2011	First Quarter (through October 31, 2010)	38.63	32.22

As of October 31, 2010, there were approximately 988 holders of record of our common stock. No dividends were declared or paid in either fiscal 2010 or fiscal 2009 and we have no current plans to pay cash dividends in the future.

ISSUER PURCHASES OF EQUITY SECURITIES

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (in thousands)
Jul. 1 through Jul. 31, 2010	92,035	$33.50	92,035	$36,921
Aug. 1 through Aug. 31, 2010	367,599	$32.42	367,599	$25,005
Sep. 1 through Sep. 30, 2010	-	-	-	$25,005
Total	459,634	$32.63	459,634	$25,005

In January 2008, we announced that our Board of Directors had authorized a share repurchase program for up to $75.0 million of our outstanding common stock. Shares are repurchased from time to time, depending on market conditions, in open market transactions, at management’s discretion. We fund share repurchases from our existing cash balance. The program, which became effective on the authorization date, may be suspended or terminated at any time, at the Company’s discretion. During the fiscal year ended September 30, 2010, we repurchased a total of 723,184

shares for $25.0 million.

Separate from this share repurchase program, a total of 24,651 shares were purchased during fiscal 2010 pursuant to the terms of our Second Amended and Restated Cabot Microelectronics Corporation 2000 Equity Incentive Plan (EIP) as shares withheld from award recipients to cover payroll taxes on the vesting of shares of restricted stock granted under the EIP. No shares were purchased under the EIP during the fiscal quarter ended September 30, 2010.

EQUITY COMPENSATION PLAN INFORMATION

See Part II, Item 12 of this Form 10-K for information regarding shares of common stock that may be issued under the Company's existing equity compensation plans.

index

STOCK PERFORMANCE GRAPH

The following graph illustrates the cumulative total stockholder return on our common stock during the period from September 30, 2005 through September 30, 2010 and compares it with the cumulative total return on the NASDAQ Composite Index and the Philadelphia Semiconductor Index. The comparison assumes $100 was invested on September 30, 2005 in our common stock and in each of the foregoing indices and assumes reinvestment of dividends, if any. The performance shown is not necessarily indicative of future performance. See “Risk Factors” in Part I, Item 1A above.

	9/05	12/05	3/06	6/06	9/06	12/06	3/07	6/07	9/07	12/07	3/08
Cabot Microelectronics Corporation	100.00	99.69	126.28	103.17	98.09	115.52	114.06	120.80	145.51	122.23	109.43
NASDAQ Composite	100.00	102.19	108.39	101.64	106.39	114.79	115.26	124.53	127.37	125.28	107.34
Philadelphia Semiconductor	100.00	104.16	100.59	92.41	98.02	98.40	96.83	111.06	113.86	107.28	91.18

	6/08	9/08	12/08	3/09	6/09	9/09	12/09	3/10	6/10	9/10
Cabot Microelectronics Corporation	112.83	109.19	88.73	81.79	96.29	118.65	112.19	128.76	117.73	109.53
NASDAQ Composite	108.37	96.70	74.34	71.91	86.29	100.00	107.24	113.44	100.06	112.86
Philadelphia Semiconductor	94.16	77.69	58.49	63.36	71.73	87.52	95.48	97.73	88.04	91.53

index

ITEM 6. SELECTED FINANCIAL DATA

The following selected financial data for each year of the five-year period ended September 30, 2010, has been derived from the audited consolidated financial statements.

The information set forth below is not necessarily indicative of results of future operations and should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and the consolidated financial statements and notes to those statements included in Items 7 and 8 of Part II of this Form 10-K, as well as Risk Factors included in Item 1A of Part I of this Form 10-K.

CABOT MICROELECTRONICS CORPORATION
SELECTED FINANCIAL DATA - FIVE YEAR SUMMARY
(Amounts in thousands, except per share amounts)

	Year Ended September 30,				
	2010	2009	2008	2007	2006
Consolidated Statement of Income Data:					
Revenue	$408,201	$291,372	$375,069	$338,205	$320,795
Cost of goods sold	204,704	162,918	200,596	178,224	171,758
Gross profit	203,497	128,454	174,473	159,981	149,037
Operating expenses:					
Research, development and technical	51,818	48,150	49,155	49,970	48,070
Selling and marketing	26,885	22,239	28,281	24,310	21,115
General and administrative	50,783	40,632	47,595	39,933	34,319
Purchased in-process research and development	-	1,410	-	-	1,120
Total operating expenses	129,486	112,431	125,031	114,213	104,624
Operating income	74,011	16,023	49,442	45,768	44,413
Other income (expense), net	(734)	599	5,448	3,606	4,111
Income before income taxes	73,277	16,622	54,890	49,374	48,524
Provision for income taxes	23,819	5,435	16,552	15,538	15,576
Net income	$49,458	$11,187	$38,338	$33,836	$32,948
Basic earnings per share	$2.14	$0.48	$1.64	$1.42	$1.36
Weighted average basic shares outstanding	23,084	23,079	23,315	23,748	24,228
Diluted earnings per share	$2.13	$0.48	$1.64	$1.42	$1.36
Weighted average diluted shares outstanding	23,273	23,096	23,348	23,754	24,228
Cash dividends per share	$-	$-	$-	$-	$-

	As of September 30,				
	2010	2009	2008	2007	2006
Consolidated Balance Sheet Data:					
Current assets	$381,029	$316,852	$330,592	$310,754	$261,505
Property, plant and equipment, net	115,811	122,782	115,843	118,454	130,176
Other assets	74,916	75,510	31,002	25,921	20,452
Total assets	$571,756	$515,144	$477,437	$455,129	$412,133
Current liabilities	$53,330	$39,536	$37,801	$36,563	$38,833
Other long-term liabilities	4,083	4,879	5,403	5,362	5,529
Total liabilities	57,413	44,415	43,204	41,925	44,362
Stockholders' equity	514,343	470,729	434,233	413,204	367,771
Total liabilities and stockholders' equity	$571,756	$515,144	$477,437	$455,129	$412,133

index

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

The following “Management's Discussion and Analysis of Financial Condition and Results of Operations", as well as disclosures included elsewhere in this Form 10-K, include "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. This Act provides a safe harbor for forward-looking statements to encourage companies to provide prospective information about themselves so long as they identify these statements as forward-looking and provide meaningful cautionary statements identifying important factors that could cause actual results to differ from the projected results. All statements other than statements of historical fact we make in this Form 10-K are forward-looking. In particular, the statements herein regarding future sales and operating results; Company and industry growth, contraction or trends; growth or contraction of the markets in which the Company participates; international events or various economic factors; product performance; the generation, protection and acquisition of intellectual property, and litigation related to such intellectual property; new product introductions; development of new products, technologies and markets; the acquisition of or investment in other entities; uses and investment of the Company’s cash balance; the construction of facilities by the Company; and statements preceded by, followed by or that include the words "intends", "estimates", "plans", "believes", "expects", "anticipates", "should", "could" or similar expressions, are forward-looking statements. Forward-looking statements reflect our current expectations and are inherently uncertain. Our actual results may differ significantly from our expectations. We assume no obligation to update this forward-looking information. The section entitled "Risk Factors" describes some, but not all, of the factors that could cause these differences.

The following discussion and analysis should be read in conjunction with our historical financial statements and the notes to those financial statements which are included in Item 8 of Part II of this Form 10-K.

OVERVIEW

Cabot Microelectronics Corporation ("Cabot Microelectronics", "the Company", "us", "we", or "our") is the leading supplier of high-performance polishing slurries and a growing pad supplier used in the manufacture of advanced integrated circuit (IC) devices within the semiconductor industry, in a process called chemical mechanical planarization (CMP). CMP is a polishing process used by IC device manufacturers to planarize or flatten many of the multiple layers of material that are deposited upon silicon wafers in the production of advanced ICs. Our products play a critical role in the production of advanced IC devices, thereby enabling our customers to produce smaller, faster and more complex IC devices with fewer defects. Demand for our CMP products is primarily driven by the number of wafers processed by semiconductor manufacturers, the first manufacturing step of which is referred to as a “wafer start”.

We operate predominantly in one industry segment – the development, manufacture and sale of CMP consumables. We develop, produce and sell CMP slurries for polishing many of the conducting and insulating materials used in IC devices, and also for polishing certain components in hard disk drives, specifically rigid disk substrates and magnetic heads. In addition, we develop, manufacture and sell CMP polishing pads, which are used in conjunction with slurries in the CMP process. We also pursue a number of other demanding surface modification applications outside of the semiconductor and hard disk drive industries through our Engineered Surface Finishes (ESF) business, for which we believe our capabilities and knowledge may provide value in improved surface performance or productivity.

The improvement in economic and industry conditions that we began to see in our business during the second half of fiscal 2009, following the severe global recession, continued through our fiscal 2010 and positively impacted demand for our products. We continue to see positive signs of growth in the semiconductor industry: reports from customer indicate utilization of fab capacity is currently at an all-time high; inventory levels of IC devices appear to be within an appropriate range; and significant capacity expansion activity by a number of semiconductor device manufacturers is underway. However, we remain cautious regarding future demand trends over the near term as the first quarter of the calendar year typically demonstrates softer demand due to seasonal variations within the semiconductor industry. There are many factors, that make it difficult for us to predict future revenue trends for our business, including: the pace, timing and sustainability of the ongoing economic recovery; the cyclical nature of the semiconductor industry; the short order to delivery time for our products and the associated lack of visibility to future customer orders; quarter to quarter changes in our revenue regardless of industry strength; and potential future acquisitions by us.

index

Revenue for fiscal 2010 was $408.2 million, which represented an increase of 40.1% from the $291.4 million reported for fiscal 2009. The increase in revenue from fiscal 2009 reflects increased sales volume due to improved economic and semiconductor industry conditions. We experienced significant revenue growth across all of our product lines, including a 68.9% increase in revenue from our polishing pad products and a 53.9% increase in revenue from copper slurries, which benefited from a full year impact in fiscal 2010 of our February 2009 acquisition of Epoch Material Co., Ltd. (Epoch) versus only a partial year benefit in the prior fiscal year.

Gross profit expressed as a percentage of revenue for fiscal 2010 was 49.9%, which represents an increase from the 44.1% reported for fiscal 2009. The increase in gross profit percentage from fiscal 2009 was primarily due to the significant increase in sales volume due to continued improvement in economic and industry conditions, and the related benefits of increased utilization of our manufacturing capacity, partially offset by higher fixed manufacturing costs and unfavorable foreign exchange effects. We expect our gross profit percentage for full year fiscal 2011 to be in the range of 48% to 50%. However, we may experience fluctuations in our gross profit due to a number of factors, including the extent to which we utilize our manufacturing capacity and fluctuations in our product mix, which may cause our quarterly gross profit to be above or below this range.

Operating expenses of $129.5 million, which include research, development and technical, selling and marketing, and general and administrative expenses, increased 15.2%, or $17.1 million, from the $112.4 million reported for fiscal 2009. The increase was primarily due to higher staffing-related costs, including costs associated with our annual incentive bonus program, and the reinstatement of certain employee benefits that were suspended during the economic downturn in fiscal 2009, higher professional fees, including costs to enforce our intellectual property as discussed in the following paragraph, higher travel-related expenses, and a full year of Epoch operating expenses included in fiscal 2010 versus only a partial year in fiscal 2009. In fiscal 2011, we expect our full year operating expenses to be in the range of $125 million to $130 million.

In July 2010, a jury trial was completed in connection with our ongoing patent enforcement litigation against DuPont Air Products NanoMaterials LLC (DA Nano). We were pleased that the validity of our patents at issue was upheld with the jury's verdict; however, we were disappointed that the jury did not find DA Nano's products at issue infringed the asserted claims of our patents. In November 2010, we filed a Notice of Appeal regarding infringement, and DA Nano filed a cross-appeal. Expenses related to this trial caused our operating expenses to increase in fiscal 2010. Now that the jury trial phase has been completed, we expect our litigation costs related to this matter to decrease significantly in fiscal 2011, as they did in the fourth quarter of fiscal 2010. See Part I, Item 3 entitled "Legal Proceedings" and Note 17 of the Notes to the Consolidated Financial Statements for more information on the enforcement of our intellectual property.

Diluted earnings per share of $2.13 in fiscal 2010 increased 343.8%, or $1.65, from $0.48 reported in fiscal 2009 as a result of the factors discussed above. Diluted earnings per share were positively impacted by our election in fiscal 2010 to permanently reinvest the earnings of certain of our foreign subsidiaries outside the U.S. rather than repatriating the earnings to the U.S. This election, which was made in the fourth quarter of fiscal 2010, reduced our effective income tax rate for the year from 35.2% to 32.5% and increased diluted earnings per share by $0.09. In fiscal 2011, we expect our full year effective income tax rate to be in the range of 31% to 33%. See Note 16 of the Notes to the Consolidated Financial Statements for further discussion on income taxes.

index

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

This "Management's Discussion and Analysis of Financial Condition and Results of Operations" (MD&A), as well as disclosures included elsewhere in this Form 10-K, are based upon our audited consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingencies. On an ongoing basis, we evaluate the estimates used, including those related to bad debt expense, warranty obligations, inventory valuation, valuation and classification of auction rate securities, impairment of long-lived assets and investments, business combinations, goodwill, other intangible assets, share-based compensation, income taxes and contingencies. We base our estimates on historical experience, current conditions and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources, as well as for identifying and assessing our accounting treatment with respect to commitments and contingencies. Actual results may differ from these estimates under different assumptions or conditions. We believe the following critical accounting policies involve significant judgments and estimates used in the preparation of our consolidated financial statements.

ALLOWANCE FOR DOUBTFUL ACCOUNTS

We maintain an allowance for doubtful accounts for estimated losses resulting from the potential inability of our customers to make required payments. Our allowance for doubtful accounts is based on historical collection experience, adjusted for any specific known conditions or circumstances. While historical experience may provide a reasonable estimate of uncollectible accounts, actual results may differ from what was recorded. The global economic recession adversely affected our ability to collect accounts receivable from some of our customers in fiscal 2009. The recession also caused a small number of our customers to file for bankruptcy or insolvency. We recorded a $0.9 million increase in our allowance for doubtful accounts during fiscal 2009 to account for these bankruptcies and the increased risk regarding customer collections due to the continued uncertainty in the global economy. We will continue to monitor the financial solvency of our customers and, if global economic conditions worsen, we may have to record additional increases to our allowances for doubtful accounts. As of September 30, 2010, our allowance for doubtful accounts represented 1.9% of gross accounts receivable. If we had increased our estimate of bad debts to 2.9% of gross accounts receivable, our general and administrative expenses would have increased by $0.6 million.

WARRANTY RESERVE

We maintain a warranty reserve that reflects management’s best estimate of the cost to replace product that does not meet customers’ specifications and performance requirements, and costs related to such replacement. The warranty reserve is based upon a historical product replacement rate, adjusted for any specific known conditions or circumstances. Should actual warranty costs differ substantially from our estimates, revisions to the estimated warranty liability may be required. As of September 30, 2010, our warranty reserve represented 0.3% of the current quarter revenue. If we had increased our warranty reserve estimate to 1.3% of the current quarter revenue, our cost of goods sold would have increased by $1.1 million.

INVENTORY VALUATION

We value inventory at the lower of cost or market and write down the value of inventory for estimated obsolescence or if inventory is deemed unmarketable. An inventory reserve is maintained based upon a historical percentage of actual inventories written off applied against the inventory value at the end of the period, adjusted for known conditions and circumstances. We exercise judgment in estimating the amount of inventory that is obsolete. Should actual product

marketability and fitness for use be affected by conditions that are different from those projected by management, revisions to the estimated inventory reserve may be required. If we had increased our reserve for obsolete inventory at September 30, 2010 by 10%, our cost of goods sold would have increased by $0.2 million.

index

VALUATION AND CLASSIFICATION OF AUCTION RATE SECURITIES

As of September 30, 2010, we owned two auction rate securities (ARS) with an estimated fair value of $8.1 million ($8.3 million par value) which are classified as other long-term assets on our Consolidated Balance Sheet. In general, ARS investments are securities with long-term nominal maturities for which interest rates are reset through a Dutch auction every seven to 35 days. Historically, these periodic auctions provided a liquid market for these securities. General uncertainties in the global credit markets during 2008 caused widespread ARS auction failures as the number of securities submitted for sale exceeded the number of securities buyers were willing to purchase, and these auction failures have continued. As a result, the short-term liquidity of the ARS market has been adversely affected since then.

As discussed in Notes 4 and 8 of the Notes to the Consolidated Financial Statements, we have recorded a temporary impairment of $0.2 million, net of tax, in the value of one of our ARS in other comprehensive income. The calculation of fair value and the balance sheet classification for our ARS requires critical judgments and estimates by management including an appropriate discount rate and the probabilities that a security may be monetized through a future successful auction, of a refinancing of the underlying debt, of a default in payment by the issuer, and of payments not being made by the bond insurance carrier in the event of default by the issuer. In fiscal 2009, we adopted new accounting pronouncements regarding the classification and valuation of financial instruments. These pronouncements discuss the recognition and presentation of other-than-temporary impairments and the determination of fair value of financial instruments when the volume of trading activity significantly drops. An other-than-temporary impairment must be recorded when a credit loss exists; that is when the present value of the expected cash flows from a debt security is less than the amortized cost basis of the security. We performed two discounted cash flow analyses, one using a discount rate based on a market index comprised of tax exempt variable rate demand obligations and one using a discount rate based on the LIBOR swap curve, and we applied a risk factor to reflect current liquidity issues in the ARS market. We then assigned probabilities of holding each security for less than or equal to one year, five years, and to maturity to calculate a fair value for each security. We also considered the probability of default in payment by the issuer of the securities, the strength of the insurance backing and the probability of failure by the insurance carrier in the case of default by the issuer of the securities. The impairment we have maintained is considered temporary as it relates to the loss of liquidity in the ARS market and does not represent a credit loss. We do not intend to sell the securities at a loss and we believe we will not be required to sell the securities at a loss in the future. If auctions involving our remaining ARS continue to fail, if issuers of our ARS are unable to refinance the underlying securities, if the issuing municipalities are unable to pay their debt obligations and the bond insurance fails, or if credit ratings decline or other adverse developments occur in the credit markets, we may not be able to monetize our remaining securities in the near term and may be required to further adjust the carrying value of these instruments through an impairment charge that may be deemed other-than-temporary.

