

Between October 26 and October 31 of 1991, three weather systems—“three pieces of energy” as a National Weather Service forecaster called them—converged in the North Atlantic. A low-pressure system, a high-pressure system, and a hurricane came together, creating a vortex almost 2000 miles wide.

Meteorologists described the phenomenon as a thing of “*mystical beauty*” and extraordinary energy.

They called it the perfect storm.

We call it a perfect example of the power of *CONVERGENCE*.

Convergence

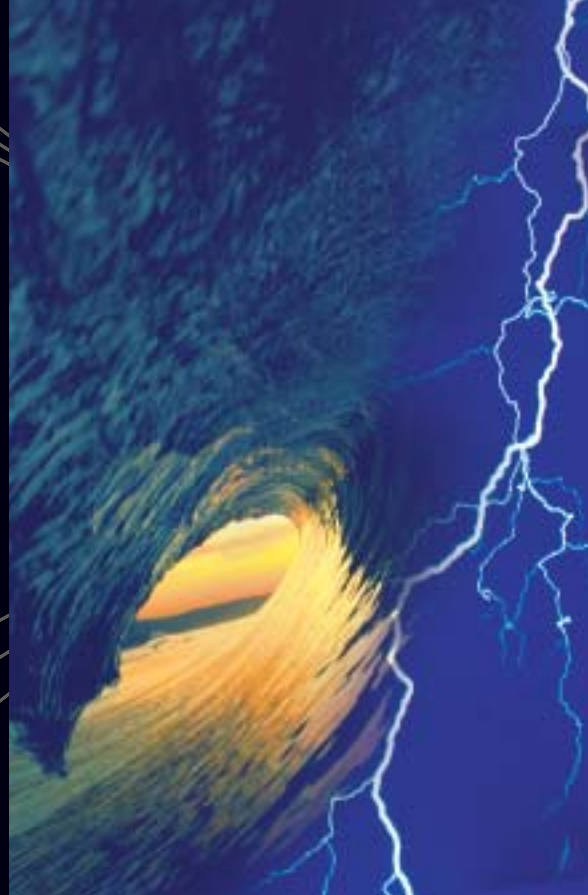
Unleashing new power

Creating new energy

Advanced Energy Industries, Inc.
1625 Sharp Point Drive
Fort Collins, CO 80525
Phone: 970/221-4670
Fax: 970/221-5583
www.advanced-energy.com

C o n v e r g e

to approach the same point from different directions; to move toward a union, a conclusion, or a common result.



Corporate Profile

Advanced Energy today is a company in motion. A company with a quest. A company that is moving beyond its leading position as the global source for sophisticated power conversion and control systems, and process control instruments, to a company that is bringing together people and technologies in ways that provide customers with tools that promise more precision and productivity than ever before.

Today, AE offers a comprehensive suite of key subsystems for vacuum process systems. AE's customers use our products in plasma-based thin-film processing equipment that is essential to the manufacture of semiconductors; compact disks, DVDs, and other digital storage media; flat-panel computer and television screens; coatings for architectural glass and optics; reflective automobile parts and automotive paint preparation; and computer workstations. Increasingly, we're expanding into a variety of non-plasma markets, including industrial and consumer products.

It is our constant challenge to increase the value we bring to our customers. They know us for the technological edge our products offer. And they come to us for the expertise we share. Today, we're pushing ahead—connecting our customers to a vision of process excellence. Converging on the reality of precise control.

Watch us. We're making waves.

Contact and Stockholder Information

Corporate Headquarters

Advanced Energy Industries, Inc.
1625 Sharp Point Drive
Fort Collins, CO 80525
T: 970/221-4670
F: 970/221-5583
www.advanced-energy.com

Research, Development, and Manufacturing Centers

San Jose, California
Fort Collins, Colorado
Longmont, Colorado
Voorhees, New Jersey
Austin, Texas
Vancouver, Washington

Worldwide Sales and Support Offices

Domestic

Milpitas, California
Concord, Massachusetts
Austin, Texas

International

Shenzen, China
Bicester, England
Filderstadt, Germany
Tokyo, Japan
Bundang, South Korea
Taipei Hsien, Taiwan

Distributors and Representatives

Australia, China, France, India, Israel, Italy, Mexico, Singapore, and Sweden

Stockholder Information

Stock Listing

The Company's common stock is traded on the Nasdaq National Market under the symbol AEIS.

Annual Meeting:

The 2000 annual meeting of AE stockholders will be held at 10:00 a.m. Mountain Time on May 9, 2001 at the Company's headquarters, 1625 Sharp Point Drive, Fort Collins, Colorado.

Independent Auditors

Arthur Andersen LLP
1225 17th Street, Suite 3100
Denver, CO 80202-5531

General Counsel

Thelen Reid & Priest LLP
333 West San Carlos Street
San Jose, CA 95113

Transfer Agent

BankBoston, NA
c/o Boston EquiServe, LP
PO Box 8040
Boston, MA 02266-8040
781/575-3120
www.equiserve.com

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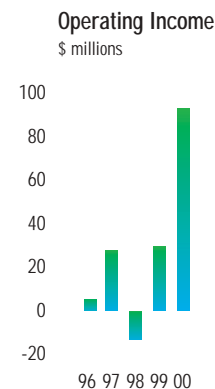
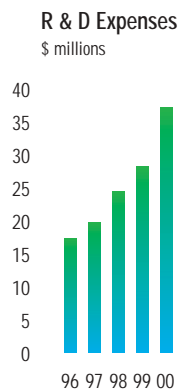
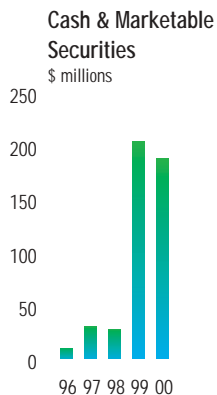
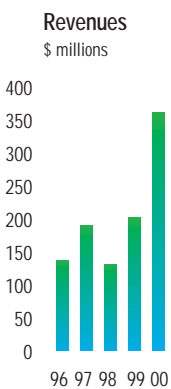
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Financial Highlights

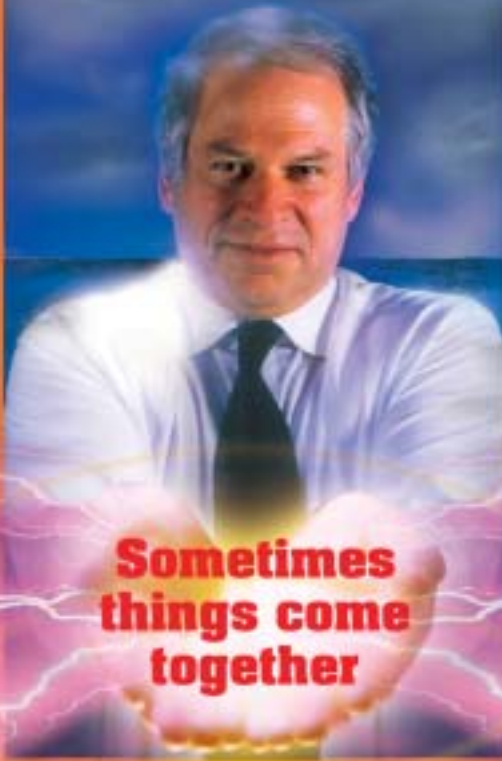
In thousands except per share data

Fiscal year ended	2000	1999	1998	1997	1996
Net sales	\$359,782	\$202,849	\$134,019	\$188,339	\$138,074
Gross profit	176,453	92,202	40,019	71,656	49,706
Operating expenses	85,670*	62,876	52,142 *	44,109*	39,448
Income (loss) from operations	90,783*	29,326	(12,123)*	27,547*	10,258
Net income (loss) before extraordinary item	60,888*	19,066	(8,360)*	17,685*	6,128
Basic earnings (loss) per share before extraordinary item	1.94*	0.64	(0.29)*	0.67*	0.24
Diluted earnings (loss) per share before extraordinary item	1.88*	0.62	(0.29)*	0.65*	0.23
Cash and marketable securities	189,527	207,483	28,714	32,551	12,455
Working capital	279,626	257,484	63,225	77,188	43,365
Total assets	365,835	325,433	107,736	136,545	72,517
Long-term debt including short-term portion	83,980	139,012	1,603	8,784	5,037
Stockholders' equity	238,798	156,989	92,163	99,969	56,495
Basic weighted-average common shares outstanding	31,336	29,706	29,007	26,278	25,958
Diluted weighted-average common shares outstanding	32,425	30,934	29,007	27,057	26,493

*Excludes one-time charges and credits



To our stockholders,
customers, employees,
suppliers, and friends



perfectly.

Planets align. Fires ignite. Storms erupt. Technologies converge. People connect. Minds meet. Visions unite.

And sometimes the effects are so powerful, they create new forces and reveal new opportunities.

We like the concept. We call it **CONVERGENCE**. And this year, we embraced it. During 2000, we brought together ideas and technologies and people in unprecedented ways—ways we believe will create exponential value in the years ahead for our customers, our stockholders, and our employees.

Could we call 2000 a perfect year? Not exactly. But we've never had a better one. Our financial results were record setting in every respect.

Year 2000 results. Net sales in 2000 were a record \$360 million compared with \$203 million in 1999—more than a 77% increase. Net income this year was a record \$68 million, or \$2.10 per diluted share, compared with just over \$19 million, or 62 cents per share, in 1999. We saw cash earnings per share of \$2.29. Gross profit grew to over \$176 million, or 49% in 2000 from just over \$92 million, or more than 45%, in 1999. We increased cash flow from operations to more than \$22 million.

We ended the year with nearly \$190 million of cash and marketable securities; \$280 million of working capital; \$366 million of total assets; and \$239 million of stockholders' equity.



- Solid state tuner technology
- FTMS matching technology



- Multi-output barrier discharge supply for UV
- New technique for reactive sputtering

By continuing to make improvements in the efficiencies of operations, we reduced our cost of goods sold (COGS) to 51% of revenues from 55% in 1999. Our efforts in this area contributed \$8 million to our bottom line.

We strive to maintain a strong balance sheet and a level of cash reserves that provide us with the ability to act quickly and decisively to great advantage. For example, in the fourth quarter we repurchased, on the open market, convertible notes with a face value of \$53 million at a price of approximately \$41 million. This buy-back saved the company almost \$3 million per year in interest costs and resulted in an extraordinary gain of almost \$8 million after tax. It also eliminated a potential dilution of the stock had the notes been converted.

In another case, when faced with renegotiating a planned acquisition, we were able to quickly shift from an exchange of stock to cash—and, again, prevent stock dilution.

Year in review. There's a story behind the numbers. In 2000, customer demand was unprecedented. And so were our employees' efforts; in fact, revenue per employee grew 46% over 1999. We grew market share in all of our core industry segments, earning design wins with both old and new customers. We introduced new core products and enhanced existing ones. We completed a 63,000 square foot manufacturing facility in Fort Collins. And we opened a representative office in China.

Unfortunately, we also rode out a few rough seas. In the third quarter, we missed our own expectations for company growth. We took a hard look at our Tower subsidiary and made the difficult decision to move its operations from Minnesota to our Voorhees, New Jersey, facility. And, in spite of record-breaking quarters, we watched our stock price decline along with the rest of the market.

But of all the things we did in 2000, the best are these: We recruited and retained exceptional people—always our priority. And then, we created an even more exciting place for them to work. Because this year, we concluded three acquisitions (well, one took until January 2, 2001), and we established three business alliances, setting our convergence strategy in full forward motion.

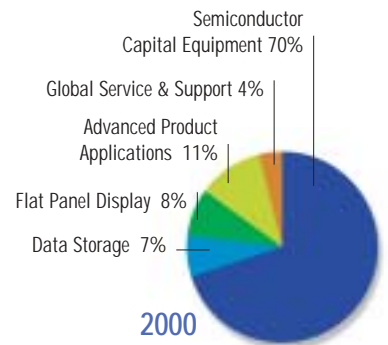
Converging on a new future. For a few years now, we've been moving toward an industry model we've called technology integration. It involves designing more and more capability into our products, elevating them from stand-alone power supplies to intelligent subsystems that offer better control over processes. Whether this integration is the chicken or the egg of the industry's trend toward fewer suppliers is hard to say. But the point is, we've been making steady progress in this direction.

This year, however, *steady* became *accelerated* as we made key acquisitions in technology and talent. We acquired Noah Precision in April, Sekidenko in August, and EMCO in January 2001. In addition, we made strategic investments in Symphony Systems and in Dressler HF Technik, whose RF power supply increases our market share in a niche we didn't serve. And we also created an alliance with Berkeley Process Control.

Our acquisition criteria were straightforward. We wanted companies with strong principles and values, a can-do culture, and a technical orientation. We looked only at those who were, or were about to become, number one in their niche.

Suddenly, it seemed to us that we had gathered together the potential to go beyond integration—even beyond synergy—to something more catalytic. Something powerful enough to alter the landscape. **CONVERGENCE** best describes it. Because it's not just about the way we'll design, build, and configure our products, it's about the way our AE family—now, community—will work together. It's about the way we'll work with *our* customers and *their* customers. It's about the way our customers will work—*period*. And, finally, it's about the results both OEMs and end users will see.

Revenue Mix by Industry



- RF gas abatement source.
- Second-generation integrated RF System



- RF endpoint sensor
- 2nd generation integrated RF system



- Multi-channel electroplating
- New Power Supply Architecture (NPSA)

What does convergence look like? From a technology point of view, it means that we bring together critical process components, coordinate them, and build them into a subsystem architecture that offers highly specialized solutions for our customers.

Here's a simple scenario for the semiconductor industry: The AE RF power delivery system heats the wafer chamber, our e-chuck power supply holds the wafer, Sekidenko's solution senses the wafer temperature and sends the information to Berkeley Process's controller, which then programs Noah's technology to cool the wafer. All during this process, EMCO's technology measures and controls the flow of liquids and gases, and Symphony Systems provides connectivity between the Internet and subsystems within the fabrication tool.

From our customers' point of view, our convergence strategy means that process information becomes not only real time, but interactive. The subsystem now offers predictive, diagnostic, and prescriptive information. As our customers' revenues become hinged to wafer production—intelligent, precise process control will contribute to their bottom line.

Our convergence strategy also aligns with our customers' supplier-reduction initiatives. In the last three years, one of our customers has reduced its vendor list from 1200 suppliers down to about 327. Today, consolidation is a must.

From an employee point of view, we believe our convergence strategy is inspiring our employees to new levels of curiosity, competency, and performance. Upsetting status quo opens new opportunities. We're bringing together groups of people from different disciplines who share the experience of having worked with many of the same customers. This means better cooperation, better insight, better product design, and better customer relationships. We learn more, we understand more. We communicate and listen better. And we're bound by shared principles, strong values, and a culture that says YES! to change.

And what does convergence mean for our investors? First, we know that success comes from creating superior products and services that are in demand by our customers—and we believe we're delivering better than ever on those expectations. Second, our vision supports long-term growth. And third, we remain focused on combining strong fundamentals with strong results and strong governance.

As I write this, the view of 2001 is foggy and limited. But the work goes on. Our customers are tooling for 300mm, copper, and the new geometries. End users seek retrofits. New applications surface.

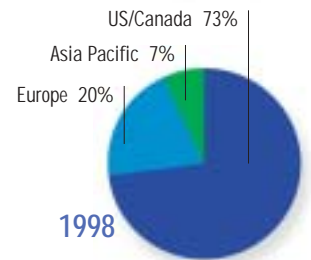
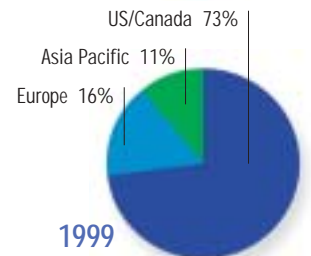
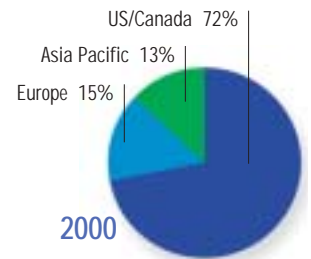
We're converging. It's the wave of our future.

On behalf of the AE family and our board of directors, thank you for your interest, confidence, and support.



Douglas S. Schatz
Chairman and CEO

Markets by Geographic Area



We're converging. It's the wave of our future.



- Small, combined reactive gas supply and ion source unit
- Low cost, low voltage/high current converters for powering microprocessors
- Wafer temperature controller
- e-diagnostic technology
- Small, water-cooled dc power supply
- Integrated dc power supply and pulsing unit
- Digitized mass flow controller
- Deposition rate monitor

CONVERGENCE.

