

EMC CORP  
Form 10-K405  
March 22, 2002

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**SECURITIES AND EXCHANGE COMMISSION**  
WASHINGTON, D.C. 20549

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**FORM 10-K**

**ANNUAL REPORT UNDER SECTION 13 OR 15(d)  
OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the Fiscal Year Ended: December 31, 2001**

**Commission File Number 1 9853**

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**EMC CORPORATION**

(Exact name of registrant as specified in its charter)

**Massachusetts**

**04 2680009**

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(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification Number)

**35 Parkwood Drive  
Hopkinton, Massachusetts 01748**  
(Address of principal executive offices, including area code)

**(508) 435-1000**  
(Registrant's telephone number, including area code)

**Securities registered pursuant to Section 12(b) of the Act:**  
**Title of Each Class:** **Name of Each Exchange on Which Registered:**

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Common Stock, par value \$.01 per share

New York Stock Exchange

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

None

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

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

The aggregate market value of voting stock held by nonaffiliates of the registrant was \$36,305,140,512 as of January 31, 2002.

The number of shares of the registrant's Common Stock, par value \$.01 per share, outstanding as of January 31, 2002 was 2,220,671,780.

**DOCUMENTS INCORPORATED BY REFERENCE**

Information required in response to Part III of Form 10-K (Items 10, 11, 12 and 13) is hereby incorporated by reference to the specified portions of the registrant's Proxy Statement for the Annual Meeting of Stockholders to be held on May 8, 2002.

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## FACTORS THAT MAY AFFECT FUTURE RESULTS

Our prospects are subject to certain uncertainties and risks. This Annual Report on Form 10-K also contains certain forward-looking statements within the meaning of the Federal securities laws. Our future results may differ materially from our current results and actual results could differ materially from those projected in the forward-looking statements as a result of certain risk factors. *Readers should pay particular attention to the considerations described in the section of this report entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations - Factors That May Affect Future Results."*

### PART I

#### ITEM 1. BUSINESS

##### General

EMC Corporation and its subsidiaries design, manufacture, market and support a wide range of storage platforms and software offerings, as well as related services, that enable our customers to store, manage, protect and share electronic information. Our goal is to enable customers to weave together heterogeneous storage systems, switches, hubs and servers into a simple, centrally-managed, information infrastructure, or what we call an E-Infostructure. EMC is the leading supplier of such products and services, which provide customers the ability to manage their information resources with the highest levels of simplicity, openness and automation.

We continue to focus on the growing trend toward networked information storage. Networked information storage involves connecting storage systems to servers via a networked environment. As the amount of information continues to grow, we expect that organizations will demand a dependable, adaptable and automated information infrastructure with both wide-scale network information access and easy to use, centralized management capabilities.

Our customers use a variety of the world's most popular computing platforms for key applications, including transaction processing, enterprise resource planning, customer relationship management, data warehousing, electronic commerce and web hosting. Our products and services help organizations consolidate, network and generate value from their electronic information across heterogeneous storage systems, switches, hubs, servers and software. We believe that our information storage products and services enable our customers to realize higher returns on information and achieve competitive advantages.

The customers for our products are located worldwide and represent a cross-section of industries and government agencies.

We were incorporated in Massachusetts in 1979 and our corporate headquarters are located at 35 Parkwood Drive, Hopkinton, Massachusetts.

##### Products and Offerings

We operate in the following segments: information storage products and information storage services, which are our principal segments, and other businesses. Information storage products are comprised of information storage systems and information storage software.

##### Information Storage Systems

###### *Symmetrix Systems*

We believe that our Symmetrix family of enterprise storage systems offers the highest levels of functionality, performance and availability in the information storage market. Our Symmetrix systems are based on a proven,

scalable architecture that enables us to deliver advanced technologies to market while maintaining a consistent platform upon which our customers can expand capacity, performance, connectivity and functionality. Our operating software for Symmetrix is Enginuity, which delivers advanced functionality in areas such as performance management, data integrity, system availability and information protection, replication and sharing within the Symmetrix environment.

Since the introduction of the first Symmetrix model in 1991, we have continued to enhance and increase the capabilities of the Symmetrix family of systems, including increasing the server and switch connectivity capabilities and adding advanced software functionality. In 2001, we introduced new models (Symmetrix 8230, 8530 and 8830). The new Symmetrix models include significant increases in performance, capacity and connectivity for open systems and mainframe environments. We believe that the new Symmetrix models are the world's highest performance and most functionally rich information storage systems.

We intend to continue to enhance and improve the Symmetrix family of systems with additional features and capabilities.

#### *CLARiiON Systems*

We believe that the CLARiiON family of enterprise storage systems, which is based on a modular design, delivers high levels of functionality, performance and availability. Our operating software for CLARiiON is FLARE, which provides capabilities for managing, protecting and replicating information while improving total system availability within the CLARiiON environment.

In 2001, we doubled the network bandwidth support for the CLARiiON FC4700 system, quadrupled storage area network (SAN) connectivity up to 64 servers on a single system and increased availability. We also expanded the network-attached storage (NAS) version of CLARiiON, the IP4700 system, with improved management flexibility and bandwidth increases. As a result of these enhancements, we increased the speed, connectivity and availability of the CLARiiON systems.

We intend to continue to enhance and improve the CLARiiON family of systems with additional features and capabilities.

