



1 9 9 8 A N N U A L R E P O R T

Silicon wafers are the fundamental building blocks of semiconductors. As a leading global producer of silicon wafers, MEMC's products are found in virtually all electronics applications, including computers, telecommunications equipment, automobiles, consumer electronics products, industrial automation and control systems, and analytical and defense systems.

Contents

Financial Highlights	1
To Our Stockholders	2
Business Overview	7
Five Year Selected Financial Data	12
Management's Discussion and Analysis	13
Consolidated Financial Statements	23
Notes to Consolidated Financial Statements	27
Report of Management	44
Independent Auditors' Report	45
Board of Directors	46
Officers	47
Stockholder Information	48



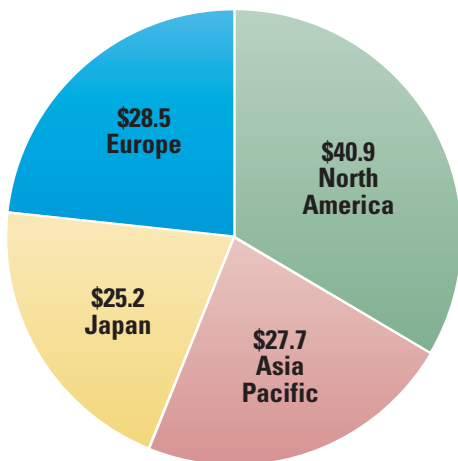
Financial Highlights

Dollars in thousands, except share data

<i>Year ended December 31,</i>	<i>1998</i>	<i>1997</i>	<i>1996</i>
Net sales	\$758,916	\$986,673	\$1,119,500
Net earnings (loss)	(316,332)	(4,513)	103,388
Diluted earnings (loss) per share	(7.80)	(0.11)	2.49
Research and development expenses	81,591	64,457	44,313
Capital expenditures	194,610	372,416	590,049
Working capital	40,494	38,449	42,805
Stockholders' equity	399,040	715,754	748,583
Book value per share	9.85	17.29	18.07
Total debt to total capitalization	67.0%	44.9%	29.0%
Employment	6,300	8,000	7,100

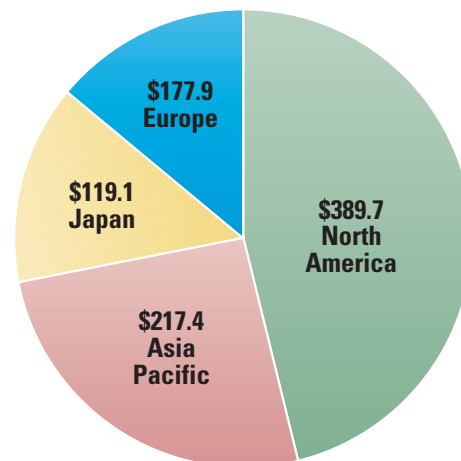
1998 Semiconductor Revenues

(Source: Semiconductor Industry Association)
Figures in billions of U.S. dollars by region



1998 MEMC Group Revenues

Includes unconsolidated revenues of PHC & Taisil
Figures in millions of U.S. dollars by region



To Our Stockholders:

In last year's annual report we described 1997 as "a difficult year." 1998 was worse — significantly worse.

In fact, 1998 will go down in the history books as the first year since 1985 that year-over-year demand for silicon wafers actually decreased. Our industry has experienced average annual growth of 12 percent for the last quarter century. So, 1998's highly unusual 8 percent decrease in demand meant industry-wide recession.

In short, to borrow a term from the analysts, 1998 was an "ugly" year for the silicon wafer industry and for MEMC.

costs by improving process technology to make smaller devices that use less silicon to produce the same or greater level of functionality. These efforts aggravated price competition, reduced demand and hurt silicon wafer margins.

- ◆ Currency advantages for the Japanese yen and Deutsche mark versus the U.S. dollar further undercut already weak prices and margins.

The net effect of these factors was that MEMC sales volumes decreased significantly compared to 1997. With the additional impact of declining prices, our revenues

How is MEMC countering negative trends? What is our strategy for the future?

Four factors combined to make 1998 an historically bad year.

- ◆ Overcapacity — not for some companies but for every major semiconductor and silicon wafer producer — resulted in historically high levels of underutilized capacity and extreme pricing pressure.
- ◆ Faltering economies in Asia and recession in Japan meant decreased demand and introduced another uncertainty in an already tough market environment.
- ◆ Our customers, semiconductor device manufacturers, intensified efforts in 1998 to reduce

fell 23 percent and, more important, our gross margins contracted to a negative 4.2 percent, compared to a positive 12.6 percent in 1997. The result was a 1998 loss of \$316.3 million, compared to a loss of \$4.5 million in 1997. Included in the 1998 loss were restructuring charges of approximately \$115.8 million, net of tax benefit.

MEMC stockholders obviously will find little comfort in these results. So, answers to three questions become critical. First, how is MEMC countering negative trends? Second, what is our strategy for the future? Third, when can MEMC stockholders expect improved financial performance?

Helmut Mamsch Chairman of the Board



For an answer to the first question, we refer to the closing paragraphs of last year's Stockholder Letter in which we said: "...overcapacity and pricing pressure in the silicon wafer industry have continued into 1998. We have responded by setting in motion intensive cost reduction measures in manufacturing and overhead to protect our margins to the extent possible. We are also scrutinizing capital expenditures and research and development costs to make certain they are the right investments, made at the right time."

That summary describes MEMC's course in 1998. As it became clear that our industry had moved from downturn to recession, MEMC did not have to change direction or react to negative events as they unfolded. Our strategy already was in place; our transformation/restructuring was well under way. So, as 1998 market conditions deteriorated, we accelerated and intensified the strategy we already had undertaken.

MEMC strategy has two major thrusts — customer focus and cost leadership. With excellence in both areas, MEMC will be positioned to take full advantage when the market returns to more normal conditions. Indeed, the steps we already have taken will make MEMC a stronger competitor than ever before.

Here are examples of the actions we have taken to advance our strategy.

- ◆ All outstanding debt with VEBA AG and its affiliates that matures before January 1, 2001, will be extended to 2001.
- ◆ \$106 million private common equity placement with an affiliate of VEBA AG, anticipated to be completed in early 1999.
- ◆ \$94 million common stock rights offering anticipated to be completed in early 1999.

Customer relationships deserve special attention.

Perhaps the most basic strategic move MEMC has made is to restructure from a geographic to a functional organization. Accomplished early in 1998, restructuring has enabled us to act rapidly — as one functional entity rather than several regional operations — to change the fundamental way we do business. The result is that today we are a far more flexible, cost-effective and customer-focused organization than we were only a year ago.

Our financial restructuring — to be completed in 1999 — allows MEMC to be flexible in this uncertain global environment. Summary elements of the financial restructuring are:

- ◆ \$150 million in additional credit from our majority shareholder, VEBA AG.

In our view, in times of market turmoil and industry overcapacity, customer relationships deserve special attention. This is why we have taken a variety of actions to strengthen our relationships with customers by improving service and product quality. Again, the intent is to position MEMC to take full advantage of the market's return to health.

Following are examples of actions we have taken in 1998 to strengthen customer service and quality.

- ◆ Employee teams that we call Customer Focus Teams dissect every aspect of a particular customer's service to see how it can be improved. Every MEMC plant that serves this customer will have a companion team dedicated to its service. So, MEMC can deliver a consistently high level of service and dedicated attention throughout our global system.

(continued on page 4)

Ludger H. Viefhues Chief Executive Officer



On February 18, 1999, the Company announced the retirement of Ludger Viefhues, who had been MEMC's Chief Executive Officer since 1996. Klaus von Hörde, who joined MEMC as President and Chief Operating Officer in 1997, has assumed the new role of President and Chief Executive Officer. Ludger will continue to contribute his expertise as a Director of the Company and will work closely with Klaus to ensure the successful completion of this transition.

During his tenure as Chief Executive Officer, and especially as we faced the challenges of 1998, Ludger made the strategic decisions and took the sometimes difficult actions necessary to align the Company's costs with industry conditions, improve our overall financial performance, and strengthen our competitive position.

On behalf of the entire MEMC family, we on the Board of Directors want to thank him for his years of leadership and wish him every success in his future endeavors.

Helmut Mamsch

- ◆ MEMC also supplies field engineers to work on a customer's site — sometimes for months at a time — to better understand specific manufacturing processes and requirements. In 1998, MEMC applications engineers helped customers achieve major cost savings and yield improvements. They also help our Research & Development (R&D) and manufacturing people tailor their work to meet customer needs.
- ◆ In 1998 MEMC product innovation and improvement continued. While we shifted some R&D resources to study process changes to reduce costs, we also maintained, albeit at a lower

process changes that reduce the cost of making silicon wafers. Examples range from production-saving wafer-testing techniques to the elimination of manufacturing steps. Process changes put into effect in 1998 have reduced manufacturing costs and improved product quality at the same time.

- ◆ Enabled by functional restructuring, we have leveraged MEMC's global purchasing power on everything from commodity chemicals to sophisticated analytical equipment, which is expected to reduce costs significantly in 1999.
- ◆ Concentrating production of different diameter wafers within

More healthy levels of demand will return by 2000.

level of funding, development of product enhancements in improved crystal and epitaxial technology because these projects are important to both MEMC and its customers.

Those are examples of ways MEMC has advanced its strategy for a strong customer focus. The second major thrust of our strategy is cost leadership.

While they could not fully offset the effects of volume and price declines we experienced in 1998, MEMC has taken many initiatives to streamline operations and reduce fixed and variable cost. For example:

- ◆ MEMC's 1998 R&D program provided funding to identify

fewer plants reduces inventory — and carrying costs — to produce the same output.

- ◆ Rationalizing production to reduce capital and expense included these measures: voluntary separation of some 600 employees, effective July 1, 1998, for expected annualized 1999 savings of \$30 million; cancellation of plans to build a manufacturing facility in Kulim, Malaysia; withdrawal from our joint venture in China; and shutdown of our Spartanburg, South Carolina, facility. The Spartanburg closing alone is expected to reduce 1999 costs by an estimated \$30 million on an annualized basis.

Klaus R. von Hörde President and Chief Operating Officer



- ◆ Employee involvement and cost-saving ideas — part of a program started in 1996 called Manufacturing Excellence Organization (MEO) — have changed the way we operate and generated cost reductions. MEMC men and women have demonstrated profound knowledge of our business and enthusiasm for moving beyond traditional continuous improvement to flawless execution in all our operations.

Now we can address the third question stockholders must have, namely, when can MEMC stockholders expect improved financial performance?

The first point that should be made is that 1997-1998 market conditions demonstrate the inability of either the semiconductor or silicon wafer industry to forecast the future with any degree of certainty. In the sea of forecasts that washes over the semiconductor and silicon wafer industries, no company or analyst we are aware of projected the kind of market upheavals we have experienced.

That observation leads us to this deliberately conservative and cautious view of the market's future: we anticipate that excess capacity and, therefore, pressures on prices and margins will continue to dominate the market for much of 1999. In short, we do not see MEMC returning to profitability in 1999. As pointed out earlier, our financial restructuring will allow us to

stronger competitor than ever before in this dynamic marketplace.

Fundamental trends we outlined in last year's annual report — each positive for MEMC — still hold:

- ◆ The clear trend to more fully featured and interactive devices — ranging from children's toys to industrial sensors to communications/computing products

We are well positioned to take full advantage of the market's return.

weather continued adverse conditions in 1999 and beyond.

We believe that more healthy levels of demand will return by 2000. Combined with the cost control process changes we have set in motion since 1997, positive market demand should absorb excess capacity, correspondingly ease pressure on margins and allow MEMC to generate positive operating cash flows.

For a broader perspective, despite the cyclical market downturn we have experienced, we should keep in mind that the world has not changed in any fundamental way. The Information Age continues to drive the global economy and human productivity. Semiconductors make the Information Age possible. Silicon wafers are the essential building blocks for semiconductor electronics. And MEMC remains a leading manufacturer of silicon wafers.

In short, MEMC stands at the center of a dynamic growth market. And we have made our company a

— increases the demand for semiconductors and, therefore, silicon wafers.

- ◆ The barrier to entry in the silicon wafer business becomes higher as intellectual property and capital intensity increase in importance. Existing companies that have not yet committed significant capital to produce larger diameter wafers in effect have announced their eventual exit from the market.
- ◆ Increased demand for larger wafer diameters will mean increased usage of granular polysilicon, because it reduces production costs; MEMC is the world leader in granular polysilicon production.

In summary, since early 1997, MEMC has used negative market conditions as a platform for positive change. We have resolved to move beyond traditional concepts of continuous improvement to flawless execution.

Our strategy has been to become a stronger competitor than ever before through excellence in customer focus and cost leadership.

James M. Stolze
Executive Vice President and
Chief Financial Officer



We have strengthened MEMC in significant ways since 1997. We are fully prepared to weather continued adverse conditions throughout 1999. And we are well positioned to take full advantage of the market's return to more normal demand.

We thank our stockholders for their support and understanding.

Helmut Mamsch
Chairman of the Board

Ludger H. Viefhues
Chief Executive Officer

Klaus R. von Hörde
President and
Chief Operating Officer

James M. Stolze
Executive Vice President and Chief
Financial Officer

MEMC is the world's leading producer of granular polysilicon. This MEMC team developed a process that maximizes ingot yield by using granular rather than bulk (or chunk) polysilicon to grow crystal ingots.



We made significant progress in 1998 in cost leadership and customer focus.

How MEMC is positioning itself to be a stronger competitor than ever before...

In last year's annual report, we made this statement: "Early in 1997, we resolved to use negative market conditions as a learning platform for positive, systemic change."

The "positive, systemic change" we sought had two primary strategic focuses — industry cost leadership and closer customer focus.

Our aim is simple. When the market turns, we intend that MEMC will be a stronger competitor than ever before. Excellence in both cost leadership and customer focus represents the bridge to that strengthened competitive position.

We made significant progress in 1998 in both cost leadership and customer focus. Importantly, the actions we have taken have not been one-time, knee-jerk responses to adverse conditions but strategic efforts with benefits that will continue and, in almost all cases, grow over time.

Following are examples of actions that have advanced MEMC's strategy to achieve *cost leadership*.

Since 1996, MEMC employee teams and individuals have been involved in identifying cost savings throughout our operations. This program, called *Manufacturing Excellence Organization (MEO)*, has been a great success. Literally hundreds of employee ideas from 1996 and 1997 have been implemented throughout the company.

To give the initiative new urgency and focus in light of deteriorating market conditions, in 1998 we established what we call *Accelerated Cost Reduction Teams (ACRT)* throughout MEMC.

Changes that have come from employees' ideas touch every aspect of MEMC operations. For example, one team proposed improvements to reduce the kerf (or silicon waste) in cutting an ingot and, therefore, maximize production. Another team suggested a process change that reduced waste in quality testing and resulted in a 6 percent improvement in yield. A third team advanced a different form of packaging that not only saves significant material cost, it also increases product quality by minimizing the "outgassing" effect on wafers from the packaging material. An additional benefit is that the new packaging is more readily recyclable than the old material.

Enabled by functional restructuring completed in early 1998, leveraging MEMC purchasing power and establishing practices on a global rather than a regional basis already has paid significant dividends. For example, each of MEMC's plant clean room operations formerly had its own gowning practice and local purchasing and cleaning arrangements. The combination of common gowning practices and the purchase of materials and cleaning on a global basis reduced gowning costs significantly in 1998. Similarly, worldwide implementation of a crystal pulling machine control technique used by MEMC's plant in Merano, Italy, has meant a 1.5 to 2 percent increase in wafer yield in 1998. Also last year, we developed a process in Utsunomiya, Japan, and Novara, Italy, now adopted worldwide, that recovers a majority of the slurry used in cutting crystal ingots. We now reuse the recovered silicone carbide and oil. Global bulk purchases of process gasses and standardized specifications on equipment mean additional savings. In short, only a year after functional restructuring, MEMC has poised itself for significant cost reductions in manufacturing. These will not be one-time cost reductions. They will continue to benefit MEMC by taking costs out of our operation year after year.