Bringing it all together...



For our customers and stockholders It's an on-going process to understand the value we can bring to the people who buy our products and those who purchase our stock. Fundamentally, we believe they both want the same thing: a satisfactory return on investment—whether that means higher revenues or higher stock prices.

That's why we pursue a single strategy in creating value for both of our constituents. It involves change. And that always involves some risk. But we have long believed that doing things right and doing the right things are not opposing choices. We must do both.

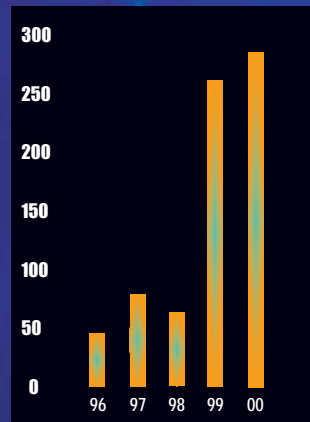
So we'll continue our growth by pursuing technological innovation and identifying emerging opportunities. We'll continue developing and maintaining candid, cooperative relationships that keep information flowing and results improving. We'll continue dedicating ourselves to excellence, quality, and reliability. And we'll continue managing to our principles and values.

Postscript

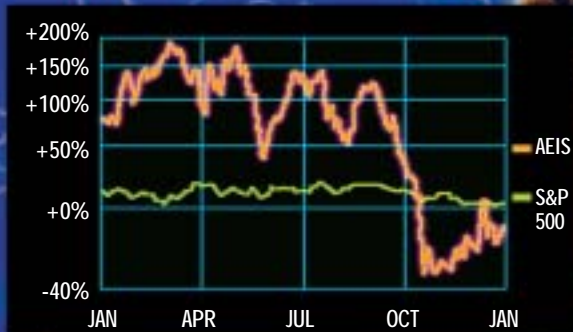
For our employees What some companies refer to as human capital is to us the AE community—a diverse and uniquely talented group of hard working people. Each year it's important to me and to all of AE's management that we call special attention to their unfailing contributions. They make our continuing success possible. Every day we see the care and commitment they bring to their work and to their relationships with our customers, our stockholders, our suppliers, and fellow employees.

A few years ago when a sudden rainstorm flooded our facilities, I thought I had seen our employees at their very best—literally digging in and responding to crisis. But this year, I am even more proud to recognize them for their spontaneous outpouring of kindness and generosity in helping a colleague struck by tragedy. It's another measure of their character and quality. And a perfect example of how the people of AE come together to make all the difference.

Working Capital
\$ millions



Stock Price 2000



YEAR 2000: ACQUISITIONS & ALLIANCES



Noah Precision, Inc. Acquired in April as a wholly-owned subsidiary in an exchange of stock and accounted for as a pooling of interests. Noah designs, manufactures, and markets compact, highly reliable, solid state **temperature control systems** that provide dynamic temperature control in plasma etch, wet etch, and photoresist processes during semiconductor manufacture. These systems provide precise temperature control and fast temperature response especially critical in plasma etch applications of sub 0.25 micron processes. Their thermoelectric cooling product is a differentiating technology, replacing the traditional electromechanical refrigeration methods with a smaller, more efficient and effective unit. Noah also represents an internal-sales/cost-saving opportunity: one of the components of its product is a power source that AE will now supply. Formerly a privately-held company, it is located in San Jose, California.

Sekidenko, Inc. Acquired in August as a wholly-owned subsidiary in an exchange of stock and accounted for as a pooling of interests. Sekidenko supplies temperature metrology solutions that we believe are the best available. It is the dominant supplier of **optical fiber thermometers (OFTs)** that measure the temperature of semiconductor wafers during the manufacturing process. OFTs are the preferred method for non-contact temperature measurement and offer superior accuracy, repeatability, and ease of use in RTP, CVD, Epitaxy, PVD, and crystal growth semiconductor manufacturing applications. Formerly a privately-held company, it is located in Vancouver, Washington.

EMCO (Engineering Measurements Company) Acquired in January 2001 as a wholly-owned subsidiary for approximately \$30 million cash. EMCO manufactures electronic and electro-mechanical precision **instruments for measuring and controlling the flow of liquids, steam, and gases.** Their Mach One product represents a disruptive technology—a uniquely elegant and powerful solution to flow measurement and control, which impacts wafer quality, yield, and system reliability. EMCO also offers contract electronic printed circuit board assembly. Formerly publicly-held on the Nasdaq exchange, it is located in Longmont, Colorado.

Converging technology and talent
to meet the next wave of process challenges.

CONVERGENCE.

Where power meets control.



Visit these web sites to learn more about:
Advanced Energy
www.advanced-energy.com

Symphony Systems
www.symphony-systems.com

Berkeley Process Control
www.berkeleyprocess.com

Dressler HF Technik GmbH
www.dressler.com

SYMPHONY SYSTEMS Business alliance completed in March when AE provided a major portion of Symphony's convertible promissory note bridge financing. Symphony supplies **network-based tool connectivity infrastructure and a suite of open-architecture software solutions** for semiconductor applications. Symphony software solutions create a web-based supply chain of equipment, equipment users, equipment suppliers, parts and consumable suppliers, and application software providers, in real time. The result is a dynamic, highly secure resource management environment that optimizes productivity of mission-critical capital equipment. These software solutions give users unprecedented remote access to critical predictive maintenance and tool health information through a web-based platform, which helps improve productivity and accelerate process innovation. Symphony's software extends the application of our Fourth State Technology (acquired in 1998) monitoring system used in process monitoring instrumentation and advanced process control. Symphony is privately held and is located in Campbell, California.

BERKELEY PROCESS CONTROL Exclusive distribution agreement completed in June. Berkeley supplies a powerful **real time control system** that can control virtually all servo motor-driven subsystems using a low-cost, high-speed Ethernet or similar network. The system coordinates data flow and automatically analyzes data. Its robust architecture is efficient, reliable and scalable—able to expand beyond motion control to bring the same benefits to the entire machine layer of a process tool. By leveraging our relationship with software provider Symphony Systems, we can maximize the potential of Berkeley's hardware and network platform. Our customers benefit through significant productivity improvements. Berkeley is privately held and is located in Richmond, California.

DRESSLER HF TECHNIK GmbH Completed partnership agreement in November with an initial investment and an option for AE to make further investments. Dressler is a supplier of **RF power solutions for plasma-based applications** and has held a proprietary niche in some low-power, higher-frequency applications within the semiconductor capital equipment, laser, and medical technology markets. Dressler adds another dimension to AE's global infrastructure, increasing our ability to respond to European customers with customized solutions and local manufacturing. Dressler, known for its strong engineering group and recognized for its work in RF technology, will contribute to AE's own R&D program, creating an ideal environment for highly efficient development programs and production projects. As related companies, we are more competitive and at an advantage in gaining access to new markets and applications. Dressler is located in Stolberg-Vicht, Germany.

AE Products

Rapid Remote Plasma Source



Mach One Mass Flow Controller



Model OR2000 OFT

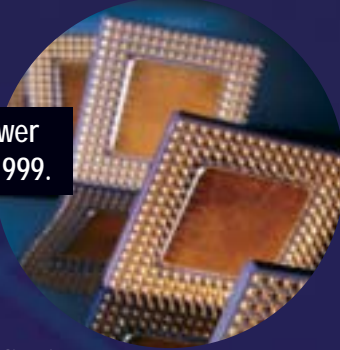


Model 3500 Thermoelectric Temperature Control



AE's share of the semiconductor market for power conversion grew to 53% in 2000 from 46% in 1999.

Semiconductor Manufacturing



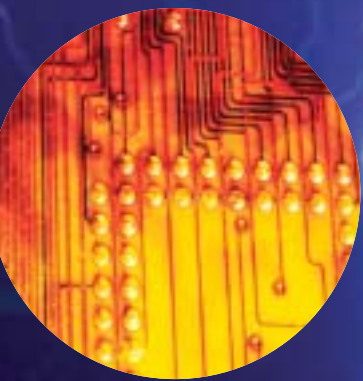
Product Category	Product Platform	Description	Industry Applications
DIRECT CURRENT	Pinnacle™ Series	Power conversion & control systems	Semiconductor, data storage, flat panels, thin-film industrial coatings
	MDX™ Series		
	Pinnacle™ Plus+ Series	DC pulsing accessories	Semiconductor
	DC pulsing products		
	E-Chuck™ System		
E-Wave™ Supply	Bipolar pulsed dc	Semiconductor, copper electroplating	
HIGH POWER	Astral™ Series	Pulsed power systems	Thin-film industrial coatings
	Crystal™ Series		
LOW & MID-FREQUENCY	PE Series	Low-frequency power control and conversion systems	Thin-film industrial coatings
	LF Series		
	PDX Series	Mid-frequency power control and conversion	
NEW POWER SUPPLY ARCHITECTURE	NPSA	Low cost, low voltage/high current converters	Telecommunications and computer hardware
PLASMA SOURCES	LIS Series	Linear ion sources	Thin-film coatings, diamond-like carbon (DLC) films, ion beam etching, optical coating, pre-cleaning
	MCIS Series	Multi-cell ion sources	
	SCIS Series	Single-cell ion sources	
	ICP Series	Inductively coupled sources	Plasma abatement

Product Category	Product Platform	Description	Industry Application			
RADIO FREQUENCY (RF)	Apex® Series with optional VFP™ software	Power conversion & control systems	Semiconductor, flat panels, thin-film industrial coatings; etch and deposition			
	Aspect					
	Atlas™ Series					
	Atlas™ VHF Series					
	HFV Series					
	RFG/RFX-II Series					
	RF Series					
	RFSuite™					
	MATCHING NETWORKS			AZX Series	Variable and fixed impedance matching networks	Used with RF products in semiconductor, flat panels, and thin-film industrial coatings
				Mercury™ matching network		
Mercury-z™ matching network						
Navigator™ matching network with optional VFP™ software						
TEMPERATURE SENSING AND FEEDBACK	Model OR2000 OFT	Non-contact temperature sensing systems and devices	Semiconductor applications requiring non-contact temperature and emissivity temperature measurements			
	Model 2100 Emissometer					
	Model 2100ERT Emissometer					
	Model 2110 Emissometer					
FILM THICKNESS PREDICTION	Model 4000DRT Deposition Rate Tuner	Film thickness uniformity sensor	Semiconductor			
THERMOELECTRIC TEMPERATURE CONTROL	Model 3300	Point-of-use thermoelectric heating and cooling	Semiconductor			
	Model 3500					

Product Category	Product Platform	Description	Industry Application
GAS DELIVERY MANAGEMENT	Mach One™ Mass Flow Controller	Sonic flow measurement and control device	Semiconductor, flat panels, thin-film industrial coatings
	Hydro-Flow 2300™ Flowmeter	Flow measurement device	
	Sono-Trak™ Flowmeter	Noninvasive ultrasonic flow measurement device	
BERKELEY PROCESS CONTROL	BXi	Integrated motion and machine controller	Semiconductor
SYMPHONY SYSTEMS	EPM suite	Equipment connectivity and remote monitor and control	Semiconductor
	eSES™ software		
RF INSTRUMENTATION	GenCal™	Metering and control for generators with 50 Ω outputs	Semiconductor, flat panels, and thin-film applications
	Z-Scan® PES	Endpoint and wafer metrics	
	Z-Scan® EES	Real-time RF power measurement and analysis	



AE's gains in HDP CVD markets grew from 5% at the beginning of 2000 to 28% at year end.



Circuit Boards



Architectural Glass Coatings



Thin-film Coatings for Fabric Surfaces

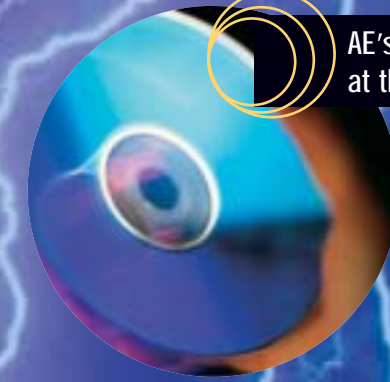


AE's market share in flat panel display applications grew from 45% to 63% during 2000.

Flat Panel and Liquid Crystal Displays



Automotive Surface Preparations



Surface Coatings for CD and DVD Manufacture



Coatings for Optics



Flow Control and Measurement of Liquids, Gases and Steam

AE Customers

APPLIED MATERIALS AMD
AXCELIS FORD FUJITSU GM
HEWLETT-PACKARD HYUNDAI IBM

INFINEON (SIEMENS) INTEL INTEVAC ITT INDUSTRIES
LAM RESEARCH LSI LOGIC MATERIALS RESEARCH (DIV. OF TEL)
MATTSON TECHNOLOGY MICRON TECHNOLOGIES MOTOROLA NEC NOVELLUS

OCLI (SUBSIDIARY OF JDS UNIPHASE) PPG INDUSTRIES SAMSUNG SEAGATE
SINGULUS TECHNOLOGIES SONY TOSHIBA TEXAS INSTRUMENTS
ULVAC UNAXIS VEECO VIDEOJET SYSTEMS INTERNATIONAL

The following discussion contains, in addition to historical information, forward-looking statements, within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. For example, statements relating to our beliefs, expectations and plans are forward-looking statements, as are statements that certain actions, conditions or circumstances will continue. Forward-looking statements involve risks and uncertainties. As a result, our actual results may differ materially from the results discussed in the forward-looking statements. Factors that could cause or contribute to such differences or prove any forward-looking statements, by hindsight, to be overly optimistic or unachievable, include, but are not limited to the following:

- the significant fluctuations in our quarterly operating results;
- the volatility of the semiconductor and semiconductor capital equipment industries;
- timing and success of integration of recent and potential future acquisitions; and
- supply constraints and technological changes.

For a discussion of these and other factors that may impact our realization of our forward-looking statements, see Part I "Cautionary Statements – Risk Factors" in our Form 10-K for the year ended December 31, 2000.

OVERVIEW

We design, manufacture and support products and systems critical to plasma-based manufacturing processes. These systems are important components of industrial manufacturing equipment that modifies surfaces or deposits or etches thin film layers on computer chips, CDs, flat panel displays such as computer screens, DVDs, windows, eyeglasses and other products. We market and sell our systems primarily to large global OEMs of semiconductor, data storage and flat panel display manufacturing equipment and for manufacturers of other products in advanced product applications markets. We recognize revenues upon shipment of our systems.

The semiconductor capital equipment industry accounted for approximately 52% of our sales in 1998, 65% in 1999 and 70% in 2000. We have been successful in achieving a number of design wins each year, which have resulted in our obtaining new customers and solidifying relationships with our existing customers. We believe our ability to continue to achieve design wins with existing and potential customers will be critical to our future success.

We continue to seek to expand our product offerings and customer base through internal development and acquisitions. We took a step towards achieving further market penetration in September 1998 when we acquired the assets of Fourth State Technology, Inc. This acquisition enhanced our capability to design and manufacture RF power-related process control systems used to monitor and analyze data in thin film etch processes.

In October 1998 we acquired RF Power Products, Inc. ("RFPP"), which designs, manufactures and supports RF power conversion and control systems, consisting of generators and matching networks. We believe our ability to offer an expanded line of RF systems to our existing customer base has strengthened our relationships. We sell these products principally to semiconductor capital equipment manufacturers. We also sell similar systems to capital equipment manufacturers in the flat panel display and thin film data storage industries. In April 1999 we changed the name of RFPP to Advanced Energy Voorhees, Inc. and conduct business under that name.

In October 1999 we acquired a majority interest in LITMAS, a company that designs and manufactures plasma gas abatement systems and high-density plasma sources.

In November 1999 we completed two underwritten public offerings, one for \$135 million of convertible subordinated notes, and one for 1,000,000 shares of our common stock, at a price of \$39 per share. These offerings provided aggregate net proceeds of approximately \$167.1 million.

In December 1999 we completed formation of our wholly owned sales and service subsidiary in Taiwan.

In March 2000 we formed a strategic partnership with Symphony Systems, a supplier of network-based applications and open-architecture software solutions to the semiconductor and semiconductor capital equipment industries, to deliver an advanced network-based infrastructure to our customers.

In April 2000 we acquired Noah Holdings, Inc. ("Noah"), which manufactures solid state temperature control systems to control process temperatures during semiconductor manufacturing.

In June 2000 we signed an exclusive distribution agreement with Berkeley Process Control, Inc., a manufacturer of integrated motion and machine control technologies.