#### *Celerra Systems*

The Celerra File Server is a powerful NAS system designed for demanding file serving environments that require high performance, high availability and maximum scalability. The Celerra File Server works in combination with a Symmetrix storage system and allows users of a local area network to store, access and update files in a central location. The Celerra File Server features EMC-developed hardware and software within a common enclosure and with a common management environment. Celerra Highroad software enables users to request data from a Celerra File Server over the network, while the data is delivered directly from a storage system to the user over a higher speed SAN. We believe that the Celerra File Server is the world's highest performance and most functionally rich NAS storage system.

In 2001, we completed integration of the Celerra File Server with software from the world's leading anti-virus software vendors.

We intend to continue to enhance and improve the Celerra family of systems with additional features and capabilities.

#### *Connectrix Systems*

The Connectrix family includes both high-end Connectrix directors as well as departmental switches. These systems significantly increase the connectivity between servers and storage systems in a SAN and provide the

ability to centralize monitoring and control of information in a SAN. In 2001, we introduced the industry's first specifications for interoperability among multi-vendor fibre channel switches. We also introduced a new line of 16- and 32-port Connectrix switches, 2-gigabit fibre channel support for Connectrix switches and a new high-end 64-port Connectrix director.

We believe that our Connectrix systems, combined with our storage systems with fibre channel connectivity, facilitate the implementation of networked storage infrastructures that handle the information storage requirements of even the largest, most complex organizations.

Our Connectrix family of directors and switches are manufactured in accordance with EMC specifications by certain third party original equipment manufacturers ( OEMs ).

We intend to continue to enhance and improve the Connectrix family of switches and directors with additional features and capabilities.

#### *Information Storage Systems Revenue*

Revenue from information storage systems (including Symmetrix, CLARiiON, Celerra and Connectrix products) represented approximately 61%, 70% and 68% of revenues in 2001, 2000 and 1999, respectively.

#### *Information Storage Software*

##### *Introduction*

We offer highly innovative software that provides customers with superior information management, sharing and protection capabilities. Our platform-based software generally controls and enables functions that take place within the EMC system, such as replication, optimization and data movement. Examples of such software include TimeFinder, Symmetrix Remote Data Facility (SRDF), SnapView, Mirror View and Optimizer. Our open software products perform configuration, resource management and reporting for EMC and third party storage systems. Examples of such software include PowerPath, EMC Control Center, ECC Replication Manager and ECC StorageScope. We also develop and offer a wide range of application programming interfaces (APIs) as well as underlying software technologies, such as WideSky, which are used to improve heterogeneous management of storage resources in a networked storage environment.

##### *Software Strategy AutoIS*

During 2001, we announced a significant new software strategy, AutoIS (Automated Information Storage), focused on the automation, simplification and openness of heterogeneous storage infrastructures. The fundamental components of the AutoIS strategy include:

ECC/Open Edition software, which enables customers to centralize the management of their entire storage infrastructure (including EMC and third party storage systems, networks and servers) in a single, unified and consistent manner.

EMC WideSky middleware software, which provides a layer between the applications and multi-vendor hardware and software components, in order to make functionality of such components available to the applications. WideSky helps to mask the underlying complexity of multiple vendors' products, including storage systems, network devices and servers. With WideSky, we and our partners will be able to create integrated storage management software products that address customers' entire heterogeneous storage environments.

Advanced storage applications, which are used to monitor, replicate and manage information in heterogeneous storage environments. Examples of storage applications introduced in 2001 include:

ECC Replication Manager, which automates procedures related to data replication; and

ECC StorageScope, which provides customers an enterprise-wide view of their EMC and certain third party storage systems as well as information regarding utilization of such systems.

#### *Application Programming Interfaces*

The EMC Developers Program makes many of our APIs available to third-party independent software vendors to facilitate the development and sale of software optimized to interoperate with our systems and software. Customers are then able to select from a wider range of software tools when deploying our systems and to more easily integrate our systems into their existing software environments. As of December 31, 2001, we had more than 90 partners utilizing APIs for our systems and selling more than 50 products with EMC-specific features or functions.

In 2001, we entered into an agreement with Compaq Computer Corporation to cross-license storage system APIs. Through our multi-year investments in interoperability testing capabilities, software APIs and cooperative service agreements, we believe that we lead the industry in defining and delivering open, dependable storage solutions for customers.

#### *Software Development Labs*

We support our software research and development efforts through a state-of-the art software development lab in Massachusetts and at other facilities, and, from time to time, through acquisitions of complementary businesses or products. In 2001, we acquired software companies FilePool N.V. (now known as EMC Belgian Development Group BVBA) and Luminate Software Corporation.

#### *Information Storage Software Revenue*

Revenues from information storage software represented approximately 22%, 16% and 12% of revenues in 2001, 2000 and 1999, respectively.

#### *Information Storage Services*

Our Global Services organization includes professional services, customer service and global technical training, to offer customers a full range of expertise before, during and after their purchase of an EMC solution. With a worldwide staff of approximately 6,000 professionals, EMC Global Services, together with our global authorized services partners, provide consulting, assessments, implementations, integration, operations management, day-to-day support and maintenance to our customers.

#### *Professional Services*

Our Professional Services organization provides the expertise and services customers need to maximize their return on information assets. Areas of focus include business continuity, data migration, networked storage and project management. Our consultants, technology experts and authorized services partners deliver to customers operational, financial and business impact analyses. They also design, integrate and implement information storage infrastructures.

#### *Customer Service*

Our Customer Service organization supports EMC information storage solutions at worldwide customer sites 24 hours a day, seven days a week, 365 days a year. This is delivered through a combination of remote and onsite service, direct through us and our global authorized services partners. Automated remote support features designed into our information storage systems enable customer service personnel to continuously monitor, diagnose and resolve issues, wherever the product is located, often without the need for onsite service. Other remote support capabilities are also provided on software products.