Another substantial, continuing benefit will come from our program to *concentrate production of different diameter wafers within fewer plants*. For example, production of 100 millimeter and 125 millimeter wafers will be concentrated in two plants instead of six by mid-1999.

What we call *Plant Focus* will mean that we can produce the same output with significantly lower inventory and carrying costs in dedicated plants. Savings will increase in 2000, because the program will be in effect for a full year.

Plant Focus will mean we can produce the same output with lower inventory and carrying costs.

Additional advantages of Plant Focus are that technical and sales people can focus their attention on fewer products.

Our *R&D focus* shifted somewhat in 1998 to take into account two factors — first, the dramatic drop in overall sales and margins and, second, the lack of market demand for 300mm wafers.

To help offset declining sales and margins, we redirected R&D resources to study *process changes that reduce manufacturing costs*.

Already, we have achieved production improvements and/or cost reductions in wafer testing. Also, we are testing a variety of promising new techniques for fine lapping, wafer polishing and combined production steps. Additional studies include new product enhancements we have developed that select customers now are testing on their fab lines.

Because market demand for 300mm wafers did not develop in 1998 as anticipated, we were able to defer certain 300mm R&D development programs to focus on

reducing production costs of 200mm wafers. Our past work and investment in 300mm capabilities mean we will be ready to respond quickly to increased market demand for these industry productivity-enhancing wafers. When the market focus changes from trying to preserve margins to enhancing functionality/productivity, MEMC will be prepared.

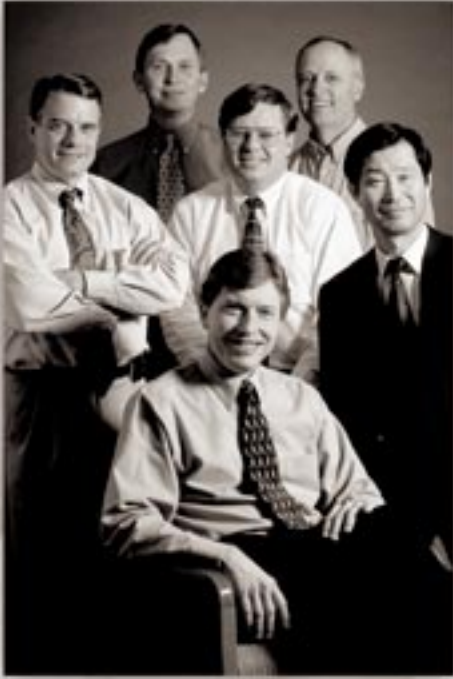
The *second major thrust of MEMC's strategy is customer focus*. With advanced products and excellent service, we create value for our customers.

In market downturns such as we have experienced, companies tend to react to financial conditions at the expense of customer service and product quality. We have no intention of falling into this trap. So, beginning in 1997, we have made special efforts to strengthen our relationships with customers by strengthening our service and product quality. This external focus balances and complements the internal thrust of our cost leadership strategy. Excellence in both will position MEMC strongly for the market's recovery.

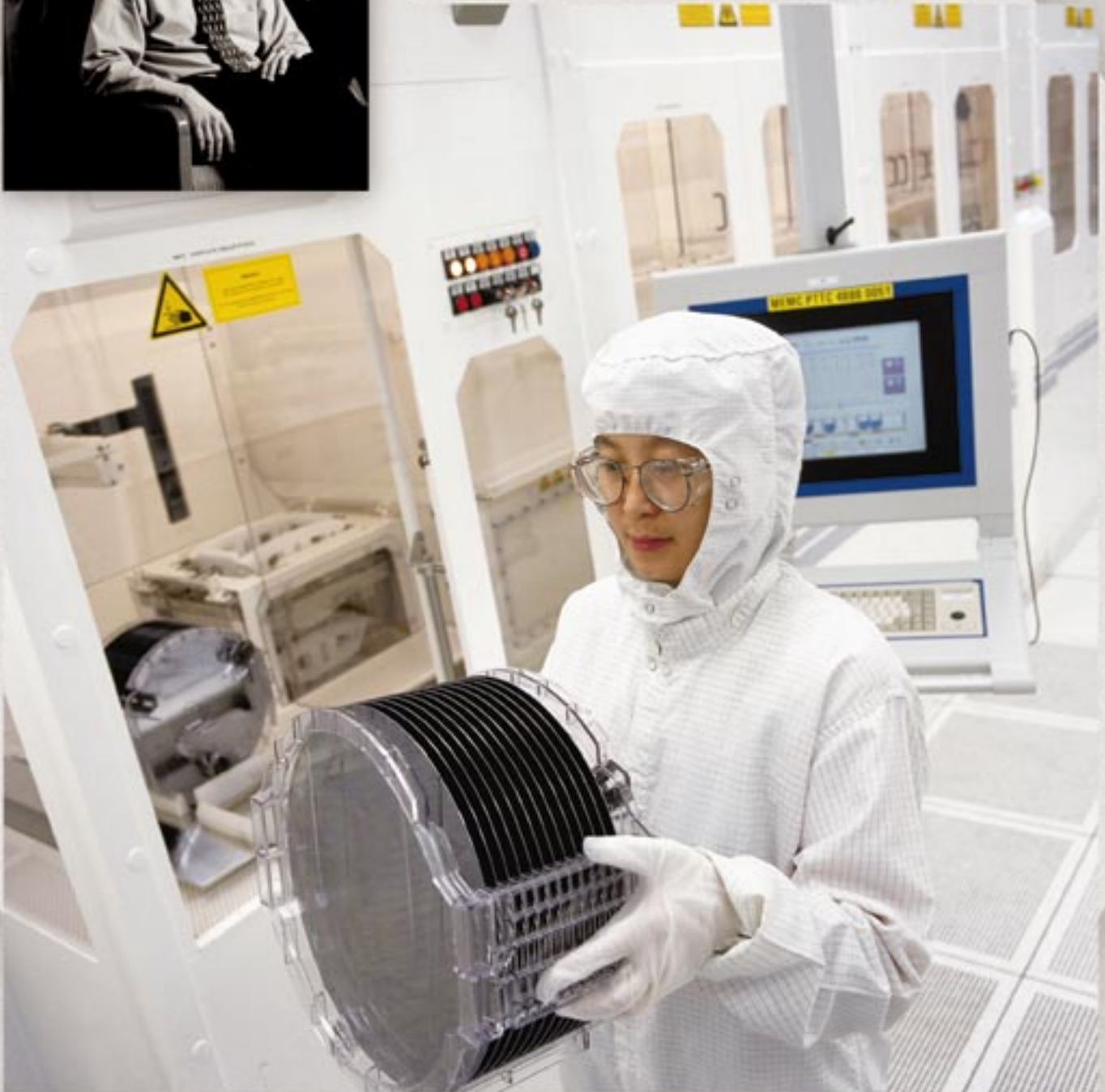
Here are examples of ways we improved service to customers and product quality in 1998.

Customer Focus Teams are groups of MEMC employees dedicated to a single customer's service excellence. Representing multi-disciplinary backgrounds, team members work together to study every aspect of their customer's service process to identify ways in which it can be improved or maximized. Each team has sister teams in other MEMC plants that represent the interests of the same customer, and all teams communicate regularly to share ideas and process changes on a worldwide basis. So, global customers receive a consistently high degree of dedicated attention and service throughout our worldwide manufacturing system.

Partly as a result of Customer Focus teams and partly due to other complementary efforts, *internal customer service metrics*



MEMC is prepared for the semiconductor market's shift to higher efficiency 300mm wafers. This technical team with members in Utsunomiya, Japan and St. Peters, Missouri, has refined MEMC's production techniques for these larger wafers.



MEMC is able to maximize its wafer yield from silicon ingots. This MEMC technical team engineered a new method of slicing crystal ingots that increases wafer yield by reducing the amount of kerf (or silicon waste).



improved strongly in 1998. For example, *on time delivery performance* now stands at 96 percent, a company record. Meanwhile, *customer advisories* or quality complaints are at a record low.

Equally gratifying is the fact that customers themselves recognize that our service has improved. For example, *1998 supplier rankings* from our customers rated MEMC higher than in 1997, and we have received positive recognition from many customers for faster response to inquiries and special requests. Moreover, this occurred in a declining market with fierce competition.

A technical service program we call *Applications Engineering* puts MEMC engineers at a customer site to learn first-hand the nuances of manufacturing processes and product requirements. Last year MEMC field engineers helped customers achieve major cost savings and yield improvements.

For example, one customer experienced wafer breakage at the end of its fabrication process. Despite the fact that our wafers weren't the cause of the breakage, an MEMC applications engineer traveled to the site, studied the problem and relayed information back to our test labs. We identified the cause of the breakage, and our customer experienced an immediate yield improvement.

In another case, a customer had a leakage problem that cut yield. An MEMC applications engineer analyzed the manufacturing process. Our test labs duplicated the cus-

tomers' thermal cycle and oxygen precipitation conditions, and we identified a relatively minor process change that solved the problem and boosted yield for the customer.

Also in 1998, we shared what we have learned about shortening thermal cycles to achieve significant cost savings for a number of customers.

Another proactive service change is MEMC's development of *Electronic Commerce* service or *Electronic Data Interface (EDI)*. EDI is more than a time-saving convenience for customers. It speeds up payment schedules, improves efficiency and reduces costs of paperwork.

Of course, the bottom line of service is *people and their capabilities*. In line with our 1997 commitment to go beyond the concept of traditional continuous improvement to flawless execution, we have a policy requiring *100 percent pass rate* for written and field tests for manufacturing personnel operating equipment. In essence, if a person doesn't receive a passing grade, he or she must study and be re-tested until success is achieved.

We also are using the most sophisticated learning and quality analytic tools available today at all levels of MEMC. For example, *QS 9000*

will be implemented in MEMC plants by the end of 1999; *ISO 14001* certification is under way and will be completed throughout MEMC by the first quarter of 2000. Other learning and quality

tools used extensively throughout the organization include *Failure Mode Effect Analysis (FMEA)*, *Statistical Process Control (SPC)*, *Design of Experiments (DOX)* and *Quality Functional Deployment (QFD)*.

All these changes in MEMC processes and people's skills have one aim. That single aim is to position MEMC to be a better supplier and a stronger competitor than ever before so that we can take full advantage when normal market demand returns.

We stand ready. Inventories are low. Cycle times have been reduced. Costs have been removed from processes. Service performance is significantly improved. Product quality is excellent. And MEMC people have been trained for a higher level of performance.

MEMC is stronger than ever before. We are ready.

MEMC is stronger
than ever before.
We are ready.

Five Year Selected Financial Data

Dollars in thousands, except share data

Year ended December 31,	1998	1997	1996	1995	1994
Statement of Operations Data:					
Net sales	\$ 758,916	\$ 986,673	\$1,119,500	\$ 886,860	\$660,807
Gross margin	(31,829)	124,759	250,185	223,279	143,210
Marketing and administration	73,515	70,715	79,680	63,893	41,298
Research and development	81,591	64,457	44,313	31,226	27,403
Restructuring costs	146,324 ⁽¹⁾	—	—	—	—
Operating profit (loss)	(333,259)	(10,413)	126,192	128,160	74,509
Equity in income (loss) of joint ventures	(43,496)	5,480 ⁽³⁾	26,716 ⁽³⁾	13,199 ⁽³⁾	(6,384) ⁽³⁾
Net earnings (loss)	(316,332)	(4,513) ⁽³⁾	103,388 ⁽³⁾	86,564 ⁽³⁾	34,475 ⁽³⁾
Basic earnings (loss) per share	(7.80)	(0.11) ⁽³⁾	2.50 ⁽³⁾	2.83 ⁽²⁾⁽³⁾	1.60 ⁽²⁾⁽³⁾
Diluted earnings (loss) per share	(7.80)	(0.11) ⁽³⁾	2.49 ⁽³⁾	2.81 ⁽²⁾⁽³⁾	1.60 ⁽²⁾⁽³⁾
Shares used in basic earnings (loss) per share computation	40,580,869	41,345,193	41,308,806	30,612,636 ⁽²⁾	21,490,942 ⁽²⁾
Shares used in diluted earnings (loss) per share computation	40,580,869	41,345,193	41,534,412	30,838,704 ⁽²⁾	21,490,942 ⁽²⁾
Balance Sheet Data:					
Working capital	40,494	38,449	42,805	199,258	69,597
Total assets	1,773,714	1,794,424 ⁽³⁾	1,519,472 ⁽³⁾	1,102,167 ⁽³⁾	631,543 ⁽³⁾
Long-term debt (including current portion)	873,680	519,995	304,589	91,451	165,230
Stockholders' equity	399,040	715,754 ⁽³⁾	748,583 ⁽³⁾	642,695 ⁽³⁾	205,468 ⁽³⁾
Other Data:					
Capital expenditures	194,610	372,416	590,049	215,359	78,676
Equity infusions in joint ventures	25,533	10,638	14,698	29,904	20,922
Employment	6,300	8,000	7,100	6,600	5,300

⁽¹⁾During 1998, the Company recorded restructuring costs totaling \$146.3 million to close its Spartanburg, South Carolina facility, to forego construction of a 200 millimeter wafer facility at its joint venture in Malaysia, to withdraw from its joint venture in a small diameter wafer operation in China and to implement a voluntary severance program.

⁽²⁾Earnings (loss) per share and shares used in earnings (loss) per share computation have been restated to comply with SFAS No. 128, "Earnings Per Share."

⁽³⁾The Company's financial statements for all periods presented have been restated to reflect from inception the designation of the U.S. dollar as the functional currency for POSCO Hüls Co., Ltd. and Taisil Electronic Materials Corporation, the Company's unconsolidated joint ventures. See Note 19 of Notes to Consolidated Financial Statements.

Results of Operations

Year ended December 31, 1998 compared with year ended December 31, 1997

Net Sales. Net sales decreased by 23.1% to \$758.9 million for 1998 from \$986.7 million for 1997, due to significant declines in the price for silicon wafers and a 14.3% decrease in product volumes somewhat offset by an improved product mix. The decline in price during 1998 is primarily attributable to significant excess capacity in the silicon wafer industry and continuing pricing pressure from customers who are experiencing reduced profitability or losses due to significant excess capacity and price erosion in the semiconductor industry. The decrease in product volume in 1998 was principally due to the weak economic conditions in the Asia Pacific markets brought on by the Asian financial crisis and the continuing recession in Japan coupled with semiconductor customers shrinking the size of their devices (requiring less silicon per device). A concerted effort by customers to use fewer test/monitor wafers also caused product volumes to decline in 1998. This marks the first year since 1985 that product volumes for the silicon industry have not increased year over year. Advanced large diameter and epitaxial products represented 47.1% of product volume for 1998 compared to 39.1% for 1997. While both 200 millimeter and epitaxial product volumes grew during 1998, the increase in this ratio is primarily indicative of customers utilizing 200 millimeter wafers in preference to smaller diameter wafers in order to obtain the lowest cost per device. While product volume declined in total by 14.3% during 1998, 200 millimeter product volume grew by 12.3%.

MEMC operates in all major semiconductor-producing regions of the world, with almost half of the Company's 1998 net sales to customers located outside North America. Net sales to North America decreased 21.7% and comprised 51.4% of 1998 sales compared to 50.4% of 1997 sales, led by a fall in prices and product volume, partially offset by improved product mix. Lower prices offset by an improved product mix and higher volumes combined to result in a 10.1% decrease in net sales to Europe, which constituted 23.4% of 1998 sales compared to 20.0% of 1997 sales. Net sales to Japan decreased 22.6% and comprised 15.7% of 1998 sales compared to 15.6% of 1997 sales, as lower volumes and prices more than offset an improved product mix. Declines in product volumes, prices and product mix resulted in a decrease of 47.5% in net sales to Asia Pacific, which comprised 9.5% of 1998 sales compared to 13.9% of 1997 sales. See Note 17 of Notes to Consolidated Financial Statements herein.