IMPAIRMENT OF LONG-LIVED ASSETS AND INVESTMENTS

We assess the recoverability of the carrying value of long-lived assets, including finite lived intangible assets, whenever events or changes in circumstances indicate that the assets may be impaired. We must exercise judgment in assessing whether an event of impairment has occurred. For purposes of recognition and measurement of an impairment loss, long-lived assets are grouped with other assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. We must exercise judgment in this grouping. If the sum of the undiscounted future cash flows expected to result from the identified asset group is less than the carrying value of the asset group, an impairment provision may be required. The amount of the impairment to be recognized is calculated by subtracting the fair value of the asset group from the net book value of the asset group. Determining future cash flows and estimating fair values require significant judgment and are highly susceptible to change from period to period because they require management to make assumptions about

future sales and cost of sales generally over a long-term period. As a result of assessments performed during fiscal 2010, we recorded $0.2 million in impairment expense. In fiscal 2009, we recorded $1.2 million in impairment expense, primarily related to the write-off of certain research and development equipment. See Note 6 of the Notes to the Consolidated Financial Statements for more information on this write-off.

We evaluate the estimated fair value of investments annually or more frequently if indicators of potential impairment exist, to determine if an other-than-temporary impairment in the value of the investment has taken place.

index

BUSINESS COMBINATIONS

We have accounted for all business combinations under the purchase method of accounting. As discussed in more detail in Note 2 of the Notes to the Consolidated Financial Statements, we were required to adopt new accounting standards for business combinations commencing after October 1, 2009. However, we have not made any acquisitions to which we were required to apply these new standards. We have allocated the purchase price of acquired entities to the tangible and intangible assets acquired, liabilities assumed, and in-process research and development (IPR&D) based on their estimated fair values. We engage independent third-party appraisal firms to assist us in determining the fair values of assets and liabilities acquired. This valuation requires management to make significant estimates and assumptions, especially with respect to long-lived and intangible assets. Contingent consideration was recorded as a liability when the outcome of the contingency became determinable. Goodwill represents the excess of the purchase price over the fair value of net assets and amounts assigned to identifiable intangible assets. Purchased IPR&D, for which technological feasibility has not yet been established and no future alternative uses exist, has been expensed immediately.

Critical estimates in valuing certain of the intangible assets include but are not limited to: future expected cash flows related to acquired developed technologies and patents and assumptions about the period of time the technologies will continue to be used in the Company's product portfolio; expected costs to develop the IPR&D into commercially viable products and estimated cash flows from the products when completed; and discount rates. Management's estimates of value are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable. Assumptions may be incomplete or inaccurate, and unanticipated events and circumstances may occur which may cause actual realized values to be different from management's estimates.

GOODWILL AND INTANGIBLE ASSETS

Purchased intangible assets with finite lives are amortized over their estimated useful lives and are evaluated for impairment using a process similar to that used to evaluate other long-lived assets. Goodwill and indefinite lived intangible assets are not amortized and are tested annually in the fourth fiscal quarter or more frequently if indicators of potential impairment exist, using a fair-value-based approach.

The recoverability of goodwill is measured at the reporting unit level, which is defined as either an operating segment or one level below an operating segment. A component is a reporting unit when the component constitutes a business for which discreet financial information is available and segment management regularly reviews the operating results of the component. Components may be combined into one reporting unit when they have similar economic characteristics. We had three reporting units to which we allocated goodwill and intangible assets as of September 30, 2010, the date of our annual impairment test. Initially, our Company had only one reporting unit as we were created from a division of our former parent company, Cabot Corporation, and we identified associated goodwill and intangible assets under one reporting unit at that time. Other amounts of goodwill and intangible assets have been attributed to acquired businesses at the time of acquisition through the use of independent appraisal firms.

We have consistently determined the fair value of our reporting units using a discounted cash flow analysis of our projected future results. The recoverability of indefinite lived intangible assets is measured using the royalty savings method. Factors requiring significant judgment include assumptions related to future growth rates, discount factors, royalty rates and tax rates, among others. Changes in economic and operating conditions that occur after the annual impairment analysis or an interim impairment analysis that impact these assumptions may result in future impairment charges.

As a result of the review performed in the fourth quarter of fiscal 2010, we determined that there was no impairment of our goodwill and intangible assets as of September 30, 2010.

index

SHARE-BASED COMPENSATION

We record share-based compensation expense for all share-based awards, including stock option grants, restricted stock and restricted stock unit awards and employee stock purchases. We calculate share-based compensation expense using the straight-line approach based on awards expected to ultimately vest, which requires the use of an estimated forfeiture rate. Our estimated forfeiture rate is primarily based on historical experience, but may be revised in future periods if actual forfeitures differ from the estimate. We use the Black-Scholes option-pricing model to estimate the grant date fair value of our stock options and employee stock purchases. This model requires the input of highly subjective assumptions, including the price volatility of the underlying stock, the expected term of our stock options and the risk-free interest rate. A small change in the underlying assumptions can have a relatively large effect on the estimated valuation. We estimate the expected volatility of our stock based on a combination of our stock's historical volatility and the implied volatilities from actively-traded options on our stock. We calculate the expected term of our stock options using the simplified method, due to our limited amount of historical option exercise data, and we add a slight premium to this expected term for employees who meet the definition of retirement eligible pursuant to terms of their award agreements during the contractual term. The simplified method uses an average of the vesting term and the contractual term of the option to calculate the expected term. The risk-free rate is derived from the U.S. Treasury yield curve in effect at the time of grant.

The fair value of our restricted stock and restricted stock unit awards represents the closing price of our common stock on the date of grant.

ACCOUNTING FOR INCOME TAXES

Current income taxes are determined based on estimated taxes payable or refundable on tax returns for the current year. Deferred income taxes are determined using enacted tax rates for the effect of temporary differences between the book and tax bases of recorded assets and liabilities. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Provisions are made for both U.S. and any foreign deferred income tax liability or benefit. We recognize the tax benefit of an uncertain tax position only if it is more likely than not that the tax position will be sustained by the taxing authorities, based on the technical merits of the position. In fiscal 2010, we elected to permanently reinvest the earnings of certain of our foreign subsidiaries outside the U.S. rather than repatriating the earnings to the U.S. See Note 16 for additional information on income taxes.

COMMITMENTS AND CONTINGENCIES

We have entered into certain unconditional purchase obligations, which include noncancelable purchase commitments and take-or-pay arrangements with suppliers. We review our agreements on a quarterly basis and make an assessment of the likelihood of a shortfall in purchases and determine if it is necessary to record a liability. In addition, we are subject to the possibility of various loss contingencies arising in the ordinary course of business such as a legal proceeding or claim. An estimated loss contingency is accrued when it is probable that an asset has been impaired or a liability has been incurred and the amount of the loss can be reasonably estimated. We regularly evaluate current information available to us to determine whether such accruals should be adjusted and whether new accruals are required.

EFFECTS OF RECENT ACCOUNTING PRONOUNCEMENTS

See Note 2 to the Consolidated Financial Statements for a description of recent accounting pronouncements including the expected dates of adoption and effects on our results of operations, financial position and cash flows.

index

RESULTS OF OPERATIONS

The following table sets forth, for the periods indicated, the percentage of revenue of certain line items included in our historical statements of income:

	Year Ended September 30,		
	2010	2009	2008
Revenue	100.0%	100.0%	100.0%
Cost of goods sold	50.1	55.9	53.5
Gross profit	49.9	44.1	46.5
Research, development and technical	12.7	16.5	13.1
Selling and marketing	6.6	7.6	7.5
General and administrative	12.5	14.0	12.7
Purchased in-process research and development	-	0.5	-
Operating income	18.1	5.5	13.2
Other income (expense), net	(0.2)	0.2	1.4
Income before income taxes	17.9	5.7	14.6
Provision for income taxes	5.8	1.9	4.4
Net income	12.1 %	3.8 %	10.2 %

YEAR ENDED SEPTEMBER 30, 2010, VERSUS YEAR ENDED SEPTEMBER 30, 2009

REVENUE

Revenue was $408.2 million in fiscal 2010, which represented an increase of 40.1%, or $116.8 million, from fiscal 2009. The increase in revenue was driven by a $118.3 million increase in sales volume, a $4.8 million increase due to the effect of foreign exchange rate changes, and $2.6 million due to a slightly higher-priced product mix, partially offset by a decrease in revenue of $8.9 million due to a lower weighted average selling price for our CMP consumable products. We began to see improvement in economic and industry conditions during the second half of our fiscal 2009. These improvements, particularly in the semiconductor industry, continued through our fiscal 2010 and positively impacted the demand for our products. We noted some positive signs of growth in the semiconductor industry in the Overview section of this MD&A including: reports from customers indicate that capacity utilization in fabs is currently at an all-time high; semiconductor device inventories appear to be at an appropriate level; and capacity expansions by a number of semiconductor manufacturers are underway. However, we remain cautious regarding future demand trends over the near term as we are entering a calendar period of typically lower seasonal demand within the semiconductor industry and we cannot predict the exact timing and magnitude of a continued economic recovery.

COST OF GOODS SOLD

Total cost of goods sold was $204.7 million in fiscal 2010, which represented an increase of 25.6%, or $41.8 million, from fiscal 2009. The increase in cost of goods sold was primarily due to $59.4 million from increased sales volume due to the increased demand for our products associated with the economic and industry recovery, and an $8.4 million increase due to higher fixed costs. These costs were partially offset by a $16.2 million decrease due to higher utilization of our manufacturing capacity on the increased sales volume, and a $10.7 million benefit of a lower-cost product mix.

index

Metal oxides, such as silica and alumina, are significant raw materials that we use in many of our CMP slurries. In an effort to mitigate our risk to rising raw material costs and to increase supply assurance and quality performance requirements, we have entered into multi-year supply agreements with a number of suppliers. For more financial information about our supply contracts, see “Tabular Disclosure of Contractual Obligations” included in Item 7 of Part II of this Form 10-K.

Our need for additional quantities or different kinds of key raw materials in the future has required, and will continue to require, that we enter into new supply arrangements with third parties. Future arrangements may result in costs which are different from those in the existing agreements. In addition, energy costs may also impact the cost of raw materials, packaging, freight and labor costs. We also expect to continue to invest in our operations excellence initiative to improve product quality, reduce variability and improve product yields in our manufacturing process.

GROSS PROFIT

Our gross profit as a percentage of revenue was 49.9% in fiscal 2010 as compared to 44.1% for fiscal 2009. The increase in gross profit as a percentage of revenue was primarily due to the significant increase in sales volume and the related increased utilization of our manufacturing capacity, as well as a higher-valued product mix, partially offset by a decrease in the weighted average selling price of our CMP slurries and increased fixed manufacturing costs. We expect our gross profit percentage for full fiscal year 2011 to be in the range of 48% to 50%. However, we may experience fluctuations in our gross profit due to a number of factors, including the extent to which we utilize our manufacturing capacity and fluctuations in our product mix, which may cause our quarterly gross profit to be above or below this range.

RESEARCH, DEVELOPMENT AND TECHNICAL

Total research, development and technical expenses were $51.8 million in fiscal 2010, which represented an increase of 7.6%, or $3.7 million, from fiscal 2009. The increase was mainly due to $3.6 million in higher staffing-related costs, primarily related to our annual incentive bonus program, $0.6 million in higher travel-related costs, and $0.2 million in higher office equipment expenses, partially offset by the absence of $1.1 million in pre-tax impairment charges recorded on certain research and development equipment during fiscal 2009.

Our research, development and technical efforts are focused on the following main areas:

- Research related to fundamental CMP technology;
- Development and formulation of new and enhanced CMP consumable products, including collaborating on joint development projects with our customers;
- Process development to support rapid and effective commercialization of new products;
- Technical support of CMP products in our customers’ manufacturing facilities; and
- Evaluation and development of new polishing and metrology applications outside of the semiconductor industry.

SELLING AND MARKETING

Selling and marketing expenses were $26.9 million in fiscal 2010, which represented an increase of 20.9%, or $4.6 million, from fiscal 2009. The increase was primarily due to $2.6 million in higher staffing related costs, including costs associated with our annual incentive bonus program, $1.0 million in higher travel-related costs, $0.4 million in

higher depreciation expense, and $0.3 million in higher professional fees.

index

GENERAL AND ADMINISTRATIVE

General and administrative expenses were $50.8 million in fiscal 2010, which represented an increase of 25.0%, or $10.2 million, from fiscal 2009. The increase was mainly due to $6.0 million in higher staffing-related costs, primarily related to our annual incentive bonus program, $4.2 million in higher professional fees, including costs to enforce our intellectual property, and $0.5 million in higher travel-related expenses, partially offset by $0.9 million due to lower bad debt expense. See Part I, Item 3 entitled “Legal Proceedings” and Note 17 of the Notes to the Consolidated Financial Statements for more information on the enforcement of our intellectual property.

PURCHASED IN-PROCESS RESEARCH AND DEVELOPMENT

Purchased in-process research and development (IPR&D) expense was $1.4 million in fiscal 2009, related to the acquisition of Epoch in the second quarter of fiscal 2009. We did not make any acquisitions in fiscal 2010.

OTHER INCOME (EXPENSE), NET

Other expense was $0.7 million in fiscal 2010, compared to other income of $0.6 million during fiscal 2009. The decrease in other income was primarily due to $0.8 million in lower interest income resulting from lower interest rates on our cash balances and investments, and $0.7 million due to net unfavorable foreign exchange effects on revenues and expenses, primarily related to changes in the exchange rate of the Japanese yen to the U.S. dollar, net of the gains and losses incurred on forward foreign exchange contracts discussed in Note 10 of the Notes to the Consolidated Financial Statements.

PROVISION FOR INCOME TAXES

Our effective income tax rate was 32.5% in fiscal 2010 compared to 32.7% in fiscal 2009. The decreases in the effective tax rate in fiscal 2010 was primarily due to our election to permanently reinvest earnings from certain of our foreign subsidiaries outside of the U.S., as well as decreased tax expense related to share-based compensation. Increases in the effective tax rate in fiscal 2010 that partially offset these decreases included decreases in tax-exempt interest income and the present expiration of the research and experimentation tax credit effective December 31, 2009. As discussed above in the Overview section of this MD&A, our election to permanently reinvest earnings of certain of our foreign subsidiaries outside the U.S. reduced our effective tax rate in fiscal 2010 by 2.7 percentage points.

NET INCOME

Net income was $49.5 million in fiscal 2010, which represented an increase of 342.1%, or $38.3 million, from fiscal 2009 as a result of the factors discussed above. The election to permanently reinvest the earnings of certain of our foreign subsidiaries outside the U.S. increased net income by $2.0 million in fiscal 2010.

index

YEAR ENDED SEPTEMBER 30, 2009, VERSUS YEAR ENDED SEPTEMBER 30, 2008

REVENUE

Revenue was $291.4 million in fiscal 2009, which represented a decrease of 22.3%, or $83.7 million, from fiscal 2008. Of this decrease, $97.7 million was due to decreased sales volume driven by the significant weakening of demand for our products due to the global economic recession that we experienced during the first half of fiscal 2009, and $8.5 million due to product mix. These decreases in revenue were partially offset by $13.0 million in revenue from Epoch products, a $5.7 million revenue increase due to the effect of foreign exchange rate changes and $3.8 million due to a higher weighted-average selling price for our CMP consumable products. Despite the negative effects of the global economic recession on our slurry products for semiconductor applications and on our ESF business, our revenue from CMP polishing pads and slurries for data storage applications increased from the prior year. We believe a combination of improved underlying demand and inventory replenishment within the semiconductor industry positively impacted demand for our products during the second half of fiscal 2009 as our revenues improved significantly from the revenues recorded in the first half of the fiscal year.

COST OF GOODS SOLD

Total cost of goods sold was $162.9 million in fiscal 2009, which represented a decrease of 18.8%, or $37.7 million, from fiscal 2008. The decrease in cost of goods sold was primarily due to $53.2 million from decreased sales volume due to the global economic recession, $9.8 million from lower fixed manufacturing costs and $5.9 million due to higher manufacturing yields in our CMP slurry and pad production. These decreases were partially offset by a $16.0 million increase due to a higher-cost product mix, a $9.2 million increase due to lower utilization of our manufacturing capacity on the decreased level of sales, a $4.6 million increase due to the effect of foreign exchange rate changes and a $2.0 million increase in certain other manufacturing variances. We implemented a number of cost saving initiatives during the first half of fiscal 2009. For example, we shortened work schedules in our manufacturing operations on a global basis to more closely match production with demand, but we maintained the flexibility to increase our production levels to meet the increased customer demand for our products that we experienced during the second half of fiscal 2009.

GROSS PROFIT

Our gross profit as a percentage of revenue was 44.1% in fiscal 2009 as compared to 46.5% for fiscal 2008. The decrease in gross profit expressed as a percentage of revenue was primarily due to the underutilization of our manufacturing capacity on the significantly lower level of sales and a higher-cost product mix, partially offset by lower fixed manufacturing costs and favorable production yields.

RESEARCH, DEVELOPMENT AND TECHNICAL

Total research, development and technical expenses were $48.2 million in fiscal 2009, which represented a decrease of 2.0%, or $1.0 million, from fiscal 2008. The decrease was primarily related to $1.7 million in lower staffing-related costs, $0.7 million in lower depreciation expense and $0.4 million in lower travel-related costs. These cost decreases were partially offset by $1.2 million in pre-tax impairments recorded in fiscal 2009 on certain research and development equipment and $0.4 million in higher expenses for laboratory supplies.

34

index

SELLING AND MARKETING

Selling and marketing expenses were $22.2 million in fiscal 2009, which represented a decrease of 21.4%, or $6.0 million, from fiscal 2008. The decrease was primarily due to $3.9 million in lower staffing related costs, $1.0 million in lower travel-related costs, $0.3 million in lower advertising and trade show costs and $0.3 million in lower professional fees.

GENERAL AND ADMINISTRATIVE

General and administrative expenses were $40.6 million in fiscal 2009, which represented a decrease of 14.6%, or $7.0 million, from fiscal 2008. The decrease resulted primarily from $4.0 million in lower staffing-related costs, primarily related to our annual incentive bonus program and lower share-based compensation expense, and $3.7 million in lower professional fees, including costs to enforce our intellectual property. These cost savings were partially offset by a $0.9 million increase in our allowance for doubtful accounts due to customer bankruptcies and increased risks relating to customer collections due to the continued uncertainty in the global economy.

PURCHASED IN-PROCESS RESEARCH AND DEVELOPMENT

Purchased in-process research and development (IPR&D) expense was $1.4 million in fiscal 2009, related to the acquisition of Epoch in the second quarter of fiscal 2009. We did not make any acquisitions in fiscal 2008.