To ensure that customers with multi-vendor storage network environments receive the highest level of support and the fastest issue resolution possible, we have, as of December 31, 2001, entered into cooperative support agreements with more than 80 vendors, including hardware and software companies.

#### *Global Technical Training*

Our Global Technical Training organization delivers instruction on our technology, our products and storage management job functions as part of the EMC Proven Professional Certification program. Courses and the certification program are available to customers, prospects and partners. Multi-vendor certification training is also available to employees. Training is worldwide in scope and employs e-learning and geographically dispersed classrooms, labs and testing centers.

#### *Information Storage Services Revenue*

Revenue from information storage services represented approximately 14%, 7% and 5% of revenues in 2001, 2000 and 1999, respectively.

#### **Other Businesses**

Following our acquisition of Data General Corporation in 1999, we sold AViiON server products. In 2001, as part of our restructuring program, we stopped selling such products. We will, however, continue to support AViiON servers.

Revenue from other businesses represented approximately 4%, 7% and 14% of revenues in 2001, 2000 and 1999, respectively.

#### **Markets and Distribution Channels**

##### **Markets**

During 2001, we focused primarily on two major markets: Global 2000 companies and the mid-tier market. These markets are characterized by their requirements for large amounts of information storage capacity, network connectivity and the advanced functionality provided by our products. For both the Global 2000 and mid-tier markets, organizations are building E-Infrastructures that utilize Symmetrix, CLARiiON and Celerra as well as third party storage systems to meet their information storage requirements throughout the enterprise.

##### *Global 2000 Companies*

We sell to the Global 2000 companies, defined as the world's 2000 largest corporations. The Global 2000's computing requirements encompass multiple computer platforms, including mainframes, and those running UNIX-based, Microsoft Windows-based, Linux-based and other network operating systems. We believe that we are the leading supplier of information storage systems to the Global 2000.

##### *Mid-Tier Market*

The mid-tier market is comprised of mid-sized companies and business units, departments or locations within larger organizations. The mid-tier market's computing requirements encompass multiple computer platforms, including those running UNIX-based, Microsoft Windows-based, Linux-based and other network operating systems. We believe that we are a significant supplier of information storage systems to the mid-tier market.

### ***Distribution Channels***

We market our products through multiple distribution channels. We have a direct sales presence throughout North America, Latin America, Europe, the Middle East, South Africa and the Asia Pacific region. We also have agreements in place with many distributors, systems integrators, resellers and OEMs in certain areas of the world. These agreements, subject to certain terms and conditions, enable these companies to market and resell certain of our systems and software.

In October 2001, EMC entered into an agreement with Dell Computer Corporation pursuant to which Dell markets and resells our CLARiiON family of enterprise storage systems worldwide. The agreement expires in October 2006.

### **Alliances**

We have alliances with leading software, networking and services companies. We intend to continue to form additional strategic alliances. Our strategy is to work closely with these and other companies to provide added value to our customers by integrating our solutions with software and networking applications that customers rely on to manage their day-to-day business operations.

### **Manufacturing and Quality**

Our information storage systems are assembled and tested primarily at our facilities in Massachusetts, North Carolina and Ireland. See Properties. Product components are designed, assembled and tested in accordance with production standards and quality controls established by EMC.

Our software products are designed, developed and tested primarily at our facilities in Massachusetts, Virginia, California, North Carolina, Ireland and Belgium. The products are tested to meet quality standards established by EMC.

We employ a company-wide Total Quality Management and Continuous Improvement philosophy to ensure that the quality of our designs, manufacturing, test processes and supplier relationships follow the same methodologies. Our operations in Massachusetts, North Carolina and Ireland are ISO 9000 certified. We also hold 12 additional certifications worldwide covering ISO 9000, ISO 14000 Environmental Management Standard Certification and Support Center Practices (SCP) certification for our software customer support centers. These internationally recognized endorsements of ongoing quality management represent the highest levels of certifications available.

### **Raw Materials**

We purchase many sophisticated components and products from one or a limited number of qualified suppliers, including some of our competitors. Our products utilize industry standard and semi-custom components and subsystems. Among the most important components that we use are disk drives, high density memory components and power supplies. While such components are generally available, we have experienced delivery delays from time to time because of high industry demand or the inability of some vendors to consistently meet our quality or delivery requirements.

### **Research and Development**

We continually enhance our existing products and develop new products to meet changing customer requirements. In 2001, 2000 and 1999, our research and development expenses totaled \$928.7 million, \$783.2 million and \$572.5 million, respectively.



### **Backlog**

We manufacture our products on the basis of our forecast of near-term demand and maintain inventory in advance of receipt of firm orders from customers. We configure to customer specifications and generally ship products shortly after receipt of the order. Customers may reschedule or cancel orders with little or no penalty. For these reasons, we believe that our backlog at any particular time is not meaningful because it is not necessarily indicative of future sales levels.

### **Competition**

We compete with many established companies in the markets we serve. We believe that most of these companies compete based on their overall market presence and their ability to address customers' broad information technology requirements. Certain of these companies also compete by offering information storage products or services, together with other products or services, at minimal or no additional cost in order to preserve or gain market share. We also compete with many smaller, less established companies in specific product segments.

We believe that we have a number of competitive advantages over these companies, including product, distribution and service. We believe the advantages in our products include performance, functionality, scalability, availability, interoperability, connectivity, time to market enhancements and total value of ownership. We believe our advantages in distribution include the world's largest storage-focused direct sales force and our broad network of channel partners. We believe our advantages in service include our ability to provide our customers with a complete set of storage service solutions, encompassing both professional services and customer service for our information storage systems and software.