Gross Margin. The lower volumes experienced in 1998 decreased the capacity utilization and, coupled with the lower selling prices, caused gross margins to decrease to a negative 4.2% for 1998 from the 12.6% achieved in 1997. Despite the benefits from the mix improvement and cost cutting measures that were implemented during 1998, the volume decreases and price pressures began early in the year and resulted in negative margins. These cost-cutting initiatives included short-term plant shutdowns, implementing the Company's "best practices" worldwide, implementing a plant focus program that limits the number of wafer diameters manufactured at each site, and working with our suppliers to create cost reduction opportunities and price reductions. In addition, the Company reduced its workforce by approximately 1,700 employees, or 21.3%, compared to December 31, 1997.

Marketing and Administration. Marketing and administration expenses increased 4.0% and represented 9.7% of net sales for 1998 compared to 7.2% for 1997. The increase is predominately attributable to expenses incurred for business systems redesign in anticipation of implementing SAP worldwide and fees related to several other initiatives completed during the year.

Research and Development. Research and development costs rose 26.6% and represented 10.8% of net sales for 1998 compared to 6.5% for 1997. The increase in research and development costs is attributable to continuing investments in 300 millimeter wafer development and depreciation associated with capital expenditures made for the 300 millimeter pilot line in St. Peters, Missouri and the 300 millimeter integrated development line in Utsunomiya, Japan.

Restructuring Costs. During the second quarter of 1998, the Company decided to close its small diameter wafer facility in Spartanburg, South Carolina and to withdraw from the Company's joint venture in a small diameter wafer operation in China. These actions were taken because (1) a number of semiconductor manufacturers have been running their larger diameter manufacturing lines in preference to their small diameter lines in order to

Management's Discussion and Analysis of Financial Condition and Results of Operations

gain production efficiencies; (2) a number of semiconductor manufacturers recently have undertaken restructuring initiatives focused on permanently eliminating small diameter lines; and (3) management believes that small diameter wafer capacity will exceed demand even after the semiconductor industry begins to recover. The Company also decided to forego construction of a new 200 millimeter wafer facility at its joint venture in Malaysia. This decision was based upon current and anticipated excess capacity for 200 millimeter wafers and the significant price erosion that the Company has experienced for these wafers.

These actions resulted in a charge to operations of \$121.7 million, comprised of \$81.3 million non-cash asset impairments/write-offs, \$25.9 million in dismantling and related costs and \$14.5 million in personnel related costs. The assets for which an impairment loss has been recorded or which have been or will be written-off are primarily property, plant and equipment which cannot be sold or used at other Company facilities. In addition, the Company wrote-off architectural design and site preparation fees as well as costs incurred to develop a computer-integrated manufacturing system for the Malaysian joint venture.

Personnel costs represent the expected cost of involuntary terminations for approximately 600 hourly and salaried employees whom the Company does not expect to relocate elsewhere within the organization. See Note 5 of Notes to Consolidated Financial Statements herein. The Company also recorded a \$24.6 million charge for a voluntary severance program for approximately 600 hourly and salaried U.S. employees. Substantially all this amount was paid to employees as of December 31, 1998.

Ongoing operating expenses until plant closure associated with the Spartanburg facility of approximately \$7.9 million will continue to be recorded as period costs. Costs of approximately \$8.2 million relating to the relocation and installation of equipment from the Spartanburg facility to other sites will be capitalized as incurred.

The Company estimates pre-tax savings from these restructuring activities and the voluntary severance program to be approximately \$60 million on an annualized basis. Approximately half of these expected savings relate to the voluntary severance program. As employees who participated in the voluntary severance plan were no longer employed by the Company as of June 30, 1998, these savings began to be realized in the third quarter of 1998.

The remaining \$30 million in annualized savings principally relates to the closure of the Company's Spartanburg facility. Approximately half of these expected savings relate to personnel costs and the other half relate to manufacturing costs such as depreciation and supplies and utilities which will not be duplicated when Spartanburg's silicon wafer production is transferred to another Company location. As the Company re-qualifies and transfers the production of silicon wafers made at the Spartanburg facility to other Company locations, it will reduce its Spartanburg workforce. With each workforce reduction, the Company expects a portion of the annualized cost savings associated with personnel costs to be realized and to a much lesser extent manufacturing costs. As a result, a portion of the remaining \$30 million in annualized cost savings began to be realized in the third quarter of 1998 and is expected to grow as workforce and production at the Spartanburg facility are reduced. On an annualized basis, the Company estimates that approximately \$9.0 million in savings began to be realized by December 31, 1998 related to the closure of the Spartanburg facility. Because the manufacturing cost savings are fixed in nature, they will largely be realized upon the closure of the Spartanburg facility. While the Company believes that this will occur by April 30, 1999, the ability to re-qualify silicon wafers is highly dependent upon the cooperation of the Company's customers.

Interest Expense. Interest expense increased to \$45.8 million for 1998 from \$14.7 million for 1997. The increase in interest expense is primarily attributable to increased borrowings, and to a lesser extent the completion of projects for which interest expense could no longer be capitalized. In addition, the interest rates on the Company's loan agreements with its principal lender were increased as a result of a debt re-negotiation during September 1998, as described in Liquidity and Capital Resources below. Total debt was \$909.8 million and \$632.5 million at December 31, 1998 and 1997, respectively.

Other, Net. Other, net decreased to \$1.0 million in expense for 1998 from \$4.1 million of income for 1997, primarily due to the sale of the Company's Santa Clara wafer facility in May 1997 that resulted in a pre-tax gain of \$6.0 million.

Income Taxes. The effective income tax rate was 24.0% for 1998, as compared to (26.8%) for 1997. This fluctuation is the result of changes in the composition of worldwide taxable income, restructuring costs, non-

deductible operating expenses at the Company's Malaysian and Chinese joint ventures, the establishment of valuation allowances on certain deferred tax assets in Japan and certain foreign tax credit elections.

Equity in Income (Loss) of Joint Ventures. Equity in income (loss) of joint ventures decreased \$49.0 million to a loss of \$43.5 million in 1998 from \$5.5 million in income in 1997. POSCO Hüls Co., Ltd. (PHC), the Company's 40%-owned, unconsolidated joint venture in South Korea, experienced a 28.0% decrease in product volume and significantly lower prices resulting in lower sales throughout 1998. While the reasons for the decline in prices are similar to those of the Company, product volume declines were primarily the result of excess capacity within the DRAM (memory) industry and efforts by Korean DRAM manufacturers to reduce their production, thereby reducing the worldwide oversupply, and shrink the size of their devices. For the year, PHC contributed losses of \$17.8 million compared to \$11.1 million in income for 1997.

Net sales for Taisil Electronic Materials Corporation (Taisil), the Company's 45%-owned, unconsolidated joint venture in Taiwan, decreased slightly due to significantly lower prices, which were partially offset by a 40.9% increase in product volumes. The higher product volumes were primarily attributable to obtaining additional customer qualifications during 1998. In addition, the Taiwanese semiconductor market, particularly the foundry market, grew during 1998. During 1998, Taisil also made adjustments to its deferred tax valuation allowance in recognition of changes in expected realization of its operating loss carryforwards, of which the Company's share was \$6.0 million. For the year, Taisil contributed losses of \$25.7 million in 1998 compared to \$5.6 million in losses for 1997.

Net Loss. The decrease in net sales, restructuring costs, higher research and development costs and interest expense, and the equity in loss of joint ventures resulted in a net loss of \$316.3 million for 1998 compared to \$4.5 million for 1997. Management expects some reduction in losses in the first quarter of 1999, as a result of the restructuring and cost-cutting actions, as well as anticipated higher product volumes. Due to overcapacity and decreasing prices in the semiconductor and silicon wafer industries, weak economic conditions in the Asia Pacific region and Japan, and other factors, while the Company will continue its significant performance improvements and cost-cutting efforts, management does not expect the Company to be profitable in 1999.

Year ended December 31, 1997 compared with year ended December 31, 1996

Net Sales. Net sales decreased by 11.9% to \$986.7 million for 1997 from \$1.1 billion for 1996, due to a 5.1% decrease in product volume and a decline in price somewhat offset by an improved product mix. Overcapacity, inventory reduction and weak pricing in the semiconductor industry, particularly for the DRAM market, led to reduced orders for silicon wafers that began in the second half of 1996 and gradually recovered throughout 1997. In addition, the Company and its competitors expanded at a faster rate than silicon consumption growth during 1997, resulting in overcapacity in the silicon wafer industry. The combination of these market conditions led to significant price reductions throughout 1997. Advanced large diameter and epitaxial products represented 39.1% of product volume for 1997 compared to 36.7% for 1996.

Net sales to North America decreased 12.5% and comprised 50.4% of 1997 sales compared to 50.8% of 1996 sales led by a fall in prices and, to a lesser extent, volume, partially offset by improved product mix. Lower prices and volume, a less favorable product mix and the general weakening of European currencies relative to the U.S. dollar throughout 1997 combined to result in a 22.8% decrease in net sales to Europe, which constituted 20.0% of 1997 sales compared to 22.9% of 1996 sales. Net sales to Japan increased by 21.0% and comprised 15.6% of 1997 sales compared to 11.4% of 1996 sales as higher volume from expanded manufacturing capacity and improved product mix more than offset lower pricing and the weakening of the Japanese yen relative to the U.S. dollar throughout 1997. The Asia Pacific market experienced similar declines in pricing, volume and product mix as did other geographic markets served by the Company. Net sales to Asia Pacific decreased 17.9% and comprised 13.9% of 1997 sales compared to 14.9% of 1996 sales. Product volume also declined due to the continued shift in sales from the Company to PHC and Taisil.

Gross Margin. Gross margin as a percentage of net sales decreased to 12.6% in 1997 from 22.3% in 1996. Lower pricing and capacity utilization more than offset the slight improvement in product mix during 1997. The Company also completed the construction of its 200 millimeter silicon wafer facility at MEMC Southwest (the Company's 80%-owned joint venture in Sherman, Texas) and the expansion of its 200 millimeter epitaxial wafer facility in St. Peters which resulted in higher levels of training and start-up costs and contributed to the lower

Management's Discussion and Analysis of Financial Condition and Results of Operations

capacity utilization. However, these expansions, which are dedicated to the production of 200 millimeter product, position the Company to respond to the demand for this diameter wafer, which analysts estimate grew approximately 28% industry wide in 1997.

Marketing and Administration. Marketing and administration expenses declined 11.3% and represented 7.2% of net sales for 1997 compared to 7.1% for 1996. The decrease is predominately attributable to a reduction in incentive compensation.

Research and Development. Research and development costs rose 45.5% and represented 6.5% of net sales for 1997 compared to 4.0% for 1996. The increase in research and development costs is attributable to the addition of engineering and scientific personnel, the start-up of the 300 millimeter pilot line in St. Peters and increased efforts in the areas of crystal technology, epitaxial silicon research and the development of the 300 millimeter wafer.

Interest Expense. Interest expense increased to \$14.7 million for 1997 from \$0.5 million for 1996 as outstanding debt rose, projects were completed and interest costs were no longer capitalized. Total debt was \$632.5 million and \$331.8 million at December 31, 1997 and 1996, respectively.

Other, Net. Other, net improved to \$4.1 million of income for 1997 from \$7.4 million in expense for 1996, primarily due to the recognition of a \$6.0 million gain on the sale of its Santa Clara, California silicon wafer facility.

Income Taxes. Income tax expense was recorded for 1997 despite the recognition of a pre-tax loss primarily due to the composition of the Company's worldwide taxable income. The effective income tax rate for 1996 was 40.0%.

Equity in Income of Joint Ventures. Equity in income of joint ventures decreased to \$5.5 million in 1997 from \$26.7 million in 1996. PHC recorded higher volumes and net sales; however, the impact of lower prices, a less favorable product mix and a work stoppage in the third quarter (and the subsequent ramp-up of operations) resulted in significantly reduced gross margins. For the year, PHC provided a contribution of \$11.1 million compared to \$34.1 million for 1996. Following the start-up and qualification of its operations, Taisil was able to generate net sales sufficient to keep pace with the increase in expenses as its capacity expanded. As a result, the Company's share of Taisil's loss of \$5.6 million in 1997 and \$7.4 million in 1996 is fairly consistent.

Net Earnings (Loss). Lower pricing and capacity utilization coupled with higher start-up and training costs, research and development costs and interest expense, and lower equity in income of joint ventures resulted in a net loss of \$4.5 million for 1997 compared to net earnings of \$103.4 million for 1996.

Liquidity and Capital Resources

At December 31, 1998, the Company had \$16.2 million of cash and cash equivalents compared to \$30.1 million at December 31, 1997.

Cash flows from operating activities decreased to (\$33.9) million for 1998 from \$29.4 million for 1997. This \$63.3 million decline was largely attributable to lower results from operations, an increase in deferred taxes, and a decrease in accounts payable, partially offset by a decrease in accounts receivable and inventories.

Accounts receivable of \$98.5 million at December 31, 1998 decreased \$56.2 million, or 36.3%, from \$154.7 million at the end of 1997. This decrease is consistent with the 40.5% decrease in fourth quarter sales between the two years. Days' sales outstanding were 58.4 days at December 31, 1998 compared to 55.0 days at the end of 1997 based upon annualized fourth quarter sales for the respective years. This increase is attributable to lengthier collection periods in the Asian region in the fourth quarter of 1998.

Inventories declined \$25.5 million, or 18.0%, from the prior year to \$115.9 million at December 31, 1998. This decrease is primarily due to lower anticipated sales in the first quarter of 1999 compared to the year-ago period and a concerted effort by the Company to reduce raw materials and manage inventory levels. Related inventory reserves for obsolescence, lower of cost or market issues, or other impairments increased \$11.7 million in 1998 to \$19.6 million, as a result of declining sales and the resultant determination that certain goods in process, finished goods and spare parts were no longer salable or usable. Year-end inventories as a percentage of annualized fourth quarter sales increased from 13.8% at the end of 1997 to 18.8% at December 31, 1998, as

a result of the significant sales decline in 1998 and the character of certain inventory items such as spare parts which do not fluctuate with sales levels.

The Company's net deferred tax assets increased \$99.1 million to \$127.8 million at December 31, 1998. Management believes it is more likely than not that, with its projections of future taxable income and after consideration of the valuation allowance, the Company will generate sufficient taxable income to realize the benefits of the net deferred tax assets existing at December 31, 1998.

In order to realize the net deferred tax assets existing at December 31, 1998, the Company will need to generate future taxable income of approximately \$353 million. The Company's net operating loss (NOL) carryforwards total \$410 million, of which \$7 million will expire in 2001; \$15 million will expire in 2002; \$32 million will expire in 2003; \$27 million will expire in 2012; and \$329 million will expire in 2018. There can be no assurance, however, that the Company will generate sufficient taxable income to realize the full benefit of the existing net deferred tax assets.

Accounts payable decreased \$33.6 million or 23.0% compared to the balance at the end of 1997 due to a significant reduction in capital expenditures and lower operating costs as a result of lower product volumes in the fourth quarter of 1998 compared to the year-ago period.

Capital expenditures decreased \$177.8 million or 47.7% versus the prior year to \$194.6 million. The 1998 capital expenditures primarily consisted of equipping the 300 millimeter pilot line in St. Peters, the 300 millimeter integrated development line in Utsunomiya, the granular polysilicon expansion at MEMC Pasadena and the installation of epitaxial reactors in Utsunomiya. The Company anticipates that it will reduce capital expenditures in 1999 to less than \$85.0 million. At December 31, 1998, the Company had \$38.8 million of committed capital expenditures related to the implementation of SAP worldwide and various manufacturing and technology projects.