In July 2000 we entered into an agreement to acquire EMCO, which manufactures electronic and electromechanical precision instruments for measuring and controlling the flow of liquids, steam and gases. EMCO became a wholly owned subsidiary of Advanced Energy in January 2001.

In August 2000 we acquired Sekidenko, Inc. ("Sekidenko"), which supplies optical fiber thermometers to the semiconductor capital equipment industry.

In October 2000 we opened a representative office in Shenzhen, China, to be responsible for market development, sales and technical support in China.

In October and November 2000 we repurchased \$53.4 million principal amount of our convertible subordinated notes on the open market, leaving us with \$81.6 million of such long-term debt outstanding. These purchases resulted in an after-tax net extraordinary gain of \$7.6 million.

In November 2000 we entered into a strategic investment agreement with Dressler HF Technik GmbH, a privately held supplier of RF power solutions for plasma-based applications located in Germany.

RESULTS OF OPERATIONS

The following table summarizes certain data as a percentage of sales extracted from our statement of operations:

	Years Ended December 31,		
	2000	1999	1998
Sales	100.0%	100.0%	100.0%
Cost of sales	51.0	54.5	70.1
Gross margin	49.0	45.5	29.9
Operating expenses:			
Research and development	10.2	14.0	18.2
Sales and marketing	6.7	9.0	10.9
General and administrative	6.8	8.0	9.8
Restructuring charges	0.3	—	0.7
Merger costs	1.3	—	2.1
Storm recoveries	—	—	(0.8)
Total operating expenses	25.3	31.0	40.9
Income (loss) from operations	23.7	14.5	(11.0)
Other income (expense)	2.1	0.7	0.1
Net income (loss) before income taxes, minority interest and extraordinary item	25.8	15.2	(10.9)
Provision (benefit) for income taxes	9.0	5.8	(2.7)
Minority interest in net income	0.0	0.0	—
Net income (loss) before extraordinary item	16.8	9.4	(8.2)
Extraordinary item (net of applicable taxes)	2.1	—	—
Net income (loss)	18.9%	9.4%	(8.2)%

SALES

We sell power conversion and control systems and related equipment primarily to the semiconductor capital equipment, data storage and advanced product applications markets in the United States, to the flat panel display and data storage markets in Japan, and to data storage and advanced product applications and industrial markets in Europe. We also sell spare parts and repair services worldwide through our customer service and technical support organization.

Sales were \$134.0 million, \$202.8 million and \$359.8 million in 1998, 1999 and 2000, respectively, representing an increase of 51% from 1998 to 1999 and an increase of 77% from 1999 to 2000. Our sales increases were due to increased unit sales.

A substantial portion of our sales growth from 1998 to 2000 was due to higher system sales to our four largest customers, two of whom are primarily semiconductor capital equipment OEMs, one of whom is a data storage OEM, and one of whom is a flat panel display OEM. Our sales in 1999 reflected the recovery in the semiconductor capital equipment industry from the severe downturn of 1998, and resulted from capacity expansion and increased investment in advanced technology by the semiconductor industry. This recovery and expansion resulted in record sales for us in 1999. It also resulted in record sales for us in 1999 to the semiconductor capital equipment industry specifically. This recovery continued into 2000, and resulted in another record year of sales for us in total and to the semiconductor capital equipment industry. Our experience has shown that our sales to semiconductor capital equipment customers is dependent on the volatility of that industry, as a result of sudden changes in semiconductor supply and demand, and rapid technological advances in both semiconductor devices and wafer fabrication processes.

Our sales to the semiconductor capital equipment industry in 1999 increased 88% over sales to that industry in 1998. Sales to the data storage industry increased 26% from 1998 to 1999. Sales to the flat panel display industry increased 92% from 1998 to 1999. Sales to advanced product applications industries decreased 15% from 1998 to 1999.

Our sales to the semiconductor capital equipment industry in 2000 increased 92% over sales to that industry in 1999. Sales to the data storage industry increased 13% from 1999 to 2000. Sales to the flat panel display industry increased 162% from 1999 to 2000. Sales to advanced product applications industries increased 32% from 1999 to 2000.

The following tables summarize annual net sales, and percentages of net sales, by customer type for us for each of the three years in the period ended December 31, 2000:

(In thousands)	Years Ended December 31,		
	2000	1999	1998
Semiconductor			
capital equipment	\$252,889	\$131,395	\$ 69,894
Data storage	24,751	21,823	17,300
Flat panel display	29,273	11,171	5,832
Advanced product applications	37,726	28,563	33,593
Customer service technical support	15,143	9,897	7,400
	\$359,782	\$202,849	\$134,019

	Years Ended December 31,		
	2000	1999	1998
Semiconductor capital equipment	70%	65%	52%
Data storage	7	11	13
Flat panel display	8	5	4
Advanced product applications	11	14	25
Customer service technical support	4	5	6
	100%	100%	100%

The following tables summarize annual net sales, and percentages of net sales, by geographic region for us for each of the three years in the period ended December 31, 2000:

(In thousands)	Years Ended December 31,		
	2000	1999	1998
United States and Canada	\$260,596	\$148,424	\$ 98,042
Europe	52,893	32,344	25,986
Asia Pacific	45,874	21,583	9,580
Rest of world	419	498	411
	\$359,782	\$202,849	\$134,019

	Years Ended December 31,		
	2000	1999	1998
United States and Canada	72%	73%	73%
Europe	15	16	20
Asia Pacific	13	11	7
Rest of world	0	0	0
	100%	100%	100%

GROSS MARGIN

Our gross margins were 29.9%, 45.5% and 49.0% for 1998, 1999 and 2000, respectively. The improvement in gross margin from 1998 to 1999 was primarily a result of our efforts to reduce material costs, improve overhead cost controls and a more favorable absorption of manufacturing costs which resulted from the higher sales base. The improvement in gross margin from 1999 to 2000 was primarily a result of a more favorable absorption of manufacturing costs, which resulted from the higher sale base. We added new facilities in Fort Collins, Colorado in the first quarter of 2001 to increase our manufacturing capacity. Due to substantial fixed costs involved in this expansion, there could be an adverse impact on overhead absorption in 2001 if the increased capacity is not fully utilized.

In the fourth quarter of 1997 the semiconductor capital equipment industry entered a sudden and severe downturn which continued through the end of 1998. The downturn in this industry, with the resulting underutilization of capacity, significantly impacted our financial results for 1998. The combination of the expansion and lower sales resulted in an over-capacity situation for us, leading to unfavorable absorption of manufacturing overhead and a substantially reduced margin. This underutilization of manufacturing capacity continued to negatively impact gross margins, until sales to the semiconductor capital equipment market recovered in 1999 and 2000.

Historically, price competition has not had a material effect on margins. However, competitive pressures may produce a decline in average selling prices for certain products. Any decline in average selling prices not offset by reduced costs could result in a decline in our gross margins.

We provide warranty coverage for our systems ranging from 12 to 30 months, and estimate the anticipated costs of repairing our systems under such warranties based on the historical average costs of the repairs. To date, we have not experienced significant warranty costs in excess of our recorded reserves.

RESEARCH AND DEVELOPMENT

We invest in research and development to identify new technologies, develop new products and improve existing product designs. Our research and development expenses were \$24.4 million, \$28.3 million and \$37.0 million for 1998, 1999 and 2000, respectively, representing an increase of 16% from 1998 to 1999 and 31% from 1999 to 2000. As a percentage of sales, research and development expenses decreased from 18.2% in 1998 to 14.0% in 1999 and decreased again to 10.2% in 2000 because of the increasingly higher sales base. The increase in expenses from 1998 to 2000 is primarily due to increases in

payroll, materials and supplies and depreciation of equipment used for new product development.

We believe continued investment in the research and development of new systems is critical to our ability to serve new and existing markets, and we continue to invest in new product development during industry downturns. Since our inception, the majority of our research and development costs generally have been internally funded and all have been expensed as incurred.

SALES AND MARKETING EXPENSES

Our sales and marketing expenses support domestic and international sales and marketing activities which include personnel, trade shows, advertising, and other marketing activities. Sales and marketing expenses were \$14.6 million, \$18.3 million and \$24.1 million for 1998, 1999 and 2000, respectively. This represents a 25% increase from 1998 to 1999 and a 32% increase from 1999 to 2000. The increase in expenses from 1998 to 2000 is primarily due to higher payroll, commissions, promotion, distribution and travel costs. We incurred these expenses to continue to increase our sales management and product management capabilities. As a percentage of sales, sales and marketing expenses decreased from 10.9% in 1998 to 9.0% in 1999 and decreased again to 6.7% in 2000 because of the increasingly higher sales base, while dollars spent increased.

GENERAL AND ADMINISTRATIVE EXPENSES

Our general and administrative expenses support our worldwide financial, administrative, information systems and human resources functions. General and administrative expenses were \$13.1 million, \$16.2 million and \$24.6 million for 1998, 1999 and 2000, respectively. This represents a 24% increase from 1998 to 1999 and a 51% increase from 1999 to 2000. The increases from 1998 to 2000 are primarily due to higher spending for payroll and purchased services. As a percentage of sales, general and administrative expenses decreased from 9.8% in 1998 to 8.0% in 1999 and decreased again to 6.8% in 2000 because of the increasingly higher sales base.

We continue to implement our management system software, including the replacement of existing systems in our domestic and foreign locations. We expect that charges related to personnel training and implementation of the new software will continue into 2001.

RESTRUCTURING AND MERGER COSTS AND ONE-TIME CREDIT

In 1998 we recorded a \$1.1 million recovery, which represented a settlement with our insurance carrier related to storm damage to our headquarters and main manufacturing facilities in the Fort Collins area in 1997. We had previously recorded \$2.7 million of storm damages in 1997.

In August 1998 we announced a restructuring plan to respond to the downturn in the semiconductor capital equipment market. The plan included a reduction of workforce of 128 people, the closure of one facility in our Fort Collins, Colorado campus, and the abandonment of plans to construct a new manufacturing facility in Fort Collins. We achieved other reductions in workforce at the Voorhees facility throughout 1998. We took a charge of \$1.0 million for the restructuring in the third quarter of 1998.

On October 8, 1998, Advanced Energy acquired RF Power Products, Inc., accounted for as a pooling of interests transaction that involved the exchange of four million shares of Advanced Energy common stock for the publicly held common stock of RFPP. As part of the business combination, we incurred \$2.7 million of expense recorded in the fourth quarter of 1998 for merger costs. We incurred additional operating expenses during 1999 relating to consolidating and integrating operations of this business combination.

On April 6, 2000, Advanced Energy acquired Noah Holdings, Inc. in a pooling of interests transaction that involved the exchange of approximately 687,000 shares of Advanced Energy common stock for the privately held common stock of Noah. As part of the business combination, we incurred \$2.3 million of expense in the second quarter of 2000 for merger costs. We incurred additional operating expenses during 2000 and expect to incur further operating expenses in 2001 relating to consolidating and integrating operations of this business combination.

On July 17, 2000, we announced the consolidation of our Tower, Inc., facility in Fridley, Minnesota, into our existing facility in Voorhees, New Jersey. We recorded a restructuring charge of \$1.0 million in the third quarter of 2000 related to the consolidation, which was completed during the fourth quarter of 2000.

On August 18, 2000, Advanced Energy acquired Sekidenko, Inc., in a merger that was accounted for as a pooling of interests. This merger involved the exchange of 2.1 million shares of Advanced Energy common stock for the privately held common stock of Sekidenko. As part of the business combi-

nation, we took a charge of \$2.3 million in the third quarter of 2000 for merger costs. We incurred additional operating expenses during 2000 and expect to incur further operating expenses in 2001 relating to consolidating and integrating operations of this business combination.

The \$2.7 million of merger costs incurred in 1998 and \$4.6 million of merger costs incurred in 2000 cannot be capitalized, and in certain cases are nondeductible for income tax purposes.

OTHER INCOME (EXPENSE)

Other income (expense) consists primarily of interest income and expense, foreign exchange gains and losses and other miscellaneous gains, losses, income and expense items.

Interest income was approximately \$1.1 million, \$2.2 million and \$10.7 million for the years 1998, 1999 and 2000, respectively. In 1998 interest income was earned primarily from earnings on investments made from the proceeds of our initial public offering in 1995 and our underwritten public offering in 1997. In 1999 and 2000 interest income was earned primarily from the proceeds of our offering of convertible subordinated notes and common stock offering of November 1999.

Interest expense consists principally of accruals of interest on our convertible subordinated notes, on borrowings under our bank credit and capital lease facilities and a state government loan. Interest expense was approximately \$340,000, \$1.4 million and \$7.7 million for the years 1998, 1999 and 2000, respectively. The increase of interest expense from 1998 to 2000 was primarily due to interest on the convertible subordinated notes.

Our foreign subsidiaries' sales are primarily denominated in currencies other than the U.S. dollar. We recorded net foreign currency gains of \$369,000 and \$1.5 million for 1998 and 1999, respectively, and a net foreign currency loss of \$196,000 in 2000. The increase from 1998 to 1999 was primarily due to strengthening of the exchange rate of the Japanese yen to the U.S. dollar. The loss in 2000 was due to a weakening of the exchange rate of the Japanese yen to the U.S. dollar offset by the effect of our use of forward foreign exchange contracts to hedge our exposure to fluctuations in foreign exchange rates. Since 1997 we have entered into various forward foreign exchange contracts as a hedge against currency fluctuations in the Japanese yen. We will continue to evaluate various policies to minimize the effect of foreign currency fluctuations.

Eleven European countries adopted a Single European Currency (the "euro") as of January 1, 1999 with a transition period continuing through at least January 1, 2002. As of January 1, 1999, these eleven of the fifteen member countries of the European Union (the "participating countries") established fixed conversion rates between their existing sovereign currencies and the euro. For three years after the introduction of the euro, the participating countries can perform financial transactions in either the euro or their original local currencies. This will result in a fixed exchange rate among the participating countries, whereas the euro (and the participating countries' currencies in tandem) will continue to float freely against the U.S. dollar and other currencies of non-participating countries. A twelfth European country adopted the euro on January 1, 2001. Although we do not expect the introduction of the euro currency to have a significant impact on our revenues or results of operations, we are unable to determine what effects, if any, the currency change in Europe will have on competition and competitive pricing in the affected regions.

Miscellaneous expense items were \$939,000 and \$698,000 in 1998 and 1999, respectively. Miscellaneous income of \$4.7 million in 2000 was primarily due to a \$4.8 million gain on a sale of an investment.

PROVISION (BENEFIT) FOR INCOME TAXES

The income tax benefit for 1998 was \$3.5 million and represented an effective tax rate of 24%. The income tax provision of \$11.7 million for 1999 represented an effective rate of 38%. The income tax provision of \$36.8 million in 2000, which included \$4.6 million of provision for an extraordinary item, represented an effective rate of 35%. Changes in our relative earnings and the earnings of our foreign subsidiaries affect our consolidated effective tax rate. We adjust our income taxes periodically based upon the anticipated tax status of all foreign and domestic entities.

EXTRAORDINARY GAIN

In the fourth quarter of 2000 we repurchased an aggregate of approximately \$53.4 million principal amount of our convertible subordinated notes in the open market, for a cost of approximately \$40.8 million. These purchases resulted in a pretax extraordinary gain of \$12.2 million, or \$7.6 million after tax.

QUARTERLY RESULTS OF OPERATIONS

The following tables present unaudited quarterly results in dollars and as a percentage of sales for each of the eight quarters in the period ended December 31, 2000. We believe that

all necessary adjustments have been included in the amounts stated below to present fairly such quarterly information. The operating results for any quarter are not necessarily indicative of results for any subsequent period.