OTHER INCOME, NET

Other income was $0.6 million in fiscal 2009, which represented a decrease of 89.0%, or $4.9 million, from fiscal 2008. The decrease in other income was primarily due to $4.5 million in lower interest income resulting from lower interest rates on our lower average balances of cash and short-term investments. We monetized the majority of our short-term investments in ARS during fiscal 2008 and reinvested these funds into money market investments which earn interest at lower rates.

PROVISION FOR INCOME TAXES

Our effective income tax rate was 32.7% in fiscal 2009 compared to 30.2% in fiscal 2008. The increase in the effective tax rate in fiscal 2009 was primarily due to increased tax expense related to share-based compensation and a decrease in tax-exempt interest income, partially offset by increased research and experimentation tax credits.

NET INCOME

Net income was $11.2 million in fiscal 2009, which represented a decrease of 70.8%, or $27.2 million, from fiscal 2008 as a result of the factors discussed above. The acquisition of Epoch was accretive to earnings in fiscal 2009.

35

index

LIQUIDITY AND CAPITAL RESOURCES

We had cash flows from operating activities of $88.4 million in fiscal 2010, $44.7 million in fiscal 2009 and $70.8 million in fiscal 2008. Our cash provided by operating activities in fiscal 2010 originated from $49.5 million in net income, $34.2 million in non-cash items, and a $4.7 million increase in cash flow due to a net decrease in working capital. The increase in cash from operations in fiscal 2010 from fiscal 2009 was primarily due to increased net income in fiscal 2010 due to the improved economic and industry conditions and the timing of accounts payable and accrued liability payments, including the accrual of our annual incentive bonus program expenses related to fiscal 2010. These were partially offset by increases in fiscal 2010 in our other current assets, primarily due to income taxes receivable, and our inventory levels based on the increased demand for our products.

We used $11.9 million in investing activities in fiscal 2010 representing $11.7 million in purchases of property, plant and equipment and $0.2 million in other investing cash outflows. We used $69.0 million in investing activities in fiscal 2009, representing $60.5 million used for our acquisition of Epoch, net of $6.2 million in cash acquired, and $8.5 million in purchases of property, plant and equipment. Cash flows provided by investing activities in fiscal 2008 were $130.3 million. Net sales of short-term investments were $149.5 million as we monetized the majority of our ARS during fiscal 2008 (as discussed below). This cash inflow was partially offset by $19.2 million in cash used for purchases of property, plant and equipment primarily for the purchase and installation of a 300-millimeter polishing tool and related metrology equipment for our Asia Pacific technology center and building improvements and equipment to increase our pad production capabilities. See Note 3 and Note 7 of the Notes to the Consolidated Financial Statements for more information on business combinations and intangible assets. We estimate that our total capital expenditures in fiscal 2011 will be approximately $25.0 million.

In fiscal 2010, cash flows used in financing activities were $23.5 million. We used $25.0 million to repurchase common stock under our share repurchase plan, $0.8 million to repurchase common stock pursuant to the terms of our Second Amended and Restated Cabot Microelectronics Corporation 2000 Equity Incentive Plan (EIP) for shares withheld from employees and purchased by the Company to cover payroll taxes on the vesting of restricted stock granted under the EIP, and we made $1.2 million in principal payments under capital lease obligations. These cash outflows were partially offset by $3.4 million received from the issuance of common stock related to the exercise of stock options granted under our EIP and our 2007 Employee Stock Purchase Plan, as amended and restated January 1, 2010 (2007 Employee Stock Purchase Plan). In fiscal 2009, cash flows provided by financing activities were $0.7 million. We received $2.2 million from the issuance of common stock related to the exercise of stock options granted under our EIP and our 2007 Employee Stock Purchase Plan. These cash inflows were partially offset by $1.1 million in principal payments on capital leases and $0.3 million in repurchases of common stock pursuant to the terms of our EIP for shares withheld to cover payroll taxes on the vesting of restricted stock granted under the EIP. In fiscal 2008, cash flows used in financing activities were $35.2 million. We used $39.0 million to repurchase common stock under our share repurchase programs and we made $1.1 million in principal payments under capital lease obligations. These cash outflows were partially offset by $4.9 million received from the issuance of common stock related to the exercise of stock options and shares issued under our 2007 Employee Stock Purchase Plan.

In January 2008, the Board of Directors authorized a share repurchase program for up to $75.0 million of our outstanding common stock. Shares are repurchased from time to time, depending on market conditions, in open market transactions, at management’s discretion. We fund share repurchases from our existing cash balance. The program became effective on the authorization date and may be suspended or terminated at any time, at the Company’s discretion. There was $25.0 million remaining on this authorization as of September 30, 2010.

We have an unsecured revolving credit facility of $50.0 million with an option to increase the facility to $80.0 million. Pursuant to an amendment we entered into in October 2008, the agreement extends to November 2011, with

an option to renew for two additional one-year terms. In November 2010, the scheduled termination date was extended by one year through October 2012. The amendment did not include any other material changes to the terms of the credit agreement. Under this agreement, interest accrues on any outstanding balance at either the lending institution's base rate or the Eurodollar rate plus an applicable margin. We also pay a non-use fee. Loans under this facility are intended primarily for general corporate purposes, including financing working capital, capital expenditures and acquisitions. The credit agreement also contains various covenants. No amounts are currently outstanding under this credit facility and we believe we are currently in compliance with the covenants.

index

As discussed in Note 3 of the Notes to the Consolidated Financial Statements, we completed the acquisition of Epoch during our second quarter of fiscal 2009. The total cash outlay was $60.5 million representing $59.4 million in cash paid to Epoch's shareholders on the first closing date of February 27, 2009, $0.7 million in cash paid for transaction costs and $6.6 million paid to Eternal on the second closing date in August 2010, which had been in escrow in Taiwan, partially offset by $6.2 million in cash acquired with Epoch.

At September 30, 2010, we owned two ARS with an estimated fair value of $8.1 million ($8.3 million par value). We successfully monetized at par value the majority of ARS we owned in fiscal 2008 and reinvested these funds in money market accounts. We believe that we will be able to monetize the remaining two ARS at par, either through successful auctions, refinancing of the underlying debt by the issuers, payment by the bond insurance carrier, or holding the securities to maturity. However, we believe it is not likely that our ARS will be monetized within the next operating cycle, which for us is generally one year, so we have classified these securities as long-term assets.

We believe that our current balance of cash and long-term investments, cash generated by our operations and available borrowings under our revolving credit facility will be sufficient to fund our operations, expected capital expenditures, merger and acquisition activities, and share repurchases for the foreseeable future. However, we plan to further expand our business; therefore, we may need to raise additional funds in the future through equity or debt financing, strategic relationships or other arrangements. Depending upon future conditions in the capital and credit markets, we could encounter difficulty securing additional financing in the type or amount necessary to pursue these objectives.

OFF-BALANCE SHEET ARRANGEMENTS

At September 30, 2010 and 2009, we did not have any unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which might have been established for the purpose of facilitating off-balance sheet arrangements.

TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

The following summarizes our contractual obligations at September 30, 2010, and the effect such obligations are expected to have on our liquidity and cash flow in future periods.

CONTRACTUAL OBLIGATIONS (In millions)	Total	Less Than 1 Year	1-3 Years	3-5 Years	After 5 Years
Capital lease obligations	$ 1.3	$ 1.3	$ -	$ -	$ -
Operating leases	8.8	2.9	3.0	1.6	1.3
Purchase obligations	29.4	27.9	0.5	0.3	0.7
Other long-term liabilities	4.1	-	-	-	4.1
Total contractual obligations	$ 43.6	$ 32.1	$ 3.5	$ 1.9	$ 6.1

CAPITAL LEASE OBLIGATIONS

In December 2001, we entered into a fumed alumina supply agreement with Cabot Corporation, our former parent company which is not a related party, under which we agreed to pay Cabot Corporation for the expansion of a fumed alumina manufacturing facility in Tuscola, Illinois. The arrangement for the facility has been treated as a capital lease for accounting purposes and the present value of the minimum quarterly payments resulted in an initial $9.8 million lease obligation and related leased asset. The initial term of the agreement expired in December 2006, but it was renewed for another five-year term ending in December 2011.

index

OPERATING LEASES

We lease certain vehicles, warehouse facilities, office space, machinery and equipment under cancelable and noncancelable operating leases, most of which expire within ten years of their respective commencement dates and may be renewed by us. Operating lease obligations also include certain costs associated with our pad finishing operation located at Taiwan Semiconductor Manufacturing Company, which are accounted for as operating lease payments.

PURCHASE OBLIGATIONS

We have entered into multi-year supply agreements with Cabot Corporation for the purchase of certain fumed metal oxides. We purchase fumed silica primarily under a fumed silica supply agreement with Cabot Corporation that became effective in January 2004, and was amended in September 2006 and in April 2008, the latter of which extended the termination date of the agreement from December 2009 to December 2012 and also changed the pricing and some other non-material terms of the agreement to the benefit of both parties. The agreement will automatically renew unless either party gives certain notice of non-renewal. We are generally obligated to purchase fumed silica for at least 90% of our six-month volume forecast for certain of our slurry products, to purchase certain non-material minimum quantities every six months, and to pay for the shortfall if we purchase less than these amounts. We currently anticipate meeting all minimum forecasted purchase volume requirements. Since December 2001, we have purchased fumed alumina primarily under a fumed alumina supply agreement with Cabot Corporation that has an original term ending in December 2006 and was renewed for another five-year term ending in December 2011. Prices charged for fumed alumina from Cabot Corporation are pursuant to the terms of the supply agreement and may fluctuate based upon the actual costs incurred by Cabot Corporation in the manufacture of fumed alumina. Under these agreements, Cabot Corporation continues to be the exclusive supplier of certain quantities and types of fumed silica and fumed alumina for certain products we produced as of the effective dates of these agreements. Subject to certain terms, Cabot Corporation is prohibited from selling certain types of fumed alumina to third parties for use in CMP applications, as well as engaging itself in CMP applications. If Cabot Corporation fails to supply us with our requirements for any reason, including if we require product specification changes that Cabot Corporation cannot meet, we have the right to purchase products meeting those specifications from other suppliers. We also may purchase fumed alumina and fumed silica from other suppliers for certain products, including those commercialized after certain dates related to these agreements and their amendments. Purchase obligations include an aggregate amount of $7.4 million of contractual commitments related to our Cabot Corporation agreements for fumed silica and fumed alumina.

OTHER LONG-TERM LIABILITIES

Other long-term liabilities at September 30, 2010 consist of liabilities related to our Japan retirement allowance and our liability for uncertain tax positions.

index

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

EFFECT OF CURRENCY EXCHANGE RATES AND EXCHANGE RATE RISK MANAGEMENT

We conduct business operations outside of the United States through our foreign operations. Some of our foreign operations maintain their accounting records in their local currencies. Consequently, period to period comparability of results of operations is affected by fluctuations in exchange rates. The primary currencies to which we have exposure are the Japanese Yen and the New Taiwan Dollar and, to a lesser extent, the British Pound and the Euro. From time to time we enter into forward contracts in an effort to manage foreign currency exchange exposure. However, we may be unable to hedge these exposures completely. During fiscal 2010, we recorded $4.6 million in foreign currency translation gains that are included in other comprehensive income on our Consolidated Balance Sheet. These gains primarily relate to general fluctuations of the U.S. dollar relative to the Japanese yen. Approximately 18% of our revenue is transacted in currencies other than the U.S. dollar. However, we also incur expenses in foreign countries that are transacted in currencies other than the U.S. dollar, so the net exposure on the Consolidated Statement of Income is limited. We do not currently enter into forward exchange contracts or other derivative instruments for speculative or trading purposes.

MARKET RISK AND SENSITIVITY ANALYSIS RELATED TO FOREIGN EXCHANGE RATE RISK

We have performed a sensitivity analysis assuming a hypothetical 10% adverse movement in foreign exchange rates. As of September 30, 2010, the analysis demonstrated that such market movements would not have a material adverse effect on our consolidated financial position, results of operations or cash flows over a one-year period. Actual gains and losses in the future may differ materially from this analysis based on changes in the timing and amount of foreign currency rate movements and our actual exposures.

MARKET RISK RELATED TO INVESTMENTS IN AUCTION RATE SECURITIES

At September 30, 2010, we owned two auction rate securities (ARS) with a total estimated fair value of $8.1 million ($8.3 million par value) which were classified as other long-term assets on our Consolidated Balance Sheet. Beginning in 2008, general uncertainties in the global credit markets caused widespread ARS auction failures as the number of securities submitted for sale exceeded the number of securities buyers were willing to purchase. As a result, the short-term liquidity of the ARS market has been adversely affected. For more information on our ARS, see “Risk Factors” set forth in Part I, Item 1A, “Critical Accounting Policies and Estimates” in Management’s Discussion and Analysis of Financial Condition and Results of Operations in Part II, Item 7, and Notes 4 and 8 of the Notes to the Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

index

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULE

All other schedules are omitted, because they are not required, are not applicable, or the information is included in the consolidated financial statements and notes thereto.

index

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors of
Cabot Microelectronics Corporation:

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of Cabot Microelectronics Corporation and its subsidiaries at September 30, 2010 and 2009, and the results of their operations and their cash flows for each of the three years in the period ended September 30, 2010 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2010, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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

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

PricewaterhouseCoopers LLP
Chicago, IL
November 23, 2010

index

CABOT MICROELECTRONICS CORPORATION
CONSOLIDATED STATEMENTS OF INCOME
(In thousands, except per share amounts)

	Year Ended September 30,		
	2010	2009	2008
Revenue	$408,201	$291,372	$375,069
Cost of goods sold	204,704	162,918	200,596
Gross profit	203,497	128,454	174,473
Operating expenses:			
Research, development and technical	51,818	48,150	49,155
Selling and marketing	26,885	22,239	28,281
General and administrative	50,783	40,632	47,595
Purchased in-process research and development	-	1,410	-
Total operating expenses	129,486	112,431	125,031
Operating income	74,011	16,023	49,442
Other income (expense), net	(734)	599	5,448
Income before income taxes	73,277	16,622	54,890
Provision for income taxes	23,819	5,435	16,552
Net income	$49,458	$11,187	$38,338
Basic earnings per share	$2.14	$0.48	$1.64
Weighted average basic shares outstanding	23,084	23,079	23,315
Diluted earnings per share	$2.13	$0.48	$1.64
Weighted average diluted shares outstanding	23,273	23,096	23,348

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

index

CABOT MICROELECTRONICS CORPORATION
CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share amounts)

	September 30, 2010	2009
ASSETS		
Current assets:		
Cash and cash equivalents	$254,164	$199,952
Accounts receivable, less allowance for doubtful accounts of $1,121 at September 30, 2010, and $1,277 at September 30, 2009	57,456	53,538
Inventories	51,896	44,940
Prepaid expenses and other current assets	13,973	14,428
Deferred income taxes	3,540	3,994
Total current assets	381,029	316,852
Property, plant and equipment, net	115,811	122,782
Goodwill	40,436	39,732
Other intangible assets, net	17,089	18,741
Deferred income taxes	8,044	7,953
Other long-term assets	9,347	9,084
Total assets	$571,756	$515,144
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$17,521	$15,182
Capital lease obligations	1,296	1,210
Accrued expenses and other current liabilities	34,513	23,144
Total current liabilities	53,330	39,536
Capital lease obligations, net of current portion	12	1,308
Other long-term liabilities	4,071	3,571
Total liabilities	57,413	44,415
Commitments and contingencies (Note 17)		
Stockholders' equity:		
Common stock:		
Authorized: 200,000,000 shares, $0.001 par value; Issued: 26,384,715 shares at September 30, 2010, and 26,143,116 shares at September 30, 2009	26	26
Capital in excess of par value of common stock	228,103	213,031
Retained earnings	383,767	334,309
Accumulated other comprehensive income	18,538	13,690
Treasury stock at cost, 3,446,069 shares at September 30, 2010, and 2,698,234 shares at September 30, 2009	(116,091)	(90,327)
Total stockholders' equity	514,343	470,729
Total liabilities and stockholders' equity	$571,756	$515,144

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

index

CABOT MICROELECTRONICS CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended September 30,		
	2010	2009	2008
Cash flows from operating activities:			
Net income	$49,458	$11,187	$38,338
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	24,994	24,832	25,951
Purchased in-process research and development	-	1,410	-
Provision for doubtful accounts	(113)	856	(97)
Share-based compensation expense	11,643	12,802	15,067
Deferred income tax benefit	(2,150)	(2,064)	(6,753)
Non-cash foreign exchange gain	(498)	(2,731)	(2,592)
Loss on disposal of property, plant and equipment	107	235	598
Impairment of property, plant and equipment	158	1,245	4
Other	92	938	1,738
Changes in operating assets and liabilities:			
Accounts receivable	(1,985)	(8,519)	11,849
Inventories	(5,715)	8,084	(9,268)
Prepaid expenses and other assets	(6,021)	4,889	(4,921)
Accounts payable	1,555	(464)	(2,472)
Accrued expenses, income taxes payable and other liabilities	16,860	(8,003)	3,397
Net cash provided by operating activities	88,385	44,697	70,839
Cash flows from investing activities:			
Additions to property, plant and equipment	(11,657)	(8,493)	(19,232)
Proceeds from the sale of property, plant and equipment	2	1	42
Acquisition of business, net of cash acquired	-	(60,520)	-
Purchase of intangible assets	(315)	-	-
Purchases of investments	-	-	(233,775)
Proceeds from the sale of investments	50	50	383,290
Net cash provided by (used in) investing activities	(11,920)	(68,962)	130,325
Cash flows from financing activities:			
Repurchases of common stock	(25,764)	(336)	(39,001)
Net proceeds from issuance of stock	3,429	2,206	4,889
Principal payments under capital lease obligations	(1,210)	(1,129)	(1,072)
Net cash provided by (used in) financing activities	(23,545)	741	(35,184)
Effect of exchange rate changes on cash	1,292	2,009	930
Increase (decrease) in cash	54,212	(21,515)	166,910
Cash and cash equivalents at beginning of year	199,952	221,467	54,557
Cash and cash equivalents at end of year	$254,164	$199,952	$221,467
Supplemental disclosure of cash flow information:			
Cash paid for income taxes	$29,174	$4,283	$26,459