Equity infusions in joint ventures increased \$14.9 million to \$25.5 million for 1998 and related solely to Taisil. Although Taisil has not yet generated positive net income, the Company does not consider its investment in Taisil to be impaired as of December 31, 1998 based on the following factors: the level of commitment by all of Taisil's shareholders; the growing Taiwanese silicon wafer market; increased customer qualifications and associated increased product volumes; and future anticipated positive operating cash flows.

At December 31, 1998, the Company maintained \$927.2 million of committed long-term loan agreements, of which \$873.7 million was outstanding. The Company also maintained \$83.0 million of short-term lines of credit, of which \$36.1 million was outstanding at year-end. The Company's weighted average cost of borrowing was 7.8% at December 31, 1998.

Total debt outstanding increased to \$909.8 million at December 31, 1998 from \$632.5 million at December 31, 1997. The total debt to total capital ratio at December 31, 1998 was 67.0%.

During September 1998, the Company received a three-year \$100.0 million revolving credit facility from VEBA AG, the parent of the Company's majority stockholder. This is in addition to a \$50.0 million credit facility from VEBA AG that was made available to the Company on June 30, 1998. VEBA AG and its affiliates agreed to extend until 2001 all of the Company's outstanding debt with VEBA AG and its affiliates maturing prior to January 1, 2001 (but only in the event the Company has used its best efforts to obtain replacement financing on equivalent terms).

As part of this agreement, the Company agreed to increase the interest rates payable on the Company's outstanding debt with VEBA AG and its affiliates to reflect interest rate spreads applicable to an average industrial borrower at a specified credit rating. These higher rates, which are in part attributable to extended terms, will result in an increase in interest expense of approximately \$15.0 million per year based upon \$679.6 million of debt outstanding with VEBA AG and its affiliates as of September 30, 1998. Prior to this debt re-negotiation, interest rates on the U.S. dollar and Japanese yen based loans outstanding with VEBA AG and its affiliates ranged from 2.1% to 7.6%. As a result of this debt re-negotiation, these loans will now have interest rates ranging from 3.4% to 10.2%. Additionally, all outstanding debt with VEBA AG and its affiliates maturing prior to January 1, 2001 which is extended at maturity will be repriced based upon then-current interest rates applicable to an average industrial borrower at a specified credit rating.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Subsequent to year-end, the Company received a \$75.0 million short-term revolving credit facility from an affiliate of VEBA AG. The interest rate on the credit facility reflects interest rate spreads applicable to an average industrial borrower at a specified credit rating. Under the loan agreement, the Company cannot pledge any of its assets to secure additional financing. Management believes this will satisfy the Company's short-term liquidity needs.

During 1998, the Company repurchased 893,000 shares of common stock for a total of \$15.7 million.

On October 22, 1998, the Company filed a registration statement with the Securities and Exchange Commission (SEC) for the sale of its common stock in a rights offering to existing stockholders except VEBA AG and its affiliates (the Offering). The Company expects approximately \$91.1 million in aggregate net proceeds from the Offering, after paying estimated expenses, including fees to dealer managers. Immediately prior to the Offering, the Company will sell common stock to VEBA Zweite Verwaltungsgesellschaft mbH, an affiliate of VEBA AG (VEBA Zweite), for aggregate net proceeds of approximately \$105.9 million. VEBA Zweite has also agreed to purchase all shares issuable upon exercise of the rights that are not subscribed for pursuant to the basic subscription privilege or the over-subscription privilege by other stockholders, subject to certain conditions that are customary in a firm commitment underwriting. The subscription price and number of shares will be determined based on the average share price during a period shortly before the effective date of the registration statement. The Company intends to use the proceeds from the Offering and the private placement to reduce debt outstanding under revolving credit agreements and for general corporate purposes. The Company expects the registration to be effective and the Offering to commence by the end of the first quarter of 1999. The private placement to VEBA Zweite will be consummated immediately prior to commencement of the Offering.

Management currently believes that cash generated from operations, together with the liquidity provided by existing cash balances and credit facilities and the anticipated proceeds from the private placement and the Offering will be sufficient to satisfy commitments for capital expenditures and other cash requirements into 2000. If the Offering is not completed, the Company may need to explore other future sources of capital.

The silicon wafer industry is highly capital intensive. Even with the proceeds from the private placement to VEBA Zweite and the Offering (if such transactions are consummated) and anticipated cash from operations, the Company may need to seek additional capital in order to fund all its future needs for capital expenditures, research and development, and marketing and customer service and support. The Company's capital needs depend on numerous factors, including its profitability and investment in capital expenditures and research and development.

Historically, the Company has funded its operations primarily through loans from VEBA AG and its affiliates, internally generated funds, and an initial public offering. To a lesser extent, the Company has raised funds by borrowing money from commercial banks. The Company will continue to explore and, as appropriate, enter into discussions with other parties regarding possible future sources of capital. Under the loan agreements between the Company and its principal lender, VEBA AG and its affiliates, the Company cannot pledge any of its assets to secure additional financing. The Company does not believe that it currently can obtain unsecured financing from third parties on better terms than those with VEBA AG and its affiliates.

For financial reporting purposes, both VEBA Corporation and VEBA AG include VEBA Corporation's share of the Company's net earnings or losses in their consolidated financial statements. The Company's recent losses have adversely affected VEBA Corporation's and VEBA AG's reported earnings. While the Company is not one of the focus areas of VEBA AG and its affiliates' future major investments, they have recently provided the Company with additional capital and have committed to provide substantial additional capital, as described herein. However, VEBA AG and its affiliates are not otherwise obligated to provide capital to the Company. There can be no assurance that VEBA AG and its affiliates will continue to provide capital to the Company in the future.

Year 2000

Many existing software programs, computers and other types of equipment were not designed to accommodate the Year 2000 and beyond. If not corrected, these computer applications and equipment could fail or create erroneous results. For the Company, this could disrupt purchasing, manufacturing, sales, finance and other support areas and affect the Company's ability to timely deliver silicon wafers with the exacting specifications required by the Company's customers, thereby causing potential lost sales and additional expenses.

State of Readiness. The Company has created a Year 2000 Project Team that is comprised of a Program Office, including a Global Project Manager, Customer and Vendor Management groups, and Year 2000 representatives from all sites around the world, including the Company's unconsolidated joint ventures. This team is responsible for planning and monitoring all Year 2000 activities and reporting to the Company's executive management. The Company's Chief Financial Officer is the sponsor for the Year 2000 project and reports to the Company's Board of Directors on a periodic basis.

The Company's Year 2000 project encompasses both information and non-information systems within the Company as well as the investigation of the readiness of the Company's strategic suppliers/business partners. The Company's goal is to have all Year 2000 issues resolved by June 1999, with Year 2000 issues relating to the most critical business systems (i.e., financial, order processing) resolved by the first quarter of 1999. To that end, the Company has inventoried and assessed the Year 2000 readiness of the following:

- **In-house Applications** — Those applications that are developed and supported in-house or purchased applications that are heavily customized and supported in-house. This classification also includes end-user-developed applications deemed critical to the business.
- **Business Software (Purchased)** — Applications purchased from an outside vendor and used for automating business processes (i.e., financial systems, order processing systems, purchasing systems).
- **Manufacturing Software (Purchased)** — Applications purchased from an outside vendor and used for automating manufacturing processes.
- **Personal Computer Software (Purchased)** — All software packages resident on personal computers. This includes things such as operating systems, word processing software, communications software, project management software, and spreadsheet software.
- **Infrastructure Software (Purchased)** — Purchased software used in the client/server and network environments.
- **IT Hardware** — Information Technology hardware components including midrange machines, personal computers, printers, network hardware.
- **Facilities & Utilities** — Components in the office and manufacturing supporting systems environments. Types of components include: copy machines, fax machines, telephone/communications systems, security systems, fire alarm/control, electrical, waste treatment, alarms, and air handlers.
- **Manufacturing Equipment** — Shop floor equipment such as clean rooms, crystal pullers, epitaxial reactors, inspection, lab, lappers, laser markers, measurement tools, grinders, polishers, slicers, and wet benches.

In-house Applications. The Company is evaluating the extent to which modifications of the Company's in-house applications will be necessary to accommodate the Year 2000 and are modifying the Company's in-house applications to enable continued processing of data into and beyond the Year 2000. This phase of the Company's Year 2000 project is approximately 75% complete and the Company anticipates completing remediation and testing of the Company's in-house applications by the end of the first quarter of 1999.

Purchased Software. The Company is obtaining, where feasible, contractual warranties from systems vendors that their products are or will be Year 2000 compliant. The Company has completed approximately 85%, 55% and 75% of its Year 2000 project related to business software, manufacturing software and personal computer software, respectively, and has completed its Year 2000 project related to infrastructure software. The Company expects this phase of its Year 2000 project to be completed by the end of the first quarter of 1999. The Company requires Year 2000 contractual warranties from all vendors of new software and hardware. In addition, the Company is testing newly purchased computer hardware and software systems in an effort to ensure their Year 2000 compliance.

Embedded Systems. For in-house embedded systems, the Company is modifying its systems to enable the continuing functioning of equipment into and beyond the Year 2000. For third-party embedded systems, the Company is obtaining, where feasible, contractual warranties from systems vendors that their products are or

Management's Discussion and Analysis of Financial Condition and Results of Operations

will be Year 2000 compliant. The Company has completed this phase of its Year 2000 project for hardware and has completed approximately 65% and 55% of its Year 2000 project related to facilities and utilities, and manufacturing equipment, respectively. The Company anticipates that such embedded systems will be fully tested by June 1999.

Suppliers/Business Partners. The Company has also communicated with its strategic suppliers and equipment vendors seeking assurances that they will be Year 2000 ready. The Company's goal is to obtain as much detailed information as possible about its strategic suppliers/business partners' Year 2000 plans so as to identify those companies which appear to pose a significant risk of failure to perform their obligations to the Company as a result of the Year 2000. Detailed information regarding all of its strategic suppliers and equipment vendors has been compiled and Year 2000 audits are planned for the most critical suppliers. This will be an ongoing process during the Company's Year 2000 project. For those strategic suppliers and equipment vendors that do not respond as to their status or their response is not satisfactory, the Company intends to develop contingency plans to ensure that sufficient resources are available to continue with business operations.

Costs to Address the Year 2000. Spending for modifications and updates is being expensed as incurred and is not expected to have a material impact on the Company's results of operations or cash flows. The cost of the Company's Year 2000 project is being funded through borrowings. The Company estimates that its total incremental Year 2000 expenditures will be in the range of \$5 - \$7 million. Through December 31, 1998, the Company has expended approximately \$2.2 million of incremental costs consisting mainly of contract programmers and consulting costs associated with the evaluation, assessment and remediation of computer systems and manufacturing equipment. The Company anticipates that contract programming costs will be its most significant cost as the Year 2000 project proceeds to completion.

Risk Analysis. Like most large business enterprises, the Company is dependent upon its own internal computer technology and relies upon the timely performance of its suppliers/business partners. A large-scale Year 2000 failure could impair the Company's ability to timely deliver silicon wafers with the exacting specifications required by its customers, thereby causing potential lost sales and additional expenses. The Company's Year 2000 project seeks to identify and minimize this risk and includes testing of its in-house applications, purchased software and embedded systems to ensure that all such systems will function before and after the Year 2000. The Company is continually refining its understanding of the risk the Year 2000 poses to its strategic suppliers/business partners based upon information obtained through its surveys. This refinement will continue into mid-1999.

Contingency Plans. The Company's Year 2000 project includes the development of contingency plans for business critical systems and manufacturing equipment as well as for strategic suppliers/business partners to attempt to minimize disruption to its operations in the event of a Year 2000 failure. The Company will be formulating plans to address a variety of failure scenarios, including failures of its in-house applications, as well as failures of strategic suppliers/business partners. The Company anticipates it will complete Year 2000 contingency planning by March 1999.

Year 2000 Cautionary Statement. Year 2000 issues are widespread and complex. While the Company believes it will address them on a timely basis, the Company cannot guarantee that it will be successful or that these problems will not materially adversely affect its business or results of operations. To a large extent, the Company depends on the efforts of its customers, suppliers and other organizations with which it conducts transactions to address their Year 2000 issues, over which the Company has no control.

Euro Conversion

On January 1, 1999, eleven of the fifteen member countries of the European union established fixed conversion rates between their existing sovereign currencies and the Euro. The participating countries have agreed to adopt the Euro as their common legal currency as of that date while still utilizing their local currency until January 1, 2002.

The Company has begun to assess the potential impact that may result from the Euro conversion. In addition to tax accounting considerations, the Company is also assessing the potential impact from the Euro conversion in a number of other areas, including the technical challenges to adapt information technology and other systems to accommodate Euro-denominated transactions; the competitive impact of cross-border price transparency, which may make it more difficult for businesses to charge different prices for the same products on a country-by-coun-

try basis; the impact on currency exchange costs and currency exchange rate risk; and the impact on existing contracts. While the Company will continue to assess the impact of the introduction of the Euro, based on currently available information, management does not believe that the introduction of the Euro will have a material adverse effect on the Company's financial condition or results of operation.

Recently Issued Accounting Pronouncements

In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards (SFAS) No. 133, "Accounting for Derivative Instruments and Hedging Activities." SFAS No. 133 requires the recognition of all derivatives as assets or liabilities within the balance sheet, and requires both the derivatives and the underlying exposure to be recorded at fair value. Any gain or loss resulting from changes in fair value will be recorded as part of the results of operations, or as a component of comprehensive income or loss, depending upon the intended use of the derivative. SFAS No. 133 is effective for all fiscal quarters of fiscal years beginning after June 15, 1999. The Company does not believe that the implementation of this Statement will have a material adverse effect on its financial condition or results of operations.

In March 1998, the American Institute of Certified Public Accountants issued Statement of Position (SOP) 98-1, "Accounting for the Costs of Computer Software Developed or Obtained for Internal Use." SOP 98-1 requires that certain costs related to the development or purchase of internal-use software be capitalized and amortized over the estimated useful life of the software. This Statement also requires that costs related to the preliminary project stage and the post-implementation/operations stage of an internal-use computer software development project be expensed as incurred. SOP 98-1 is effective for financial statements issued for fiscal years beginning after December 15, 1998. The Company does not believe that the implementation of this Statement will have a material adverse effect on its financial condition or results of operations.

Risk Factors

Certain statements made in this report are or may constitute "forward looking statements". These include statements concerning the manner, timing and estimated savings and effects of the Company's restructuring activities; estimated cost reductions for the global purchasing, plant focus and other initiatives; the Company's expectations for an increase in market demand for silicon wafers and semiconductors and an easing of pressure on pricing and margins in the year 2000; the Company's expectations concerning its lack of profitability in 1999 and its ability to generate positive operating cash flows in the year 2000; implementation in MEMC plants of QS 9000 and ISO 14001 certification; the transfer of Spartanburg-based small diameter production activities to other existing locations; utilization of the restructuring reserve; realization of the net deferred tax asset as it relates to the Company's ability to generate future taxable income; capital expenditures in 1999; the expectations concerning Taisil and the Taiwanese silicon wafer market; the consummation of the pending private placement to VEBA Zweite and the Offering; the continued support of the Company by VEBA AG and its affiliates; and the status, effectiveness and projected completion of the Company's Year 2000 initiative.

Because these matters are subject to risks and uncertainties, actual results may differ materially from those expressed or implied by forward looking statements. Factors that could cause actual results to differ materially include the demand for semiconductors worldwide; changes in the pricing environment for the Company's products; changes in financial market conditions; the economic conditions in the Asia Pacific region and Japan; actions taken by the Company's competitors; the willingness of the Company's customers to re-qualify Spartanburg-based production to other locations; the accuracy of assumptions made by the Company regarding savings from its restructuring activities; changes in interest and exchange rates; and those risk factors described in "Risk Factors" and set forth in our Form 10-K for the 1998 fiscal year.