(In thousands, except per share data)	Quarters Ended							
	Mar. 31, 1999	June 30, 1999	Sept. 30, 1999	Dec. 31, 1999	Mar. 31, 2000	June 30, 2000	Sept. 30, 2000	Dec. 31, 2000
Sales	\$36,419	\$45,363	\$55,626	\$65,441	\$75,028	\$85,701	\$96,317	\$102,736
Cost of sales	21,187	25,093	30,675	33,692	38,361	43,338	49,492	52,138
Gross profit	15,232	20,270	24,951	31,749	36,667	42,363	46,825	50,598
Operating expenses:								
Research and development	6,029	6,983	7,211	8,103	8,113	8,504	9,711	10,668
Sales and marketing	3,432	4,187	4,589	6,117	5,867	5,373	6,232	6,629
General and administrative	3,509	3,746	4,437	4,533	5,639	5,810	6,748	6,376
Restructuring charge	—	—	—	—	—	—	1,000	—
Merger costs	—	—	—	—	—	2,333	2,250	—
Total operating expenses	12,970	14,916	16,237	18,753	19,619	22,020	25,941	23,673
Income from operations	2,262	5,354	8,714	12,996	17,048	20,343	20,884	26,925
Other (expense) income	(80)	45	1,063	522	120	731	5,598	1,036
Net income before income taxes, minority interest and extraordinary item	2,182	5,399	9,777	13,518	17,168	21,074	26,482	27,961
Provision for income taxes	951	2,109	3,687	4,994	5,947	8,023	10,195	8,076
Minority interest in net income	—	—	—	69	(17)	(67)	(2)	106
Net income before extraordinary item	1,231	3,290	6,090	8,455	11,238	13,118	16,289	19,779
Extraordinary item (net of income taxes)	—	—	—	—	—	—	—	7,610
Net income	\$ 1,231	\$ 3,290	\$ 6,090	\$ 8,455	\$11,238	\$13,118	\$16,289	\$ 27,389
Diluted earnings per share before extraordinary item	\$ 0.04	\$ 0.11	\$ 0.20	\$ 0.27	\$ 0.35	\$ 0.40	\$ 0.50	\$ 0.61
Diluted earnings per share from extraordinary item	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 0.22
Diluted earnings per share	\$ 0.04	\$ 0.11	\$ 0.20	\$ 0.27	\$ 0.35	\$ 0.40	\$ 0.50	\$ 0.83
Diluted weighted-average common shares outstanding	30,814	30,604	30,932	31,816	32,512	32,543	32,417	34,078 *

* Includes dilution from subordinated notes

	Quarters Ended							
	Mar. 31, 1999	June 30, 1999	Sept. 30, 1999	Dec. 31, 1999	Mar. 31, 2000	June 30, 2000	Sept. 30, 2000	Dec. 31, 2000
(Percentage of Sales)								
Sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of sales	58.2	55.3	55.1	51.5	51.1	50.7	51.4	50.7
Gross margin	41.8	44.7	44.9	48.5	48.9	49.3	48.6	49.3
Operating expenses:								
Research and development	16.6	15.4	13.0	12.4	10.8	9.9	10.0	10.4
Sales and marketing	9.4	9.2	8.2	9.3	7.9	6.2	6.5	6.5
General and administrative	9.6	8.3	8.0	6.9	7.5	6.8	7.0	6.2
Restructuring charge	—	—	—	—	—	—	1.0	—
Merger costs	—	—	—	—	—	2.7	2.4	—
Total operating expenses	35.6	32.9	29.2	28.6	26.2	25.6	26.9	23.1
Income from operations	6.2	11.8	15.7	19.9	22.7	23.7	21.7	26.2
Other (expense) income	(0.2)	0.1	1.9	0.8	0.2	0.9	5.8	1.0
Net income before income taxes, minority interest and extraordinary item	6.0	11.9	17.6	20.7	22.9	24.6	27.5	27.2
Provision for income taxes	2.6	4.6	6.7	7.7	7.9	9.4	10.6	7.8
Minority interest in net income	—	—	—	0.1	0.0	(0.1)	0.0	0.1
Net income before extraordinary item	3.4	7.3	10.9	12.9	15.0	15.3	16.9	19.3
Extraordinary item (net of income taxes)	—	—	—	—	—	—	—	7.4
Net income	3.4%	7.3%	10.9%	12.9%	15.0%	15.3%	16.9%	26.7%

We have experienced and expect to continue to experience significant fluctuations in our quarterly operating results. Our expense levels are based, in part, on expectations of future revenues. If revenue levels in a particular quarter do not meet expectations, operating results may be adversely affected. A variety of factors have an influence on the level of our revenues in a particular quarter. These factors include:

- general economic conditions;
- specific economic conditions in the semiconductor and semiconductor capital equipment industries and other industries in which our customers operate;
- timing and nature of orders from major customers;
- changes in customers' inventory management practices;
- customer cancellations of previously placed orders and shipment delays;
- pricing competition from our competitors;
- costs incurred by responding to specific feature requests by customers;
- component shortages resulting in manufacturing delays;
- exchange rate fluctuations;
- management decisions to commence or discontinue product lines;
- our ability to design, introduce and manufacture new products on a cost effective and timely basis;
- the introduction of new products by us or our competitors;
- the timing of research and development expenditures; and
- expenses related to acquisitions, strategic alliances, and the further development of marketing and service capabilities.

We are dependent on obtaining orders for shipment in a particular quarter to achieve our revenue objectives for that quarter. Accordingly, it is difficult for us to predict accurately the timing and level of sales in a particular quarter. We anticipate quarterly fluctuations in sales to continue.

Our quarterly operating results in 1999 and 2000 reflect the changing demand for our products during this period, principally from manufacturers of semiconductor capital equipment, data storage equipment and flat panel displays, and our ability to adjust our manufacturing capacity to meet this demand. Sales to the semiconductor capital equipment industry increased each quarter throughout 1999 and 2000. Data storage sales were flat from the first quarter of 1999 to the second quarter of 1999, then increased in the third and fourth quarters of 1999. Data storage sales then decreased in the first and second quarters of 2000, increased in the third quarter of 2000 and decreased in the fourth quarter of 2000. Sales to the flat panel display industry increased each quarter

of 1999 and 2000. Sales to advanced product applications markets, though fluctuating on a quarterly basis throughout 1999 and 2000, were higher in the second half of 1999 than in the first half of 1999, were higher again in the first half of 2000 and again in the second half of 2000. Our revenue from all sectors is heavily influenced by general economic conditions in each of the industries we serve.

Our gross margin improved on a quarterly basis in 1999 and reached a relatively consistent level in each of the quarters in 2000. Gross margin improved from 41.8% in the first quarter of 1999 to 44.7% in the second quarter of 1999, then improved to 44.9% in the third quarter of 1999 and to 48.5% in the fourth quarter of 1999. These increases were due to increased utilization of capacity from the recovery in the semiconductor capital equipment industry and from our increased efforts to lower material costs. Gross margin improved slightly to 48.9% in the first quarter of 2000 and again to 49.3% in the second and fourth quarters of 2000, with a slight decrease to 48.6% in the third quarter of 2000.

Operating expenses were \$13.0 million, \$14.9 million, \$16.2 million and \$18.8 million during the first, second, third and fourth quarters of 1999, respectively, but declined as a percentage of sales throughout 1999 as the sales base increased each quarter. Operating expenses excluding restructuring and merger costs were \$19.6 million, \$19.7 million, \$22.7 million and \$23.7 million during the first, second, third and fourth quarters of 2000, respectively. Operating expenses, excluding restructuring and merger costs, declined as a percentage of sales in the first and second quarters of 2000, and increased slightly as a percentage of sales in the third and fourth quarters of 2000. As a percentage of sales, operating expenses have generally declined during periods of rapid sales growth, when sales increased at a rate faster than our ability to add personnel and facilities to support the growth. Operating expenses as a percentage of sales have generally increased during periods of flat or decreased sales, when our infrastructure is retained to support anticipated future growth.

Other income (expense) consists primarily of interest income and expense, foreign currency gain and loss, and miscellaneous gains, losses, income and expense items. Interest income and expense increased significantly in the fourth quarter of 1999, when the interest income and expense from the proceeds of the convertible subordinated notes and the interest from the proceeds of the common stock sale began. Interest income and expense stayed at higher levels throughout 2000. During 1999 we recorded a net foreign exchange gain of \$1.5 million, which occurred mostly in the second

half of the year, and in 2000 we recorded a \$196,000 foreign currency loss. We continue to utilize forward foreign exchange contracts in Japan to mitigate the effects of foreign currency fluctuations. The third quarter of 2000 included a \$4.8 million gain on a sale of an investment.

Our effective rate for income tax provision fluctuated throughout 1999 and 2000, varying from 31% to 44%. The fluctuations were due to certain nondeductible expenses including merger costs, and due to initiatives we implemented in 2000 to reduce our overall rate.

LIQUIDITY AND CAPITAL RESOURCES

Since our inception, we have financed our operations, acquired equipment and met our working capital requirements through borrowings under our revolving lines of credit, long-term loans secured by property and equipment, cash flow from operations and proceeds from underwritten public offerings of our common stock and convertible subordinated debt.

Operating activities provided cash of \$10.4 million in 1999, primarily as a result of net income, depreciation, amortization, increases in accounts payable and increased accruals for payroll, employee benefits and income taxes, offset by increases in accounts receivable and inventories. Operating activities provided cash of \$22.8 million in 2000, primarily as a result of net income, depreciation, amortization and increases in accounts payable and increased accruals for payroll, employee benefits and income taxes, partially offset by increases in receivables and inventories, gains on retirement of convertible subordinated notes and a sale of an investment, and earnings from marketable securities. We expect future receivable and inventory balances to fluctuate with net sales. We are required to maintain higher levels of buffer stock inventory to satisfy our customers' delivery requirements. Any increase in our inventory levels will require the use of cash to finance the inventory.

Investing activities used cash of \$176.2 million in 1999, and consisted of a net increase in marketable securities of \$168.9 million, the purchase of property and equipment of \$7.2 million and an addition to an investment of \$175,000. Investing activities provided cash of \$27.4 million in 2000, and consisted of a net decrease in marketable securities of \$38.1 million, proceeds from a sale of an investment of \$4.5 million and proceeds from a sale of equipment of \$150,000, offset by purchases of property and equipment of \$14.1 million, a purchase of technology of \$1.0 million and an addition to an investment of \$250,000.

Financing activities provided cash of \$174.5 million in 1999, and consisted of net proceeds from convertible subordinated debt of \$130.5 million, net proceeds from the sale of common stock of \$37.8 million, proceeds from the exercise of employee stock options and sale of common stock through our employee stock purchase plan ("ESPP") of \$4.5 million, and other proceeds of \$1.7 million. Financing activities used cash of \$37.5 million in 2000, and consisted of open market repurchases of our convertible notes of \$40.8 million and other uses of \$1.6 million, offset by proceeds from the exercise of employee stock options and sale of common stock through our ESPP of \$4.9 million.

In the fourth quarter of 2000 we repurchased an aggregate of approximately \$53.4 million principal amount of our convertible subordinated notes in the open market, for a cost of approximately \$40.8 million. The note purchases were funded from our available cash. We may repurchase additional notes in the open market from time to time, if market conditions and our financial position are deemed favorable for such purchases.

We plan to spend approximately \$12.5 million in 2001 for the acquisition of equipment, leasehold improvements and furnishings, with depreciation expense for 2001 projected to be \$9.5 million. In January 2001 we used cash to purchase the outstanding common stock of EMCO for approximately \$30 million.

As of December 31, 2000, we had working capital of \$279.6 million. Our principal sources of liquidity consisted of \$31.7

million of cash and cash equivalents, \$157.8 million of marketable securities, and a credit facility consisting of a \$30.0 million revolving line of credit, with options to convert up to \$10.0 million to a three-year term loan. Advances under the revolving line of credit bear interest at either the prime rate (8.5% at February 28, 2001) minus 1.25% or the LIBOR 360-day rate (4.88375% at February 28, 2001) plus 150 basis points, at our option. All advances under this revolving line of credit will be due and payable April 7, 2001. As of December 31, 2000 there was an advance outstanding of \$875,000 to our Japanese subsidiary, Advanced Energy Japan K.K. We also had another line of credit of \$1.9 million of which there was no balance outstanding at December 31, 2000. This credit line expired in January 2001.

We believe that our cash and cash equivalents, marketable securities, cash flow from operations and available borrowings, will be sufficient to meet our working capital needs through at least the end of 2001. After that time, we may require additional equity or debt financing to address our working capital, capital equipment or expansion needs. In addition, any significant acquisitions we make may require additional equity or debt financing to fund the purchase price, if paid in cash. There can be no assurance that additional funding will be available when required or that it will be available on terms acceptable to us.

Interest Rate Risk

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio and long-term debt obligations. We generally place our investments with high credit quality issuers and by policy are averse to principal loss and seek to protect and preserve our invested funds by limiting default risk, market risk and reinvestment risk. As of December 31, 2000, our investments consisted primarily of commercial paper, municipal bonds and notes and mutual funds.

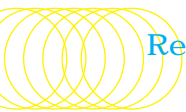
Foreign Currency Exchange Rate Risk

We transact business in various foreign countries. Our primary foreign currency cash flows are generated in countries in Asia and Europe. We have entered into various forward foreign exchange contracts to hedge against currency fluctuations in the Japanese yen. We will continue to evaluate vari-

ous methods to minimize the effects of currency fluctuations. At December 31, 2000, we held foreign forward exchange contracts with nominal amounts of \$11.5 million and market settlement amounts of \$10.7 million for an unrealized gain position of \$826,000.

Other Risk

We have invested in a start-up company and may in the future make additional investments in start-up companies that develop products which we believe may provide future benefits. The current start-up investment and any future start-up investments will be subject to all of the risks inherent in investing in companies that are not established.



To Advanced Energy Industries, Inc.:

We have audited the accompanying consolidated balance sheets of Advanced Energy Industries, Inc. (a Delaware corporation) and subsidiaries as of December 31, 2000 and 1999, and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2000. These consolidated financial statements and the schedule referred to below are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Advanced Energy Industries, Inc. and subsidiaries as of December 31, 2000 and 1999, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2000 in conformity with accounting principles generally accepted in the United States.

Our audits were made for the purpose of forming an opinion on the basic consolidated financial statements taken as a whole. The schedule attached to the consolidated financial statements is presented for purposes of complying with the Securities and Exchange Commission's rules and is not a part of the basic consolidated financial statements. This schedule has been subjected to the auditing procedures applied in our audits of the basic consolidated financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic consolidated financial statements taken as a whole.

Denver, Colorado
February 12, 2001.

ARTHUR ANDERSEN LLP

	December 31,	
(In thousands)	2000	1999
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 31,716	\$ 21,043
Marketable securities—trading	157,811	186,440
Accounts receivable		
Trade (less allowances for doubtful accounts of approximately \$784 and \$639 at December 31, 2000 and 1999, respectively)	72,732	44,652
Related parties	38	32
Other	3,775	1,787
Notes receivable	2,472	—
Income tax receivable	74	1,453
Inventories	45,266	28,410
Other current assets	2,508	1,803
Deferred income tax assets, net	7,483	3,753
Total current assets	323,875	289,373
Property and equipment , at cost, net of accumulated depreciation of \$24,427 and \$18,629 at December 31, 2000 and 1999, respectively	24,101	17,699
Other assets:		
Deposits and other	995	559
Goodwill and intangibles, net of accumulated amortization of \$6,061 and \$3,860 at December 31, 2000 and 1999, respectively	9,890	11,040
Investments—available for sale	1,824	—
Demonstration and customer service equipment, net of accumulated depreciation of \$2,302 and \$2,235 at December 31, 2000 and 1999, respectively	2,889	2,352
Deferred debt issuance costs, net	2,261	4,410
	17,859	18,361
Total assets	\$365,835	\$325,433

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

	December 31,	
	2000	1999
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable trade	\$ 18,250	\$ 15,702
Accrued payroll and employee benefits	11,723	7,606
Other accrued expenses	4,383	3,040
Customer deposits	104	804
Accrued income taxes payable	7,923	1,266
Capital lease obligations, current portion	53	100
Notes payable, current portion	1,284	2,485
Accrued interest payable on convertible subordinated notes	529	886
Total current liabilities	44,249	31,889
Long-term liabilities:		
Capital lease obligations, net of current portion	—	46
Notes payable, net of current portion	1,043	1,381
Convertible subordinated notes payable	81,600	135,000
Total liabilities	82,643	136,427
Commitments and contingencies (Note 14)		
Minority interest	145	128
Stockholders' equity:		
Preferred stock, \$0.001 par value, 1,000 shares authorized, none issued and outstanding	—	—
Common stock, \$0.001 par value, 40,000 shares authorized; 31,537 and 30,981 shares issued and outstanding at December 31, 2000 and 1999, respectively	32	31
Additional paid-in capital	124,930	108,997
Retained earnings	116,971	48,937
Deferred compensation	(1,620)	(86)
Accumulated other comprehensive loss	(1,515)	(890)
Total stockholders' equity	238,798	156,989
Total liabilities and stockholders' equity	\$365,835	\$325,433