Cash paid for interest	$257	$338	$420
Supplemental disclosure of non-cash investing and financing activities:			
Purchases of property, plant and equipment in accrued liabilities and accounts payable at the end of period	$974	$429	$391
Issuance of restricted stock	$4,985	$4,209	$4,850
Assets acquired under capital lease	$-	$-	$44

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

index

CABOT MICROELECTRONICS CORPORATION
CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY
(In thousands)

	Common Stock	Capital In Excess Of Par	Retained Earnings	Accumulated Other Comprehensive Income	Comprehensive Income (net of tax)	Treasury Stock	Total
Balance at September 30, 2007	$ 24	$ 178,068	$ 284,843	$ 1,259		$ (50,990)	$ 413,204
Issuance of Cabot Microelectronics restricted stock under deposit share plan		165					165
Issuance of Cabot Microelectronics stock under Employee Stock Purchase Plan		1,596					1,596
Share-based compensation expense		15,067					15,067
Exercise of stock options	2	3,126					3,128
Repurchases of common stock under share repurchase plans, at cost						(39,001)	(39,001)
Net income			38,338		$ 38,338		
Foreign currency translation adjustment				2,341	2,341		
Unrealized loss on investments				(151)	(151)		
Minimum pension liability adjustment				(395)	(395)		
Total comprehensive income					$ 40,133		40,133
Cumulative effect adjustment related to accounting for unrecognized tax positions			(59)				(59)
Balance at September 30, 2008	$ 26	$ 198,022	$ 323,122	$ 3,054		$ (89,991)	$ 434,233

Share-based compensation expense		$ 12,802				$ 12,802
Repurchases of common stock - other, at cost					$ (336)	$ (336)
Exercise of stock options		680				680
Issuance of Cabot Microelectronics restricted stock under deposit share plan		170				170
Issuance of Cabot Microelectronics stock under Employee Stock Purchase Plan		1,357				1,357
Net income			$ 11,187	$ 11,187		
Foreign currency translation adjustment				10,275	10,275	
Minimum pension liability adjustment				361	361	
Total comprehensive income					$ 21,823	21,823
Balance at September 30, 2009	$ 26	$ 213,031	$ 334,309	$ 13,690		$ (90,327)	$ 470,729
Share-based compensation expense		11,643				11,643
Repurchases of common stock under share repurchase plans, at cost						(24,998)	(24,998)
Repurchases of common stock - other, at cost						(766)	(766)
Exercise of stock options		2,283				2,283
Issuance of Cabot Microelectronics restricted stock under deposit share plan		45				45
Issuance of Cabot Microelectronics stock under Employee Stock Purchase Plan		1,101				1,101
Net income			49,458		$ 49,458	
Foreign currency translation adjustment				4,580	4,580	

Minimum pension liability adjustment				268	268		
Total comprehensive income					$ 54,306		54,306
Balance at September 30, 2010	$ 26	$ 228,103	$ 383,767	$ 18,538		$ (116,091)	$ 514,343

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

index

CABOT MICROELECTRONICS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In thousands, except share and per share amounts)

1. BACKGROUND AND BASIS OF PRESENTATION

Cabot Microelectronics Corporation ("Cabot Microelectronics", "the Company", "us", "we" or "our") supplies high-performance polishing slurries used in the manufacture of advanced integrated circuit (IC) devices within the semiconductor industry, in a process called chemical mechanical planarization (CMP). CMP polishes surfaces at an atomic level, thereby enabling IC device manufacturers to produce smaller, faster and more complex IC devices with fewer defects. We believe we are the world's leading supplier of CMP slurries for IC devices. We also develop, manufacture and sell CMP slurries for polishing certain components in hard disk drives, specifically rigid disk substrates and magnetic heads, and we believe we are one of the leading suppliers in this area. In addition, we develop, produce and sell CMP polishing pads, which are used in conjunction with slurries in the CMP process. We also continue to pursue other demanding surface modification applications through our Engineered Surface Finishes (ESF) business for which we believe we can leverage our expertise in CMP consumables for the semiconductor industry to develop products for demanding polishing applications in other industries.

The audited consolidated financial statements have been prepared by us pursuant to the rules of the Securities and Exchange Commission (SEC) and accounting principles generally accepted in the United States of America. We operate predominantly in one industry segment - the development, manufacture, and sale of CMP consumables.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include the accounts of Cabot Microelectronics and its subsidiaries. All intercompany transactions and balances between the companies have been eliminated as of September 30, 2010.

USE OF ESTIMATES

The preparation of financial statements and related disclosures in conformity with accounting principles generally accepted in the United States of America requires management to make judgments, assumptions and estimates that affect the amounts reported in the consolidated financial statements and accompanying notes. The accounting estimates that require management's most difficult and subjective judgments include, but are not limited to, those estimates related to bad debt expense, warranty obligations, inventory valuation, valuation and classification of auction rate securities, impairment of long-lived assets and investments, business combinations, goodwill, other intangible assets, share-based compensation, income taxes and contingencies. We base our estimates on historical experience, current conditions and on various other assumptions that we believe are reasonable under the circumstances. However, future events are subject to change and estimates and judgments routinely require adjustment. Actual results may differ from these estimates under different assumptions or conditions.

CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS

We consider investments in all highly liquid financial instruments with original maturities of three months or less to be cash equivalents. Short-term investments include securities generally having maturities of 90 days to one year. We did not own any securities that were considered short-term as of September 30, 2010 or 2009. See Note 4 for a more detailed discussion of other financial instruments.

index

ACCOUNTS RECEIVABLE AND ALLOWANCE FOR DOUBTFUL ACCOUNTS

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. We maintain an allowance for doubtful accounts for estimated losses resulting from the potential inability of our customers to make required payments. Our allowance for doubtful accounts is based on historical collection experience, adjusted for any specific known conditions or circumstances such as customer bankruptcies and increased risk due to economic conditions. Uncollectible account balances are charged against the allowance when we believe that it is probable that the receivable will not be recovered. See Schedule II under Part IV, Item 15 of this Form 10-K for more information on our allowance for doubtful accounts.

CONCENTRATION OF CREDIT RISK

Financial instruments that subject us to concentrations of credit risk consist principally of accounts receivable. We perform ongoing credit evaluations of our customers' financial conditions and generally do not require collateral to secure accounts receivable. Our exposure to credit risk associated with nonpayment is affected principally by conditions or occurrences within the semiconductor industry and global economy. We historically have not experienced material losses relating to accounts receivable from individual customers or groups of customers.

Customers who represented more than 10% of revenue were as follows:

	Year Ended September 30,		
	2010	2009	2008
Taiwan Semiconductor Manufacturing Co. (TSMC)	18 %	17 %	17 %
United Microelectronics Corporation (UMC)	11 %	*	*
* denotes less than ten percent of total			

TSMC accounted for 13.6% and 14.0% of net accounts receivable at September 30, 2010 and 2009, respectively. UMC accounted for 9.2% of net accounts receivable at September 30, 2010.

FAIR VALUES OF FINANCIAL INSTRUMENTS

The recorded amounts of cash, accounts receivable, and accounts payable approximate their fair values due to their short-term, highly liquid characteristics. The fair value of our long-term auction rate securities (ARS) is determined through discounted cash flow analyses. See Note 4 for a more detailed discussion of the fair value of financial instruments.

INVENTORIES

Inventories are stated at the lower of cost, determined on the first-in, first-out (FIFO) basis, or market. Finished goods and work in process inventories include material, labor and manufacturing overhead costs. We regularly review and write down the value of inventory as required for estimated obsolescence or unmarketability. An inventory reserve is

maintained based upon a historical percentage of actual inventories written off applied against inventory value at the end of the period, adjusted for known conditions and circumstances.

index

PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are recorded at cost. Depreciation is based on the following estimated useful lives of the assets using the straight-line method:

Buildings	15-25 years
Machinery and equipment	3-10 years
Furniture and fixtures	5-10 years
Information systems	3-5 years
Assets under capital leases	Term of lease or estimated useful life

Expenditures for repairs and maintenance are charged to expense as incurred. Expenditures for major renewals and betterments are capitalized and depreciated over the remaining useful lives. As assets are retired or sold, the related cost and accumulated depreciation are removed from the accounts and any resulting gain or loss is included in the results of operations. Costs related to the design and development of internal use software are capitalized.

IMPAIRMENT OF LONG-LIVED ASSETS

Reviews are regularly performed to determine whether facts and circumstances exist that indicate the carrying amount of assets may not be recoverable or the useful life is shorter than originally estimated. Asset recoverability assessment begins by comparing the projected undiscounted cash flows associated with the related asset or group of assets over their remaining lives against their respective carrying amounts. Impairment, if any, is based on the excess of the carrying amount over the fair value of those assets. If assets are determined to be recoverable, but their useful lives are shorter than originally estimated, the net book value of the asset is depreciated over the newly determined remaining useful life.

GOODWILL AND INTANGIBLE ASSETS

We amortize intangible assets with finite lives over their estimated useful lives, which range from two to ten and one-half years. Intangible assets with finite lives are reviewed for impairment using a process similar to that used to evaluate other long-lived assets. Goodwill and indefinite lived intangible assets are not amortized and are tested annually in the fourth fiscal quarter or more frequently if indicators of potential impairment exist, using a fair-value-based approach. The recoverability of goodwill is measured at the reporting unit level, which is defined as either an operating segment or one level below an operating segment, referred to as a component. A component is a reporting unit when the component constitutes a business for which discreet financial information is available and segment management regularly reviews the operating results of the component. Components may be combined into one reporting unit when they have similar economic characteristics. We had three reporting units to which we allocated goodwill and intangible assets as of September 30, 2010. Goodwill impairment testing requires a comparison of the fair value of each reporting unit to the carrying value. If the carrying value exceeds fair value, goodwill is considered impaired. The amount of the impairment is the difference between the carrying value of goodwill and the “implied” fair value. The fair value of the reporting unit is determined using a discounted cash flow analysis of our projected future results. The recoverability of indefinite lived intangible assets is measured using the royalty savings method, which requires a comparison between the fair value of the discounted royalty savings and the carrying value of the assets. We determined that goodwill and other intangible assets were not impaired as of September 30, 2010.

WARRANTY RESERVE

We maintain a warranty reserve that reflects management's best estimate of the cost to replace product that does not meet customers' specifications and performance requirements. The warranty reserve is based upon a historical product return rate, adjusted for any specific known conditions or circumstances. Adjustments to the warranty reserve are recorded in cost of goods sold.

index

FOREIGN CURRENCY TRANSLATION

Certain operating activities in Asia and Europe are denominated in local currency, considered to be the functional currency. Assets and liabilities of these operations are translated using exchange rates in effect at the end of the year, and revenue and costs are translated using weighted average exchange rates for the year. The related translation adjustments are reported in comprehensive income in stockholders' equity.

FOREIGN EXCHANGE MANAGEMENT

We transact business in various foreign currencies, primarily the Japanese Yen, New Taiwan Dollar, British Pound and the Euro. Our exposure to foreign currency exchange risks has not been significant because a large portion of our business is denominated in U.S. dollars. Periodically we enter into forward foreign exchange contracts in an effort to mitigate the risks associated with currency fluctuations on certain foreign currency balance sheet exposures. Our foreign exchange contracts do not qualify for hedge accounting under the accounting rules for derivative instruments. See Note 10 for more a more detailed discussion of derivative financial instruments.

INTERCOMPANY LOAN ACCOUNTING

We maintain intercompany loan agreements with our wholly-owned subsidiary, Nihon Cabot Microelectronics K.K. ("the K.K."), under which we provided funds to the K.K. to finance the purchase of certain assets from our former Japanese branch at the time of the establishment of this subsidiary, for the purchase of land adjacent to our Geino, Japan, facility, for the construction of our Asia Pacific technology center, and for the purchase of a 300 millimeter polishing tool and related metrology equipment, all of which are part of the K.K., as well as for general business purposes. Since settlement of the notes is expected in the foreseeable future, and our subsidiary has been consistently making timely payments on the loans, the loans are considered foreign-currency transactions. Therefore the associated foreign exchange gains and losses are recognized as other income or expense rather than being deferred in the cumulative translation account in other comprehensive income.

PURCHASE COMMITMENTS

We have entered into unconditional purchase obligations, which include noncancelable purchase commitments and take-or-pay arrangements with suppliers. We review our agreements and make an assessment of the likelihood of a shortfall in purchases and determine if it is necessary to record a liability.

REVENUE RECOGNITION

Revenue from CMP consumable products is recognized when title is transferred to the customer, provided acceptance and collectibility are reasonably assured. Title transfer generally occurs upon shipment to the customer or when inventory held on consignment is consumed by the customer, subject to the terms and conditions of the particular customer arrangement. We have consignment agreements with a number of our customers that require, at a minimum, monthly consumption reports that enable us to record revenue and inventory usage in the appropriate period.

We market our products through distributors in a few areas of the world. We recognize revenue upon shipment and when title is transferred to the distributor. We do not have any arrangements with distributors that include payment terms, rights of return, or rights of exchange outside the normal course of business, or any other significant matters that would impact the timing of revenue recognition.

Within our Engineered Surface Finishes (ESF) business, sales of equipment are recorded as revenue upon delivery. Amounts allocated to installation and training are deferred until those services are provided and are not material.

Revenues are reported net of any value-added tax or other such tax assessed by a governmental authority on our revenue-producing activities.

index

SHIPPING AND HANDLING

Costs related to shipping and handling are included in cost of goods sold.

RESEARCH, DEVELOPMENT AND TECHNICAL

Research, development and technical costs are expensed as incurred and consist primarily of staffing costs, materials and supplies, depreciation, utilities and other facilities costs.

INCOME TAXES

Current income taxes are determined based on estimated taxes payable or refundable on tax returns for the current year. Deferred income taxes are determined using enacted tax rates for the effect of temporary differences between the book and tax bases of recorded assets and liabilities. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Provisions are made for both U.S. and any foreign deferred income tax liability or benefit. We recognize the tax benefit of an uncertain tax position only if it is more likely than not that the tax position will be sustained by the taxing authorities, based on the technical merits of the position. In fiscal 2010, we elected to permanently reinvest the earnings of certain of our foreign subsidiaries outside the U.S. rather than repatriating the earnings to the U.S. See Note 16 for additional information on income taxes.

SHARE-BASED COMPENSATION

We record share-based compensation expense for all share-based awards, including stock option grants, restricted stock and restricted stock unit awards and employee stock purchases. We calculate share-based compensation expense using the straight-line approach based on awards ultimately expected to vest, which requires the use of an estimated forfeiture rate. Our estimated forfeiture rate is primarily based on historical experience, but may be revised in future periods if actual forfeitures differ from the estimate. We use the Black-Scholes option-pricing model to estimate the grant date fair value of our stock options and employee stock purchases. This model requires the input of highly subjective assumptions, including the option's expected term, the price volatility of the underlying stock, the risk-free interest rate and the expected dividend rate, if any. A small change in the underlying assumptions can have a relatively large effect on the estimated valuation. We estimate the expected volatility of our stock based on a combination of our stock's historical volatility and the implied volatilities from actively-traded options on our stock. We calculate the expected term of our stock options using the simplified method, due to our limited amount of historical option exercise data, and we add a slight premium to this expected term for employees who would meet the definition of retirement eligible pursuant to the terms of their grant agreements during the contractual term of the grant. The simplified method uses an average of the vesting term and the contractual term of the option to calculate the expected term. The risk-free rate is derived from the U.S. Treasury yield curve in effect at the time of grant.

For additional information regarding our share-based compensation plans, refer to Note 12.

EARNINGS PER SHARE

Basic earnings per share (EPS) is calculated by dividing net income available to common stockholders by the weighted average number of common shares outstanding during the period. Diluted EPS is calculated by using the weighted average number of common shares outstanding during the period increased to include the weighted average dilutive effect of "in-the-money" stock options and unvested restricted stock shares using the treasury stock method.

COMPREHENSIVE INCOME

Comprehensive income primarily differs from net income due to foreign currency translation adjustments.

index

EFFECTS OF RECENT ACCOUNTING PRONOUNCEMENTS

On October 1, 2009, we adopted new accounting standards for the accounting and reporting of minority equity interests in subsidiaries. Minority interests are characterized as noncontrolling interests and are reported as a component of equity separate from the parent's equity, and purchases or sales of equity interests that do not result in a change of control are accounted for as equity transactions. In addition, net income attributable to the noncontrolling interest is included in consolidated net income on the face of the statement of income and, upon loss of control, the interest sold, as well as any interest retained, is recorded at fair value with any gain or loss recognized in earnings. The new standards apply prospectively, except for the presentation and disclosure requirements, which apply retrospectively. The adoption of these standards had no effect on our results of operations, financial position or cash flows as we currently have no minority interests in any of our subsidiaries.

In June 2009, the Financial Accounting Standards Board (FASB) issued new standards prescribing the information that a reporting entity must provide in its financial reports about the transfer of financial assets. The new standards amend previous guidance by removing the concept of a qualifying special-purpose entity and removing the exception from applying the provisions of accounting for variable interest entities that are qualifying special-purpose entities. The new standards are effective for transfers of financial assets occurring on or after January 1, 2010. The adoption of these new standards did not have any impact on our results of operations, financial position or cash flows.

In June 2009, the FASB issued new standards regarding the recognition of a controlling financial interest in a variable interest entity (VIE). The primary beneficiary of a VIE is defined as the enterprise that has both: 1) the power to direct the activities of a VIE that most significantly impact the entity's economic performance; and 2) the obligation to absorb losses of the entity that could potentially be significant to the VIE or the right to receive benefits from the entity that could potentially be significant to the VIE. The new standards also require ongoing reassessments of whether an enterprise is the primary beneficiary of a VIE. The new standards are effective for annual reporting periods beginning after November 15, 2009 and for interim reporting periods within the first annual reporting period. We do not believe the adoption of these new standards will have a material impact on our results of operations, financial position or cash flows. We do not currently have any interest or arrangements that are considered variable interest entities.

In October 2009, the FASB issued ASU No. 2009-13, "Revenue Recognition (Topic 605) – Multiple-Deliverable Revenue Arrangements" (ASU 2009-13), a consensus of the FASB Emerging Issues Task Force. The guidance in ASU 2009-13 modifies the fair value requirements regarding the recognition of revenue under multiple element arrangements by allowing the use of the best estimate of selling price in addition to vendor-specific objective evidence (VSOE) and third-party evidence (TPE) for determining the selling price of a deliverable. A vendor is now required to use its best estimate of the selling price when VSOE or TPE of the selling price cannot be determined. In addition, the residual method of allocating arrangement consideration is no longer permitted. ASU 2009-13 is effective prospectively for revenue arrangements entered into or modified in fiscal years beginning on or after June 15, 2010. We do not believe the adoption of ASU 2009-13 will have a material effect on our results of operations, financial position or cash flows.