### **Seasonality**

Although we do not consider our business to be highly seasonal, we generally experience the greatest demand for our products and services in the second half of the year. In 2001, however, seasonality was strongly influenced by the global economic slow down as well as the terrorist attacks of September 11, 2001, which negatively impacted sales in the second half of 2001.

### **Intellectual Property**

We generally rely on patent, copyright, trademark and trade secret laws and contract rights to establish and maintain our proprietary rights in our technology and products. While our intellectual property rights are important to our success, we believe that our business as a whole is not materially dependent on any particular patent, trademark, license or other intellectual property right.

We have been granted or own by assignment approximately 600 patents issued by, and have over 500 patent applications pending with, the U.S. Patent and Trademark Office, as well as a corresponding number of international patents and patent applications. While the duration of our patents varies, we believe that the duration of our patents is adequate relative to the expected lives of our products.

We have used, registered or applied to register certain trademarks and copyrights in the United States and in other countries. We also license certain technology from third parties for use in our products and processes and license certain of our technology to third parties.

### **Employees**

As of December 31, 2001, we had approximately 20,100 employees worldwide. None of our domestic employees are represented by a labor union, and we have never suffered an interruption of business as a result of a labor dispute. We consider our relations with our employees to be good.

**Financial Information About Segments, Foreign and Domestic Operations and Export Sales**

We operate in three business segments: information storage products, information storage services and other businesses. Sales and marketing operations outside the United States are conducted through sales subsidiaries and branches located principally in Europe, Latin America and the Asia Pacific region. We have three primary manufacturing facilities: one in Massachusetts, which manufactures Symmetrix and Celerra systems for the North American markets; one in North Carolina, which manufactures CLARiON systems for worldwide markets; and one in Ireland, which principally manufactures Symmetrix and Celerra systems for the rest of the world. See Note P to our Consolidated Financial Statements.

**ITEM 2. PROPERTIES**

As of December 31, 2001, we owned or leased the facilities described below:

Location	Approximate Sq. Ft.	Principal Use
Hopkinton, MA	owned: 1,438,000 leased: 299,900	executive and administrative offices, research and development, customer service and sales
Milford, MA	owned: 53,200 leased: 353,000	customer service and research and development
Franklin, MA	owned: 938,600 leased: 97,000	manufacturing
Westboro, MA	owned: 285,700 leased: 617,800	research and development, sales and administrative offices
Southboro, MA	owned: 551,800	research and development and customer service
Apex, NC	owned: 387,900	manufacturing
Research Triangle Park, NC	owned: 170,900	research and development and customer service
Other North American locations	leased: 1,389,200	sales and customer service
Latin American region	leased: 78,900	sales and customer service
Cork, Ireland	owned: 486,100 leased: 34,900	manufacturing and customer service
Europe, Middle East and Africa (excluding Cork, Ireland)	leased: 856,800	sales and customer service
Asia Pacific region	leased: 394,800	sales and customer service

We also own approximately 450,000 square feet of building space in Hopkinton, Massachusetts and approximately 89,500 square feet of space in Cork, Ireland under various stages of construction for research and development and customer service use. We also own land in Massachusetts and Ireland for possible future expansion purposes. We believe our existing facilities as well as our facilities under construction are suitable and adequate for our present purposes.

As part of our restructuring program implemented during the quarter ended September 30, 2001, we began to consolidate space worldwide, and we are actively trying to sell, lease or sublease certain facilities. For further information regarding our lease obligations, see Note L to our Consolidated Financial Statements.

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The portion of our business utilizing our manufacturing facilities is reported in our information storage products segment. Substantially all segments of our business jointly utilize our other facilities.

**ITEM 3. LEGAL PROCEEDINGS**

We are a party to litigation which we consider routine and incidental to our business. Our management does not expect the results of any of these actions to have a material adverse effect on our business, results of operations or financial condition.

**ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS**

No matter was submitted to a vote of our stockholders during the fourth quarter of 2001.

**EXECUTIVE OFFICERS OF THE REGISTRANT**

Our executive officers are as follows:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Michael C. Ruetters	59	Executive Chairman of the Board of Directors
Joseph M. Tucci	54	President, Chief Executive Officer and Director
David A. Donatelli	36	Executive Vice President, Storage Platforms Operations
Frank M. Hauck	42	Executive Vice President, Customer Operations
Erez Ofer	39	Executive Vice President, Open Software Operations
William J. Teuber, Jr.	50	Executive Vice President and Chief Financial Officer
Paul T. Dacier	44	Senior Vice President and General Counsel

Michael C. Ruetters has been our Executive Chairman of the Board of Directors since January 2001. Mr. Ruetters served as our Chief Executive Officer from January 1992 to January 2001 and has been a Director since May 1992. He also served as our President from October 1989 to January 2000, as Chief Operating Officer from October 1989 to January 1992, and as Executive Vice President, Operations, from July 1988 to October 1989. Mr. Ruetters is also a director of Raytheon Company, a global technology and electronics company, and PerkinElmer, Inc., a diversified technology company.