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

(In thousands, except per share amounts)	Years Ended December 31,		
	2000	1999	1998
Sales	\$359,782	\$202,849	\$134,019
Cost of sales	183,329	110,647	94,000
Gross profit	176,453	92,202	40,019
Operating expenses:			
Research and development	36,996	28,326	24,405
Sales and marketing	24,101	18,325	14,616
General and administrative	24,573	16,225	13,121
Restructuring charges	1,000	—	1,000
Merger costs	4,583	—	2,742
Storm recoveries	—	—	(1,117)
Total operating expenses	91,253	62,876	54,767
Income (loss) from operations	85,200	29,326	(14,748)
Other income (expense):			
Interest income	10,727	2,174	1,111
Interest expense	(7,698)	(1,430)	(340)
Foreign currency (loss) gain	(196)	1,504	369
Other income (expense), net	4,652	(698)	(939)
	7,485	1,550	201
Net income (loss) before income taxes, minority interest and extraordinary item	92,685	30,876	(14,547)
Provision (benefit) for income taxes	32,241	11,741	(3,522)
Minority interest in net income	20	69	—
Net income (loss) before extraordinary item	60,424	19,066	(11,025)
Extraordinary item (less applicable income taxes of \$4,566) (Note 11)	7,610	—	—
Net income (loss)	\$ 68,034	\$ 19,066	\$(11,025)
Net earnings (loss) per share before extraordinary item:			
Basic	\$ 1.93	\$ 0.64	\$ (0.38)
Diluted	\$ 1.86	\$ 0.62	\$ (0.38)
Earnings per share from extraordinary item:			
Basic	\$ 0.24	\$ —	\$ —
Diluted	\$ 0.24	\$ —	\$ —
Net earnings (loss) per share:			
Basic	\$ 2.17	\$ 0.64	\$ (0.38)
Diluted	\$ 2.10	\$ 0.62	\$ (0.38)
Basic weighted-average common shares outstanding	31,336	29,706	29,007
Diluted weighted-average common shares outstanding	32,425	30,934	29,007

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

For the years ended December 31, 2000, 1999, and 1998								
(In thousands)	Common Stock		Additional	Retained	Stockholders'	Deferred	Accumulated	Total
	Shares	Amount	Paid-in		Notes		Other	
			Capital	Earnings	Receivable	Compensation	(Loss) Income	Stockholders' Equity
BALANCES, December 31, 1997	27,241	\$27	\$ 59,357	\$ 41,378	\$ (67)	\$ (34)	\$ (692)	\$ 99,969
Exercise of stock options for cash	219	—	728	—	—	—	—	728
Proceeds from stockholders' notes receivable	—	—	—	—	67	—	—	67
Sale of common stock through employee stock purchase plan	20	—	133	—	—	—	—	133
Amortization of deferred compensation	—	—	—	—	—	34	—	34
Issuance of common stock for intangibles	1,680	2	2,094	—	—	—	—	2,096
Tax benefit related to shares acquired by employees under stock compensation plans	—	—	365	—	—	—	—	365
Adjustment to conform year-end of merged entity	—	—	—	(482)	—	—	—	(482)
Comprehensive loss:								
Equity adjustment from foreign currency translation	—	—	—	—	—	—	278	—
Net loss	—	—	—	(11,025)	—	—	—	—
Total comprehensive loss	—	—	—	—	—	—	—	(10,747)
BALANCES, December 31, 1998	29,160	29	62,677	29,871	—	—	(414)	92,163
Exercise of stock options for cash	490	1	4,147	—	—	—	—	4,148
Sale of common stock through employee stock purchase plan	22	—	345	—	—	—	—	345
Issuance of common stock for intangibles	227	—	2,335	—	—	—	—	2,335
Tax benefit related to shares acquired by employees under stock compensation plans	—	—	1,422	—	—	—	—	1,422
Sale of common stock through private and public offerings, net of approximately \$2,448 of expenses	1,070	1	37,826	—	—	—	—	37,827
Issuance of common stock for services rendered	12	—	136	—	—	—	—	136
Deferred compensation on stock options issued	—	—	109	—	—	(109)	—	—
Amortization of deferred compensation	—	—	—	—	—	23	—	23
Comprehensive income:								
Equity adjustment from foreign currency translation	—	—	—	—	—	—	(476)	—
Net income	—	—	—	19,066	—	—	—	—
Total comprehensive income	—	—	—	—	—	—	—	18,590
BALANCES, December 31, 1999	30,981	31	108,997	48,937	—	(86)	(890)	156,989
Exercise of stock options for cash	488	1	4,393	—	—	—	—	4,394
Issuance of common stock for services provided and merger costs	55	—	2,430	—	—	—	—	2,430
Sale of common stock through employee stock purchase plan	13	—	520	—	—	—	—	520
Tax benefit related to shares acquired by employees under stock compensation plans	—	—	6,595	—	—	—	—	6,595
Deferred compensation on stock options issued	—	—	1,995	—	—	(1,995)	—	—
Amortization of deferred compensation	—	—	—	—	—	461	—	461
Comprehensive income:								
Equity adjustment from foreign currency translation	—	—	—	—	—	—	(1,990)	—
Unrealized holding gains	—	—	—	—	—	—	1,365	—
Net income	—	—	—	68,034	—	—	—	—
Total comprehensive income	—	—	—	—	—	—	—	67,409
BALANCES, December 31, 2000	31,537	\$32	\$124,930	\$116,971	\$ —	\$ (1,620)	\$ (1,515)	\$238,798

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

(In thousands)	Years Ended December 31,		
	2000	1999	1998
Cash flows from operating activities:			
Net income (loss)	\$ 68,034	\$ 19,066	\$(11,025)
Adjustment for conforming year-end of merged entity	—	—	(482)
Adjustments to reconcile net income (loss) to net cash provided by operating activities -			
Depreciation and amortization	10,506	8,356	7,113
Amortization of deferred debt issuance costs	616	81	—
Provision for restructuring	1,000	—	1,000
Minority interest	17	69	—
Stock issued for services rendered and merger costs	2,430	136	—
Provision for deferred income taxes	(3,730)	851	(1,620)
Amortization of deferred compensation	461	23	34
(Gain) loss on disposal of property and equipment	(54)	(15)	120
Gain on sale of investment	(4,841)	—	—
Gain on retirement of convertible subordinated notes	(12,176)	—	—
Earnings from marketable securities, net	(9,471)	(1,724)	(765)
Writedown of LITMAS investment	—	322	600
Changes in operating assets and liabilities -			
Accounts receivable-trade, net	(28,080)	(28,822)	20,648
Related parties and other receivables	(1,994)	(1,306)	1,473
Notes receivable	(2,472)	—	—
Inventories	(16,856)	(4,882)	10,305
Other current assets	(705)	(252)	2,109
Deposits and other	(502)	280	(991)
Demonstration and customer service equipment	(1,282)	(563)	(1,034)
Accounts payable trade	2,548	9,171	(9,603)
Accrued payroll and employee benefits	4,117	4,467	(2,585)
Customer deposits and other accrued expenses	558	1,022	916
Income taxes payable/receivable, net	14,631	4,088	(5,929)
Net cash provided by operating activities	22,755	10,368	10,284
Cash flows from investing activities:			
Purchase of marketable securities	(10,000)	(170,805)	(1,000)
Sale of marketable securities	48,100	1,928	6,100
Proceeds from sale of investment	4,464	—	—
Proceeds from sale of equipment	150	—	—
Purchase of property and equipment, net	(14,062)	(7,168)	(5,410)
Purchase of technology	(981)	—	—
Purchase of LITMAS, net of cash acquired	(250)	(175)	(1,000)
Acquisition of assets of Fourth State Technology, Inc.	—	—	(2,500)
Net cash provided by (used in) investing activities	27,421	(176,220)	(3,810)

(In thousands)	Years Ended December 31,		
	2000	1999	1998
Cash flows from financing activities:			
Proceeds from notes payable	1,491	3,304	2,201
Repayment of notes payable and capital lease obligations	(3,123)	(1,637)	(9,382)
Proceeds from convertible debt, net	—	130,509	—
Repurchase of convertible debt, net	(40,795)	—	—
Sale of common stock, net of expenses	—	37,827	—
Sale of common stock through employee stock purchase plan	520	345	133
Proceeds from exercise of stock options and warrants	4,394	4,148	728
Proceeds from stockholders' notes receivable	—	—	67
Net cash (used in) provided by financing activities	(37,513)	174,496	(6,253)
Effect of currency translation on cash	(1,990)	(476)	278
Increase in cash and cash equivalents	10,673	8,168	499
Cash and cash equivalents, beginning of period	21,043	12,875	12,376
Cash and cash equivalents, end of period	\$ 31,716	\$ 21,043	\$ 12,875
Supplemental disclosure of non-cash investing and financing activities:			
Tax benefit related to shares acquired by employees under stock option plans	\$ 6,595	\$ 1,422	\$ 365
Conversion of royalty payable to note payable	\$ —	\$ 742	\$ —
Deferred compensation on stock options issued	\$ 1,995	\$ 109	\$ —
Supplemental disclosure of cash flow information:			
Cash paid for interest	\$ 7,385	\$ 459	\$ 423
Cash paid for income taxes, net	\$ 25,791	\$ 6,221	\$ 2,395

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

1 COMPANY OPERATIONS

Advanced Energy Industries, Inc. (the “Company”) was incorporated in Colorado in 1981 and reincorporated in Delaware in 1995. The Company is primarily engaged in the development and production of products and systems critical to plasma-based manufacturing processes, which are used by manufacturers of semiconductors and in industrial thin film manufacturing processes. The Company owns 100% of each of the following subsidiaries: Advanced Energy Japan K.K. (“AE-Japan”), Advanced Energy Industries GmbH (“AE-Germany”), Advanced Energy Industries U.K. Limited (“AE-UK”), Advanced Energy Industries Korea, Inc. (“AE-Korea”) and Advanced Energy Taiwan, Ltd. (“AE-Taiwan”). The Company also owns 100% of Advanced Energy Voorhees, Inc. (“AEV”), formerly RF Power Products, Inc. (“RFPP”), Tower Electronics, Inc. (“Tower”), Noah Holdings, Inc. (“Noah”) and Sekidenko, Inc. (“Sekidenko”) and 59.5% of LITMAS. As discussed in Note 3, Noah was merged into the Company on April 6, 2000, and Sekidenko was merged into the Company on August 18, 2000. The acquisitions of Noah and Sekidenko have been accounted for as a pooling of interests under Accounting Principles Board Opinion No. 16. Accordingly, all prior period consolidated financial statements have been restated to include Noah and Sekidenko as though they had always been part of the Company. AEV is a New Jersey-based designer and manufacturer of radio frequency power systems, matching networks and peripheral products primarily used by original equipment providers in the semiconductor capital equipment, commercial coating, flat panel display and analytical instrumentation markets. Tower is a Minnesota-based designer and manufacturer of custom, high-performance switchmode power supplies used principally in the telecommunications, medical and non-impact printing industries. Noah is a California-based manufacturer of solid state temperature control systems used to control process temperatures during semiconductor manufacturing. Sekidenko is a Washington-based manufacturer and supplier of optical fiber thermometers to the semiconductor capital equipment industry. LITMAS is a start-up company that designs and manufactures plasma gas abatement systems and high-density plasma sources.

The Company continues to be subject to certain risks similar to other companies in its industry. These risks include significant fluctuations of quarterly operating results, the volatility of the semiconductor and semiconductor capital equipment industries, customer concentration within the markets the Company serves, manufacturing facilities risks, recent and potential future acquisitions, management of growth, supply constraints and dependencies, dependence on design wins, barriers to obtaining new customers, the high level of customized designs, rapid technological

changes, competition, international sales risks, the Asian financial markets, intellectual property rights, governmental regulations, and the volatility of the market price of the Company’s common stock. A significant change in any of these risk factors could have a material impact on the Company’s business.

2 SIGNIFICANT ACCOUNTING POLICIES

BASIS OF PRESENTATION — The consolidated financial statements include the accounts of the Company and its subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

CASH AND CASH EQUIVALENTS — For cash flow purposes, the Company considers all cash and highly liquid investments with an original maturity of 90 days or less to be cash and cash equivalents.

INVENTORIES — Inventories include costs of materials, direct labor and manufacturing overhead. Inventories are valued at the lower of market or cost, computed on a first-in, first-out basis.

MARKETABLE SECURITIES-TRADING — The Company has investments in marketable equity securities and municipal bonds, which have original maturities of 90 days or more. In accordance with Statement of Financial Accounting Standards (“SFAS”) No. 115, “Accounting for Certain Investments in Debt and Equity Securities,” the investments are classified as trading securities and reported at fair value with unrealized gains and losses included in earnings.

DEMONSTRATION AND CUSTOMER SERVICE EQUIPMENT — Demonstration and customer service equipment are manufactured products utilized for sales demonstration and evaluation purposes. The Company also utilizes this equipment in its customer service function as replacement and loaner equipment to existing customers.

The Company depreciates the equipment based on its estimated useful life in the sales and customer service functions. The depreciation is computed based on a three-year life.

PROPERTY AND EQUIPMENT — Property and equipment is stated at cost. Additions, improvements, and major renewals are capitalized. Maintenance, repairs, and minor renewals are expensed as incurred.

Depreciation is provided using straight-line and accelerated methods over three to ten years for machinery and equipment and furniture and fixtures, with computers and communication equipment depreciated over a three-year life. Amortization of leasehold improvements and leased equipment is provided using the straight-line method over the life of the lease term or the life of the assets, whichever is shorter.

GOODWILL AND INTANGIBLES — Goodwill and intangibles are recorded at the date of acquisition at their allocated cost. Amortization is provided over the estimated useful lives ranging from five to seven years for both the goodwill and the intangible assets.

CONCENTRATIONS OF CREDIT RISK — The Company's revenues generally are concentrated among a small number of customers, the majority of which are in the semiconductor capital equipment industry. The Company's foreign subsidiaries sales are primarily denominated in currencies other than the U.S. dollar (see Note 15). The Company establishes an allowance for doubtful accounts based upon factors surrounding the credit risk of specific customers, historical trends and other information.

WARRANTY POLICY — The Company estimates the costs of repairing products under warranty based on the historical average cost of the repairs. The Company offers warranty coverage for its systems for periods ranging from 12 to 30 months after shipment.

CUMULATIVE TRANSLATION ADJUSTMENT — The functional currency for the Company's foreign operations is the applicable local currency.

The Company records a cumulative translation adjustment from translation of the financial statements of AE-Japan, AE-Germany, AE-Korea, AE-UK and AE-Taiwan. This equity account includes the results of translating balance sheet assets and liabilities at current exchange rates as of the balance sheet date, and the statements of operations and cash flows at the average exchange rates during the respective year.

The Company recognizes gain or loss on foreign currency transactions, which are not considered to be of a long-term investment nature. The Company recognized a loss on foreign currency transactions of \$196,000 for the year ended December 31, 2000, and gains on foreign currency transactions of \$1,504,000 and \$369,000 for the years ended December 31, 1999 and 1998, respectively.

REVENUE RECOGNITION — The Company recognizes revenue upon shipment of its systems and spare parts, at which time title passes to the customer. For most of its customers, the Company has established a warranty policy as part of its contract with the customer, to provide for repairs and replacement of defective systems. The Company records an estimate for such repairs based upon its experience, and does not record an offset against revenue for such temporary returns.

The Company has an arrangement with one of its major customers, a semiconductor capital equipment manufacturer, in which completed systems are shipped to the customer and held by them on a consignment basis. The customer draws systems from this inventory as needed, at which time title passes to the

customer and the Company recognizes revenue. The customer is subject to the Company's normal warranty policy for repair of defective systems.

In some instances the Company delivers systems to customers for evaluation purposes. In these arrangements, the customer retains the systems for specified periods of time without commitment to purchase. On or before the expiration of the evaluation period, the customer either rejects the system and returns it to the Company, or accepts the system. Upon acceptance, title passes to the customer, the Company invoices the customer for the system, and revenue is recognized. Pending acceptance by the customer, such systems are reported on the Company's balance sheet at an estimated value based on the lower of cost or market, and are included in the amount for demonstration and customer service equipment, net of accumulated depreciation.

INCOME TAXES — The Company accounts for income taxes in accordance with SFAS No. 109, "Accounting for Income Taxes." SFAS No. 109 requires deferred tax assets and liabilities to be recognized for temporary differences between the tax basis and financial reporting basis of assets and liabilities, computed at current tax rates. Also, the Company's deferred income tax assets include certain future tax benefits. The Company records a valuation allowance against any portion of those deferred income tax assets which it believes it will more likely than not fail to realize.