In October 2009, the FASB issued Accounting Standards Update (ASU) No. 2009-14, "Software (Topic 985) – Certain Revenue Arrangements That Include Software Elements" (ASU 2009-14), a consensus of the FASB Emerging Issues Task Force. The guidance in ASU 2009-14 modifies the existing accounting rules regarding the recognition of revenue from the sale of software to exclude: (a) non-software components of tangible products; and (b) software components of tangible products that are sold, licensed, or leased with tangible products when the software components and non-software components of the tangible product function together to deliver the tangible product's

essential functionality. ASU 2009-14 is effective prospectively for revenue arrangements entered into or modified in fiscal years beginning on or after June 15, 2010. We do not believe the adoption of ASU 2009-14 will have a material effect on our results of operations, financial position or cash flows.

index

In January 2010, the FASB issued ASU No. 2010-06, "Fair Value Measurements and Disclosures (Topic 820) – Improving Disclosures about Fair Value Measurements" (ASU 2010-06). ASU 2010-06 provides amendments to the rules regarding the disclosure of fair value measurements and clarifies the language in certain existing disclosures. New disclosures include a discussion of the transfers in and out of Level 1 and 2 measurements as well as a reconciliation of gross activity for Level 3 measurements. ASU 2010-06 clarifies the disclosures an entity must make regarding inputs and valuation techniques used in fair value measurements. The ASU also clarifies that an entity should provide fair value disclosures for each class of assets and liabilities. ASU 2010-06 is effective for interim and annual reporting periods beginning after December 15, 2009, except for the disclosures about the reconciliation of Level 3 measurements which are effective for fiscal years beginning after December 15, 2010. The adoption of the provisions relating to Level 1 and Level 2 measurements did not have a material impact on our results of operations, financial position or cash flows. We are currently assessing the potential impact that the adoption of the provisions related to Level 3 measurements will have on the disclosures in our financial statements.

3. BUSINESS COMBINATIONS

All business combinations have been accounted for under the purchase method of accounting. Accordingly, the assets and liabilities of the acquired entities are recorded at their estimated fair values at the date of acquisition. Goodwill represents the excess of the purchase price over the fair value of net assets and amounts assigned to identifiable intangible assets. Purchased in-process research and development (IPR&D), for which technological feasibility has not yet been established and no future alternative uses exist, has been expensed immediately. In December 2007, the FASB issued new standards for the accounting for business combinations. The new standards retain the purchase method of accounting for acquisitions, but require a number of changes, including changes in the way assets and liabilities are recognized in purchase accounting. They also change the recognition of assets acquired and liabilities assumed arising from contingencies, require the capitalization of IPR&D at fair value, and require acquisition-related costs to be charged to expense as incurred. The new standards were effective for us October 1, 2009 and will apply prospectively to business combinations completed on or after that date.

On February 27, 2009, we completed the acquisition of Epoch Material Co., Ltd. (Epoch), which previously was a consolidated subsidiary of Eternal Chemical Co., Ltd. (Eternal). Epoch is a Taiwan-based company specializing primarily in the development, manufacture and sale of copper CMP consumables. We paid $59,391 to obtain 90% of Epoch's stock, plus $728 of transaction costs, from our available cash balance. We paid an additional $6,600 from an escrow account which was held in Taiwan to Eternal in August 2010 to acquire the remaining 10% of Epoch's stock. During this interim period, Eternal held the remaining 10% ownership interest in Epoch. However, Eternal waived rights to any interest in the earnings of Epoch during the interim period, including any associated dividends. Consequently, we have recorded 100% of Epoch's results of operations from February 27, 2009 through the end of our fiscal 2010 in our Consolidated Statement of Income, rather than recording any noncontrolling interest in Epoch.

The purchase price for Epoch was allocated to tangible assets, liabilities assumed, identified intangible assets acquired, as well as IPR&D, based on our estimation of their fair values. The excess of the purchase price over the aggregate fair values was recorded as goodwill and is generally fully deductible for tax purposes. The following table summarizes the final purchase price allocation.

Current assets	$ 11,453
	13,965

Long-term assets	
In-process research and development	1,410
Identified intangible assets	11,510
Goodwill	29,877
Total assets acquired	68,215
Total liabilities assumed	1,496
Net assets acquired	$ 66,719

index

The following unaudited pro forma consolidated results of operations have been prepared as if the acquisition of Epoch had occurred on October 1, 2008 and 2007:

	Fiscal Year Ended September 30,	
	2009	2008
Revenues	$ 296,120	$ 410,309
Net income	$ 10,205	$ 47,327
Net income per share:		
Basic	$ 0.44	$ 2.03
Diluted	$ 0.44	$ 2.03

The unaudited pro forma consolidated results of operations do not purport to be indicative of the results that would have been achieved if the acquisition had actually occurred as of the dates indicated, or of those results that may be achieved in the future. The unaudited pro forma consolidated results of operations include adjustments to net income to give effect to: expensing of IPR&D on October 1, 2008 and 2007; amortization of intangible assets acquired; depreciation of property, plant and equipment acquired; and income taxes.

4. FAIR VALUE OF FINANCIAL INSTRUMENTS

On October 1, 2008, we adopted various accounting standards issued by the FASB for the fair value measurement of all financial assets and financial liabilities. These standards established a common definition for fair value in generally accepted accounting principles, established a framework for measuring fair value and expanded disclosure about such fair value measurements. These standards also clarified the application of fair value measurement in an inactive market and illustrated how an entity would determine fair value when the market for a financial asset is not active. These standards allow measurement at fair value of eligible financial assets and financial liabilities that are not otherwise measured at fair value on an instrument-by-instrument basis (the “fair value option”). We did not elect the fair value option for any financial assets or financial liabilities that were not previously required to be measured at fair value under other generally accepted accounting principles. On October 1, 2009, we adopted the accounting provisions that relate to non-financial assets and non-financial liabilities. The adoption of these provisions did not have a material impact on our results of operations, financial position or cash flows. We did not elect the fair value options for any non-financial assets or non-financial liabilities that were not previously required to be measured at fair value under other generally accepted accounting principles.

Fair value is defined as the price that would be received from the sale of an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The FASB established a three-level hierarchy for disclosure based on the extent and level of judgment used to estimate fair value. Level 1 inputs consist of valuations based on quoted market prices in active markets for identical assets or liabilities. Level 2 inputs consist of valuations based on quoted prices for similar assets or liabilities, quoted prices for identical assets or liabilities in an inactive market, or other observable inputs. Level 3 inputs consist of valuations based on unobservable inputs that are supported by little or no market activity. Effective April 1, 2009, we adopted new fair value standards issued by the FASB which require disclosures about fair value of financial instruments in interim reporting periods as well as in annual financial statements and require fair value disclosures in summarized financial information at interim periods.

The following tables present financial assets that we measured at fair value on a recurring basis at September 30, 2010 and 2009. As permitted under the relevant standards, we have chosen to not measure any of our liabilities at fair value as we believe our liabilities approximate their fair value due to their short-term, highly liquid characteristics. We have classified the following assets in accordance with the fair value hierarchy set forth in the applicable standards. In instances where the inputs used to measure the fair value of an asset fall into more than one level of the hierarchy, we have classified them based on the lowest level input that is significant to the determination of the fair value.

index

September 30, 2010	Level 1	Level 2	Level 3	Total Fair Value
Cash and cash equivalents	$ 254,164	$ -	$ -	$ 254,164
Auction rate securities (ARS)	-	-	8,066	8,066
Total	$ 254,164	$ -	$ 8,066	$ 262,230

September 30, 2009	Level 1	Level 2	Level 3	Total Fair Value
Cash and cash equivalents	$ 199,952	$ -	$ -	$ 199,952
Auction rate securities (ARS)	-	-	8,116	8,116
Total	$ 199,952	$ -	$ 8,116	$ 208,068

Our cash and cash equivalents consist of various bank accounts used to support our operations and investments in institutional money-market funds which are traded in active markets. The recorded amounts of cash, accounts receivable and accounts payable approximate their fair values due to their short-term, highly liquid characteristics. The fair value of our long-term ARS is determined through two discounted cash flow analyses, one using a discount rate based on a market index comprised of tax exempt variable rate demand obligations and one using a discount rate based on the LIBOR swap curve, adding a risk factor to reflect current liquidity issues in the ARS market.

Effective April 1, 2009, we adopted accounting standards issued by the FASB regarding the classification and valuation of financial instruments, including the recognition and presentation of other-than-temporary impairments for investment securities we own and the determination of fair value of financial instruments when the volume of trading activity significantly decreases. A debt security is considered to be impaired when the fair value of the debt security is less than its amortized cost at the balance sheet date. An other-than-temporary impairment must be recorded when a credit loss exists; that is when the present value of the expected cash flows from a debt security is less than the amortized cost basis of the security. An impairment is considered to be other-than-temporary when: 1) an entity intends to sell a debt security that is impaired; 2) when it is more likely than not that an entity will be required to sell the security before the recovery of its amortized cost basis; or 3) when a credit loss exists. An entity must recognize an impairment related to any of the three of these circumstances currently in earnings.

We applied these standards to the valuation of our investment in ARS at September 30, 2010. Our ARS investments at September 30, 2010 consisted of two tax exempt municipal debt securities with a total par value of $8,300. The ARS market began to experience illiquidity in early 2008, and this illiquidity continues. Despite this lack of liquidity, there have been no defaults of the underlying securities and interest income on these holdings continues to be received on scheduled interest payment dates. Our ARS, when purchased, were generally issued by A-rated municipalities. Although the credit ratings of both municipalities have been downgraded since our original investment, the ARS are credit enhanced with bond insurance and carried a credit rating of AAA by Standard and Poors as of September 30, 2010. The credit rating of the insurer was downgraded by Standard and Poors in October 2010 from AAA to AA-plus. We incorporated this downgrade into our valuation model and the downgrade did not materially affect the valuation of our ARS as of September 30, 2010.

Since an active market for ARS does not currently exist, we determine the fair value of these investments using a Level 3 discounted cash flow analysis and also consider other factors such as the reduced liquidity in the ARS market and nature and quality of the insurance backing. Key inputs to our discounted cash flow model include projected cash flows from interest and principal payments and the weighted probabilities of improved liquidity or debt refinancing by the issuer. We also incorporate certain Level 2 market indices into the discounted cash flow analysis, including published rates such as the LIBOR rate, the LIBOR swap curve and a municipal swap index published by the Securities Industry and Financial Markets Association. The following table presents a reconciliation of the activity in fiscal 2010 for fair value measurements using level 3 inputs:

Balance as of October 1, 2009	$8,166
Net sales of ARS	(50)
Balance as of September 30, 2010	$8,066

index

Based on our fair value assessment, we determined that one ARS continues to be impaired as of September 30, 2010. This security has a fair value of $3,166 (par value $3,350). We assessed the impairment in accordance with the applicable standards and determined that the impairment was due to the lack of liquidity in the ARS market rather than to credit risk. We have maintained the $234 temporary impairment that we first recorded in fiscal 2008. We believe that this ARS is not permanently impaired because in the event of default by the issuer, we expect the insurance provider would pay interest and principal following the original repayment schedule, we were able to successfully monetize at par value $50 of this security during our fiscal quarter ended March 31, 2010, and we do not intend to sell the security nor do we believe we will be required to sell the security before the value recovers, which may be at maturity. We determined that the fair value of the other ARS was not impaired as of September 30, 2010. See Note 8 for more information on these investments.

5. INVENTORIES

Inventories consisted of the following:

	September 30, 2010	2009
Raw materials	$ 23,542	$ 20,082
Work in process	3,189	3,080
Finished goods	25,165	21,778
Total	$ 51,896	$ 44,940

The increase in inventory from September 30, 2009 was primarily due to a general increase in raw materials and finished goods based on the higher level of demand for our products in fiscal 2010.

6. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consisted of the following:

	September 30, 2010	2009
Land	$ 20,381	$ 19,550
Buildings	86,965	84,625
Machinery and equipment	156,653	143,795
Furniture and fixtures	5,969	5,782
Information systems	19,290	17,898
Capital leases	9,820	9,820
Construction in progress	3,624	2,497
	302,702	283,967

Total property, plant and equipment		
Less: accumulated depreciation and amortization of assets under capital leases	(186,891)	(161,185)
Net property, plant and equipment	$ 115,811	$ 122,782

Depreciation expense, including amortization of assets recorded under capital leases, was $22,568, $22,310 and $23,114 for the years ended September 30, 2010, 2009 and 2008, respectively.

In fiscal 2009, we recorded $1,245 in impairment expense primarily related to the decision to write-off certain research and development equipment in accordance with the applicable accounting standards for the impairment and disposal of long-lived assets. Of this amount, $22 and $1,223 was included in cost of goods sold and research, development and technical expense, respectively. Impairment expense for fiscal 2010 and 2008 was not material.

index

7. GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill was $40,436 and $39,732 as of September 30, 2010 and 2009, respectively. The increase in goodwill resulted from $832 in foreign exchange fluctuation of the New Taiwan Dollar related to goodwill associated with the Epoch acquisition, partially offset by a $128 adjustment to record the tax effect of the difference between goodwill recorded for accounting purposes and goodwill recorded for tax purposes related to the Epoch acquisition.

The components of other intangible assets are as follows:

	September 30, 2010		September 30, 2009	
	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Other intangible assets subject to amortization:				
Product technology	$8,206	$ 2,926	$8,135	$ 1,978
Acquired patents and licenses	8,115	6,135	8,000	5,825
Trade secrets and know-how	2,550	2,550	2,550	2,550
Customer relationships, distribution rights and other	11,939	3,300	11,287	2,068
Total other intangible assets subject to amortization	30,810	14,911	29,972	12,421
Total other intangible assets not subject to amortization*	1,190		1,190	
Total other intangible assets	$32,000	$ 14,911	$31,162	$ 12,421

* Total other intangible assets not subject to amortization primarily consist of trade names.

In fiscal 2010, other intangible assets increased by $323 due to foreign exchange fluctuations of the New Taiwan Dollar related to intangible assets associated with the Epoch acquisition and we acquired $515 in other intangible assets. In fiscal 2009, changes in the amounts recorded as other intangible assets included $11,510 of intangible assets added as a result of our acquisition of Epoch and an increase of $1,075 due to foreign exchange fluctuations of the New Taiwan Dollar on the Epoch intangible assets. In conjunction with the Epoch acquisition, we acquired $2,520 in product technology assets with an average useful life of seven years and we acquired $8,990 in fair value of customer relationships and other intangible assets with a weighted average useful life of approximately nine years. We also purchased $1,410 of IPR&D related to one project. The amount allocated to IPR&D was determined through established valuation techniques and was expensed upon acquisition because technological feasibility had not yet been established and no alternative future uses existed.

Goodwill and indefinite lived intangible assets are tested for impairment annually in the fourth fiscal quarter or more frequently if indicators of potential impairment exist, using a fair-value-based approach. The recoverability of goodwill is measured at the reporting unit level, which is defined as either an operating segment or one level below an operating segment. We have consistently determined the fair value of our reporting units using a discounted cash flow analysis of our projected future results. The recoverability of indefinite lived intangible assets is measured using the royalty savings method. The use of discounted projected future results is based on assumptions that are consistent with our estimates of future growth within the strategic plan used to manage the underlying business. Factors requiring significant judgment include assumptions related to future growth rates, discount factors, royalty rates and

tax rates, among others. Changes in economic and operating conditions that occur after the annual impairment analysis or an interim impairment analysis that impact these assumptions may result in future impairment charges. As a result of the review performed in the fourth quarter of fiscal 2010, we determined that there was no impairment of our goodwill and intangible assets as of September 30, 2010.

index

Amortization expense was $2,426, $2,522 and $2,837 for fiscal 2010, 2009 and 2008, respectively. Estimated future amortization expense for the five succeeding fiscal years is as follows:

Fiscal Year	Estimated amortization expense
2011	$2,627
2012	2,593
2013	2,427
2014	2,385
2015	2,346

8. OTHER LONG-TERM ASSETS

Other long-term assets consisted of the following:

	September 30,	
	2010	2009
Long-term investments	$ 8,066	$ 8,116
Other long-term assets	1,281	968
Total	$ 9,347	$ 9,084

As discussed in Note 4 of this Form 10-K, the two ARS that we owned as of September 30, 2010 are classified as long-term investments. The securities are credit enhanced with bond insurance to a AAA credit rating from Standard and Poors as of September 30, 2010, and all interest payments continue to be received on a timely basis. The credit rating of the insurer was downgraded by Standard and Poors in October 2010 from AAA to AA-plus. We incorporated this downgrade into our valuation model and this downgrade did not materially affect the valuation of our ARS as of September 30, 2010. Although we believe these securities will ultimately be collected in full, we believe that it is not likely that we will be able to monetize the securities in our next business cycle (which for us is generally one year). We maintain a $234 pretax reduction ($151 net of tax) in fair value on the other ARS that we had recognized as of September 30, 2009. We assessed the impairment and determined that the impairment was temporary as it was related to the illiquid ARS market rather than credit risk. In addition, we continue to believe this decline in fair value is temporary based on the nature of the underlying debt, the presence of bond insurance, our expectation that the issuer may refinance its debt, the fact that all interest payments have been received, our successful monetization of $50 of this ARS during the quarter ended March 31, 2010, and our intention not to sell the security nor be required to sell the security until the value recovers, which may be at maturity, given our current cash position, our expected future cash flow, and our unused debt capacity.

57

index

9. ACCRUED EXPENSES AND OTHER CURRENT LIABILITIES

Accrued expenses and other current liabilities consisted of the following:

	September 30,	
	2010	2009
Accrued compensation	$ 25,752	$ 8,462
Goods and services received, not yet invoiced	4,359	2,806
Warranty accrual	375	360
Taxes, other than income taxes	1,162	1,175
Acquisition related	-	6,600
Other	2,865	3,741
Total	$ 34,513	$ 23,144

The increase in accrued compensation was primarily due to accruals for the annual incentive bonus program for fiscal 2010. This increase was partially offset by a reduction in accrued expenses related to our payment of $6,600 out of an escrow account in Taiwan in August 2010 to acquire the remaining 10% of Epoch stock, as further explained in Note 3.