Joseph M. Tucci has been our Chief Executive Officer and a Director since January 2001 and has served as our President since January 2000. He also served as Chief Operating Officer from January 2000 to January 2001. Prior to joining EMC, Mr. Tucci served as Deputy Chief Executive Officer of Getronics N.V., an information technology services company, from June 1999 through December 1999 and as Chairman of the Board and Chief Executive Officer of Wang Global, an information technology services company, from December 1993 to June 1999. Getronics acquired Wang Global in June 1999. Mr. Tucci joined Wang Global in 1990 as its Executive Vice President, Operations. Mr. Tucci is also a director of Paychex, Inc., a provider of payroll, human resources and benefits outsourcing solutions.

David A. Donatelli has been our Executive Vice President, Storage Platforms Operations, since November 2001. Mr. Donatelli served as Senior Vice President, Corporate Marketing and New Business Development, from April 2001 to November 2001, Senior Vice President, New Business Development, from February 2000 to April 2001 and as Vice President, New Business Development, from April 1999 to February 2000. He has also held a number of other executive positions since he joined EMC in 1987, including serving most recently as Vice President, General Manager of our EDM business from September 1996 to April 1999 and as Vice President of Global Alliances from February 1996 to November 1998.

Frank M. Hauck has been our Executive Vice President, Customer Operations, since November 2001. Mr. Hauck served as Executive Vice President, Global Sales and Services, from April 2001 to November 2001 and as Executive Vice President, Products and Offerings, from June 2000 to April 2001. He served as Senior Vice President and Chief Information Officer from January 2000 to June 2000, as Senior Vice President, Business Integration, from July 1999 to January 2000, and as Senior Vice President, Customer Service, from November 1997 to July 1999. Mr. Hauck has also held a number of other executive positions since he joined EMC in 1990.

Erez Ofer has been our Executive Vice President, Open Software Operations, since November 2001. Mr. Ofer served as Senior Vice President and Chief Software Architect from June 2000 to November 2001 and as Vice President, Open Systems Development, from September 1998 to June 2000. He also served as Principal Design Engineer from 1995 to September 1998. Mr. Ofer has also held a number of other engineering positions since he joined EMC in 1993.

William J. Teuber, Jr. has been our Executive Vice President and Chief Financial Officer since November 2001. Mr. Teuber served as Senior Vice President and Chief Financial Officer from February 2000 to November 2001. Mr. Teuber served as Vice President and Chief Financial Officer from February 1997 to February 2000. He also served as Vice President and Controller from August 1995 to February 1997.

Paul T. Dacier has been our Senior Vice President and General Counsel since February 2000. Mr. Dacier served as Vice President and General Counsel from February 1993 to February 2000 and as General Counsel of EMC from March 1990 to February 1993.

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Our President is elected annually to serve until the first meeting of the Board of Directors following the next annual meeting of stockholders and until such person's successor is elected and qualified.

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EMC<sup>2</sup>, EMC, AutoIS, Celerra, CLARiiON, Connectrix, EDM, E-Infostructure, EMC Control Center, EMC Developers Program, EMC Proven, Engenuity, Enterprise Storage Network, ESN, ESN Manager, FLARE, High Road, InfoMover, Mirror View, Navisphere, Optimizer, PowerPath, Snapview, SRDF, StorageScope, Symmetrix, TimeFinder and WideSky are either registered trademarks or trademarks of EMC Corporation. Other trademarks and logos are either registered trademarks or trademarks of their respective owners.

**PART II****ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS**

Our common stock, par value \$.01 per share, began trading on the over-the-counter market on April 4, 1986 under the NASDAQ symbol EMCS. On March 22, 1988, our common stock began trading on the New York Stock Exchange under the symbol EMC.

During the last five years, the following stock splits have been effected in the form of a stock dividend:

a two-for-one stock split effective November 17, 1997, for stockholders of record on October 31, 1997;

a two-for-one stock split effective May 28, 1999, for stockholders of record on May 14, 1999;  
and

a two-for-one stock split effective June 2, 2000, for stockholders of record on May 19, 2000.

The following table sets forth the range of high and low sales prices of our common stock on the New York Stock Exchange for the past two years during the fiscal periods shown, adjusted to reflect the effects of the above stock splits.

Fiscal 2001	High	Low
First Quarter	\$ 81.75	\$ 28.15
Second Quarter	45.90	25.10
Third Quarter	31.95	10.30
Fourth Quarter	18.50	10.66
Fiscal 2000	High	Low
First Quarter	\$ 71.63	\$ 48.00
Second Quarter	83.50	53.50
Third Quarter	103.25	74.50
Fourth Quarter	100.00	55.63

We had 16,678 holders of record of our common stock as of February 28, 2002.

We have never paid cash dividends on our common stock. While subject to periodic review, the current policy of our Board of Directors is to retain all cash and investments primarily to provide funds for our future growth.

**ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA****FIVE YEAR SELECTED CONSOLIDATED FINANCIAL DATA(1)****EMC Corporation**  
**(in thousands, except per share amounts)**

Year Ended December 31,

	2001	2000	1999	1998	1997
<b>Summary of Operations:</b>					
Revenue	\$ 7,090,633	\$ 8,872,816	\$ 6,715,610	\$ 5,436,158	\$ 4,487,851
Operating income (loss) (2)	(697,841)	2,256,903	1,241,094	834,267	716,958
Net income (loss) (2)	(507,712)	1,782,075	1,010,570	653,978	587,511
Net income (loss) per weighted average share, basic (2) (3)	\$ (0.23)	\$ 0.82	\$ 0.49	\$ 0.32	\$ 0.29
Net income (loss) per weighted average share, diluted (2) (3)	\$ (0.23)	\$ 0.79	\$ 0.46	\$ 0.30	\$ 0.28
Weighted average shares, basic (3)	2,211,273	2,164,180	2,061,101	2,030,742	2,002,032
Weighted average shares, diluted (3)	2,211,273	2,245,203	2,219,065	2,188,430	2,130,969
<b>Balance Sheet Data (4):</b>					
Working capital	\$ 2,743,828	\$ 3,986,404	\$ 2,922,481	\$ 2,825,000	\$ 2,581,640
Total assets	9,889,635	10,537,799	7,064,701	5,600,459	4,588,117
Long-term obligations (5)	17,202	14,457	686,609	751,646	771,204
Stockholders' equity	\$ 7,600,820	\$ 8,177,209	\$ 4,951,786	\$ 3,728,990	\$ 2,900,941