EARNINGS PER SHARE — Basic EPS is computed by dividing income available to common stockholders by the weighted-average number of common shares outstanding during the period. The computation of diluted EPS is similar to the computation of basic EPS except that the numerator is increased to include certain charges which would not have been incurred, and the denominator is increased to include the number of additional common shares that would have been outstanding (using the treasury stock and if-converted methods) if potentially dilutive common shares had been issued. For the periods presented, certain stock options outstanding and conversion of the convertible subordinated notes payable were not included in this calculation because to do so would be anti-dilutive. Basic and diluted EPS were the same for fiscal 1998 as the Company incurred losses from operations, therefore, making the effect of all potentially dilutive common shares anti-dilutive.

COMPREHENSIVE INCOME (LOSS) — SFAS No. 130, "Reporting Comprehensive Income," established rules for the reporting of comprehensive income (loss) and its components. Comprehensive income (loss) for the Company consists of net income (loss), foreign currency translation adjustments and unrealized holding gains and is presented in the Consolidated Statement of Stockholders' Equity.

SEGMENT REPORTING — SFAS No. 131, “Disclosure about Segments of an Enterprise and Related Information,” requires a public business enterprise to report financial and descriptive information about its reportable operating segments. Operating segments are components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision-maker in deciding how to allocate resources and in assessing performance. Management operates and manages the Company’s business as one operating segment because all of its products and systems have similar economic characteristics and production processes.

RECENT ACCOUNTING PRONOUNCEMENTS — In June 1998 the FASB issued SFAS No. 133, “Accounting for Derivative Instruments and Hedging Activities.” The Company is required to adopt SFAS No. 133, as amended by SFAS No. 137, on January 1, 2001. SFAS No. 133 establishes accounting and reporting standards for derivative instruments and for hedging activity by requiring all derivatives to be recorded on the balance sheet as either an asset or liability and measured at their fair value. Changes in the derivative’s fair value will be recognized currently in earnings unless specific hedging accounting criteria are met. SFAS No. 133 also establishes uniform hedge accounting criteria for all derivatives. The Company will not seek specific hedge accounting treatment for its foreign currency forward contracts (Note 18). The Company has assessed its position with regard to its derivative and hedging activities and does not believe that the adoption of SFAS No. 133 will have a material impact on the Company’s financial condition or results of operations.

In December 1999 the staff of the Securities and Exchange Commission issued its Staff Accounting Bulletin (“SAB”) No. 101, “Revenue Recognition.” SAB No. 101 provides guidance on the measurement and timing of revenue recognition in financial statements of public companies. Changes in accounting policies to apply the guidance of SAB No. 101 must be adopted by recording the cumulative effect of the change in the fiscal quarter ending December 31, 2000. The adoption of SAB No. 101 did not have a material effect on the Company’s financial position or results of operations.

In March 2000 the FASB issued FASB Interpretation No. 44, “Accounting for Certain Transactions Involving Stock Compensation” (“FIN No. 44”). FIN No. 44 provides clarification and guidance on applying APB No. 25. Generally, FIN No. 44 provides for prospective application for grants or modifications to existing stock options or awards made after June 30, 2000. The adoption of FIN No. 44 in 2000 did not have a material effect on the Company’s financial condition or results of operations.

ESTIMATES AND ASSUMPTIONS — The preparation of the Company’s consolidated financial statements in conformity with generally accepted accounting principles requires the Company’s management to make estimates and assumptions that affect the amounts reported and disclosed in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

ASSET IMPAIRMENTS — The Company reviews its long-lived assets and certain identifiable intangibles to be held and used by the Company for impairment whenever events or changes in circumstances indicate their carrying amount may not be recoverable. In so doing, the Company estimates the future net cash flows expected to result from the use of the asset and its eventual disposition. If the sum of the expected future net cash flows (undiscounted and without interest charges) is less than the carrying amount of the asset, an impairment loss is recognized to reduce the asset to its estimated fair value. Otherwise, an impairment loss is not recognized. Long-lived assets and certain identifiable intangibles to be disposed of, if any, are reported at the lower of carrying amount or fair value less cost to sell.

RECLASSIFICATIONS — Certain reclassifications have been made to the 1998 and 1999 financial statements to conform to the 2000 presentation.

3 ACQUISITIONS

SEKIDENKO, INC. — On August 18, 2000, Sekidenko, Inc. (“Sekidenko”), a privately held, Vancouver, Washington-based supplier of optical fiber thermometers to the semiconductor capital equipment industry, was merged with a wholly owned subsidiary of the Company. The Company issued 2.1 million shares of its common stock to the former shareholders of Sekidenko. In connection with the merger, the Company recorded in the third quarter of 2000 a charge to operating expenses of \$2.3 million for direct merger-related costs.

NOAH HOLDINGS, INC. — On April 6, 2000, Noah Holdings, Inc. (“Noah”), a privately held, California-based manufacturer of solid state temperature control systems used to control process temperatures during semiconductor manufacturing, was merged with a wholly owned subsidiary of the Company. The Company issued approximately 687,000 shares of its common stock in connection with the acquisition. In addition, outstanding Noah stock options were converted into options to purchase approximately 40,000 shares of the Company’s common stock. In connection with the merger, the Company recorded in the second quarter of 2000 a charge to operating expenses of \$2.3 million for direct merger-related costs.

AEV — On October 8, 1998, RF Power Products, Inc., since renamed Advanced Energy Voorhees, Inc. (“AEV”), a New Jersey-based designer and manufacturer of radio frequency power systems, matching networks and peripheral products primarily for original equipment providers in the semiconductor capital equipment, commercial coating, flat panel display and analytical instrumentation markets, was merged with a wholly owned subsidiary of the Company. The Company issued approximately four million shares of its common stock to the former shareholders of AEV. In addition, outstanding AEV stock options were converted into options to purchase approximately 148,000 shares of the Company’s common stock.

AEV’s operating results for the month of December 1998 are not reflected in the accompanying consolidated statement of operations. This is due to changing AEV’s year-end from November 30 to December 31 to conform to the Company’s year-end. AEV’s month of December 1998 operating results were revenues of approximately \$723,000 and a net loss of \$482,000, which has been charged directly to retained earnings in order to report only twelve months’ operating results. In connection with the merger, the Company recorded in the fourth quarter of 1998 a charge to operating expenses of \$2,742,000 for direct merger-related costs.

Each of the above mergers constituted a tax-free reorganization and have been accounted for as a pooling of interests under Accounting Principles Board Opinion No. 16. Accordingly, all prior period consolidated financial statements presented have been restated to include the combined balance sheet, statements of operations and cash flows of AEV, Noah and Sekidenko as though each had always been part of the Company. There were no transactions between the Company, AEV, Noah and Sekidenko prior to the combinations, and immaterial adjustments were recorded at AEV, Noah and Sekidenko to conform their accounting policies. Certain reclassifications were made to conform the AEV, Noah and Sekidenko financial statements to the Company’s presentations. The results of operations for the separate companies and combined amounts presented in the consolidated financial statements follow:

(In thousands)	Years Ended December 31,		
	2000	1999	1998
Sales:			
Pre-AEV merger			
Advanced Energy	\$ —	\$ —	\$ 86,289
AEV	—	—	18,436
Advanced Energy and AEV combined before Noah and Sekidenko mergers	67,171	183,958	19,973
Noah before Noah and Sekidenko mergers	3,080	7,617	5,639
Sekidenko before Noah and Sekidenko mergers	4,777	11,274	3,682
Post-Noah merger			
Advanced Energy combined with AEV and Noah	123,190	—	—
Sekidenko	7,034	—	—
Post-Sekidenko merger	154,530	—	—
Consolidated	\$359,782	\$202,849	\$134,019
Net income (loss):			
Pre-AEV merger			
Advanced Energy	\$ —	\$ —	\$ (2,748)
AEV	—	—	(3,859)
Advanced Energy and AEV combined before Noah and Sekidenko mergers	9,996	16,838	(168)
AEV merger costs	—	—	(2,742)
Noah before Noah and Sekidenko mergers	43	184	(1,620)
Sekidenko before Noah and Sekidenko mergers	1,199	2,044	112
Post-Noah merger			
Advanced Energy combined with AEV and Noah	20,809	—	—
Sekidenko	1,367	—	—
Noah merger costs	(2,333)	—	—
Post-Sekidenko merger	39,203	—	—
Sekidenko merger costs	(2,250)	—	—
Consolidated	\$ 68,034	\$19,066	\$(11,025)

OTHER INTANGIBLES — During 1999 Noah acquired various intangible assets, primarily a license agreement and patents, by issuing approximately 214,000 shares of common stock valued at \$1,950,000. The entire purchase price was allocated to other intangibles and is being amortized over a seven-year useful life.

During 1998 Sekidenko acquired various intangible assets, primarily a license agreement, by issuing approximately 1,680,000 shares of common stock valued at \$2,096,000. The entire purchase price was allocated to other intangibles and is being amortized over a five-year useful life.

LITMAS — During 1998 the Company acquired a 29% ownership interest in LITMAS, a privately held, North Carolina-based start-up company that designs and manufactures plasma gas abatement systems and high-density plasma sources. The purchase price consisted of \$1 million in cash. On October 1, 1999, the Company acquired an additional 27.5% interest in LITMAS for an additional \$560,000. The purchase price consisted of \$385,000 in the Company's common stock and \$175,000 in cash. The acquisition was accounted for using the purchase method of accounting and resulted in \$523,000 allocated to intangible assets as goodwill. The results of operations of LITMAS are included within the accompanying consolidated financial statements from the date the controlling interest of 56.5% was acquired. On October 1, 2000, the Company acquired an additional 3.0% interest in LITMAS for an additional \$250,000, bringing the Company's ownership interest in LITMAS to 59.5%.

FST — Effective September 3, 1998, the Company acquired substantially all of the assets of Fourth State Technology, Inc. ("FST"), a privately held, Texas-based designer and manufacturer of process controls used to monitor and analyze data in the RF process. The purchase price consisted of \$2.5 million in cash, assumption of a \$113,000 liability, and an earn-out provision, which is based on profits over a twelve-quarter period beginning October 1, 1998. Approximately \$2.6 million of the initial purchase price was allocated to intangible assets. During the fourth quarter of 1999, the Company accrued \$240,000 to intangible assets as a result of the earn-out provision being met during the fifth quarter period. The results of operations of FST are included within the accompanying consolidated financial statements from the date of acquisition.

4 PUBLIC OFFERING OF COMMON STOCK

In November 1999 the Company closed on an additional offering of its common stock. In connection with the offering, 1,000,000 shares of common shares were sold at a price of \$39 per share, providing gross proceeds of \$39,000,000, less \$2,448,000 in offering costs.

5 MARKETABLE SECURITIES – TRADING

MARKETABLE SECURITIES-TRADING are reported at their fair value and consisted of the following:

(In thousands)	December 31,	
	2000	1999
Commercial paper	\$ 85,827	\$118,894
Municipal bonds and notes	54,022	67,453
Mutual funds	17,962	93
	\$157,811	\$186,440

These marketable securities have original costs of \$157,112,000 and \$185,069,000 as of December 31, 2000 and 1999, respectively.

6 ACCOUNTS RECEIVABLE – TRADE

ACCOUNTS RECEIVABLE – TRADE consisted of the following:

(In thousands)	December 31,	
	2000	1999
Domestic	\$41,545	\$21,877
Foreign	31,971	23,414
Allowance for doubtful accounts	(784)	(639)
	\$72,732	\$44,652

7 INVENTORIES

INVENTORIES consisted of the following:

(In thousands)	December 31,	
	2000	1999
Parts and raw materials	\$34,462	\$19,381
Work in process	3,777	2,526
Finished goods	7,027	6,503
	\$45,266	\$28,410

8 PROPERTY AND EQUIPMENT

PROPERTY AND EQUIPMENT consisted of the following:

(In thousands)	December 31,	
	2000	1999
Machinery and equipment	\$ 25,075	\$ 18,121
Computers and communication equipment	12,484	8,967
Furniture and fixtures	4,026	3,781
Vehicles	197	161
Leasehold improvements	6,746	5,298
	48,528	36,328
Less – accumulated depreciation	(24,427)	(18,629)
	\$ 24,101	\$ 17,699

9 INVESTMENTS IN MARKETABLE SECURITIES, AVAILABLE FOR SALE

In the third quarter of 2000 the Company exercised warrants of a supplier in a cashless transaction and received 458,000 shares of the supplier's common stock, which is publicly traded. Concurrent with the exercise, the Company sold 320,000 shares of the supplier's common stock and recognized a gain of approximately \$4.8 million. The remaining 138,000 shares have been classified as available-for-sale securities and are reflected as an investment of approximately \$1.7 million in the accompanying balance sheet.

10 NOTES PAYABLE

(In thousands)	December 31,	
	2000	1999
Revolving line of credit of \$30,000,000, expiring April 7, 2001, interest at bank's prime rate minus 1.25% or the LIBOR 360-day rate plus 150 basis points, (average 1.98718% during 2000, 2.39857% at December 31, 2000). This line includes \$20,000,000 available for general use, with an option to convert up to \$10,000,000 to a three-year term loan; additional advances up to \$5,000,000 each for Optional Currency Rate Advances and Foreign Exchange Contracts. Borrowing base consists of the sum of 80% of eligible accounts receivable plus the lesser of 20% of eligible inventory or \$5,000,000. Loan covenants provide certain financial restrictions related to working capital, leverage, net worth, payment and declaration of dividends and profitability.	\$ 875	\$1,958
Revolving line of credit of \$1,875,000, expired January 2001, interest at bank's prime rate plus 3.5% (minimum 12% plus 1% discount rate). Loan is secured by a Certificate of Deposit, certain accounts receivable, inventory, equipment and intangibles, and is guaranteed by a stockholder. Agreement provides for an early termination fee of \$30,000 if the line is terminated prior to maturity.	—	241
Note payable, shareholder (see Note 16)	356	447
Note payable, royalties, with interest at 7%, with monthly payments ranging from \$5,000 to \$15,000, including interest, due July 2002. The note is unsecured.	704	738
Note payable, other	120	—
Note payable to the New Jersey Economic Development Authority, with interest at 5%, principal and interest due monthly, matures January 2002 and secured by machinery and equipment.	109	216
Note payable, shareholder (see Note 16)	163	266
	2,327	3,866
Less — current portion	(1,284)	(2,485)
	\$1,043	\$1,381

11 CONVERTIBLE SUBORDINATED NOTES PAYABLE

In November 1999 the Company issued \$135 million of convertible subordinated notes payable at 5.25%. These notes mature November 15, 2006, with interest payable on May 15th and November 15th each year beginning May 15, 2000. Net proceeds to the Company were approximately \$130.5 million, after deducting \$4.5 million of offering costs, which have been capitalized and are being amortized over a period of seven years. Holders of the notes may convert the notes at any time into shares of the Company's common stock, at \$49.53 per share. The Company may convert the notes on or after November 19, 2002 at a redemption price of 103.00% times the principal amount, and may convert at successively lesser amounts thereafter until November 15, 2006, at which time the Company may convert at a redemption price equal to the principal amount. At December 31, 2000, \$529,000 of interest expense was accrued as a current liability.

In October and November 2000, the Company repurchased an aggregate of approximately \$53.4 million principal amount of its convertible subordinated notes in the open market, for a cost of approximately \$40.8 million. These purchases resulted in an after-tax extraordinary gain of \$7.6 million. The purchased notes have been cancelled. Approximately \$81.6 million principal amount of the notes remains outstanding, which had a fair market value of approximately \$66.7 million as of December 31, 2000. The Company may continue to purchase additional notes in the open market from time to time, if market conditions and its financial position are deemed favorable for such purposes.

12 INCOME TAXES

For the years ended December 31, 2000, 1999 and 1998, the provision for income taxes consisted of an amount for taxes currently payable and a provision for tax effects deferred to future periods. In 1997 the Company's statutory U.S. tax rate increased from 34% to 35%.