10. DERIVATIVE FINANCIAL INSTRUMENTS

On January 1, 2009, we adopted new accounting standards regarding disclosures about derivative instruments and hedging activities. These standards require enhanced disclosures about (a) how and why derivative instruments are used, (b) how derivative instruments and related hedged items are accounted for, and (c) how derivative instruments and related hedged items affect our financial position, financial performance and cash flows.

Periodically we enter into forward foreign exchange contracts in an effort to mitigate the risks associated with currency fluctuations on certain foreign currency balance sheet exposures. Our foreign exchange contracts do not qualify for hedge accounting; therefore, the gains and losses resulting from the impact of currency exchange rate movements on our forward foreign exchange contracts are recognized as other income or expense in the accompanying consolidated income statements in the period in which the exchange rates change. We do not use derivative financial instruments for trading or speculative purposes. In addition, all derivatives, whether designated in hedging relationships or not, are required to be recorded on the balance sheet at fair value. At September 30, 2010, we had one forward foreign exchange contract selling Japanese Yen related to intercompany notes with one of our subsidiaries in Japan and for the purpose of hedging the risk associated with a net transactional exposure in Japanese Yen.

The fair value of our derivative instrument included in the Consolidated Balance Sheet was as follows:

	Asset Derivatives		Liability Derivatives	
	Fair Value at	Fair Value at	Fair Value at	Fair Value at

Derivatives not designated as hedging instruments	Balance Sheet Location	September 30, 2010	September 30, 2009	September 30, 2010	September 30, 2009
Foreign exchange contracts	Prepaid expenses and other current assets	$ 5	$ -	$ -	$ -
	Accrued expenses and other current liabilities	$ -	$ -	$ -	$ 242

index

The following table summarizes the effect of our derivative instrument on our Consolidated Statement of Income for the fiscal years ended September 30, 2010, 2009 and 2008:

		Gain (Loss) Recognized in Statement of Income Fiscal Year Ended		
Derivatives not designated as hedging instruments	Statement of Income Location	September 30, 2010	September 30, 2009	September 30, 2008
Foreign exchange contracts	Other income (expense), net	$(555)	$(2,573)	$(928)

11. REVOLVING CREDIT FACILITY

We have an unsecured revolving credit facility of $50,000 with an option to increase the facility up to $80,000. Pursuant to an amendment in October 2008, this agreement extends to November 2011, with an option to renew for two additional one-year terms. In November 2010, the scheduled termination date was extended by one year through October 2012. This amendment did not include any other material changes to the terms of the credit agreement. Under this agreement, interest accrues on any outstanding balance at either the lending institution's base rate or the Eurodollar rate plus an applicable margin. We also pay a non-use fee. Loans under this facility are intended primarily for general corporate purposes, including financing working capital, capital expenditures and acquisitions. The credit agreement also contains various covenants. No amounts are currently outstanding under this credit facility and we believe we are currently in compliance with its covenants.

12. SHARE-BASED COMPENSATION PLANS

EQUITY INCENTIVE PLAN

In March 2004, our stockholders approved our Second Amended and Restated Cabot Microelectronics Corporation 2000 Equity Incentive Plan (the "EIP"), as amended and restated September 23, 2008, which is administered by the Compensation Committee of the Board of Directors and is intended to provide management with the flexibility to attract, retain and reward our employees, directors, consultants and advisors. The EIP allows for the granting of four types of equity incentive awards: stock options, restricted stock, restricted stock units and substitute awards. Substitute awards are those awards that, in connection with an acquisition, may be granted to employees, directors, consultants or advisors of the acquired company, in substitution for equity incentives held by them in the seller or the acquired company. No substitute awards have been granted to date. The EIP authorizes up to 9,500,000 shares of stock to be granted thereunder, including up to 1,900,000 shares in the aggregate of restricted stock or restricted stock units and up to 1,750,000 incentive stock options (ISO). Shares issued under our share-based compensation plans are issued from new shares rather than from treasury shares.

Non-qualified stock options issued under the EIP are generally time-based and provide for a ten-year term, with options generally vesting equally over a four-year period, with first vesting on the first anniversary of the award date. Compensation expense related to our stock option awards was $7,081, $9,507 and $12,381 in fiscal 2010, 2009 and 2008, respectively. For additional information on our accounting for share-based compensation, see Note 2 to the consolidated financial statements. Under the EIP, employees and non-employees may also be granted ISOs to purchase common stock at not less than the fair value on the date of the grant. No ISOs have been granted to date.

59

index

Under the EIP, employees and non-employees may be awarded shares of restricted stock or restricted stock units, which generally vest over a four-year period, with first vesting on the anniversary of the grant date. In general, shares of restricted stock and restricted stock units may not be sold, assigned, transferred, pledged, disposed of or otherwise encumbered. Holders of restricted stock, and restricted stock units, if specified in the award agreements, have all the rights of stockholders, including voting and dividend rights, subject to the above restrictions, although the current holders of restricted stock units do not have such rights. Restricted shares under the EIP also may be purchased and placed "on deposit" by executive officers pursuant to the 2001 Deposit Share Plan. Shares purchased under this Deposit Share Plan receive a 50% match in restricted shares ("Award Shares"). These Award Shares vest at the end of a three-year period, and are subject to forfeiture upon early withdrawal of the deposit shares. Compensation expense related to our restricted stock and restricted stock unit awards and restricted shares matched at 50% pursuant to the Deposit Share Plan was $4,134, $2,893 and $2,022 for fiscal 2010, 2009 and 2008, respectively.

EMPLOYEE STOCK PURCHASE PLAN

In March 2008, our stockholders approved our 2007 Cabot Microelectronics Employee Stock Purchase Plan (the "ESPP"), which amended the ESPP for the primary purpose of increasing the authorized shares of common stock to be purchased under the ESPP from 475,000 designated shares to 975,000 shares. The ESPP allows all full and certain part-time employees of Cabot Microelectronics and its subsidiaries to purchase shares of our common stock through payroll deductions. Employees can elect to have up to 10% of their annual earnings withheld to purchase our stock, subject to a maximum number of shares that a participant may purchase and a maximum dollar expenditure in any six-month offering period, and certain other criteria. The provisions of the ESPP allow shares to be purchased at a price no less than the lower of 85% of the closing price at the beginning or end of each semi-annual stock purchase period. Prior to January 1, 2009, the shares were purchased at the maximum 15% discount. In conjunction with certain cost reduction initiatives we implemented in the second quarter of fiscal 2009, the ESPP was amended as of January 19, 2009 to suspend the 15% discount. Pursuant to the amended ESPP, effective with the six-month period beginning January 1, 2009, the ESPP shares were purchased at a price equal to the lower of the closing price at the beginning or end of each semi-annual offering period. In light of improved economic and industry conditions, the ESPP was amended again as of January 1, 2010 to reinstate the 15% discount effective January 1, 2010. A total of 38,050, 57,815, and 54,625 shares were issued under the ESPP during fiscal 2010, 2009 and 2008, respectively. Compensation expense related to the ESPP was $360, $324 and $508 in fiscal 2010, 2009 and 2008, respectively.

DIRECTORS' DEFERRED COMPENSATION PLAN

The Directors' Deferred Compensation Plan, as amended and restated September 23, 2008, became effective in March 2001 and applies only to our non-employee directors. The cumulative number of shares deferred under the plan was 45,572 and 43,671 as of September 30, 2010 and 2009, respectively. Compensation expense related to our Directors' Deferred Compensation Plan was $68, $78 and $156 for fiscal 2010, 2009 and 2008, respectively.

index

ACCOUNTING FOR SHARE-BASED COMPENSATION

We record share-based compensation expense for all share-based awards, including stock option grants, restricted stock and restricted stock unit awards and employee stock purchases. We calculate share-based compensation expense using the straight-line approach based on awards ultimately expected to vest, which requires the use of an estimated forfeiture rate. Our estimated forfeiture rate is primarily based on historical experience, but may be revised in future periods if actual forfeitures differ from the estimate. We use the Black-Scholes model to estimate the grant date fair value of our stock options and employee stock purchases. This model requires the input of highly subjective assumptions, including the price volatility of the underlying stock, the expected term of our stock options and the risk-free interest rate. We estimate the expected volatility of our stock options based on a combination of our stock's historical volatility and the implied volatilities from actively-traded options on our stock. We calculate the expected term of our stock options using the simplified method, due to our limited amount of historical option exercise data, and we add a slight premium to this expected term for employees who meet the definition of retirement eligible pursuant to their grants during the contractual term of the grant. The simplified method uses an average of the vesting term and the contractual term of the option to calculate the expected term. The risk-free rate is derived from the U.S. Treasury yield curve in effect at the time of grant.

The fair value of our share-based awards was estimated using the Black-Scholes model with the following weighted-average assumptions:

	Year Ended September 30,		
	2010	2009	2008
Stock Options			
Weighted–average grant date fair value	$ 13.42	$ 11.63	$ 17.74
Expected term (in years)	6.35	6.50	6.51
Expected volatility	39 %	50 %	43 %
Risk-free rate of return	2.6 %	2.1 %	3.5 %
Dividend yield	-	-	-
ESPP			
Weighted-average grant date fair value	$ 7.45	$ 6.38	$ 8.74
Expected term (in years)	0.50	0.50	0.50
Expected volatility	33 %	48 %	33 %
Risk-free rate of return	0.3 %	1.2 %	3.4 %
Dividend yield	-	-	-

The Black-Scholes model is primarily used in estimating the fair value of short-lived exchange traded options that have no vesting restrictions and are fully transferable. Because employee stock options and employee stock purchases have certain characteristics that are significantly different from traded options, and because changes in the subjective assumptions can materially affect the estimated value, our use of the Black-Scholes model for estimating the fair value

of stock options and employee stock purchases may not provide an accurate measure. Although the value of our stock options and employee stock purchases are determined in accordance with applicable accounting standards using an option-pricing model, those values may not be indicative of the fair values observed in a willing buyer/willing seller market transaction.

The fair value of our restricted stock and restricted stock unit awards represents the closing price of our common stock on the date of grant. Share-based compensation expense related to restricted stock and restricted stock unit awards is recorded net of expected forfeitures.

index

SHARE-BASED COMPENSATION EXPENSE

Total share-based compensation expense for the year ended September 30, 2010, 2009 and 2008, is as follows:

	Year Ended September 30,		
Income statement classifications:	2010	2009	2008
Cost of goods sold	$ 986	$ 982	$ 1,119
Research, development and technical	908	1,079	1,226
Selling and marketing	1,025	1,207	1,492
General and administrative	8,724	9,534	11,230
Tax benefit	(4,145)	(4,574)	(5,367)
Total share-based compensation expense, net of tax	$ 7,498	$ 8,228	$ 9,700

The costs presented in the preceding table for share-based compensation expense may not be representative of the total effects on reported income for future years. Factors that may impact future years include, but are not limited to, changes to our historical approaches to long-term incentives such as described above, the timing and number of future grants of share-based awards, the vesting period and contractual term of share-based awards and types of equity awards granted. Further, share-based compensation may be impacted by changes in the fair value of future awards through variables such as fluctuations in and volatility of our stock price, as well as changes in employee exercise behavior and forfeiture rates.

Our non-employee directors received their annual equity award in March 2010. In conjunction with this award, the Board of Directors and respective committees of the Board approved non-material revisions to the terms of the relevant award agreements to provide for immediate vesting of the award at the time of termination of service for any reason other than by reason of Cause, Death, Disability or a Change in Control, as defined in the Cabot Microelectronics Corporation 2000 Equity Incentive Plan, if at such time the non-employee director has completed an equivalent of at least two full terms as a director of the Company, as defined in the Company's bylaws. Three of the Company's non-employee directors had completed at least two such full terms of service as of the date of the March 2010 award. Consequently, the requisite service period for the award has already been satisfied and we recorded the fair value of $442 of the awards to these three directors to share-based compensation expense in the fiscal quarter ended March 31, 2010 rather than recording that expense over the four-year vesting period stated in the award agreement.

STOCK OPTION ACTIVITY

A summary of stock option activity under the EIP as of September 30, 2010, and changes during the fiscal 2010 are presented below:

		Weighted Average	Aggregate
	Weighted Average	Remaining Contractual	Intrinsic Value
Stock Options	Exercise Price	Term (in years)	(in thousands)

Outstanding at September 30, 2009	4,368,913	$	38.51		
Granted	467,286		31.57		
Exercised	(74,019)		30.85		
Forfeited or canceled	(29,589)		40.50		
Outstanding at September 30, 2010	4,732,591	$	37.94	5.1	$ 6,513
Exercisable at September 30, 2010	3,612,162	$	40.60	4.1	$ 2,366
Expected to vest at September 30, 2010	942,449	$	29.37	8.4	$ 7,866

index

The aggregate intrinsic value in the table above represents the total pretax intrinsic value (i.e., for all in-the-money stock options, the difference between our closing stock price of $32.18 on the last trading day of fiscal 2010 and the exercise price, multiplied by the number of shares) that would have been received by the option holders had all option holders exercised their options on the last trading day of fiscal 2010. The total intrinsic value of options exercised was $492, $68 and $871 for fiscal 2010, 2009 and 2008, respectively.

The total cash received from options exercised was $2,283, $680 and $3,128 for fiscal 2010, 2009 and 2008, respectively. The actual tax benefit realized for the tax deductions from options exercised was $175, $24 and $310 for fiscal 2010, 2009 and 2008, respectively. The total fair value of stock options vested during fiscal years 2010, 2009 and 2008 was $8,494, $12,560 and $11,848, respectively. As of September 30, 2010, there was $8,510 of total unrecognized share-based compensation expense related to unvested stock options under the EIP. That cost is expected to be recognized over a weighted-average period of 2.5 years.

RESTRICTED STOCK

A summary of the status of the restricted stock awards and restricted stock unit awards outstanding under the EIP as of September 30, 2010, and changes during fiscal 2010, are presented below:

	Restricted Stock Awards and Units	Weighted Average Grant Date Fair Value
Nonvested at September 30, 2009	331,603	$ 28.38
Granted	157,902	31.57
Vested	(108,335)	29.62
Forfeited	(3,710)	30.00
Nonvested at September 30, 2010	377,460	$ 29.34

As of September 30, 2010, there was $6,045 of total unrecognized share-based compensation expense related to nonvested restricted stock awards and restricted stock units under the EIP. That cost is expected to be recognized over a weighted-average period of 2.5 years. The total fair values of restricted stock awards and restricted stock units vested during fiscal years 2010, 2009 and 2008 were $3,209, $2,471 and $1,449, respectively.

13. SAVINGS PLAN

Effective in May 2000, we adopted the Cabot Microelectronics Corporation 401(k) Plan (the “401(k) Plan”), which is a qualified defined contribution plan, covering all eligible U.S. employees meeting certain minimum age and eligibility requirements, as defined by the 401(k) Plan. Participants may make elective contributions of up to 60% of their eligible compensation. All amounts contributed by participants and earnings on these contributions are fully vested at

all times. The 401(k) Plan provides for matching and fixed non-elective contributions by the Company. Under the 401(k) Plan, the Company will match 100% of the first four percent of the participant's eligible compensation and 50% of the next two percent of the participant's eligible compensation that is contributed, subject to limitations required by government regulations. On April 1, 2009, in conjunction with certain cost reduction initiatives we implemented in fiscal 2009, the 401(k) Plan was amended to suspend the matching contribution made by the Company. In light of improved economic and industry conditions, effective January 1, 2010, the Plan was amended again to reinstate the matching contribution. Under the 401(k) Plan, all U.S. employees, even those who do not contribute to the 401(k) Plan, receive a contribution by the Company in an amount equal to four percent of eligible compensation, and thus are participants in the 401(k) Plan. Participants are 100% vested in all Company contributions at all times. The Company's expense for the 401(k) Plan totaled $2,981, $2,813 and $3,780 for the fiscal years ended September 30, 2010, 2009 and 2008, respectively.

index

14. OTHER INCOME (EXPENSE), NET

Other income (expense), net, consisted of the following:

	Year Ended September 30,		
	2010	2009	2008
Interest income	$ 228	$ 1,057	$ 5,559
Interest expense	(233)	(365)	(395)
Other income (expense)	(729)	(93)	284
Total other income (expense), net	$ (734)	$ 599	$ 5,448

The decrease in other income, net in fiscal 2010 was primarily due to lower interest income resulting from lower interest rates earned on our cash balances and investments compared to fiscal 2009, and the foreign exchange effects on revenues and expenses, primarily related to changes in the exchange rate of the Japanese yen to the U.S. dollar, net of the gains and losses incurred on forward foreign exchange contracts discussed in Note 10 of this Form 10-K. The decrease in other income, net in fiscal 2009 compared to fiscal 2008 was primarily due to lower interest income resulting from lower interest rates earned on our lower average cash and ARS balances compared to fiscal 2008. We monetized the majority of our investments in ARS during fiscal 2008 and reinvested these funds into money market investments which earn interest at lower rates.

15. STOCKHOLDERS' EQUITY

The following is a summary of our capital stock activity over the past three years:

	Number of Shares	
	Common Stock	Treasury Stock
September 30, 2007	25,635,730	1,627,337
Exercise of stock options	99,159	
Restricted stock under EIP, net of forfeitures	110,767	
Restricted stock under Deposit Share Plan	6,709	
Common stock under ESPP	54,625	
Repurchases of common stock under share repurchase plans		1,056,472
September 30, 2008	25,906,990	2,683,809
Exercise of stock options	21,617	
Restricted stock under EIP, net of forfeitures	146,881	
Restricted stock under Deposit Share Plan, net of	9,813	

forfeitures		
Common stock under ESPP	57,815	
Repurchases of common stock – other		14,425
September 30, 2009	26,143,116	2,698,234
Exercise of stock options	74,019	
Restricted stock under EIP, net of forfeitures	127,390	
Restricted stock under Deposit Share Plan, net of forfeitures	2,140	
Common stock under ESPP	38,050	
Repurchases of common stock under share repurchase plans		723,184
Repurchases of common stock – other		24,651
September 30, 2010	26,384,715	3,446,069

index

COMMON STOCK

Each share of common stock entitles the holder to one vote on all matters submitted to a vote of Cabot Microelectronics' stockholders. Common stockholders are entitled to receive ratably the dividends, if any, as may be declared by the Board of Directors. The number of authorized shares of common stock is 200,000,000 shares.

STOCKHOLDER RIGHTS PLAN

In March 2000 the Board of Directors of Cabot Microelectronics approved a stock rights agreement and declared a dividend distribution of one right to purchase one one-thousandth of a share of Series A Junior Participating Preferred Stock for each outstanding share of common stock to stockholders of record on April 7, 2000. This rights agreement expired in April 2010 according to its terms.