Undue reliance should not be placed on these forward looking statements, which speak only as of the date that they are made. The Company does not undertake any obligation to release publicly any revisions to these statements to reflect later events or circumstances or to reflect the occurrence of unanticipated events.

Market Risk

Market risks relating to the Company's operations result primarily from changes in interest rates and changes in foreign exchange rates. The Company enters into currency swaps to minimize the risk and costs associated with its financing activities in currencies other than its functional currency. The Company does not hold derivatives for trading purposes.

The following table provides information about the Company's financial instruments that are sensitive to changes in interest rates. For debt obligations, the table presents principal maturities and related weighted-average

Management's Discussion and Analysis of Financial Condition and Results of Operations

interest rates by expected maturity dates. Weighted-average variable rates are based on implied forward rates in the yield curve at the reporting date. The information is presented in U.S. dollar equivalents. The instruments' actual cash flows are denominated in U.S. dollars (USD), Japanese Yen (JPY), and Italian Lira (ITL), as indicated in parentheses.

Interest Rate Sensitivity

Principal (Notional) Amount by Expected Maturity and Average Interest Rate

<i>Dollars in thousands</i>	1999	2000	2001	2002	2003	Thereafter	Total	Fair Value 12/31/98
Liabilities								
Variable rate debt:								
Long-term debt - (USD)			\$131,400				\$131,400	\$131,400
Average interest rate			10.2%				10.2%	
Fixed rate debt:								
Long-term debt - (USD)	\$30,000 ⁽¹⁾	\$10,000 ⁽¹⁾	\$145,000	\$100,000	\$90,000	\$200,000	\$575,000	\$542,593
Long-term debt - (JPY)	8,610 ⁽¹⁾	20,776 ⁽¹⁾	44,410	31,461	4,219	45,504	154,980	154,581
Long-term debt - (ITL)	2,517	2,288	2,347	1,926	1,220	2,002	12,300	12,670
Total fixed rate debt	\$41,127	\$33,064	\$191,757	\$133,387	\$95,439	\$247,506	\$742,280	\$709,844
Average interest rate	7.2%	4.4%	7.5%	7.5%	8.4%	8.1%	7.6%	
Total Fixed and Variable							\$873,680	\$841,244

⁽¹⁾The Company has the ability and intent to refinance all U.S. Dollar denominated debt in 1999 and 2000, all Japanese Yen denominated debt in 1999, and \$8,610 of the Japanese Yen denominated debt in 2000 at interest rates reflecting new maturities to 2001 and interest rate spreads applicable to an average industrial borrower at a specified credit rating.

The Company routinely enters into forward currency exchange contracts in the regular course of its business to manage its exposure against foreign currencies. The Company had \$30.8 million in foreign currency contracts outstanding at December 31, 1998 with an estimated fair value of \$32.1 million. These contracts are for a short duration, generally less than six months, and their contract values approximate fair value. Thus, they have been omitted from the table below. In addition, the Company entered into foreign currency swaps to hedge a portion of its debt in Japan. For debt obligations, the table presents debt obligations which are held by the Company in a currency that is not its reporting currency.

Foreign Currency Exchange Rate Sensitivity

Principal (Notional) Amount by Expected Maturity

<i>Dollars in thousands</i>	1999	2000	2001	2002	Total	Fair Value 12/31/98
Long-Term Debt (US \$ Functional Currency)						
Long-term debt - (JPY)	\$8,610	\$8,610	\$8,610	\$8,610	\$34,440	\$33,582
Average interest rate	3.4%	4.1%	4.7%	5.2%	4.4%	
Currency Swap Agreements						
Payment of Japanese Yen						
Notional amount			12,634		12,634	10,384
Average contract rate			79.15			

Consolidated Statements of Operations

<i>Year ended December 31,</i>	<i>1998</i>	<i>1997</i>	<i>1996</i>
<i>Dollars in thousands, except share data</i>			
Net sales	\$ 758,916	\$986,673	\$ 1,119,500
Cost of goods sold	790,745	861,914	869,315
Gross margin	(31,829)	124,759	250,185
Operating expenses:			
Marketing and administration	73,515	70,715	79,680
Research and development	81,591	64,457	44,313
Restructuring costs	146,324	—	—
Operating profit (loss)	(333,259)	(10,413)	126,192
Nonoperating (income) expense:			
Interest expense	45,832	14,743	494
Interest income	(2,291)	(2,570)	(5,436)
Royalty income	(4,628)	(8,186)	(6,158)
Other, net	1,043	(4,070)	7,437
Total nonoperating (income) expense	39,956	(83)	(3,663)
Earnings (loss) before income taxes, equity in income (loss) of joint ventures and minority interests	(373,215)	(10,330)	129,855
Income taxes	(89,394)	2,769	51,942
Earnings (loss) before equity in income (loss) of joint ventures and minority interests	(283,821)	(13,099)	77,913
Equity in income (loss) of joint ventures	(43,496)	5,480	26,716
Minority interests	10,985	3,106	(1,241)
Net earnings (loss)	\$(316,332)	\$ (4,513)	\$ 103,388
Basic earnings (loss) per share	\$ (7.80)	\$ (0.11)	\$ 2.50
Diluted earnings (loss) per share	\$ (7.80)	\$ (0.11)	\$ 2.49
Weighted average shares used in computing basic earnings (loss) per share	40,580,869	41,345,193	41,308,806
Weighted average shares used in computing diluted earnings (loss) per share	40,580,869	41,345,193	41,534,412

See accompanying notes to consolidated financial statements.

Consolidated Balance Sheets

<i>December 31,</i>	<i>1998</i>	<i>1997</i>
<i>Dollars in thousands, except share data</i>		
Assets		
Current assets:		
Cash and cash equivalents	\$ 16,168	\$ 30,053
Accounts receivable, less allowance for doubtful accounts of \$2,853 and \$3,473 in 1998 and 1997, respectively	98,528	154,702
Income taxes receivable	10,161	14,382
Inventories	115,927	141,447
Deferred tax assets, net	23,129	13,206
Prepaid and other current assets	35,225	23,185
Total current assets	299,138	376,975
Property, plant and equipment, net	1,188,832	1,200,827
Investments in joint ventures	94,610	112,573
Excess of cost over net assets acquired, net of accumulated amortization of \$5,128 and \$3,752 in 1998 and 1997, respectively	48,396	49,772
Deferred tax asset, net	104,650	15,472
Other assets	38,088	38,805
Total assets	\$1,773,714	\$1,794,424
Liabilities and Stockholders' Equity		
Current liabilities:		
Short-term borrowings and current portion of long-term debt	\$ 38,644	\$ 122,476
Accounts payable	112,581	146,172
Accrued liabilities	35,404	40,219
Customer deposits	17,639	8,392
Provision for restructuring costs	37,299	—
Accrued wages and salaries	17,077	21,267
Total current liabilities	258,644	338,526
Long-term debt, less current portion	871,163	510,038
Pension and similar liabilities	92,466	76,837
Customer deposits	59,033	67,141
Other liabilities	45,126	26,901
Total liabilities	1,326,432	1,019,443
Minority interests	48,242	59,227
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$.01 par value, 50,000,000 shares authorized, none issued or outstanding in 1998 or 1997	—	—
Common stock, \$.01 par value, 200,000,000 shares authorized, 41,436,421 and 41,440,369 issued in 1998 and 1997, respectively	414	414
Additional paid-in capital	574,188	574,317
Retained earnings (accumulated deficit)	(147,836)	168,496
Accumulated other comprehensive loss	(10,581)	(25,721)
Unearned restricted stock awards	(125)	(424)
Treasury stock, at cost: 929,205 and 36,205 shares in 1998 and 1997, respectively	(17,020)	(1,328)
Total stockholders' equity	399,040	715,754
Total liabilities and stockholders' equity	\$1,773,714	\$1,794,424

See accompanying notes to consolidated financial statements.

Consolidated Statements of Cash Flows

Year ended December 31,	1998	1997	1996
<i>Dollars in thousands</i>			
Cash flows from operating activities:			
Net earnings (loss)	\$(316,332)	\$ (4,513)	\$ 103,388
Adjustments to reconcile net earnings (loss) to net cash provided by (used in) operating activities:			
Depreciation and amortization	155,874	126,913	91,660
Minority interests	(10,985)	(3,106)	1,241
Equity in (income) loss of joint ventures	43,496	(5,480)	(26,716)
Restructuring costs	104,704	—	—
(Gain) loss on sale of property, plant and equipment	6,916	(4,766)	610
Deferred compensation earned	299	596	1,001
Changes in assets and liabilities:			
Accounts receivable	61,836	(36,051)	32,247
Income taxes receivable	4,655	(8,794)	(24,127)
Inventories	28,461	(46,445)	(11,126)
Prepaid and other current assets	(1,203)	9,487	(10,638)
Deferred taxes	(98,074)	(17,783)	11,546
Accounts payable	(38,833)	3,976	19,221
Accrued liabilities	(7,792)	8,301	(8,257)
Customer deposits	(348)	17,806	69,626
Accrued wages and salaries	(4,209)	(3,797)	1,749
Other, net	37,680	(6,915)	10,480
Net cash provided by (used in) operating activities	(33,855)	29,429	261,905
Cash flows from investing activities:			
Capital expenditures	(194,610)	(372,416)	(590,049)
Proceeds from sale of property, plant and equipment	5,730	21,512	884
Equity infusions in joint ventures	(25,533)	(10,638)	(14,698)
Dividend received from unconsolidated joint venture	—	11,263	—
Deposit with affiliate	—	—	55,000
Notes receivable from affiliates	(8,642)	212	2,376
Net cash used in investing activities	(223,055)	(350,067)	(546,487)
Cash flows from financing activities:			
Net short-term borrowings	(8,843)	87,420	14,898
Proceeds from issuance of long-term debt	515,313	248,553	222,166
Principal payments on long-term debt	(248,936)	(18,693)	(2,060)
Repurchase of common stock	(15,692)	—	(1,328)
Other	(129)	385	8,603
Net cash provided by financing activities	241,713	317,665	242,279
Effect of exchange rate changes on cash and cash equivalents	1,312	(2,070)	207
Net decrease in cash and cash equivalents	(13,885)	(5,043)	(42,096)
Cash and cash equivalents at beginning of year	30,053	35,096	77,192
Cash and cash equivalents at end of year	\$ 16,168	\$ 30,053	\$ 35,096
Supplemental disclosures of cash flow information:			
Interest payments, net of amount capitalized	\$ 48,179	\$ 21,204	\$ —
Income taxes paid	\$ 9,794	18,020	57,590

See accompanying notes to consolidated financial statements.

Consolidated Statements of Stockholders' Equity

	<i>Common Stock</i>		<i>Additional Paid-in Capital</i>	<i>Retained Earnings (Accumulated Deficit)</i>	<i>Accumulated Other Comprehensive Income (Loss)</i>	<i>Unearned Restricted Stock Awards</i>	<i>Treasury Stock</i>	<i>Total</i>
	<i>Number of Shares Issued</i>	<i>Par Value</i>						
<i>Dollars in thousands, except per share data</i>								
Balance at December 31, 1995	41,399,998	\$414	\$569,959	\$ 69,621	\$ 4,717	\$(2,016)	\$ —	\$ 642,695
Comprehensive income:								
Net earnings	—	—	—	103,388	—	—	—	103,388
Net translation adjustment	—	—	—	—	(364)	—	—	(364)
Comprehensive income								103,024
Stock plans, net	70,973	1	3,392	—	—	(202)	—	3,191
Deferred compensation earned	—	—	—	—	—	1,001	—	1,001
Repurchase of common stock	—	—	—	—	—	—	(1,328)	(1,328)
Balance at December 31, 1996	41,470,971	415	573,351	173,009	4,353	(1,217)	(1,328)	748,583
Comprehensive loss:								
Net loss	—	—	—	(4,513)	—	—	—	(4,513)
Net translation adjustment	—	—	—	—	(30,074)	—	—	(30,074)
Comprehensive loss								(34,587)
Stock plans, net	(30,602)	(1)	966	—	—	197	—	1,162
Deferred compensation earned	—	—	—	—	—	596	—	596
Balance at December 31, 1997	41,440,369	414	574,317	168,496	(25,721)	(424)	(1,328)	715,754
Comprehensive loss:								
Net loss	—	—	—	(316,332)	—	—	—	(316,332)
Net translation adjustment	—	—	—	—	17,682	—	—	17,682
Minimum pension liability (net of \$1,625 tax)	—	—	—	—	(2,542)	—	—	(2,542)
Comprehensive loss								(301,192)
Stock plans, net	(3,948)	—	(129)	—	—	129	—	—
Deferred compensation earned	—	—	—	—	—	170	—	170
Repurchase of common stock	—	—	—	—	—	—	(15,692)	(15,692)
Balance at December 31, 1998	41,436,421	\$414	\$574,188	\$(147,836)	\$(10,581)	\$ (125)	\$(17,020)	\$399,040

See accompanying notes to consolidated financial statements.

Notes to Consolidated Financial Statements

Dollars in thousands, except share data

1 • Nature of Operations

MEMC Electronic Materials, Inc. and subsidiaries (the Company) is a leading manufacturer and worldwide supplier of electronic grade silicon wafers for the semiconductor industry. The Company has production facilities directly or through joint ventures in Italy, Japan, Malaysia, South Korea, Taiwan and the United States. The Company's customers are located throughout the world.

2 • Summary of Significant Accounting Policies

(a) Basis of Presentation

The preparation of the consolidated financial statements in conformity with generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Certain prior period amounts have been reclassified to conform to the current year's presentation.

(b) Principles of Consolidation

The consolidated financial statements include the accounts of MEMC Electronic Materials, Inc. and its wholly and majority-owned subsidiaries. Investments of less than 50% in two joint venture companies are accounted for using the equity method. All significant intercompany transactions have been eliminated.

(c) Cash Equivalents

Cash equivalents consist of cash in banks, principally overnight investments and short-term time deposits, with original maturities of three months or less.

(d) Inventories

Inventories are stated at the lower of cost or market. Raw materials and supplies inventories are valued using the first-in, first-out method. Goods in process and finished goods inventory values are based upon standard costs which approximate average costs.

(e) Property, Plant and Equipment

Property, plant and equipment are stated at cost. Depreciation is computed principally using the straight-line method over estimated service lives as follows:

	<i>Years</i>
Land improvements	6-15
Buildings and building improvements	10-30
Machinery and equipment	3-12

The Company capitalizes interest costs as part of the cost of constructing facilities and equipment. Interest costs of \$5,521, \$15,968 and \$8,957 were capitalized in 1998, 1997 and 1996, respectively.

(f) Excess of Cost Over Net Assets Acquired

Excess of cost over net assets acquired (goodwill) is amortized on a straight-line basis over the periods estimated to be benefited, not exceeding 40 years. Excess of cost over net assets acquired is reviewed for impairment whenever events and changes in business circumstances indicate the carrying value of the goodwill and related acquired assets that gave rise to the goodwill may not be recoverable. Impairment losses are recognized if expected future cash flows of the related assets are less than their carrying values. There is no indication of impairment of excess of cost over net assets acquired at December 31, 1998 or 1997.

(g) Computer Software Developed or Obtained for Internal Use

Costs related to the development or purchase of internal-use software are capitalized and amortized over the estimated useful life of the software. Costs related to the preliminary project stage and the post-implementation/operations stage of an internal-use computer software development project are expensed as incurred.

(h) Impairment of Long-Lived Assets and Long-Lived Assets to Be Disposed of

Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the

fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell. There is no indication of impairment of property, plant and equipment at December 31, 1998 or 1997.