The provision (benefit) for income taxes for the years ended December 31, 2000, 1999 and 1998 was as follows:

(In thousands)	December 31,		
	2000	1999	1998
Federal	\$ 28,869	\$ 8,087	\$ (3,843)
State and local	3,592	1,376	(561)
Foreign taxes	4,346	2,278	882
	\$ 36,807	\$ 11,741	\$ (3,522)
Current	\$ 40,537	\$ 10,890	\$ (1,902)
Deferred	(3,730)	851	(1,620)
	\$ 36,807	\$ 11,741	\$ (3,522)

The following reconciles the Company's effective tax rate to the federal statutory rate for the years ended December 31, 2000, 1999 and 1998:

(In thousands)	December 31,		
	2000	1999	1998
Income tax expense (benefit)			
per federal statutory rate	\$36,703	\$10,807	\$(5,091)
State income taxes, net of federal deduction	2,232	894	(365)
Foreign sales corporation	(2,516)	(331)	—
Nondeductible merger costs	1,604	(228)	960
Nondeductible intangible and goodwill amortization	618	553	500
Other permanent items, net	(2,262)	(137)	(159)
Effect of foreign taxes	578	1,000	80
Foreign operating loss with no benefit provided	—	—	610
Change in valuation allowance	—	(717)	107
Tax credits	(150)	(100)	(164)
	\$36,807	\$11,741	\$(3,522)

The Company's deferred income tax assets are summarized as follows:

(In thousands)	Dec 31,	Change	Dec 31,
	2000		1999
Employee bonuses and commissions	\$1,851	\$1,821	\$ 30
Warranty reserve	1,046	437	609
Bad debt reserve	229	(4)	233
Vacation accrual	1,076	551	525
Royalties	—	(280)	280
Obsolete and excess inventory	2,433	1,546	887
Investment in LITMAS	395	52	343
Depreciation and amortization	312	(161)	473
Other	141	(232)	373
	\$7,483	\$ 3,730	\$ 3,753

The domestic versus foreign component of the Company's net income (loss) before income taxes at December 31, 2000, 1999 and 1998, was as follows:

(In thousands)	December 31,		
	2000	1999	1998
Domestic	\$ 94,094	\$25,177	\$(15,021)
Foreign	10,767	5,699	474
	\$104,861	\$30,876	\$(14,547)

13 RETIREMENT PLAN

The Company has 401(k) Profit Sharing Plans which cover most full-time employees who have completed six months of full-time continuous service and are age eighteen or older. Depending on the plan in which a participant is enrolled, participants may defer up to either 10% or 15% of their gross pay

up to a maximum limit determined by law. Participants are immediately vested in their contributions.

The Company may make discretionary contributions based on corporate financial results for the fiscal year. Effective January 1, 1998, the Company increased its matching contribution for participants in the 401(k) Plans up to a 50% matching on contributions by employees up to 6% of the employee's compensation. The Company's total contributions to the plans were approximately \$1,291,000, \$848,000 and \$754,000 for the years ended December 31, 2000, 1999 and 1998, respectively. Vesting in the profit sharing contribution account is based on years of service, with most participants fully vested after five years of credited service.

The Company also has a Money Purchase Pension Plan, which covers certain employees. This plan was frozen, effective July 1, 1998, and the Company is not required to make contributions to the plan for future years. The Company's contributions to this plan were \$63,000 for 1998 and \$62,000 for 2000. The Company made no contributions in 1999.

14 COMMITMENTS AND CONTINGENCIES

CAPITAL LEASES

The Company finances a portion of its property and equipment under capital lease obligations at interest rates ranging from 7.63% to 24.7%. The future minimum lease payments under capitalized lease obligations as of December 31, 2000 are as follows:

(In thousands)	
Total minimum lease payments, all 2001	\$ 56
Less - amount representing interest	(3)
Less - current portion	(53)
	\$ 0

OPERATING LEASES

The Company has various operating leases for automobiles, equipment, and office and production space (Note 16). Lease expense under operating leases was approximately \$5,155,000, \$4,926,000 and \$4,822,000 for the years ended December 31, 2000, 1999 and 1998, respectively.

The future minimum rental payments required under noncancelable operating leases as of December 31, 2000 are as follows:

(In thousands)	
2001	\$ 5,556
2002	4,980
2003	4,017
2004	3,525
2005	3,200
Thereafter	18,156
	\$39,434

GUARANTEE

On April 12, 2000, the Company committed to a lease guarantee of approximately \$1,000,000 through April 12, 2005, to a private company. The Company received 25,000 shares of the private company's common stock, which is valued at approximately \$4,000 and is reflected on the Company's balance sheet in investments.

15 FOREIGN OPERATIONS

The Company operates in a single operating segment with operations in the U.S., Asia and Europe. The following is a summary of the Company's foreign operations:

(In thousands)	Years Ended December 31,		
	2000	1999	1998
Sales:			
Originating in Japan to unaffiliated customers	\$ 32,404	\$ 16,270	\$ 6,300
Originating in Europe to unaffiliated customers	24,375	12,724	8,489
Originating in U.S. and sold to foreign customers	35,504	23,996	21,188
Originating in U.S. and sold to domestic customers	260,596	148,424	98,042
Originating in South Korea to unaffiliated customers	2,989	1,435	—
Originating in Taiwan to unaffiliated customers	3,914	—	—
Transfers between geographic areas	48,963	24,053	10,304
Intercompany eliminations	(48,963)	(24,053)	(10,304)
	\$359,782	\$202,849	\$134,019
Income (loss) from operations:			
Japan	\$ 6,533	\$ 1,758	\$ (1,505)
Europe	3,805	2,379	1,722
U.S.	73,508	25,390	(14,944)
South Korea	751	188	(186)
Taiwan	594	—	—
Intercompany eliminations	9	(389)	165
	\$ 85,200	\$ 29,326	\$ (14,748)
Identifiable assets:			
Japan	\$ 21,567	\$ 13,967	
Europe	19,263	11,950	
U.S.	387,953	345,431	
South Korea	2,609	1,393	
Taiwan	5,105	—	
Intercompany eliminations	(70,662)	(47,308)	
	\$365,835	\$325,433	

Intercompany sales among the Company's geographic areas are recorded on the basis of intercompany prices established by the Company.

16 RELATED PARTY TRANSACTIONS

The Company leases office and production spaces from a limited liability partnership consisting of certain officers of the Company and other individuals. The leases relating to these spaces expire in 2009 and 2011 with monthly payments of approximately \$52,000 and \$60,000, respectively. The Company also leases other office and production space from another limited liability partnership consisting of certain officers of the Company and other individuals. The lease relating to this space expires in 2002 with a monthly payment of approximately \$28,000.

Approximately \$1,637,000, \$1,693,000 and \$1,359,000 were charged to rent expense attributable to these leases for the years ended December 31, 2000, 1999 and 1998, respectively.

The Company also leases office and production space from a shareholder. Approximately \$228,000, \$197,000 and \$199,000 were charged to rent expense attributable to this lease for the years ended December 31, 2000, 1999 and 1998, respectively.

The Company leases, for business purposes, a condominium owned by a partnership of certain stockholders. The Company paid the partnership approximately \$36,000 for each of the years ended December 31, 2000, 1999 and 1998, relating to this lease.

During 1999 a shareholder of Sekidenko granted employees options under a preexisting arrangement to purchase shares of his common stock already outstanding at exercise prices below fair market value. Under this agreement, 29,700 and 34,250 of such options were exercised in 1999 and 2000, respectively. These options will result in the Company recognizing \$109,000 as compensation expense over the four-year vesting period related to the 1999 purchases, and \$1,995,000 as compensation expense over the four-year vesting period related to the 2000 purchases. Compensation expense of \$23,000 and \$461,000 was recognized in 1999 and 2000, respectively.

In prior years, certain stockholders of the Company exercised options to purchase shares of the Company's common stock in exchange for notes receivable in the amount of the exercise price. These notes receivable and accrued interest have been paid in full.

The Company has an unsecured note payable to a stockholder of \$356,000, less current portion of \$45,000, with interest at 7%, due November 1, 2002. The note is payable in installments of principal and interest of \$135,000 in 2001 and \$306,000 in 2002.

The Company has a note payable to a stockholder of \$163,000, less current portion of \$107,000, with interest at 5%, due January 2002. The note is payable in installments of principal and interest due semi-annually on January 13th and July 13th.

17 MAJOR CUSTOMERS

The Company has a major customer (sales in excess of 10% of total sales) that is a manufacturer of semiconductor capital equipment. Sales to this customer accounted for the following percentages of sales for the years ended December 31, 2000, 1999 and 1998:

	December 31,		
	2000	1999	1998
Customer A	39%	34%	24%

18 FORWARD CONTRACTS

AE-Japan enters into foreign currency forward contracts to buy U.S. dollars to offset foreign currency risk for trade purchases payable and intercompany transactions with its parent. Foreign currency forward contracts reduce the Company's exposure to the risk that the eventual net cash outflows resulting from the purchase of products denominated in other currencies will be adversely affected by changes in exchange rates. Foreign currency forward contracts are entered into with a major commercial Japanese bank that has a high credit rating and the Company does not expect the counterparty to fail to meet its obligations under outstanding contracts. Foreign currency gains and losses under the above arrangements are not deferred. The Company generally enters into foreign currency forward contracts with maturities ranging from one to eight months, with contracts outstanding at December 31, 2000, maturing through August 2001. All forward contracts are held until maturity. At December 31, 2000, the Company held foreign forward exchange contracts with nominal amounts of \$11,500,000 and market settlement amounts of \$10,674,000 for an unrealized gain position of \$826,000 that has been included in other income and expense in the accompanying statement of operations.

19 STOCK PLANS

EMPLOYEE STOCK OPTION PLAN — During 1993 the Company adopted an Employee Stock Option Plan (the "Employee Option Plan") which was amended and restated in September 1995, February 1998, February 1999 and December 2000. The Employee Option Plan allows issuance of incentive stock options, non-qualified options, and stock purchase rights. The exercise price of incentive stock options shall not be less than 100% of the stock's fair market value on the date of grant. The exercise price of non-qualified stock options shall not be less than 85% of the stock's fair market value on the date of grant. Options issued in 2000, 1999 and 1998 were issued at 100% of fair market value with typi-

cal vesting over three to four years. Under the Employee Option Plan, the Company has the discretion to accelerate the vesting period. The options are exercisable for ten years from the date of grant. The Company has reserved 5,625,000 shares of common stock for the issuance of stock under the Employee Option Plan, which terminates in June 2003.

In connection with the grant of certain stock options in the second quarter of 1995, the Company recorded \$142,000 of deferred compensation for the difference between the deemed fair value for accounting purposes and the option price as determined by the Company at the date of grant. This amount was presented as a reduction of stockholders' equity and was amortized over the three-year vesting period of the related stock options.

In connection with the grant of certain stock options in the third quarter of 1999, the Company recorded \$109,000 of deferred compensation for the difference between the deemed fair value for accounting purposes and the option price as determined by the Company at the date of grant. In connection with the grant of certain stock options in 2000, the Company recorded \$950,000 and \$1,045,000 of deferred compensation in the first and second quarters of 2000, respectively. These amounts also reflected the difference between the deemed fair value for accounting purposes and the option price as determined by the Company at the dates of grant. These amounts are presented as a reduction of stockholders' equity, and are being amortized over the four-year vesting period of the related stock options.

EMPLOYEE STOCK PURCHASE PLAN — In September 1995 stockholders approved an Employee Stock Purchase Plan (the "Stock Purchase Plan") covering an aggregate of 200,000 shares of common stock. Employees are eligible to participate in the Stock Purchase Plan if employed by the Company for at least 20 hours per week during at least five months per calendar year. Participating employees may have up to 15% (subject to a 5% limitation set by the Company) of their earnings or a maximum of \$1,250 per six month period withheld pursuant to the Stock Purchase Plan. Common stock purchased under the Stock Purchase Plan will be equal to 85% of the lower of the fair market value on the commencement date of each offering period or the relevant purchase date. During 2000, 1999 and 1998, employees purchased an aggregate of 13,025, 22,390 and 20,264 shares under the Stock Purchase Plan, respectively.

NON-EMPLOYEE DIRECTORS STOCK OPTION PLAN — In September 1995 the Company adopted the 1995 Non-Employee Directors Stock Option Plan (the “Directors Plan”) covering 50,000 shares of common stock. In February 1999 the plan was amended to increase the number of shares of common stock issuable under such plan to 100,000 shares of common stock. The Directors Plan provides for automatic grants of non-qualified stock options to directors of the Company who are not employees of the Company (“Outside Directors”). Pursuant to the Directors Plan, upon becoming a director of the Company, each Outside Director will be granted an option to purchase 7,500

shares of common stock. Such options will be immediately exercisable as to 2,500 shares of common stock, and will vest as to 2,500 shares of common stock on each of the second and third anniversaries of the grant date. On each anniversary of the date on which a person became an Outside Director, an option for an additional 2,500 shares is granted. Such additional options vest on the third anniversary of the date of grant. Options will expire ten years after the grant date, and the exercise price of the options will be equal to the fair market value of the common stock on the grant date. The Directors Plan terminates September 2005.

The following summarizes the activity relating to options for the years ended December 31, 2000, 1999 and 1998:

(In thousands, except share prices)	2000		1999		1998	
	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price
Stock options:						
Incentive stock options —						
Options outstanding at beginning of period	1,850	\$ 13.90	1,987	\$ 9.01	1,475	\$ 7.02
Granted	461	44.45	417	30.31	937	10.23
Exercised	(488)	9.12	(487)	8.44	(219)	3.35
Terminated	(104)	19.26	(67)	10.44	(206)	6.35
Options outstanding at end of period	1,719	23.29	1,850	13.90	1,987	9.01
Options exercisable at end of period	689	14.09	801	9.10	651	6.89
Weighted-average fair value of options granted during the period						
	\$32.75		\$18.78		\$ 6.71	
Price range of outstanding options	\$0.67 - \$60.75		\$0.67 - \$44.97		\$0.67 - \$31.63	
Price range of options terminated	\$0.83 - \$43.69		\$3.88 - \$28.16		\$0.83 - \$12.75	
Non-employee directors stock options—						
Options outstanding at beginning of period	55	\$ 18.34	40	\$ 12.18	20	\$14.67
Granted	20	46.48	18	32.94	20	7.55
Exercised	—	—	(3)	11.05	—	—
Terminated	—	—	—	—	—	—
Options outstanding at end of period	75	26.31	55	18.34	40	12.18
Options exercisable at end of period	32	18.65	22	17.27	15	11.40
Weighted-average fair value of options granted during the period						
	\$30.83		\$20.11		\$ 4.93	
Price range of outstanding options	\$6.13 - \$64.94		\$6.13 - \$36.94		\$8.63 - \$29.88	
Price range of options terminated	\$ —		\$ —		\$ —	

Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation" ("SFAS No. 123"), defines a fair value based method of accounting for employee stock options or similar equity instruments. However, SFAS No. 123 allows the continued measurement of compensation cost for such plans using the intrinsic value based method prescribed by APB Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB No. 25"), provided that pro forma disclosures are made of net income or loss and net income or loss per share, assuming the fair value based method of SFAS No. 123 had been applied. The Company has elected to account for stock-based compensation plans under APB No. 25, under which compensation expense, if any, is recognized based on the intrinsic value of stock options and other stock awards, generally measured at the date of grant.

For SFAS No. 123 purposes, the fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	2000	1999	1998
Risk-free interest rates	6.06%	5.92%	5.06%
Expected dividend yield rates	0.0%	0.0%	0.0%
Expected lives	4 years	4 years	4 years
Expected volatility	103.69%	77.33%	87.48%

The total fair value of options granted was computed to be approximately \$15,719,000, \$8,192,000 and \$6,056,000 for the years ended December 31, 2000, 1999 and 1998, respectively.

The following table summarizes information about the stock options outstanding at December 31, 2000:

Range of Exercise Prices	Number Outstanding	Options Outstanding		Options Exercisable	
		Weighted-Average Remaining Contractual Life	Weighted-Average Exercise Price	Number Exercisable	Weighted-Average Exercise Price
\$0.67 to \$2.57	17,000	2.8 years	\$ 1.19	17,000	\$ 1.19
\$3.11 to \$6.75	200,000	6.9 years	\$ 5.68	106,000	\$ 4.91
\$7.13 to \$9.00	308,000	6.6 years	\$ 8.19	154,000	\$ 8.37
\$11.05 to \$16.52	391,000	6.8 years	\$13.18	279,000	\$ 12.94
\$17.32 to \$26.63	90,000	8.7 years	\$20.47	42,000	\$ 19.86
\$28.16 to \$40.00	326,000	8.4 years	\$29.94	98,000	\$ 29.25
\$43.69 to \$64.94	462,000	9.1 years	\$47.08	25,000	\$ 47.17
	1,794,000	7.7 years	\$ 23.51	721,000	\$ 14.29

These amounts are amortized ratably over the vesting period of the options. Cumulative compensation cost recognized in pro forma net income or loss with respect to options that are forfeited prior to vesting is adjusted as a reduction of pro forma compensation expense in the period of forfeiture. Pro forma stock-based compensation, net of the effect of forfeitures and tax, was approximately \$4,554,000, \$2,999,000 and \$2,033,000 for 2000, 1999 and 1998, respectively.