- (1) The selected consolidated financial data for all periods presented include the effects of the acquisition of Data General Corporation on October 12, 1999, which was accounted for as a pooling-of-interests. See Note B to our Consolidated Financial Statements.
- (2) In 2001, we incurred restructuring costs and other special charges totaling approximately \$825,000 pre-tax (\$675,000 after-tax). The pre-tax amounts consist of \$719,000 included in operating loss and \$106,000 included in other income (expense), net. In 1999, we incurred restructuring, merger and other special charges totaling approximately \$224,000 pre-tax (\$170,000 after-tax). All pre-tax amounts were included in operating income. In 1998, we incurred restructuring, merger and other special charges totaling approximately \$135,000 (pre and after-tax), all of which were included in operating income. See Note C to our Consolidated Financial Statements.
- (3) All share and per share amounts have been restated to reflect the stock splits effective November 17, 1997, May 28, 1999 and June 2, 2000 for all periods presented.
- (4) Certain prior year amounts have been reclassified to conform to the 2001 presentation.
- (5) Includes long-term debt and capital leases, excluding current portion.

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

This Management's Discussion and Analysis of Financial Condition and Results of Operations ( MD&A ) should be read in conjunction with our consolidated financial statements and notes thereto which appear elsewhere in this Annual Report on Form 10-K. The following discussion contains forward-looking statements and should also be read in conjunction with FACTORS THAT MAY AFFECT FUTURE RESULTS beginning on page 23.

**All dollar amounts in this MD&A are in millions, except per share amounts.**

The following table presents certain consolidated statement of operations information stated as a percentage of total revenues. Certain columns may not add due to rounding.

	Year Ended December 31,		
	2001	2000	1999
<b>Revenues</b>			
Information storage systems	60.7%	70.4%	68.0%
Information storage software	22.0	16.2	12.2
Information storage services	13.7	6.9	5.4
<b>Total information storage revenue</b>	<b>96.5</b>	<b>93.5</b>	<b>85.6</b>
Other businesses	3.5	6.5	14.4
<b>Total revenue</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Cost and expenses</b>			
Cost of sales	59.9%	42.1%	48.5%
Research and development	13.1	8.8	8.5
Selling, general and administrative	31.2	23.7	21.4
Restructuring, merger and special charges	5.6		3.1
<b>Operating income (loss)</b>	<b>(9.8)</b>	<b>25.4</b>	<b>18.5</b>
Investment income, interest expense and other income (expense), net	1.7	2.1	1.7
<b>Income (loss) before income taxes</b>	<b>(8.1)</b>	<b>27.5</b>	<b>20.2</b>
Provision (benefit) for income taxes	(0.9)	7.4	5.2
<b>Net income (loss)</b>	<b>(7.2)%</b>	<b>20.1%</b>	<b>15.0%</b>

**Revenues**

Total revenues were \$7,090.6, \$8,872.8 and \$6,715.6 in 2001, 2000 and 1999, respectively, representing a decrease of \$1,782.2, or 20%, from 2000 to 2001 and an increase of \$2,157.2, or 32%, from 1999 to 2000.

Information storage systems revenues were \$4,307.2, \$6,245.8 and \$4,565.0 in 2001, 2000 and 1999, respectively, representing a decrease of \$1,938.6, or 31%, from 2000 to 2001, and an increase of \$1,680.8, or 37%, from 1999 to 2000. The decrease in 2001 compared to 2000 was primarily due to declining sales volume. Sales were negatively influenced by the global economic slowdown experienced during 2001, further exacerbated by the terrorist attacks of September 11, 2001, which led to a reduction in information technology spending. Competitive pricing pressures also had an adverse effect on revenues. Continued adverse changes in the economy, further reductions in information technology spending or continued pricing pressures may negatively impact revenues in 2002. The increase in revenues in 2000 compared to 1999 was primarily due to



increased sales volume resulting from the continued demand for our Symmetrix and CLARiiON products and the successful introduction of new products within those existing product lines.

Information storage software revenues were \$1,560.0, \$1,435.1 and \$821.7 in 2001, 2000 and 1999, respectively, representing increases of \$124.9, or 9%, from 2000 to 2001, and \$613.4, or 75%, from 1999 to 2000. The increases were primarily due to increased licenses of information storage software on both newly shipped and already installed systems and the successful introduction of new and enhanced software products.

Information storage services revenues were \$972.3, \$612.1 and \$361.8 in 2001, 2000 and 1999, respectively, representing increases of \$360.2, or 59%, from 2000 to 2001, and \$250.3, or 69%, from 1999 to 2000. The increases were primarily due to an increased number of professional services contracts and an increased number of maintenance contracts for information storage systems and software.

Total information storage revenues were \$6,839.5, \$8,293.0 and \$5,748.5 in 2001, 2000 and 1999, respectively, representing a decrease of \$1,453.5, or 18%, from 2000 to 2001, and an increase of \$2,544.5, or 44%, from 1999 to 2000.