(i) Impairment of Investments in Joint Ventures

Impairment of investments in joint ventures is measured by comparing the carrying amount of the asset to future net cash flows expected to be generated by the asset. In addition, the level of commitment of the joint venture's shareholders, the silicon wafer markets serviced by the joint ventures, and the level of customer qualifications at the joint ventures are also considered in assessing the impairment of the Company's investments in joint ventures. There is no indication of impairment of these investments at December 31, 1998 or 1997.

(j) Revenue Recognition

Revenues are recognized when products are shipped.

(k) Derivative Financial Instruments

The Company enters into forward exchange contracts to manage foreign currency exchange risk relating to current trade receivables with its foreign subsidiaries and current trade receivables with its customers denominated in foreign currencies (primarily Japanese yen and Deutsche mark). The purpose of the Company's foreign currency hedging activities is to protect the Company from the risk that the eventual dollar net cash flows resulting from foreign currency transactions will be adversely affected by changes in exchange rates. The Company does not hold or issue financial instruments for trading purposes.

The Company's forward exchange contracts are accounted for as hedges and, accordingly, gains and losses on those contracts are deferred and recognized at the time of settlement of the related receivables. Deferred gains and losses are included on a net basis in the consolidated balance sheets as either other assets or other liabilities. Upon termination, gains and losses are included in the consolidated statements of operations as other income or expense. If a forward exchange contract is designated as a hedge but is no longer effective, it is marked to market and included in other income or expense in the consolidated statements of operations. A payment or receipt arising from the termination of a forward exchange contract that is effective as a hedge is included in other income or expense in the consolidated statements of operations.

(l) Translation of Foreign Currencies

Assets and liabilities of foreign subsidiaries whose functional currency is other than the U.S. dollar are translated to U.S. dollars using the exchange rates in effect at the balance sheet date. Results of operations are translated using average rates during the period. Adjustments resulting from the translation process are included as a component of accumulated other comprehensive income (loss).

(m) Income Taxes

Deferred tax assets and liabilities are recognized for the future tax consequences attributable to material differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating losses and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in earnings in the period that includes the enactment date. A valuation allowance has been established for deferred tax assets that the Company believes may not be realized.

No provision is made for U.S. income taxes on unremitted earnings of the Company's consolidated non-U.S. subsidiaries, as the retention of such earnings is considered essential for continuing operations, or the additional taxes are considered to be minimal based upon available foreign tax credits.

(n) Stock-Based Compensation

The Company measures its compensation cost of equity instruments issued under employee compensation plans under the provisions of Accounting Principles Board Opinion No. 25 (Opinion 25) and related Interpretations. Compensation expense related to restricted stock awards is recognized over the applicable vesting periods, and the unamortized portion of deferred compensation is reflected as a separate component of stockholders' equity. The Company does not issue equity instruments to non-employees.

(o) *Comprehensive Income (Loss) Reclassification Adjustment*

The Company's decision to forego construction of a new 200 millimeter facility at its joint venture in Malaysia and to withdraw from its small diameter joint venture in China resulted in a reclassification adjustment to comprehensive income (loss) in 1998 of approximately \$9,500.

(p) *Contingencies*

Contingent liabilities are disclosed when management believes they are material to the Company's financial position. There are no such known contingent liabilities at December 31, 1998 or 1997.

3 • Fair Value of Financial Instruments

The carrying amount of the Company's cash, accounts receivable, income taxes receivable, short-term borrowings, accounts payable and accrued liabilities approximates fair value due to the short maturity of these instruments. Consequently, such instruments are not included in the table below which provides information regarding the estimated fair values of other financial instruments, both on and off balance sheet, as follows:

December 31,	1998		1997	
	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
<i>Dollars in thousands</i>				
Long-term debt	\$873,680	\$841,244	\$519,995	\$522,970
Off-balance sheet financial instruments:				
Foreign currency contracts	30,846	32,139	69,842	67,810
Currency swap contract	12,634	10,384	12,634	9,334

The fair value of each long-term debt facility is based upon the amount of future cash flows associated with each instrument discounted at the Company's current borrowing rate for similar debt instruments of comparable terms.

The Company has entered into forward exchange contracts with VEBA AG and its affiliates to manage foreign currency exchange risk relating to current trade sales with its foreign subsidiaries and current trade sales with its customers denominated in foreign currencies (primarily Japanese yen and Deutsche mark), and a currency swap contract relating to foreign currency denominated intercompany loans. The Company believes its hedging arrangements with VEBA AG and its affiliates allow for transactions on a basis that is comparable to terms available from unrelated third-party financial intermediaries.

The fair values of the forward and the currency swap contracts were a net gain to the Company of \$957 and \$5,332, as measured by the amount that would have been paid to liquidate and repurchase all open contracts as of December 31, 1998 and 1997, respectively. Deferred losses for intercompany loans totaled \$2,897 and \$3,437 at December 31, 1998 and 1997, respectively.

4 • Concentration of Credit Risk

The Company sells products to customers in the semiconductor industry which are located in various geographic regions including the United States, Europe, Japan and Asia Pacific. The primary customers in this industry are well capitalized and the concentration of credit risk is considered minimal due to the Company's customer base. Sales to the Company's largest customer were 20.3%, 20.0% and 16.8% of net sales in 1998, 1997 and 1996, respectively. No other customer constituted 10% or more of net sales in 1998, 1997 or 1996.

5 • Restructuring Costs

During the second quarter of 1998, the Company decided to close its small diameter wafer facility in Spartanburg, South Carolina and to withdraw from its 60%-owned joint venture in a small diameter wafer operation in China. These actions were taken because (1) a number of semiconductor manufacturers have been running their larger diameter manufacturing lines in preference to their small diameter lines in order to gain production efficiencies; (2) a number of semiconductor manufacturers recently have undertaken restructuring initiatives focused on permanently eliminating small diameter lines; and (3) management believes that small diameter wafer capacity will exceed demand even after the semiconductor industry begins to recover. The Company also decided to forego construction of a new 200 millimeter wafer facility at its 75%-owned joint venture in Malaysia. This decision was based upon current and anticipated excess capacity for 200 millimeter wafers and the significant price erosion that the Company has experienced for these wafers.

The Company recorded a charge to operations of \$121,670 (of which \$81,325 is non-cash) related to the above actions.

Notes to Consolidated Financial Statements

Restructuring activity since the provision for restructuring costs was recorded is as follows:

	<i>Provision</i>	<i>Amount utilized</i>	<i>Balance at December 31, 1998</i>
<i>Dollars in thousands</i>			
Asset impairment/write-off:			
Spartanburg property, plant and equipment	\$ 36,300	\$36,300	\$ —
Malaysian joint venture assets	28,000	25,195	2,805
Chinese joint venture assets	13,800	9,642	4,158
Other infrastructure	3,225	3,225	—
Total	81,325	74,362	6,963
Dismantling and related costs:			
Dismantling costs	11,345	1,039	10,306
Costs incurred by equipment supplier	5,000	5,000	—
Environmental costs	3,500	11	3,489
Operating leases	3,000	—	3,000
Other	3,000	—	3,000
Total	25,845	6,050	19,795
Personnel costs	14,500	3,959	10,541
Total restructuring costs	\$121,670	\$84,371	\$37,299

The assets for which an impairment loss has been recorded or which have or will be written-off are primarily property, plant and equipment that cannot be sold or used at other Company facilities. Accordingly, these assets have been written down to net realizable value. The net balance of Spartanburg property, plant and equipment before and after the write-off was \$50,965 and \$14,665, respectively. Additionally, the Company wrote-off architectural design and site preparation fees and costs incurred to develop a computer integrated manufacturing system for the Malaysian joint venture that do not have applicability elsewhere within the Company. Ongoing operating expenses until plant closure associated with the Spartanburg facility will continue to be recorded as period costs. Costs relating to the relocation and installation of equipment from the Spartanburg facility to other sites will be capitalized as incurred.

The Chinese joint venture assets represent the operating assets of the Company's 60%-owned joint venture in China. The Company anticipates ceding its interest in the operating assets of the joint venture to the partner in the joint venture, with which the Company has no other interest, and receiving de minimus proceeds in conjunction with its withdrawal.

The provision for dismantling and related costs primarily relates to the Spartanburg facility and includes estimates for the dismantling of the facility, collection and disposal of process chemicals, decontamination of manufacturing equipment, modification of the wastewater treatment facility, remaining operating lease payments on equipment that will not be used elsewhere in the Company and scrapping charges. Environmental remediation costs of \$3,500 relating to the closure of the Spartanburg facility were accrued in accordance with Statement of Financial Accounting Standards No. 5, "Accounting for Contingencies".

Personnel costs of \$12,200 represent the expected severance cost of involuntary terminations for all hourly and salaried employees at the Spartanburg facility whom the Company does not expect to relocate elsewhere within the organization. At December 31, 1998, approximately 240 of these employees had not yet been terminated. An additional \$2,300 restructuring charge relates to severance benefits for certain employees at other MEMC sites.

In addition to the restructuring activities discussed above, the Company recorded a \$24,654 charge for a voluntary severance program for approximately 600 hourly and salaried U.S. employees. All of this amount was paid to participants as of December 31, 1998.

Of the \$37,299 restructuring reserve at December 31, 1998, approximately \$7,000 is non-cash. Half of the approximately \$30,000 remaining reserve is expected to be paid out in the first half of 1999. During this time, the Company will transfer the small diameter production activities of the Spartanburg facility to other existing Company locations. The remaining half is expected to be expended by 1999 year-end and relates primarily to dismantling costs associated with the Spartanburg facility.

6 • Inventories

Inventories consist of the following:

<i>December 31,</i>	<i>1998</i>	<i>1997</i>
<i>Dollars in thousands</i>		
Raw materials and supplies	\$ 59,722	\$ 65,369
Goods in process	33,612	37,996
Finished goods	22,593	38,082
	\$115,927	\$141,447

7 • Property, Plant and Equipment

Property, plant and equipment consist of the following:

<i>December 31,</i>	<i>1998</i>	<i>1997</i>
<i>Dollars in thousands</i>		
Land and land improvements	\$ 14,404	\$ 13,055
Buildings and building improvements	484,820	435,740
Machinery and equipment	1,110,195	1,001,846
	1,609,419	1,450,641
Less accumulated depreciation	569,327	465,384
	1,040,092	985,257
Construction in progress	148,740	215,570
	\$1,188,832	\$1,200,827

8 • Investments in Joint Ventures

The Company has a 40% interest in POSCO Hüls Co. Ltd. (PHC), a company formed to manufacture and sell silicon wafers in South Korea, and a 45% interest in Taisil Electronic Materials Corporation (Taisil), a company formed to manufacture and sell silicon wafers in Taiwan.

During 1998, 1997 and 1996, the Company earned \$4,628, \$8,186 and \$6,158, respectively, from these unconsolidated joint ventures under royalty agreements. Sales by these unconsolidated joint ventures of intermediate and finished product to the Company totaled \$34,479, \$32,313 and \$89,723 in 1998, 1997 and 1996, respectively.

The Company provides PHC and Taisil with debt guarantees totaling \$581 and \$74,711, respectively. At December 31, 1998, PHC and Taisil had \$581 and \$74,711, respectively, in standby letters of credit and borrowings outstanding against these guarantees.

Notes to Consolidated Financial Statements

A summary of the results of operations for 1998, 1997 and 1996, and financial position as of December 31, 1998 and 1997 of the Company's unconsolidated joint ventures follows:

<i>December 31,</i>	<i>1998</i>	<i>1997</i>	<i>1996</i>
<i>Dollars in thousands</i>			
Total:			
Net sales	\$179,643	\$277,492	\$282,310
Gross margin	(33,668)	54,120	107,366
Net earnings (loss)	(101,596)	15,274	68,847
The Company's share —			
Net earnings (loss)	\$ (43,496)	\$ 5,480	\$ 26,716
Current assets	\$169,532	\$147,644	
Noncurrent assets	488,634	565,201	
Total assets	658,166	712,845	
Current liabilities	165,157	155,038	
Noncurrent liabilities	266,352	284,736	
Total liabilities	431,509	439,774	
Interests of others	132,047	160,498	
The Company's investments	\$ 94,610	\$112,573	

The Company's share of undistributed retained earnings (deficit) of unconsolidated joint ventures was approximately (\$27,406) and \$16,090 at December 31, 1998 and 1997, respectively. In 1997, the Company received a dividend from PHC of \$11,263.

The Company's unconsolidated joint ventures have net sales denominated in or based on the U.S. dollar and manufacturing expenses primarily denominated in the U.S. dollar, Korean won and New Taiwanese dollar. PHC also has significant debt denominated in the U.S. dollar and Korean won. Likewise, Taisil has significant debt denominated in the U.S. dollar and New Taiwanese dollar. PHC and Taisil use the U.S. dollar as their functional currency for U.S. GAAP purposes and do not hedge net Korean won or New Taiwanese dollar exposures.

9 • Short-Term Borrowing Agreements and Lines of Credit

Interest expense related to short-term borrowings with an affiliate was \$4,195, \$1,667 and \$181 in 1998, 1997 and 1996, respectively.

The Company has unsecured borrowings from banks of approximately \$36,000 at December 31, 1998, under approximately \$83,000 of short-term loan agreements which bear interest at various rates ranging from 1.0% to 11.1% and are renewable annually. The interest rate on the borrowings is negotiated at the time of the borrowings.

Commitment fees of 1/4 of 1% are paid on the unused portion of the lines of credit. The Company's weighted average interest rate on short-term borrowings was 3.3% and 4.9% at December 31, 1998 and 1997, respectively, and was favorably impacted by interest rates in Japan.

10 • Long-Term Debt

Long-term debt consists of the following:

<i>December 31,</i>	<i>1998</i>	<i>1997</i>
<i>Dollars in thousands</i>		
Owed to affiliates:		
Note with interest payable semiannually at 6.7%, due in 1998	\$ — ⁽¹⁾	\$ 25,000
Notes with interest payable semiannually at rates ranging from 2.1% to 7.2%, due in 1999	— ⁽¹⁾	37,690
Notes with interest payable semiannually at rates ranging from 2.5% to 6.4%, due in 2000	— ⁽¹⁾	17,690
Notes with interest payable semiannually at rates ranging from 2.9% to 10.2%, due in 2001	342,230	77,690
Notes with interest payable semiannually at rates ranging from 3.2% to 9.7%, due in 2002	108,610	82,690
Notes with interest payable semiannually at rates ranging from 6.4% to 8.8%, due in 2003	90,000	40,000
Notes with interest payable semiannually at rates ranging from 6.5% to 9.7%, due in 2004	125,000	100,000
Notes with interest payable semiannually at rates ranging from 7.3% to 9.6%, due in 2005	75,000	75,000
Total owed to affiliates	740,840	455,760
Owed to nonaffiliates:		
Note with interest payable semiannually at 4.1%, due in 1998	—	7,690
Notes with interest payable semiannually at rates ranging from 1.7% to 2.2%, due in 2001	17,220	15,380
Notes with interest payable semiannually at rates ranging from 1.6% to 1.7%, due in 2000 through 2002	43,050	15,380
Notes with interest payable semiannually at rates ranging from 1.5% to 8.9%, due in 1999 through 2017	72,570	25,785
Total owed to nonaffiliates	132,840	64,235
Total long-term debt	873,680	519,995
Less current portion	2,517	9,957
	\$871,163	\$510,038

⁽¹⁾In 1998, VEBA AG and its affiliates agreed to extend these notes until 2001.

The Company has long-term committed loan agreements of approximately \$927,000 at December 31, 1998, of which approximately \$874,000 is outstanding. Commitment fees of 1/4 of 1% are paid on the unused portion of committed loan agreements. The Company has approximately \$53,000 of available long-term loan agreements with affiliates at December 31, 1998. Under the terms of certain of these long-term loan agreements owed to affiliates, the Company cannot pledge any of its assets to secure additional financing.