Had compensation cost for these plans been determined consistent with SFAS No. 123, the Company's net income (loss) would have been reduced (increased) to the following pro forma amounts:

(In thousands, except per share data)	2000	1999	1998
Net Income (Loss):			
As reported	\$68,034	\$ 19,066	\$(11,025)
Pro forma	63,480	16,067	(13,058)
Diluted Earnings (Loss)			
Per Share:			
As reported	\$ 2.10	\$ 0.62	\$ (0.38)
Pro forma	1.96	0.52	(0.45)

Because the SFAS No. 123 method of accounting has not been applied to options granted prior to January 1, 1995, the resulting pro forma compensation cost may not be representative of that to be expected in future years.

20 SUBSEQUENT EVENTS

ENGINEERING MEASUREMENTS CO.— On July 6, 2000, the Company entered into a definitive agreement to acquire Engineering Measurements Company (“EMCO”), a Longmont, Colorado-based company which manufactures electronic and electromechanical precision instruments for measuring and controlling the flow of liquids, steam and gases, for 900,000 shares of the Company’s common stock. The Company and EMCO renegotiated the agreement as of October 20, 2000 to change the consideration from stock to cash. Completion of the merger was subject

to approval by EMCO’s shareholders and certain other conditions. On January 2, 2001, the merger was completed, and the Company paid the EMCO shareholders cash in an aggregate amount of approximately \$30 million, which included the exercise prices paid in cash by EMCO option holders on exercise of any EMCO stock options after October 20, 2000 and before the completion of the merger. Options not exercised before the completion of the merger were converted into options to acquire the Company’s common stock. The acquisition will be accounted for using the purchase method of accounting.

21 QUARTERLY FINANCIAL DATA

The following table presents unaudited quarterly financial data for each of the eight quarters in the period ended December 31, 2000. The quarters ended March 31, 1999 through June 30, 2000 have been restated to include the combined selected financial data of Noah and Sekidenko as though each had always been part of the Company. The Company believes that all necessary adjustments have been included in the amounts stated below to present fairly such quarterly information. The operating results for any quarter are not necessarily indicative of results for any subsequent period.

(In thousands, except per share data)	Quarters Ended							
	Mar. 31, 1999	June 30, 1999	Sept. 30, 1999	Dec. 31, 1999	Mar. 31, 2000	June 30, 2000	Sept. 30, 2000	Dec. 31, 2000
Sales	\$36,419	\$45,363	\$55,626	\$65,441	\$75,028	\$85,701	\$96,317	\$102,736
Gross profit	15,232	20,270	24,951	31,749	36,667	42,363	46,825	50,598
Income from operations	2,262	5,354	8,714	12,996	17,048	20,343	20,884	26,925
Net income before extraordinary item	1,231	3,290	6,090	8,455	11,238	13,118	16,289	19,779
Extraordinary item (net of income taxes)	—	—	—	—	—	—	—	7,610
Net income	\$ 1,231	\$ 3,290	\$ 6,090	\$ 8,455	\$11,238	\$13,118	\$16,289	\$ 27,389
Diluted earnings per share before extraordinary item	\$ 0.04	\$ 0.11	\$ 0.20	\$ 0.27	\$ 0.35	\$ 0.40	\$ 0.50	\$ 0.61
Diluted earnings per share from extraordinary item	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 0.22
Diluted earnings per share	\$ 0.04	\$ 0.11	\$ 0.20	\$ 0.27	\$ 0.35	\$ 0.40	\$ 0.50	\$ 0.83

The following table presents unaudited quarterly financial data for the quarters ended March 31, 1999 through June 30, 2000, retroactively combining the selected financial data of Noah and Sekidenko for the periods prior to the periods in which each was merged with the Company.

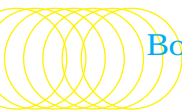
(In thousands, except per share data)	Quarters Ended							
	Mar. 31, 1999	June 30, 1999	Sept. 30, 1999	Dec. 31, 1999	Mar. 31, 2000	June 30, 2000	Sept. 30, 2000	Dec. 31, 2000
Sales	\$ 3,691	\$ 3,848	\$ 4,484	\$ 6,868	\$ 7,857	\$ 5,115	\$ —	\$ —
Gross profit	2,134	1,977	2,407	3,827	4,493	3,024	—	—
Income from operations	1,191	886	1,007	901	2,179	1,809	—	—
Net income before extraordinary item	697	520	555	456	1,242	1,088	—	—
Extraordinary item (net of income taxes)	—	—	—	—	—	—	—	—
Net income	\$ 697	\$ 520	\$ 555	\$ 456	\$ 1,242	\$ 1,088	\$ —	\$ —
Diluted earnings per share before extraordinary item	\$ 0.02	\$ 0.01	\$ —	\$ (0.01)	\$ 0.01	\$ —	\$ —	\$ —
Diluted earnings per share from extraordinary item	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Diluted earnings per share	\$ 0.02	\$ 0.01	\$ —	\$ (0.01)	\$ 0.01	\$ —	\$ —	\$ —

The following table presents unaudited quarterly financial data for the Company for each of the eight quarters in the period ended December 31, 2000, as each period had been originally presented in quarterly financial statements as reported on Forms 10-Q for the quarterly periods ended March 31, 1999, June 30, 1999, September 30, 1999, March 31, 2000 and June 30, 2000, and on Form 10-K for the quarterly period ended December 31, 1999. The quarterly period ended September 30, 2000 reflects the same financial data as previously reported on the Company's Form 10-Q for that period, and the quarterly period ended December 31, 2000 reflects the same financial data as reported in the Management's Discussion and Analysis of Financial Condition and Results of Operations elsewhere in this document.

(In thousands, except per share data)	Quarters Ended							
	Mar. 31, 1999	June 30, 1999	Sept. 30, 1999	Dec. 31, 1999	Mar. 31, 2000	June 30, 2000	Sept. 30, 2000	Dec. 31, 2000
Sales	\$32,728	\$41,515	\$51,142	\$58,573	\$67,171	\$80,586	\$96,317	\$102,736
Gross profit	13,098	18,293	22,544	27,922	32,174	39,339	46,825	50,598
Income from operations	1,071	4,468	7,707	12,095	14,869	18,534	20,884	26,925
Net income before extraordinary item	534	2,770	5,535	7,999	9,996	12,030	16,289	19,779
Extraordinary item (net of income taxes)	—	—	—	—	—	—	—	7,610
Net income	\$ 534	\$ 2,770	\$ 5,535	\$ 7,999	\$ 9,996	\$ 12,030	\$ 16,289	\$ 27,389
Diluted earnings per share before extraordinary item	\$ 0.02	\$ 0.10	\$ 0.20	\$ 0.28	\$ 0.34	\$ 0.40	\$ 0.50	\$ 0.61
Diluted earnings per share from extraordinary item	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 0.22
Diluted earnings per share	\$ 0.02	\$ 0.10	\$ 0.20	\$ 0.28	\$ 0.34	\$ 0.40	\$ 0.50	\$ 0.83

Schedule II—Valuation and Qualifying Accounts

(In thousands)	Balance at Beginning of Period	Additions Charged to Expense	Deductions	Balance at End of Period
Year ended December 31, 1998:				
Inventory obsolescence reserve	\$ 3,281	\$ 6,712	\$ 7,367	\$ 2,626
Allowance for doubtful accounts	587	229	194	622
	\$ 3,868	\$ 6,941	\$ 7,561	\$ 3,248
Year ended December 31, 1999:				
Inventory obsolescence reserve	\$ 2,626	\$ 5,254	\$ 5,576	\$ 2,304
Allowance for doubtful accounts	622	101	84	639
	\$ 3,248	\$ 5,355	\$ 5,660	\$ 2,943
Year ended December 31, 2000:				
Inventory obsolescence reserve	\$ 2,304	\$ 1,437	\$ 1,488	\$ 2,253
Allowance for doubtful accounts	639	145	—	784
	\$ 2,943	\$ 1,582	\$ 1,488	\$ 3,037



Douglas S. Schatz, 55, is an AE co-founder and has been its chairman, president, and chief executive officer since its incorporation in 1981 until 1999, when he transferred the title of president to Hollis Caswell. Mr. Schatz also co-founded Energy Research Associates, Inc. and served as its vice president of engineering from 1977 through 1980. He is a director of Advanced Power Technology, Inc., a publicly-held company.

Hollis L. Caswell, Ph.D., 69, joined the AE board in February 1997 and became its chief operating officer in June 1997. He became president in July 1999. From 1984 to 1990, Dr. Caswell served as senior vice president of Unisys Corporation, an information technology company, and president of its Computer Systems Group.

G. Brent Backman, 60, is a co-founder of AE and has been a director since its incorporation in 1981. Mr. Backman had been a vice president of AE since its incorporation until April 1998, when he became senior vice president, special projects, where he served until December 1998 when he retired. Prior to co-founding AE, Mr. Backman was a business manager at Ion Tech, Inc. and a laboratory administrator at Hughes Aircraft Company.

Richard P. Beck, 67, joined AE in March 1992 as vice president and chief financial officer and became senior vice president in February 1998. He became an AE director in September 1995. From 1987 to 1992, Mr. Beck served as executive vice president and chief financial officer of Cimage Corporation, a computer software company. He is a director of Applied Films Corporation, TTM Technologies and Photon Dynamics—all publicly-held technology companies.

Trung T. Doan, 42, joined the AE board in July 2000. He is currently the vice president of Process Development at Micron Technology, Inc., a world leader in the manufacturing of DRAM memory components. Mr. Doan has nearly 20 years of semiconductor industry experience, and is on the board of NuTool, a privately-held chip equipment company.

Arthur A. Noeth, 65, joined the AE board in July 1997. From 1993 to 1998, Mr. Noeth was president of the Implant Center, a provider of ion implant services to the electronics industry. From April 1987 to September 1993, he was president of A.N. Services, a business consulting service. ^(1, 2)

Elwood Spedden, 63, joined the AE board in September 1995. Mr. Spedden was a senior vice president of Tencor Instruments, a manufacturer of automatic test equipment used in the fabrication of semiconductors, from July 1996 to June 1997. From 1990 through March 1996, he was with Credence Systems Corporation, a manufacturer of automatic test equipment used in the fabrication of semiconductors, in various senior management positions including president, chief executive officer, and vice chairman of the board of directors. ^(1, 2)

Gerald Starek, 59, joined the AE board in October 1998, following AE's acquisition of RF Power Products. Mr. Starek had been a non-employee director of RF Power Products since February 1994. He was the founder of Silicon Valley Group, Inc., a supplier of automated wafer processing equipment for the semiconductor industry. He served as Silicon Valley Group's chairman from September 1984 to September 1991 and as vice chairman from September 1991 to April 1993. Mr. Starek is on the board of AML Communications, Inc., a publicly-held wireless communications products company. ⁽¹⁾

Arthur W. Zafiropoulo, 61, joined the AE board in October 1998, following AE's acquisition of RF Power Products, Inc. Mr. Zafiropoulo had been a non-employee director of RF Power Products since July 1992. Mr. Zafiropoulo is the founder of Ultratech Stepper, Inc., a company that develops, manufactures and markets photolithography equipment for the semiconductor industry. Mr. Zafiropoulo has been chief executive officer and chairman of the board of directors of Ultratech Stepper since March 1993. Mr. Zafiropoulo also has served as president of Ultratech Stepper since May 1997, as he did from March 1993 to March 1996. Mr. Zafiropoulo is a director of Semi/Sematech, an association of U.S.-owned suppliers of equipment, materials, and services to the semiconductor industry and SEMI (Semiconductor and Equipment Materials International), an international trade association. ⁽²⁾

(1) Member of the Audit Committee

(2) Member of the Compensation Committee

CORPORATE MANAGEMENT

- Douglas S. Schatz, Chairman and Chief Executive Officer
- Hollis L. Caswell, Ph.D., President and Chief Operating Officer
- Richard P. Beck, Senior Vice President and Chief Financial Officer
- Richard A. Scholl, Senior Vice President and Chief Technology Officer
- Fred J. DeSantis, Senior Vice President, Assistant to the Chief Operating Officer
- James F. Gentilcore, Senior Vice President and President, EMCO
- James G. Guilmar, Senior Vice President, Sales
- Timothy A. Kerr, Senior Vice President, Engineering
- Joseph R. Monkowski, Ph. D., Senior Vice President, Business Development
- Joseph Stach, Ph.D., Senior Vice President, Special Assignment
- Fred B. Weaver, Senior Vice President, Operations
- Peter M. Adams, Vice President and General Manager, Noah
- James H. Benschhof, Vice President and Chief Information Officer
- Monica M. Moloney, Vice President, Human Resources
- David K. Smith, Vice President and Corporate Controller
- Kevin J. Thomas, Vice President, Customer Satisfaction
- Ray Dils, Ph.D., President, Sekidenko
- Christopher Fergen, Vice President, General Manager, Tower Electronics
- William A. Ruff, President, AE Voorhees

AC Alternating Current. Electrical power whose current and voltage vary periodically from positive to negative.

Arc An intense, localized electrical discharge.

Chip An integrated circuit or discrete device.

CVD Chemical Vapor Deposition. A process that chemically deposits a film onto a substrate from a gaseous state.

Deposition A process where a thin film of material is placed on the surface of a wafer.

DC Direct Current. Electrical power that does not vary substantially and whose current and voltage do not change from positive to negative.

DVD Digital Versatile (or Video) Disk.

Etch Process of removing material (such as thin films or oxides) by chemical, electrolytic, or plasma (ion bombardment) means.

Flat Panel Display Computer or video display device whose depth dimension is substantially less than its width or height. Manufactured using many of the same processes as used for semiconductor chips.

Frequency The number of times per second that an electrical signal repeats its basic variation. Usually measured in cycles per second or hertz (Hz).

Front End In semiconductor manufacturing, the fabrication process in which the integrated circuit is formed in and on the wafer.

Impedance Quantity defined as the ratio of voltage to current in an electrical circuit.

Ion An atom that is not electrically neutral, usually because of the removal of an electron.

Ion implantation Process of precisely placing foreign atoms in a crystal matrix by bombarding the matrix with foreign ions.

kHz Abbreviation for kilohertz; describes a frequency equal to 1000 cycles per second.

LCD Liquid Crystal Display. Thin film device capable of displaying patterns on command of electrical signals. First used in computer displays and calculators, but now used pervasively in displays from telephones to gasoline pumps.

Liquid Crystal Solution containing crystals that line up under the influence of electrical signals and affect the passage of light through the solution. (See LCD)

Media Generic term for information storage devices such as hard disks, CD-ROMs, and DVD-ROMs.

Micro One millionth of a meter.

OEM Original Equipment Manufacturer. OEM customers build our power supplies into their equipment.

Plasma Cloud of electrons and ions in roughly the same number so that the cloud is electrically neutral.

Plasma Etch Process where a substrate is etched as a result of a chemical reaction created by an electrically energized plasma.

Power Conversion Technology that uses digital techniques to radically shrink the size and energy storage of electrical circuitry.

Power Supply Source of electrical power, usually customized for a particular use.

Pulsed Power Flow of electrical energy that is interrupted periodically to form a series of pulses.

PVD Physical Vapor Deposition. Process that forms a coating on a surface without relying on chemical reactions. Most common form of PVD used in semiconductor fabrication is sputtering.

RF Radio Frequency. Alternating power at a frequency in the range used for radio transmission (typically above 1000 kHz).

ROM Read Only Memory. A memory whose contents aren't intended to be changed.

Semiconductor An electronic device (also referred to as an integrated circuit or IC), such as memory or microcontroller, used in a variety of applications, including computer, automotive, and telecommunications products.

Sputtering PVD process where a target material is bombarded by ions from a plasma to loosen its surface atoms so that they deposit elsewhere.

Stored Energy Amount of energy in a power supply which would be deposited into an arc if not interrupted. The lower the value, the less damage caused by arcing.

Substrate Material to be modified in a process by etching its surface or by depositing a film on it.

Surface Modification Process whereby the surface of a substrate is changed to enhance some property. For example, to enhance paint adhesion on plastics.

Switchmode Method of power conversion using high speed semiconductor switches that convert power to a high frequency to enhance accuracy and speed of control and to lower stored energy.

Thin Film Term used to describe a process of working with films of thicknesses less than a few microns (millionths of a meter).

Wafer Round, thin slices of silicon that form the base substrate for semiconductor processing. Current diameter sizes include four-, five-, six-, eight-, and twelve-inch (300 millimeter).