Other businesses revenues were \$251.1, \$579.8 and \$967.1 in 2001, 2000 and 1999, respectively, representing a decrease of \$328.7, or 57%, from 2000 to 2001, and a decrease of \$387.3, or 40%, from 1999 to 2000. Other businesses revenues consist of revenues from AViiON server products and related services. The decreases in other businesses revenues were due to refocusing efforts on lines of business within the storage segments. In the third quarter of 2001, we stopped selling the AViiON server products. Accordingly, in the fourth quarter of 2001 and thereafter, other businesses revenues are and will be comprised only of AViiON services revenues. These revenues are expected to decline in 2002.

Revenues on sales into the North American markets were \$4,185.4, \$5,436.2 and \$4,257.1 in 2001, 2000 and 1999, respectively, representing a decrease of \$1,250.8, or 23%, from 2000 to 2001, and an increase of \$1,179.1, or 28%, from 1999 to 2000. Revenues on sales into the European, Middle East and African markets were \$1,774.9, \$2,351.8 and \$1,844.3 in 2001, 2000 and 1999, respectively, representing a decrease of \$576.9, or 25%, from 2000 to 2001, and an increase of \$507.5, or 28%, from 1999 to 2000. Revenues on sales into the Asia Pacific markets were \$893.4, \$880.1 and \$439.0 in 2001, 2000 and 1999, respectively, representing increases of \$13.3, or 2%, from 2000 to 2001 and \$441.1, or 100%, from 1999 to 2000. Revenues on sales into the Latin American markets were \$237.0, \$204.7 and \$175.2 in 2001, 2000 and 1999, respectively, representing increases of \$32.3, or 16%, from 2000 to 2001, and \$29.5, or 17%, from 1999 to 2000.

The decline in revenues in 2001 compared to 2000 in the North American markets and the European, Middle East and African markets was attributable to the global economic slow down, the impact of the terrorist attacks of September 11, 2001 and price reductions. The increase in revenues in 2001 compared to 2000 in the Asia Pacific and the Latin American markets resulted from our efforts to expand our sales infrastructure throughout the world to meet demand for information storage products and services. While revenues increased in these markets, the increases were lower than anticipated due to the aforementioned factors affecting the other regions. The increase in revenues in all markets in 2000 compared to 1999 was attributable to increases in sales volume resulting from the worldwide increase in demand for information storage products and services.

Changes in exchange rates in 2001 compared to 2000 negatively impacted revenues by approximately 3%. The impact was most significant in Japan, Brazil and Germany. Changes in exchange rates in 2000 compared to 1999 negatively impacted revenue by approximately 2%. The impact was most significant in Germany, Japan, France, Belgium and the United Kingdom.

#### **Gross Margins**

Gross margin dollars decreased to \$2,843.6 in 2001 from \$5,143.1 in 2000, a decrease of \$2,299.5, or 45%. The 2001 amount reflects a charge of \$320.1 for excess and obsolete inventory and impaired capitalized

software. Excluding this charge, gross margin dollars decreased to \$3,163.7, a decrease of \$1,979.4, or 38%. The decline in gross margin dollars in 2001 was primarily attributable to a reduction in revenues resulting from a reduction in both the volume of systems shipped and the average selling price of such systems. The overall gross margin percentage, excluding the charge, decreased to 44.6% in 2001 compared to 58.0% in 2000. Gross margin dollars increased to \$5,143.1 in 2000 from \$3,457.4 in 1999, an increase of \$1,685.7, or 49%. The increase in gross margin dollars in 2000 was primarily attributable to an increase in revenues. The overall gross margin percentage increased to 58.0% in 2000 compared to 51.5% in 1999.

In the third quarter of 2001, due to the decline in demand for information storage products and our development of new technologies, we evaluated our inventory and determined that \$310.0 was not recoverable. In addition, we discontinued selling certain information storage software products, resulting in the write-off of \$10.1 of unamortized capitalized software.

Excluding the charge, the gross margin on information storage products decreased to 46.0% in 2001 compared to 61.4% in 2000. The decrease was primarily attributable to lower sales volume resulting in the absorption of fixed overhead costs over a lower revenue base. In addition, reduced sales prices associated with competitive pricing negatively impacted margins, partially offset by information storage software revenues, which as a percentage of total revenues, increased to 22% in 2001, compared to 16% in 2000. Information storage software has a higher gross margin than information storage systems. Should we experience further reductions in sales volumes or continued pricing pressures in 2002, gross margins may be further negatively impacted.

Gross margins for information storage products increased to 61.4% in 2000 compared to 56.3% in 1999. The increase was primarily attributable to increased licensing of our information storage software products. Information storage software revenues, as a percentage of total revenues, increased to 16% in 2000 from 12% in 1999. Gross margins were also affected by component cost declines, which were greater than product price declines.

Gross margins for information storage services increased to 38.4% in 2001 compared to 33.8% in 2000 and 26.1% in 1999. The increases in the gross margin percentages were attributable to greater productivity of our customer service and professional services personnel.

Gross margins for other businesses decreased to 36.8% in 2001 compared to 37.8% in 2000 and 34.0% in 1999. Our decision to stop selling the AViiON server product in the third quarter of 2001 contributed to the decline in gross margins in 2001. The increase in gross margin percentage in 2000 compared to 1999 reflects our efforts to refocus the business on our most profitable products and services.