Interest expense related to long-term notes payable to affiliates was \$43,567, \$25,633 and \$7,337 in 1998, 1997 and 1996, respectively.

Notes to Consolidated Financial Statements

The aggregate amounts of long-term debt maturing subsequent to December 31, 1998 are as follows:

Dollars in thousands

1999	\$ 2,517
2000	14,454
2001	380,377
2002	133,387
2003	95,439
Thereafter	247,506
	<hr/> \$873,680

In October 1996, the Company entered into a financing arrangement with the City of O'Fallon, Missouri related to the expansion of the Company's St. Peters facility. In total, approximately \$252 million of industrial revenue bonds were issued to the Company by the City of O'Fallon, of which at December 31, 1998 and 1997, \$215 million and \$210 million was outstanding, respectively.

The bonds were exchanged by the City of O'Fallon for the assets related to the expansion, which were then leased by the Company for a period of 10 years for machinery and equipment and 15 years for building and building improvements. The Company has the option to purchase the machinery and equipment at the end of five years and the building and building improvements at the end of 10 years. The industrial revenue bonds bear interest at a rate of 6% per annum and mature concurrent with the annual payments due under the terms of the lease.

The Company has classified the leased assets as property, plant and equipment and has established a capital lease obligation equal to the outstanding principal balance of industrial revenue bonds. Lease payments may be made by tendering an equivalent portion of the industrial revenue bonds. As the capital lease payments to the City of O'Fallon may be satisfied by tendering industrial revenue bonds (which is the Company's intention), the capital lease obligation, industrial revenue bonds and related interest expense and interest income, respectively, have been offset for presentation purposes in the consolidated financial statements.

11 • Stockholders' Equity

Preferred Stock

The Company has 50,000,000 authorized shares of \$.01 par value preferred stock. The Board of Directors is authorized, without further action by the stockholders, to issue any or all of the preferred stock.

Common Stock

Holders of the \$.01 par value common stock are entitled to one vote for each share held on all matters submitted to a vote of the stockholders. Subject to the rights of any holders of preferred stock, holders of common stock are entitled to receive ratably such dividends as may be declared by the Board of Directors. In the event of liquidation, dissolution or winding up of the Company, holders of the common stock are entitled to share ratably in the distribution of all assets remaining after payment of liabilities, subject to the rights of any holders of preferred stock.

The Company does not anticipate paying dividends in the foreseeable future. The declaration and payment of future dividends by the Company, if any, will be at the sole discretion of the Board of Directors.

Stock-Based Compensation

The Company has an Equity Incentive Plan (the Plan) that provides for the award of incentive and non-qualified stock options, restricted stock and performance shares. Total shares authorized for grant under the Plan are 3,597,045. Non-qualified stock options to employees are typically granted on January 1 and vest at a rate of 25% annually over four years. Non-qualified stock options to non-employee directors are also typically granted on January 1 but vest at a rate of 33 1/3% annually over three years. The exercise price of each option equals the market price of the Company's common stock on the date of the grant, and each option's maximum term is 10 years. Total restricted shares awarded in 1997 and 1996 were 1,300 and 38,200, respectively, with weighted average fair values of \$22.50 and \$33.46, respectively. Total compensation cost recognized for these awards in 1998, 1997 and 1996 was \$170, \$596 and \$1,001, respectively.

The Company applies Opinion 25 and related Interpretations in accounting for the Plan. Accordingly, no compensation cost has been recognized for non-qualified stock options granted under the Plan. Had compensation cost been determined for the Company's non-qualified stock options based on the fair value at the grant dates consistent with the alternative method set forth under Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation," the Company would have reported the following amounts indicated below:

<i>Year ended December 31,</i>	<i>1998</i>	<i>1997</i>	<i>1996</i>
<i>Dollars in thousands, except share data</i>			
Net earnings (loss):			
As reported	\$(316,332)	\$(4,513)	\$103,388
Pro forma	(319,627)	(6,551)	101,820
Basic earnings (loss) per common share:			
As reported	(7.80)	(0.11)	2.50
Pro forma	(7.88)	(0.16)	2.46
Diluted earnings (loss) per common share:			
As reported	(7.80)	(0.11)	2.49
Pro forma	(7.88)	(0.16)	2.45

The fair value of options granted is estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions used for grants in 1998, 1997 and 1996, respectively: risk-free interest rate of 5.7%, 6.1% and 6.5%; expected life of six years for all periods; expected volatility of 51.4%, 44.8% and 36.4%; expected dividends of zero percent for all periods.

A summary of the Company's Plan activity with respect to stock options is presented below:

	<i>Shares</i>	<i>Weighted-Average Option Price</i>	<i>Weighted-Average Fair Value of Options Granted</i>
<i>Year ended December 31, 1998</i>			
Outstanding at beginning of year	1,024,292	\$24.92	
Granted	887,300	15.06	\$8.40
Exercised	—	—	
Canceled	(138,418)	23.31	
Outstanding at end of year	1,773,174	\$20.11	
Options exercisable at year-end	894,065	\$22.99	
<i>Year ended December 31, 1997</i>			
Outstanding at beginning of year	965,838	\$25.32	
Granted	177,352	22.56	\$11.94
Exercised	(12,298)	27.23	
Canceled	(106,600)	24.36	
Outstanding at end of year	1,024,292	\$24.92	
Options exercisable at year-end	516,674	\$24.77	
<i>Year ended December 31, 1996</i>			
Outstanding at beginning of year	914,694	\$24.00	
Granted	141,300	32.99	\$15.54
Exercised	(36,333)	24.00	
Canceled	(53,823)	24.00	
Outstanding at end of year	965,838	\$25.32	
Options exercisable at year-end	146,733	\$24.53	

Notes to Consolidated Financial Statements

A summary of information about non-qualified stock options outstanding at December 31, 1998 is presented below:

<i>Range of Exercise Prices</i>	<i>Options Outstanding</i>		
	<i>Number Outstanding at December 31, 1998</i>	<i>Weighted-Average Remaining Contractual Life</i>	<i>Weighted-Average Exercise Price</i>
\$24.00	618,424	6.5 years	\$24.00
\$32.63-49.50	126,900	7.0 years	32.81
\$22.50-29.00	157,750	8.0 years	22.57
\$3.13-15.25	870,100	9.0 years	15.05
\$3.13-49.50	1,773,174	7.9 years	\$20.11

<i>Range of Exercise Prices</i>	<i>Exercisable Options Outstanding</i>	
	<i>Number Exercisable at December 31, 1998</i>	<i>Weighted-Average Exercise Price</i>
\$24.00	537,781	\$24.00
\$32.63-49.50	87,300	32.78
\$22.50-29.00	85,584	22.58
\$3.13-15.25	183,400	15.25
\$3.13-49.50	894,065	\$22.99

12 • Earnings (Loss) Per Share

A reconciliation of the numerator and denominator of the earnings (loss) per share calculations is provided for all periods presented. The numerator for basic and diluted earnings (loss) per share is net earnings (loss) for all periods presented. The denominator for basic and diluted earnings (loss) per share for 1998, 1997 and 1996 follows:

<i>Year ended December 31,</i>	<i>1998</i>	<i>1997</i>	<i>1996</i>
Weighted-average shares used for basic earnings (loss) per share	40,580,869	41,345,193	41,308,806
Effect of dilutive securities:			
Restricted stock	—	—	74,579
Stock options	—	—	151,027
Weighted-average shares used for diluted earnings (loss) per share	40,580,869	41,345,193	41,534,412

Options outstanding at December 31, 1998, 1,773,174 shares, were not included in the computation of diluted loss per share during 1998, because they were antidilutive.

In January 1999, the Company granted options to purchase 647,600 shares of common stock at \$8.50 to \$10.50 per share. These options will expire in January 2008.

13 • Income Taxes

Earnings (loss) before income taxes, equity in income (loss) of joint ventures and minority interests are as follows:

<i>Year ended December 31,</i>	<i>1998</i>	<i>1997</i>	<i>1996</i>
<i>Dollars in thousands</i>			
U.S.	\$(349,573)	\$(59,702)	\$ 57,200
Foreign	(23,642)	49,372	72,655
	\$(373,215)	\$(10,330)	\$129,855

Income tax expense consists of the following:

	<i>Current</i>	<i>Deferred</i>	<i>Total</i>
<i>Dollars in thousands</i>			
<i>Year ended December 31, 1998:</i>			
U.S. federal	\$ 1,524	\$(103,435)	\$(101,911)
State and local	2,207	(4,534)	(2,327)
Foreign	4,790	10,054	14,844
	\$ 8,521	\$(97,915)	\$ (89,394)
<i>Year ended December 31, 1997:</i>			
U.S. federal	\$ (5,764)	\$(18,712)	\$(24,476)
State and local	(924)	(398)	(1,322)
Foreign	25,766	2,801	28,567
	\$ 19,078	\$(16,309)	\$ 2,769
<i>Year ended December 31, 1996:</i>			
U.S. federal	\$ 5,425	\$ 5,420	\$ 10,845
State and local	2,778	(133)	2,645
Foreign	33,756	4,696	38,452
	\$ 41,959	\$ 9,983	\$ 51,942

Income tax expense differed from the amounts computed by applying the U.S. federal income tax rate of 35% in 1998, 1997 and 1996 to earnings (loss) before income taxes, equity in income (loss) of joint ventures and minority interests as a result of the following:

<i>Year ended December 31,</i>	<i>1998</i>	<i>1997</i>	<i>1996</i>
<i>Dollars in thousands</i>			
Income tax at federal statutory rate	\$(130,625)	\$(3,616)	\$45,449
Increase (reduction) in income taxes resulting from:			
Change in the balance of the valuation allowance for deferred tax assets allocated to income tax expense	19,386	(4,738)	(3,200)
Foreign tax differences	15,310	13,511	12,323
State income taxes, net of federal benefit	(1,513)	(859)	1,719
Investment incentives	(600)	(916)	(1,809)
Malaysian joint venture charges	5,552	—	—
Other, net	3,096	(613)	(2,540)
	\$ (89,394)	\$ 2,769	\$51,942

Notes to Consolidated Financial Statements

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities are as follows:

<i>December 31,</i>	<i>1998</i>	<i>1997</i>
<i>Dollars in thousands</i>		
Deferred tax assets:		
Inventory, principally due to additional costs inventoried for tax purposes and/or financial reserves recorded to state inventories at net realizable values	\$ 7,427	\$ 5,584
Accruals for expenses currently not deductible for tax purposes	40,936	11,115
Pension, medical and other employee benefits, principally due to accrual for financial reporting purposes	37,433	31,838
Net operating loss carryforwards	160,640	14,175
Investment tax credit carryforwards	1,456	1,456
Alternative minimum tax credit carryforwards	3,427	3,737
Foreign tax credit carryforwards	—	21,407
Other	1,151	498
Total gross deferred tax assets	252,470	89,810
Less valuation allowance	(42,166)	(11,408)
Net deferred tax assets	210,304	78,402
Deferred tax liabilities:		
Property, plant and equipment, principally due to differences in depreciation and capitalized interest	(80,505)	(45,480)
Other	(2,020)	(4,244)
Total deferred tax liabilities	(82,525)	(49,724)
Net deferred tax assets	\$127,779	\$ 28,678

Net deferred tax assets were classified in the consolidated balance sheets as follows:

<i>December 31,</i>	<i>1998</i>	<i>1997</i>
<i>Dollars in thousands</i>		
Current deferred tax assets, net	\$ 23,129	\$13,206
Noncurrent deferred tax assets, net	104,650	15,472
	\$127,779	\$28,678

The Company's net deferred tax assets increased \$99.1 million to \$127.8 million at December 31, 1998. Management believes it is more likely than not that, with its projections of future taxable income and after consideration of the valuation allowance, the Company will generate sufficient taxable income to realize the benefits of the net deferred tax assets existing at December 31, 1998.

14 • Pension Plans and Other Retirement Benefits

In order to realize the net deferred tax assets existing at December 31, 1998, the Company will need to generate future taxable income of approximately \$353 million. The Company's net operating loss (NOL) carryforwards total \$410 million, of which \$7 million will expire in 2001; \$15 million will expire in 2002; \$32 million will expire in 2003; \$27 million will expire in 2012; and \$329 million will expire in 2018. There can be no assurance, however, that the Company will generate sufficient taxable income to realize the full benefit of the existing net deferred tax assets. The Company also has AMT credit carryforwards of \$3,427 and net investment tax credit carryforwards available of \$1,456. Utilization of \$7,053 of loss carryforwards and all of the investment tax credit carryforwards are subject to limitation under Internal Revenue Code Sections 382 and 383, respectively. Pursuant to these Internal Revenue Code sections, the amount of combined loss and tax credit carryforwards that may be utilized is limited to approximately \$2,000 per year. Under Internal Revenue Service regulations, the investment tax credit carryforwards are not permitted to reduce income tax expense until the year 2000.

The Company has a noncontributory defined benefit plan covering most U.S. employees. Benefits for this plan are based on years of service and qualifying compensation during the final years of employment. The Company complies with federal funding requirements.

The Company also has a nonqualified plan under the Employee Retirement Income Security Act of 1974, which provides benefits not otherwise payable under the above plan due to Internal Revenue Code restrictions. Eligibility for participation in this plan requires coverage under the above plan and other specific circumstances.

In addition, the Company sponsors a health care plan that provides postretirement medical benefits to full-time U.S. employees who meet minimum age and service requirements. The plan is contributory, with retiree contributions adjusted annually, and contains other cost-sharing features such as deductibles and coinsurance. The Company's policy is to fund the cost of medical benefits in amounts determined at the discretion of management.

In 1998, the Company changed the measurement date for the defined benefit plans from December 31 to September 30 to improve administrative efficiencies and the timeliness and accuracy of its financial reporting and planning process. The effect on retirement plan expense was not material to the consolidated financial statements.

Net periodic pension cost consists of the following:

<i>Year ended December 31,</i>	<i>Pension Plans</i>			<i>Health Care Plan</i>		
	<i>1998</i>	<i>1997</i>	<i>1996</i>	<i>1998</i>	<i>1997</i>	<i>1996</i>
<i>Dollars in thousands</i>						
Service cost	\$ 8,134	\$ 8,178	\$ 6,449	\$ 1,791	\$2,441	\$2,552
Interest cost	9,128	7,937	6,121	2,995	3,468	3,435
Expected return on plan assets	(7,219)	(6,189)	(5,316)	—	—	—
Amortization of service costs	501	576	68	(1,010)	(206)	—
Net actuarial loss/(gain)	818	562	443	47	(76)	3
Curtailement (gain) recognized	4,381	—	—	(148)	—	—
Cost of special termination benefits	—	1,067	—	1,023	—	—
Net periodic benefit cost	\$15,743	\$12,131	\$ 7,765	\$ 4,698	\$5,627	\$5,990

Notes to Consolidated Financial Statements

The following summarizes the change in benefit obligation, change in plan assets and funded status of the Company's plans:

	<i>Pension Plans</i>		<i>Health Care Plan</i>	
	<i>1998</i>	<i>1997</i>	<i>1998</i>	<i>1997</i>
<i>Dollars in thousands</i>				
Change in benefit obligation:				
Benefit obligation at January 1	\$134,408	\$104,246	\$ 38,751	\$ 51,057
Service cost	6,235	8,179	1,407	2,441
Interest cost	6,919	7,939	2,128	3,468
Amendments	140	8,685	—	(13,768)
Actuarial (gain)/loss	6,123	12,317	3,899	(3,673)
Benefits paid	(18,494)	(6,958)	(773)	(774)
Curtailments	2,144	—	6,138	—
Special termination benefits	—	—	1,023	—
Benefit obligation at December 31	137,475	134,408	52,573	38,751
Change in plan assets:				
Fair value of plan assets at January 1	94,707	75,155	—	—
Actual return on plan assets	6,744	14,846	—	—
Employer contributions	2,155	11,664	773	774
Benefits paid	(18,494)	(6,958)	(773)	(774)
Fair value of plan assets at December 31	85,112	94,707	—	—
Funded status	(52,363)	(39,701)	(52,573)	(38,751)
Unrecognized prior service cost	4,726	18,813	(8,495)	(14,484)
Unrecognized net actuarial (gain)/loss	20,511	7,324	2,596	(1,604)
Fourth quarter contribution	801	—	—	—
Accrued benefit cost	\$ (26,325)	\$(13,564)	\$(58,472)	\$(54,839)
Amounts recognized in statement of financial position:				
Accrued benefit liability	\$(31,396)	\$(13,860)	\$(58,472)	\$(54,839)
Fourth quarter contribution	801	—	—	—
Intangible asset	109	296	—	—
Accumulated other comprehensive income	4,161	—	—	—
Accrued pension expense	\$ (26,325)	\$(13,564)	\$(58,472)	\$(54,839)

Pension plan assets consist principally of insurance contracts, marketable securities including common stocks, bonds and interest-bearing deposits.