SHARE REPURCHASES

In January 2008, we announced that our Board of Directors had authorized a share repurchase program for up to $75,000 of our outstanding common stock. Shares are repurchased from time to time, depending on market conditions, in open market transactions, at management's discretion. We fund share repurchases from our existing cash balance. The program, which became effective on the authorization date, may be suspended or terminated at any time, at the Company's discretion. During fiscal 2010, we repurchased 723,184 shares of common stock at a cost of $24,998. We did not repurchase any shares under the share repurchase program in fiscal 2009. During fiscal 2008, we repurchased a total of 1,056,472 shares of common stock under these programs at a cost of $39,001. For additional information on share repurchases, see Part II, Item 5. "Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities".

Separate from this share repurchase program, a total of 24,651 and 14,425 shares were purchased during fiscal 2010 and 2009, respectively, pursuant to the terms of our EIP as shares withheld from award recipients to cover payroll taxes on the vesting of shares of restricted stock granted under the EIP.

16. INCOME TAXES

Income before income taxes was as follows:

	Year Ended September 30,		
	2010	2009	2008
Domestic	$ 39,835	$ 2,909	$ 44,912
Foreign	33,442	13,713	9,978
Total	$ 73,277	$ 16,622	$ 54,890

index

Taxes on income consisted of the following:

	Year Ended September 30,		
	2010	2009	2008
U.S. federal and state:			
Current	$ 15,372	$ 2,688	$ 20,814
Deferred	(2,643)	(2,163)	(6,874)
Total	$ 12,729	$ 525	$ 13,940
Foreign:			
Current	$ 10,597	$ 4,811	$ 2,491
Deferred	493	99	121
Total	11,090	4,910	2,612
Total U.S. and foreign	$ 23,819	$ 5,435	$ 16,552

The provision for income taxes at our effective tax rate differed from the statutory rate as follows:

	Year Ended September 30,		
	2010	2009	2008
Federal statutory rate	35.0 %	35.0 %	35.0 %
U.S. benefits from research and experimentation activities	(0.6)	(5.0)	(2.2)
State taxes, net of federal effect	0.5	0.6	0.7
Permanent reinvestment of foreign income	(2.7)	-	-
Tax-exempt interest income	(0.1)	(1.9)	(3.2)
Share-based compensation	0.3	2.9	0.5
Domestic production deduction	(0.1)	(0.2)	(0.5)
Other, net	0.2	1.3	(0.1)
Provision for income taxes	32.5 %	32.7 %	30.2 %

In fiscal 2010, we elected to permanently reinvest the earnings of certain of our foreign subsidiaries outside the U.S. rather than repatriating the earnings to the U.S. We have not provided deferred taxes on approximately $14.1 million of undistributed earnings of such subsidiaries. These earnings could become subject to additional income tax if they are remitted as dividends to the U.S. parent company, loaned to the U.S. parent company, or upon sale of subsidiary stock. This election reduced our effective income tax rate in fiscal 2010 by 2.7 percentage points. Decreased tax expense related to share-based compensation also decreased our effective income tax rate. These decreases in our effective tax rate were partially offset by the present expiration of the research and development tax credit effective December 31, 2009, and lower tax-exempt interest income.

On October 1, 2007, we adopted the standards for the accounting for uncertainty in income taxes, which prescribe a threshold for the financial statement recognition and measurement of tax positions taken or expected to be taken on a tax return. Under these standards, we may recognize the tax benefit of an uncertain tax position only if it is more likely than not that the tax position will be sustained by the taxing authorities, based on the technical merits of the position. Upon adoption, we recognized a $59 reduction to our beginning retained earnings balance and we reclassified $450 from current income taxes payable to a non-current tax liability for unrecognized tax benefits, including interest and penalties. We made this reclassification to a non-current liability because settlement was not

expected to occur within one year of the balance sheet date.

index

The following table presents the changes in the balance of gross unrecognized tax benefits during the last three fiscal years:

Balance September 30, 2007	$-
Establish liability for uncertain tax positions	509
Additions for tax positions relating to the current fiscal year	-
Additions for tax positions relating to prior fiscal years	26
Lapse of statute of limitations	(219)
Balance September 30, 2008	316
Additions for tax positions relating to the current fiscal year	-
Additions for tax positions relating to prior fiscal years	79
Settlements with taxing authorities	(10)
Lapse of statute of limitations	(136)
Balance September 30, 2009	249
Additions for tax positions relating to the current fiscal year	-
Additions for tax positions relating to prior fiscal years	153
Settlements with taxing authorities	(28)
Lapse of statute of limitations	(201)
Balance September 30, 2010	$173

We recognize interest and penalties related to uncertain tax positions as income tax expense in our financial statements. Interest and penalties accrued on our Consolidated Balance Sheet were $6 and $25 at September 30, 2010 and 2009, respectively, and interest and penalties charged to expense were not material.

We believe the tax periods open to examination by the U.S. federal government include fiscal years 2007 through 2009. We believe the tax periods open to examination by U.S. state and local governments include fiscal years 2006 through 2009 and the tax periods open to examination by foreign jurisdictions include fiscal years 2003 through 2009. We do not anticipate a significant change to the total amount of unrecognized tax benefits within the next 12 months.

Significant components of deferred income taxes were as follows:

	September 30,	
	2010	2009
Deferred tax assets:		
Employee benefits	$ 1,318	$ 1,626
Inventory	2,356	2,501
Depreciation and amortization	3,143	2,251
Product warranty	178	173
Bad debt reserve	397	452
Share-based compensation expense	18,457	15,783
Other, net	455	408
Total deferred tax assets	$ 26,304	$ 23,194
Deferred tax liabilities:		
Translation adjustment	$ 10,839	$ 7,938
Other, net	3,881	3,309
Total deferred tax liabilities	$ 14,720	$ 11,247

index

17. COMMITMENTS AND CONTINGENCIES

LEGAL PROCEEDINGS

While we are not involved in any legal proceedings that we believe will have a material impact on our consolidated financial position, results of operations or cash flows, we periodically become a party to legal proceedings in the ordinary course of business. For example, in January 2007, we filed a legal action against DuPont Air Products NanoMaterials LLC (DA Nano), a CMP slurry competitor, in the United States District Court for the District of Arizona, charging that DA Nano's manufacturing and marketing of CMP slurries infringe certain CMP slurry patents that we own. The affected DA Nano products include certain products used for tungsten CMP. We filed our infringement complaint as a counterclaim in response to an action filed by DA Nano in the same court in December 2006 that sought declaratory relief and alleged non-infringement, invalidity and unenforceability regarding some of the patents at issue in our complaint against DA Nano. DA Nano filed its complaint following our refusal of its request that we license to it our patents raised in its complaint. DA Nano's complaint did not allege any infringement by our products of intellectual property owned by DA Nano. From June 14 through July 8, 2010, a jury trial for the case was held. All of Cabot Microelectronics' patents at issue in the case were found valid. However, the jury found that DA Nano's products at issue do not infringe the asserted claims of these patents. In November 2010, we filed a Notice of Appeal regarding infringement, and DA Nano filed a cross-appeal. While the outcome of this and any legal matter cannot be predicted with certainty, we continue to believe that our claims and defenses in the pending action are meritorious, and we intend to continue to pursue and defend them.

PRODUCT WARRANTIES

We maintain a warranty reserve that reflects management's best estimate of the cost to replace product that does not meet customers' specifications and performance requirements, and costs related to such replacement. The warranty reserve is based upon a historical product replacement rate, adjusted for any specific known conditions or circumstances. Additions and deductions to the warranty reserve are recorded in cost of goods sold. Our warranty reserve requirements changed during fiscal 2010 as follows:

Balance as of September 30, 2009	$360
Reserve for product warranty during the reporting period	1,161
Settlement of warranty	(1,146)
Balance as of September 30, 2010	$375

INDEMNIFICATION

In the normal course of business, 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. Generally, these obligations arise in the context of agreements entered into by us, under which we customarily agree to hold the other party harmless against losses arising from items such as a breach of certain representations and covenants including title to assets sold, certain intellectual property rights and certain environmental matters. These terms are common in the industries in which we conduct business. In each of these circumstances, payment by us is subject to certain monetary and other limitations

and is conditioned on the other party making an adverse claim pursuant to the procedures specified in the particular agreement, which typically allow us to challenge the other party's claims.

We evaluate estimated losses for such indemnifications under the accounting standards related to contingencies and guarantees. We consider such factors as the degree of probability of an unfavorable outcome and the ability to make a reasonable estimate of the amount of loss. To date, we have not experienced material costs as a result of such obligations and, as of September 30, 2010, have not recorded any liabilities related to such indemnifications in our financial statements as we do not believe the likelihood of such obligations is probable.

index

LEASE COMMITMENTS

We lease certain vehicles, warehouse facilities, office space, machinery and equipment under cancelable and noncancelable leases, all of which expire within four years from now and may be renewed by us. Lease commitments also include certain costs associated with our pad finishing operation located at Taiwan Semiconductor Manufacturing Company, which are accounted for as an operating lease which is currently scheduled to end in August 2012. Rent expense under such arrangements during fiscal 2010, 2009 and 2008 totaled $2,480, $1,883 and $1,726, respectively.

In December 2001 we entered into a fumed alumina supply agreement with Cabot Corporation under which we agreed to pay Cabot Corporation for the expansion of a fumed alumina manufacturing facility in Tuscola, Illinois. The arrangement for the facility has been treated as a capital lease for accounting purposes and the present value of the minimum quarterly payments resulted in an initial $9,776 lease obligation and related leased asset. The initial term of the agreement expired in December 2006, but it was renewed for another five-year term ending in December 2011.

Future minimum rental commitments under noncancelable leases as of September 30, 2010 are as follows:

Fiscal Year	Operating	Capital
2011	$ 2,936	$ 1,354
2012	2,031	10
2013	972	2
2014	934	-
2015	695	-
Thereafter	1,271	-
	$ 8,839	1,366
Amount related to interest		(58)
Capital lease obligation		$ 1,308

PURCHASE OBLIGATIONS

Purchase obligations include our take-or-pay arrangements with suppliers, and purchase orders and other obligations entered into in the normal course of business regarding the purchase of goods and services.

We purchase fumed silica primarily under a fumed silica supply agreement with Cabot Corporation, our former parent company that is not a related party, that became effective in January 2004, and was amended in September 2006 and in April 2008, the latter of which extended the termination date of the agreement from December 2009 to December 2012 and also changed the pricing and some other non-material terms of the agreement to the benefit of both parties. The agreement will automatically renew unless either party gives notice of non-renewal. We are generally obligated to purchase fumed silica for at least 90% of our six-month volume forecast for certain of our slurry products, to purchase certain non-material minimum quantities every six months, and to pay for the shortfall if we purchase less than these amounts. We currently anticipate meeting minimum forecasted purchase volume requirements. We also operate under a fumed alumina supply agreement with Cabot Corporation which runs through December 2011. Purchase obligations include $7,352 of contractual commitments for fumed silica and fumed alumina under these contracts.

69

index

18. EARNINGS PER SHARE

The standards of accounting for earnings per share require companies to provide a reconciliation of the numerator and denominator of the basic and diluted earnings per share computations. Basic and diluted earnings per share were calculated as follows:

	Year Ended September 30,		
	2010	2009	2008
Numerator:			
Earnings available to common shares	$ 49,458	$ 11,187	$ 38,338
Denominator:			
Weighted average common shares (Denominator for basic calculation)	23,083,807	23,078,967	23,315,072
Weighted average effect of dilutive securities:			
Share-based compensation	188,772	17,457	33,195
Diluted weighted average common shares (Denominator for diluted calculation)	23,272,579	23,096,424	23,348,267
Earnings per share:			
Basic	$ 2.14	$ 0.48	$ 1.64
Diluted	$ 2.13	$ 0.48	$ 1.64

For the twelve months ended September 30, 2010, 2009, and 2008, approximately 2.6 million, 3.9 million and 2.7 million shares, respectively, attributable to outstanding stock options were excluded from the calculation of diluted earnings per share because the exercise price of the options was greater than the average market price of our common stock and, therefore, their inclusion would have been anti-dilutive.

index

19. FINANCIAL INFORMATION BY INDUSTRY SEGMENT, GEOGRAPHIC AREA AND PRODUCT LINE

We operate predominantly in one industry segment – the development, manufacture, and sale of CMP consumables.

Revenues are attributed to the United States and foreign regions based upon the customer location and not the geographic location from which our products were shipped. Financial information by geographic area was as follows:

	Year Ended September 30,		
	2010	2009	2008
Revenue:			
United States	$ 55,666	$ 46,781	$ 71,395
Asia	327,202	227,142	276,387
Europe	25,333	17,449	27,287
Total	$ 408,201	$ 291,372	$ 375,069
Property, plant and equipment, net:			
United States	$ 55,576	$ 62,462	$ 70,972
Asia	60,235	60,319	44,864
Europe	-	1	7
Total	$ 115,811	$ 122,782	$ 115,843

The following table shows revenue from sales to customers in foreign countries that accounted for more than ten percent of our total revenue in fiscal 2010, 2009 and 2008:

	Year Ended September 30,		
	2010	2009	2008
Revenue:			
Taiwan	$ 129,533	$ 92,023	$ 109,282
Japan	60,207	44,307	47,642
Singapore	44,316	*	*
Korea	42,669	30,873	43,653
* Denotes less than ten percent of total			

The following table shows net property, plant and equipment in foreign countries that accounted for more than ten percent of our total net property, plant and equipment in fiscal 2010, 2009 and 2008:

	Year Ended September 30,		
	2010	2009	2008
Property, plant and equipment, net:			
Japan	$ 42,225	$ 43,362	$ 42,732
Taiwan	17,542	16,430	*
* Denotes less than ten percent of total			

The following table shows revenue generated by product line in fiscal 2010, 2009 and 2008:

	Year Ended September 30,		
	2010	2009	2008
Revenue:			
Tungsten slurries	$ 147,788	$ 111,364	$ 153,261
Dielectric slurries	117,484	85,761	120,050
Copper slurries	75,898	49,311	54,393
Polishing pads	29,909	17,704	15,109
Data storage slurries	20,806	15,532	14,472
Engineered Surface Finishes	16,316	11,700	17,784
Total	$ 408,201	$ 291,372	$ 375,069

index

SELECTED QUARTERLY OPERATING RESULTS

The following table presents our unaudited financial information for the eight quarterly periods ended September 30, 2010. This unaudited financial information has been prepared in accordance with accounting principles generally accepted in the United States of America, applied on a basis consistent with the annual audited financial statements and in the opinion of management, include all necessary adjustments, which consist only of normal recurring adjustments necessary to present fairly the financial results for the periods. The results for any quarter are not necessarily indicative of results for any future period.

CABOT MICROELECTRONICS CORPORATION
SELECTED QUARTERLY OPERATING RESULTS
(Unaudited and in thousands, except per share amounts)

	Sept. 30, 2010	June 30, 2010	March 31, 2010	Dec. 31, 2009	Sept. 30, 2009	June 30, 2009	March 31, 2009	Dec. 31, 2008
Revenue	$ 110,318	$ 101,655	$ 98,556	$ 97,672	$ 96,513	$ 86,443	$ 45,399	$ 63,017
Cost of goods sold	56,590	51,759	49,091	47,264	49,775	46,143	32,689	34,311
Gross profit	53,728	49,896	49,465	50,408	46,738	40,300	12,710	28,706
Operating expenses:								
Research, development and technical	13,454	12,875	12,908	12,581	12,514	10,901	12,621	12,114
Selling and marketing	7,024	7,009	6,530	6,322	5,798	5,207	5,261	5,973
General and administrative	12,202	14,637	12,699	11,245	9,673	9,043	10,590	11,326
Purchased in-process research and development	-	-	-	-	-	(90)	1,500	-
Total operating expenses	32,680	34,521	32,137	30,148	27,985	25,061	29,972	29,413
Operating income (loss)	21,048	15,375	17,328	20,260	18,753	15,239	(17,262)	(707)
Other income (expense), net	(527)	172	(440)	61	(712)	(42)	477	876
Income (loss) before income taxes	20,521	15,547	16,888	20,321	18,041	15,197	(16,785)	169
Provision (benefit) for income taxes	5,231	5,450	5,941	7,197	5,871	6,183	(6,672)	53

Net income (loss)	$ 15,290	$ 10,097	$ 10,947	$ 13,124	$ 12,170	$ 9,014	$ (10,113)	$ 116
Basic earnings (loss) per share	$ 0.67	$ 0.44	$ 0.47	$ 0.57	$ 0.53	$ 0.39	$ (0.44)	$ 0.01
Weighted average basic shares outstanding	22,821	23,143	23,263	23,167	23,137	23,113	23,107	23,020
Diluted earnings (loss) per share	$ 0.66	$ 0.43	$ 0.47	$ 0.56	$ 0.52	$ 0.39	$ (0.44)	$ 0.01
Weighted average diluted shares outstanding	23,002	23,478	23,485	23,294	23,248	23,154	23,107	23,026

index

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS

The following table sets forth activities in our allowance for doubtful accounts:

Allowance For Doubtful Accounts	Balance At Beginning of Year	Amounts Charged To Expenses	Deductions and Adjustments	Balance At End Of Year
Year ended:				
September 30, 2010	$ 1,277	$ (113)	$ (43)	$ 1,121
September 30, 2009	403	856	18	1,277
September 30, 2008	635	(99)	(133)	403

We maintain a warranty reserve that reflects management's best estimate of the cost to replace product that does not meet customers' specifications and performance requirements, and costs related to such replacement. The warranty reserve is based upon a historical product replacement rate, adjusted for any specific known conditions or circumstances. Additions and deductions to the warranty reserve are recorded in cost of goods sold. Charges to expenses and deductions, shown below, represent the net change required to maintain an appropriate reserve.

Warranty Reserves	Balance At Beginning of Year	Reserve For Product Warranty During the Reporting Period	Adjustments To Pre-existing Warranty Reserve	Settlement of Warranty	Balance At End Of Year
Year ended:					
September 30, 2010	$ 360	$ 1,161	$ -	$ (1,146)	$ 375
September 30, 2009	863	1,067	-	(1,570)	360
September 30, 2008	527	962	-	(626)	863

index

MANAGEMENT RESPONSIBILITY

The accompanying consolidated financial statements were prepared by the Company in conformity with accounting principles generally accepted in the United States of America. The Company's management is responsible for the integrity of these statements and of the underlying data, estimates and judgments.