The projected benefit obligation, accumulated benefit obligation, and fair value of plan assets for pension plans with accumulated benefit obligations in excess of plan assets were \$137,475, \$109,865 and \$85,112, respectively, as of December 31, 1998, and \$8,457, \$7,698 and \$547, respectively, as of December 31, 1997.

The Company recognized the curtailments and the special termination benefits related to the closure of the Spartanburg facility and the voluntary severance program offered to employees during 1998.

The following is a table of the actuarial assumptions:

<i>Year ended December 31,</i>	<i>Pension Plans</i>		<i>Health Care Plan</i>	
	<i>1998</i>	<i>1997</i>	<i>1998</i>	<i>1997</i>
Weighted-average assumptions as of December 31				
Discount rate	6.75%	7.00%	6.75%	7.00%
Expected return on plan assets	8.00%	8.00%	N/A	N/A
Rate of compensation increase	4.50%	4.50%	4.50%	4.50%

For measurement purposes, a 6% annual rate of increase in the per capita cost of covered health care benefits was assumed for 1998. The rate was assumed to decrease gradually to 5% by the year 2001 and remain at that level thereafter.

Assumed health care cost trend rates have a significant effect on the amounts reported for health care plans. A one-percentage change in assumed health care cost trend would have the following effects:

	<i>One-Percentage- Point Increase</i>	<i>One-Percentage- Point Decrease</i>
<i>Dollars in thousands</i>		
Effect on total service and interest cost components	\$ 58	\$ (56)
Effect on postretirement benefit obligation	\$190	\$(186)

The Company has pension plans for its foreign subsidiaries. The aggregate pension expense and liability are not material to the consolidated financial statements.

15 • Retirement Savings Plan

The Company sponsors a defined contribution plan under Section 401(k) of the Internal Revenue Code covering all U.S. salaried and hourly employees with more than one year of service. Company contributions included in results of operations totaled \$4,012, \$4,138 and \$3,656 for 1998, 1997 and 1996, respectively.

16 • Commitments and Contingencies

The Company leases buildings, equipment and automobiles under operating leases. Rental expense under these leases was \$28,733, \$23,789 and \$17,262 in 1998, 1997 and 1996, respectively. Minimum aggregate future rental obligations under leases having remaining terms of one year or more at December 31, 1998, are as follows:

<i>Dollars in thousands</i>	
1999	\$22,603
2000	14,275
2001	4,188
2002	62
2003	—
Thereafter	—
	\$41,128

Notes to Consolidated Financial Statements

17 • Geographic Segments

The Company is engaged in one reportable segment—the design, manufacture and sale of electronic grade silicon wafers for the semiconductor industry.

Geographic financial information is as follows:

	<i>United States</i>	<i>Japan</i>	<i>Italy</i>	<i>Other Foreign Countries</i>	<i>Total</i>
<i>Dollars in thousands</i>					
Net sales to customers:					
<i>1998</i>	\$389,721	\$119,138	\$30,855	\$219,202	\$ 758,916
<i>1997</i>	497,601	153,897	25,784	309,391	986,673
<i>1996</i>	516,571	127,231	29,066	446,632	1,119,500
Long-lived assets:					
<i>1998</i>	\$901,940	\$221,701	\$131,436	\$114,849	\$1,369,926
<i>1997</i>	976,032	136,567	135,588	153,790	1,401,977
<i>1996</i>	821,029	111,196	132,299	136,811	1,201,335

Net sales are attributed to countries based on location of customer. Investments in joint ventures are presented based on the countries in which they are located.

18 • Unaudited Quarterly Financial Information

	<i>First Quarter</i>	<i>Second Quarter</i>	<i>Third Quarter</i>	<i>Fourth Quarter</i>
<i>Dollars in thousands, except share data</i>				
Net sales	\$235,243	\$202,153	\$167,685	\$153,835
Gross margin	23,768	(3,812)	(28,095)	(23,690)
Loss before equity in loss of joint ventures and minority interests	(20,497)	(143,705)	(57,897)	(61,722)
Equity in loss of joint ventures	(11,621)	(6,860)	(12,860)	(12,155)
Minority interests	1,280	1,920	5,807	1,978
Net loss	(30,838)	(148,645)	(64,950)	(71,899)
Basic loss per share	(0.75)	(3.67)	(1.60)	(1.78)
Diluted loss per share	(0.75)	(3.67)	(1.60)	(1.78)
Market price:				
High	19	16 ⁷/₁₆	10 ¹³/₁₆	12 ⁵/₈
Low	14 ¹/₂	9 ¹/₄	2 ¹⁵/₁₆	2 ¹⁵/₁₆
<i>1997</i>				
Net sales	\$222,284	\$245,780	\$260,026	\$258,583
Gross margin	28,069	30,832	36,170	29,688
Earnings (loss) before equity in income (loss) of joint ventures and minority interests	(1,337)	4,315	(111)	(15,966)
Equity in income (loss) of joint ventures	(1,891)	(1,205)	(3,737)	12,313
Minority interests	333	1,109	1,883	(219)
Net earnings (loss)	(2,895)	4,219	(1,965)	(3,872)
Basic earnings (loss) per share	(0.07)	0.10	(0.05)	(0.09)
Diluted earnings (loss) per share	(0.07)	0.10	(0.05)	(0.09)
Market price:				
High	29 ³ / ₄	38 ¹ / ₄	38 ⁷ / ₈	30
Low	22 ¹ / ₄	22 ⁷ / ₈	25 ⁵ / ₈	14 ⁷ / ₁₆

As noted in Note 19 below, the Company restated its results for all periods presented to reflect from inception the designation of the U.S. dollar as the functional currency for PHC and Taisil, the Company's unconsolidated joint ventures. Accordingly, the unaudited quarterly financial information presented above has also been restated.

19 • Restatement of Operating Results

The Company's financial statements for all periods presented have been restated to reflect from inception the designation of the U.S. dollar as the functional currency for PHC and Taisil, the Company's unconsolidated joint ventures. The effect of the restatement on each year is as follows:

<i>December 31,</i> <i>Dollars in thousands, except share data</i>	<i>1997</i>		<i>1996</i>	
	<i>As previously reported</i>	<i>As restated</i>	<i>As previously reported</i>	<i>As restated</i>
Consolidated Balance Sheet:				
Investment in joint ventures	\$ 95,307	\$112,573		
Retained earnings	164,396	168,496		
Accumulated other comprehensive loss	(38,887)	(25,721)		
Consolidated Statement of Operations:				
Equity in income of joint ventures	3,246	5,480	\$ 24,884	\$ 26,716
Net earnings (loss)	(6,747)	(4,513)	101,556	103,388
Basic earnings (loss) per share	(0.16)	(0.11)	2.46	2.50
Diluted earnings (loss) per share	(0.16)	(0.11)	2.45	2.49

20 • Subsequent Events — Private Placement and Rights Offering

On October 22, 1998, the Company filed a registration statement with the SEC for the sale of its common stock in a rights offering to existing stockholders except VEBA AG and its affiliates (the Offering). The Company expects approximately \$91.1 million in aggregate net proceeds from the Offering, after paying estimated expenses, including fees to dealer managers. Immediately prior to the Offering, the Company will sell common stock to VEBA Zweite for aggregate net proceeds of approximately \$105.9 million. VEBA Zweite has also agreed to purchase all shares issuable upon exercise of the rights that are not subscribed for pursuant to the basic subscription privilege or the over-subscription privilege by other stockholders, subject to certain conditions that are customary in a firm commitment underwriting. The subscription price and number of shares will be determined based on the average share price during a period shortly before the effective date of the registration statement. The Company intends to use the proceeds from the Offering and the private placement to reduce debt outstanding under revolving credit agreements and for general corporate purposes. The Company expects the registration to be effective and the Offering to commence by the end of the first quarter of 1999. The private placement to VEBA Zweite will be consummated immediately prior to commencement of the Offering.

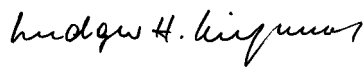
Subsequent to year-end, the Company received a \$75,000 short-term revolving credit facility from an affiliate of VEBA AG. The interest rate on the credit facility reflects interest rate spreads applicable to an average industrial borrower at a specified credit rating. Under the loan agreement, the Company cannot pledge any of its assets to secure additional financing.

The management of MEMC Electronic Materials, Inc. and its subsidiaries is responsible for the preparation, integrity and objectivity of the accompanying consolidated financial statements and related information. The statements have been prepared by the Company in accordance with generally accepted accounting principles and, in the judgment of management, present fairly the Company's financial position, results of operations and cash flows. These statements necessarily include amounts that are based on management's best estimates and judgments and give due consideration to materiality. Management also prepared the other information in the annual report and is responsible for its accuracy and consistency with the financial statements.

The Company's financial statements have been audited by KPMG LLP (KPMG), independent auditors who, in accordance with generally accepted auditing standards, express an opinion on the fairness of the financial statement presentation.

The Company maintains a system of internal controls designed to provide reasonable assurance that assets are safeguarded and that transactions are executed in accordance with management's authorization and recorded properly to permit the preparation of financial statements in accordance with generally accepted accounting principles. The Company maintains an internal auditing program that assesses the effectiveness of internal controls and recommends possible improvements. In addition, Company policy requires its employees to maintain the highest level of ethical standards in the conduct of the Company's business. As part of the audit of the Company's financial statements, KPMG has considered the system of internal controls, tested the system to the extent required by generally accepted auditing standards and provided management with internal control recommendations. Management believes that the system of internal controls is effective, and that an appropriate balance between the costs and benefits of such a system has been achieved.

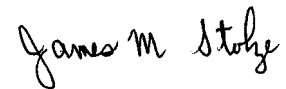
The Board of Directors pursues its responsibility for the Company's financial statements through its audit committee, which consists entirely of non-management Board members. The audit committee meets periodically with KPMG, management and the internal auditors. KPMG and the internal auditors have direct access to the Company's audit committee to discuss the scope and results of their audit work and adequacy of internal controls and the quality of financial reporting.



Ludger H. Viefhues
Chief Executive Officer



Klaus R. von Hörde
*President and
Chief Operating Officer*



James M. Stolze
*Executive Vice President
and Chief Financial Officer*

Independent Auditors' Report

The Board of Directors
MEMC Electronic Materials, Inc.:

We have audited the accompanying consolidated balance sheets of MEMC Electronic Materials, Inc. and subsidiaries as of December 31, 1998 and 1997, and the related consolidated statements of operations, stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 1998. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. 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 MEMC Electronic Materials, Inc. and subsidiaries as of December 31, 1998 and 1997, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 1998, in conformity with generally accepted accounting principles.

St. Louis, Missouri
January 25, 1999

KPMG LLP

Board of Directors

Helmut Mamsch
Chairman of the Board;
Member of the Board of Management —
VEBA AG (1)

Ludger H. Viefhues
Chief Executive Officer (2)

Klaus R. von Hörde
President and
Chief Operating Officer (2, 4)

Dr. Hans-Michael Gaul
Member of the Board of Management —
VEBA AG and Chief Financial Officer —
VEBA AG (1, 2)

Willem D. Maris
President and
Chief Executive Officer —
ASM Lithography (2, 3)

Dr. Alfred Oberholz
Deputy Member of the Board of
Management — Degussa-Hüls AG (1, 2)

Paul T. O'Brien
Executive Vice President,
General Counsel and Secretary —
Creanova Inc. (1, 4)

Ambassador Michael B. Smith
Vice Chairman —
Global USA, Inc. (1, 3, 4)

Committees

- (1) Compensation
- (2) Planning and Capital Expenditures
- (3) Audit
- (4) Environmental, Safety and Health

Officers

Ludger H. Viefhues
Chief Executive Officer

Klaus R. von Hörde
President and
Chief Operating Officer

James M. Stolze
Executive Vice President and
Chief Financial Officer

Marcel Coinne
Corporate Vice President
Customer Operations

Dr. John P. De Luca
Corporate Vice President
Technology

Helene F. Hennelly
Corporate Vice President,
General Counsel and Secretary

Jonathon P. Jansky
Corporate Vice President
Operations

Dr. Thomas Knothe
Corporate Vice President
Corporate Development

Paul V. Pastorek
Corporate Vice President
Product Management

James W. Wick
Corporate Vice President
Human Resources

Stockholder Information

Corporate Office

MEMC Electronic Materials, Inc.
501 Pearl Drive (City of O'Fallon)
St. Peters, Missouri 63376
(314) 279-5000

Transfer Agent and Registrar

Harris Trust & Savings Bank
311 West Monroe
P. O. Box A3504
Chicago, Illinois 60690
(312) 461-6001

Annual Meeting

All stockholders are invited to attend the annual meeting of MEMC Electronic Materials, Inc. at 10:00 a.m. central standard time on Thursday, May 6, 1999, at the Ritz-Carlton Hotel, 100 Carondelet Plaza, Clayton, Missouri 63105. Holders of common stock of record at the close of business on March 8, 1999, are entitled to vote at the meeting. A notice of the meeting, proxy statement and proxy were sent to stockholders with this Annual Report.

Stockholder Inquiries

Inquiries regarding address corrections, lost certificates, changes of registration, stock certificate holdings and other stockholder account matters should be directed to MEMC's transfer agent, Harris Trust & Savings Bank, at the address or phone number above.

Common Stock Listing

MEMC's common stock is traded on the New York Stock Exchange under the symbol "WFR". On December 31, 1998, the last business day of the year, the Company had 830 stockholders of record.

Form 10-K

Stockholders may obtain a copy of MEMC's Annual Report on Form 10-K and related financial statement schedule for the year ended December 31, 1998, filed with the Securities and Exchange Commission, by writing MEMC's Investor Relations Department or by calling (314) 279-5505.

Financial Information

MEMC maintains a home page on the Internet at www.memc.com where the Company publishes information, including earnings releases, other news releases, significant corporate disclosures and the names of securities analysts who issue research on the Company.

Independent Auditors

KPMG LLP
10 South Broadway, Suite 900
St. Louis, Missouri 63102

Investor Relations

Stockholders, securities analysts, investment professionals and prospective investors should direct their inquiries to:

MEMC Electronic Materials, Inc.
Investor Relations Department
501 Pearl Drive (City of O'Fallon)
St. Peters, Missouri 63376
Tel: (314) 279-5443
Fax: (314) 279-5162
E-mail: invest@memc.com

Manufacturing Facilities

Chonan, South Korea
Hsinchu, Taiwan
Kuala Lumpur, Malaysia
Merano, Italy
Novara, Italy
Pasadena, Texas
Sherman, Texas
St. Peters, Missouri
Utsunomiya, Japan



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(314) 279-5000 • www.memc.com