The Company's management establishes and maintains a system of internal accounting controls designed to provide reasonable assurance that its assets are safeguarded from loss or unauthorized use, transactions are properly authorized and recorded, and that financial records can be relied upon for the preparation of the consolidated financial statements. This system includes written policies and procedures, a code of business conduct and an organizational structure that provides for appropriate division of responsibility and the training of personnel. This system is monitored and evaluated on an ongoing basis by management in conjunction with its internal audit function.

The Company's management assesses the effectiveness of its internal control over financial reporting on an annual basis. In making this assessment, management uses the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control – Integrated Framework. Management acknowledges, however, that all internal control systems, no matter how well designed, have inherent limitations and can provide only reasonable assurance with respect to financial statement preparation and presentation. In addition, the Company's independent registered public accounting firm evaluates the Company's internal control over financial reporting and performs such tests and other procedures as it deems necessary to reach and express an opinion on the fairness of the financial statements.

In addition, the Audit Committee of the Board of Directors provides general oversight responsibility for the financial statements. Composed entirely of Directors who are independent and not employees of the Company, the Committee meets periodically with the Company's management, internal auditors and the independent registered public accounting firm to review the quality of financial reporting and internal controls, as well as results of auditing efforts. The internal auditors and independent registered public accounting firm have full and direct access to the Audit Committee, with and without management present.

/s/ William P. Noglows

William P. Noglows
Chief Executive Officer

/s/ William S. Johnson

William S. Johnson
Chief Financial Officer

/s/ Thomas S. Roman

Thomas S. Roman
Principal Accounting Officer

74

index

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

Our management, with the participation of our Chief Executive Officer (CEO) and Chief Financial Officer (CFO), has evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended ("the Exchange Act")), as of September 30, 2010. Based on that evaluation, our CEO and CFO have concluded that our disclosure controls and procedures were effective to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and to ensure that such information is accumulated and communicated management, including the CEO and CFO, as appropriate to allow timely decisions regarding required disclosure.

While we believe the present design of our disclosure controls and procedures is effective enough to make known to our senior management in a timely fashion all material information concerning our business, we intend to continue to improve the design and effectiveness of our disclosure controls and procedures to the extent necessary in the future to provide our senior management with timely access to such material information, and to correct any deficiencies that we may discover in the future, as appropriate.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. Internal control over financial reporting is defined in Rule 13a-15(f) or Rule 15d-15(f) promulgated under the Securities Exchange Act of 1934 as a process designed by, or under the supervision of, the Company's CEO and CFO to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America. Internal control over financial reporting includes policies and procedures that: pertain to the maintenance of records that in reasonable detail accurately and fairly reflect our transactions and dispositions of the Company's assets; provide reasonable assurance that transactions are recorded as necessary for preparation of our financial statements in accordance with generally accepted accounting principles; provide reasonable assurance that receipts and expenditures of Company assets are made in accordance with management authorization; and provide reasonable assurance that unauthorized acquisition, use or disposition of Company assets that could have a material effect on our financial statements would be prevented or detected on a timely basis. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management evaluated the effectiveness of our internal control over financial reporting based on the framework in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, our management concluded that the Company's internal control over

financial reporting was effective as of September 30, 2010. The effectiveness of the Company's internal control over financial reporting as of September 30, 2010 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their attestation report which appears under Item 8 of this Annual Report on Form 10-K.

index

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There were no changes in our internal control over financial reporting that occurred during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

INHERENT LIMITATIONS ON EFFECTIVENESS OF CONTROLS

Because of inherent limitations, our disclosure controls or our internal control over financial reporting may not prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

ITEM 9B. OTHER INFORMATION

None.

index

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by Item 10 of Form 10-K with respect to identification of directors, the existence of a separately-designated standing audit committee, identification of members of such committee and identification of an audit committee financial expert is incorporated by reference from the information contained in the sections captioned "Election of Directors" and “Board Structure and Compensation” in our definitive Proxy Statement for the Annual Meeting of Stockholders to be held March 8, 2011 (the "Proxy Statement”). In addition, for information with respect to the executive officers of our Company, see "Executive Officers" at the end of Part I of this Form 10-K and the section captioned “Section 16(a) Beneficial Ownership Reporting Compliance” in the Proxy Statement. Information required by Item 405 of Regulation S-K is incorporated by reference from the information contained in the section captioned “Section 16(a) Beneficial Ownership Reporting Compliance” in the Proxy Statement.

We have adopted a code of business conduct for all of our employees and directors, including our principal executive officer, other executive officers, principal financial officer and senior financial personnel. A copy of our code of business conduct is available free of charge on our Company website at www.cabotcmp.com. We intend to post on our website any material changes to, or waivers from our code of business conduct, if any, within two days of any such event.

ITEM 11. EXECUTIVE COMPENSATION

The information required by Item 11 of Form 10-K is incorporated by reference from the information contained in the section captioned "Executive Compensation" in the Proxy Statement.

index

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

EQUITY COMPENSATION PLAN INFORMATION

Shown below is information as of September 30, 2010, with respect to the shares of common stock that may be issued under Cabot Microelectronics' existing equity compensation plans.

Plan category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	4,843,858 (1)	$37.94 (1)	2,885,610 (2)
Equity compensation plans not approved by security holders	-	-	-
Total	4,843,858 (1)	$37.94 (1)	2,885,610 (2)

(1) Column (a) includes 47,572 shares that non-employee directors, who defer their compensation under our Directors' Deferred Compensation Plan, have the right to acquire pursuant thereto, and 63,695 shares that non-employee directors and non-U.S. employees have the right to acquire upon the vesting of the equivalent restricted stock units that they have been awarded under our equity incentive plan. Column (b) excludes both of these from the weighted average exercise price.

(2) Column (c) includes 507,222 shares available for future issuance under our Employee Stock Purchase Plan.

The other information required by Item 12 of Form 10-K is incorporated by reference from the information contained in the section captioned "Stock Ownership" in the Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information required by Item 13 of Form 10-K is incorporated by reference from the information contained in the section captioned "Certain Relationships and Related Transactions" in the Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by Item 14 of Form 10-K is incorporated by reference from the information contained in the section captioned “Fees of Independent Auditors and Audit Committee Report” in the Proxy Statement.

index

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The following Financial Statements and Financial Statement Schedule are included in Item 8 herein:

1. Financial Statements:

Report of Independent Registered Public Accounting Firm
Consolidated Statements of Income for the years ended September 30, 2010, 2009 and 2008
Consolidated Balance Sheets at September 30, 2010 and 2009
Consolidated Statements of Cash Flows for the years ended September 30, 2010, 2009 and 2008
Consolidated Statements of Changes in Stockholders' Equity for the years ended September 30, 2010, 2009 and 2008
Notes to the Consolidated Financial Statements

2. Financial Statement Schedule: Schedule II – Valuation and Qualifying Accounts

3. Exhibits - The following exhibits are filed as part of, or incorporated by reference into, this Report on Form 10-K:

Exhibit Number	Description
3.2 (14)	Amended and Restated By-Laws of Cabot Microelectronics Corporation.
3.3 (1)	Form of Amended and Restated Certificate of Incorporation of Cabot Microelectronics Corporation.
3.4 (2)	Form of Certificate of Designation, Preferences and Rights of Series A Junior Participating Preferred Stock.
4.1 (2)	Form of Cabot Microelectronics Corporation Common Stock Certificate.
4.2 (3)	Rights Agreement.
4.3 (4)	Amendment to Rights Agreement.
10.1 (15)	Second Amended and Restated Cabot Microelectronics Corporation 2000 Equity Incentive Plan, as amended and restated September 23, 2008.*
10.2 (19)	Form of Second Amended and Restated Cabot Microelectronics Corporation 2000 Equity Incentive Plan Non-Qualified Stock Option Grant Agreement (directors).*
10.4 (15)	Form of Second Amended and Restated Cabot Microelectronics Corporation 2000 Equity Incentive Plan Non-Qualified Stock Option Grant Agreement (U.S. employees (including executive officers)).*
10.5 (15)	Form of Second Amended and Restated Cabot Microelectronics Corporation 2000 Equity Incentive Plan Restricted Stock Award Agreement (employees (including executive officers)).*
10.6 (19)	Form of Second Amended and Restated Cabot Microelectronics Corporation 2000 Equity Incentive Plan Restricted Stock Units Award Agreement for Directors.*
10.15 (18)	Cabot Microelectronics Corporation 2007 Employee Stock Purchase Plan, as Amended and Restated January 1, 2010.*
10.22 (18)	Cabot Microelectronics Corporation 401(k) Plan, as amended.*
10.23 (15)	Form of Amended and Restated Change in Control Severance Protection Agreement.**
10.28 (15)	Directors' Deferred Compensation Plan, as amended September 23, 2008.*
10.29 (6)	Amended and Restated Credit Agreement dated November 24, 2003 among Cabot Microelectronics Corporation, Various Financial Institutions and LaSalle Bank National Association, as Administrative Agent, and National City Bank of Michigan/Illinois, as Syndication Agent.
10.30 (5)	Form of Deposit Share Agreement.***

10.31 (5)	Amendment No. 1 to Fumed Metal Oxide Agreement, between Cabot Microelectronics Corporation and Cabot Corporation.+
10.32 (5)	Fumed Alumina Supply Agreement.+
10.33 (15)	Adoption Agreement, as amended September 23, 2008, of Cabot Microelectronics Corporation Supplemental Employee Retirement Plan.*
10.34 (10)	Code of Business Conduct.
10.36 (6)	Directors' Cash Compensation Umbrella Program.*
10.37 (7)	Employment and Transition Agreement dated November 3, 2003.*
10.38 (7)	Employment Offer Letter dated November 2, 2003.*
10.39 (7)	Employment Offer Letter dated November 17, 2003.*
10.40 (8)	Amendment No. 2 to Fumed Metal Oxide Agreement, between Cabot Microelectronics Corporation and Cabot Corporation.
10.41 (8)	Amendment No. 3 to Fumed Metal Oxide Agreement, between Cabot Microelectronics Corporation and Cabot Corporation.
10.42 (8)	Fumed Silica Supply Agreement.+
10.43 (8)	General Release, Waiver and Covenant Not to Sue.*
10.44 (9)	Amendment as of January 17, 2005 to Four Grant Agreements for Non-Qualified Stock Option Awards with Grant Dates of March 13, 2001, March 12, 2002, March 11, 2003 and March 9, 2004, respectively.*
10.45 (9)	Amendment as of January 29, 2005 to Three Grant Agreements for Non-Qualified Stock Option Awards with Grant Dates of March 13, 2001, March 12, 2002 and March 11, 2003, respectively.*
10.46 (20)	Non-Employee Directors' Compensation Summary as of March, 2010.*
10.47 (11)	Asset Purchase Agreement by and among Cabot Microelectronic Corporation, QED Technologies International, Inc., QED Technologies, Inc., Don Golini and Lowell Mintz dated June 15, 2006.
10.48 (11)	Technology Asset Purchase Agreement dated June 15, 2006 by and among Cabot Microelectronics Corporation, QED Technologies International, Inc., and Byelocorp Scientific, Inc.
10.49 (12)	Amendment No. 1 to Fumed Silica Supply Agreement, between Cabot Microelectronics Corporation and Cabot Corporation.+
10.50 (13)	Amendment No. 2 to Fumed Silica Supply Agreement, between Cabot Microelectronics Corporation and Cabot Corporation.+
10.51 (15)	First Amendment to the Employment Offer Letter dated November 2, 2003.*
10.52 (15)	First Amendment to the Employment Offer Letter dated November 23, 2003.*
10.53 (15)	Cabot Microelectronics Corporation Supplemental Employee Retirement Plan, as amended.*
10.54 (15)	Cabot Microelectronics Corporation Annual Incentive and Sales Incentive Programs.*
10.55 (16)	Share Purchase Agreement dated December 19, 2008 among Cabot Microelectronics Global Corporation, Eternal Chemical Co., Ltd., Major Co-Sellers, and Epoch Material Co., Ltd.+
10.56 (17)	First Amendment to Amended and Restated Credit Agreement dated October 30, 2008 among Cabot Microelectronics Corporation, Bank of America, N.A., as Administrative Agent, Issuing Bank, and Swing Line Bank, and JPMorgan Chase Bank, N.A., as Syndication Agent.
10.57 (18)	Adoption Agreement, as amended January 1, 2010, of Cabot Microelectronics Corporation 401(k) Plan.*
21.1	Subsidiaries of Cabot Microelectronics Corporation.
23.1	Consent of Independent Registered Public Accounting Firm.
24.1	Power of Attorney.
31.1	Certification of Chief Executive Officer as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

index

(1) Filed as an exhibit to, and incorporated by reference from the Registrant's Registration Statement on Form S-1 (No. 333-95093) filed with the Commission on March 27, 2000.

(2) Filed as an exhibit to, and incorporated by reference from the Registrant's Registration Statement on Form S-1 (No. 333-95093) filed with the Commission on April 3, 2000.

(3) Filed as an exhibit to, and incorporated by reference from the Registrant's Registration Statement on Form S-1 (No. 333-95093) filed with the Commission on April 4, 2000.

(4) Filed as an exhibit to, and incorporated by reference from the Registrant's Current Report on Form 8-K (No. 000-30205) filed with the Commission on October 6, 2000.

(5) Filed as an exhibit to, and incorporated by reference from the Registrant's Quarterly Report on Form 10-Q (No. 000-30205) filed with the Commission on February 12, 2002.

(6) Filed as an exhibit to, and incorporated by reference from the Registrant's Annual Report on Form 10-K (No. 000-30205) filed with the Commission on December 10, 2003.

(7) Filed as an exhibit to, and incorporated by reference from the Registrant's Quarterly Report on Form 10-Q (No. 000-30205) filed with the Commission on February 12, 2004.

(8) Filed as an exhibit to, and incorporated by reference from the Registrant's Quarterly Report on Form 10-Q (No. 000-30205) filed with the Commission on May 7, 2004.

(9) Filed as an exhibit to, and incorporated by reference from the Registrant's Quarterly Report on Form 10-Q (No. 000-30205) filed with the Commission on May 9, 2005.

(10) Filed as an exhibit to, and incorporated by reference from the Registrant's Annual Report on Form 10-K (No. 000-30205) filed with the Commission on December 7, 2005.

(11) Filed as an exhibit to, and incorporated by reference from the Registrant's Quarterly Report on Form 10-Q (No. 000-30205) filed with the Commission on August 9, 2006.

(12) Filed as an exhibit to, and incorporated by reference from the Registrant's Annual Report on Form 10-K (No. 000-30205) filed with the Commission on November 29, 2006.

(13) Filed as an exhibit to, and incorporated by reference from the Registrant's Quarterly Report on Form 10-Q (No. 000-30205) filed with the Commission on August 8, 2008.

(14) Filed as an exhibit to, and incorporated by reference from the Registrant's Current Report on Form 8-K (No. 000-30205) filed with the Commission on September 24, 2008.

(15) Filed as an exhibit to, and incorporated by reference from the Registrant's Annual Report on Form 10-K (No. 000-30205) filed with the Commission on November 25, 2008.

(16) Filed as an exhibit to, and incorporated by reference from the Registrant's Quarterly Report on Form 10-Q (No. 000-30205) filed with the Commission on February 5, 2009.

(17) Filed as an exhibit to, and incorporated by reference from the Registrant's Quarterly Report on Form 10-Q (No. 000-30205) filed with the Commission on May 8, 2009.

(18) Filed as an exhibit to, and incorporated by reference from the Registrant's Quarterly Report on Form 10-Q (No. 000-30205) filed with the Commission on February 8, 2010.

(19) Filed as an exhibit to, and incorporated by reference from the Registrant's Quarterly Report on Form 10-Q (No. 000-30205) filed with the Commission on May 7, 2010.

(20) Filed as an exhibit to, and incorporated by reference from the Registrant's Current Report on Form 8-K (No. 000-30205) filed with the Commission on March 10, 2010.

* Management contract, or compensatory plan or arrangement.

** Substantially similar change in control severance protection agreements have been entered into with William P. Noglows, H. Carol Bernstein, William S. Johnson, Daniel J. Pike, Thomas S. Roman, Stephen R. Smith, Clifford L. Spiro, Adam F. Weisman, Daniel S. Wobby, Yumiko Damashek and David H. Li, with differences only in the amount of payments and benefits to be received by such persons.

*** Substantially similar deposit share agreements have been entered into with William P. Noglows, H. Carol Bernstein, William S. Johnson, Daniel J. Pike, Thomas S. Roman, Stephen R. Smith, Clifford L. Spiro, Adam F. Weisman and Daniel S. Wobby with differences only in the amount of initial deposit made and deposit shares purchased by such persons.

+ This Exhibit has been filed separately with the Commission pursuant to the grant of a confidential treatment request. The confidential portions of this Exhibit have been omitted and are marked by an asterisk.

index

SIGNATURES

Pursuant to the requirements of section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized:

CABOT MICROELECTRONICS CORPORATION

Date: November 23, 2010 /s/ WILLIAM P. NOGLOWS
William P. Noglows
Chairman of the Board, President and Chief Executive Officer
[Principal Executive Officer]

Date: November 23, 2010 /s/ WILLIAM S. JOHNSON
William S. Johnson
Vice President and Chief Financial Officer
[Principal Financial Officer]

Date: November 23, 2010 /s/ THOMAS S. ROMAN
Thomas S. Roman
Corporate Controller
[Principal Accounting Officer]

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Date: November 23, 2010 /s/ WILLIAM P. NOGLOWS
William P. Noglows
Chairman of the Board, President and Chief Executive Officer
[Director]

Date: November 23, 2010 /s/ ROBERT J. BIRGENEAU*
Robert J. Birgeneau
[Director]

Date: November 23, 2010 /s/ JOHN P. FRAZEE, JR.*
John P. Frazee, Jr.
[Director]

Date: November 23, 2010 /s/ H. LAURANCE FULLER*

H. Laurance Fuller
[Director]

Date: November 23, 2010 /s/ BARBARA A. KLEIN*
Barbara A. Klein
[Director]

Date: November 23, 2010 /s/ EDWARD J. MOONEY*
Edward J. Mooney
[Director]

Date: November 23, 2010 /s/ STEVEN V. WILKINSON*
Steven V. Wilkinson
[Director]

Date: November 23, 2010 /s/ BAILING XIA*
Bailing Xia
[Director]

* by H. Carol Bernstein as Attorney-in-fact pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934.