### **Research and Development**

Research and development ( R&D ) expenses were \$928.7, \$783.2 and \$572.5 in 2001, 2000 and 1999, respectively. R&D expenses increased 19% in 2001 compared to 2000, and increased 37% in 2000 compared to 1999. As a percentage of revenues, R&D expenses were 13.1%, 8.8% and 8.5% in 2001, 2000 and 1999, respectively. In addition, we spent \$120.7, \$102.8 and \$88.2 in 2001, 2000 and 1999, respectively, on software development, which costs were capitalized. The increase in R&D spending from 2000 to 2001 and 1999 to 2000 reflects our efforts to continue to improve our long-term competitive position. These efforts include enhancements to information storage software and information storage systems, including networked information storage systems. Significant efforts underway in 2001 and expected to continue through 2002 include R&D associated with our new software strategy, AutoIS, as well as enhancements to both our Symmetrix and CLARiiON systems. We will continue with our R&D efforts; however, the overall level of spending is expected to be lower in 2002 compared to 2001.

### **Selling, General and Administrative**

Selling, general and administrative ( SG&A ) expenses were \$2,214.2, \$2,103.0 and \$1,435.5 in 2001, 2000 and 1999, respectively. SG&A expenses increased 5% in 2001 compared to 2000 and increased 46% in 2000 compared to 1999. As a percentage of revenues, SG&A expenses were 31.2%, 23.7% and 21.4% in 2001, 2000 and 1999, respectively. The increase in spending in 2000 compared to 1999 was primarily due to efforts to expand sales and build an infrastructure to support an increased revenue base. The increase in SG&A in 2001 compared to 2000 was also due to efforts to expand sales, partially offset by reductions implemented in the second half of 2001 to achieve a cost structure commensurate with reduced revenue levels.

### **Restructuring, Merger and Other Special Charges**

#### ***2001 Restructuring Program***

##### *General*

As a result of the decline in general economic and business conditions in 2001, we implemented several workforce reductions. Additionally, in the third quarter of 2001, we implemented a restructuring program to reduce our cost structure and focus our resources on the highest potential growth areas of our business. We also recorded a provision for excess and obsolete inventory and recognized an other than temporary decline in certain of our equity investments. As a result, in the third quarter of 2001, we incurred an aggregate pre-tax charge of \$825.2 for restructuring costs and other special charges that included the following components:

##### *Worldwide Reduction in Force*

Our third quarter 2001 restructuring program included a reduction in force of approximately 4,000 employees across all business functions and geographic regions. Approximately 62% of such employees are or were based in North America and the remainder are or were based in Europe, Latin America and the Asia Pacific region. The workforce reduction resulted in a pre-tax charge of \$111.5 for termination benefits. As of December 31, 2001, approximately 2,750 employees had been terminated with the remainder expected to be terminated by the end of the second quarter of 2002. Additionally, as a result of the sale of an information storage services business, we reduced our workforce by an additional 426 employees in the fourth quarter of 2001.

##### *Impairment of Goodwill, Purchased Intangibles and Other Long-Lived Assets*

The restructuring program included terminating the sale of AViiON servers, exiting certain aspects of the media solutions business and certain aspects of the information storage services business and discontinuing the sale of certain software products. As a result, a pre-tax charge of \$104.5 related to the impairment of goodwill, purchased intangibles and other long-lived assets was taken. The impairment charge is equal to the amount by which the assets carrying amount exceeded the present value of their estimated discounted future cash flows. Additionally, a pre-tax charge of \$34.5 was taken to recognize the cost of related and other contractual obligations for which we will no longer derive an economic benefit.

##### *Consolidation of Excess Facilities and Other Special Charges*

The restructuring program included a pre-tax charge of \$158.1 for the consolidation of space within our corporate headquarters and nearby facilities and elimination of excess field office space worldwide. Included in the charge is \$110.1 for lease terminations and estimated losses on subleases and \$48.0 for non-recoverable investments in buildings and leasehold improvements.

A summary of the restructuring cost is outlined as follows:

	<u>Provision</u>	<u>Adjustments to the provision</u>	<u>Current year utilization</u>	<u>Ending balance</u>
Workforce reduction	\$ 111.5	\$ (18.3)	\$ (45.0)	\$ 48.2
Impairment of goodwill, purchased intangibles and other long-lived assets and related and other contractual obligations	139.0	(8.0)	(107.3)	23.7
Consolidation of excess facilities	158.1	26.3	(57.0)	127.4
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
<b>Total</b>	<b>\$ 408.6</b>	<b>\$</b>	<b>\$ (209.3)</b>	<b>\$ 199.3</b>
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>

The adjustment to the provision for the workforce reduction primarily relates to voluntary employee resignations. The adjustment to the provision for the impairment of goodwill, purchased intangibles and other long-lived assets and related and other contractual obligations represents a favorable settlement of an estimated liability for the closure of an information storage services business. The adjustment for the consolidation of excess facilities primarily relates to additional leased facilities being vacated.

#### *Provision for Excess and Obsolete Inventory*

We recorded a \$310.0 pre-tax provision for excess and obsolete inventory. Due to the decline in demand for information storage products and our development of new technologies, we evaluated our inventory and determined that \$310.0 was not recoverable. As of December 31, 2001, we had charged \$54.5 against the reserve, leaving a balance of \$255.5.

#### *Other than Temporary Investment Declines*

We recorded a pre-tax charge of \$106.6 for other than temporary declines in equity investments. These investments are in privately-held companies, primarily in the storage industry, many of which are in the start-up or development stage. These investments are carried at cost, subject to adjustment for impairment. Due to the continued global economic slow down in 2001, as well as the downturn in the storage industry, we determined that the decline in these investments was other than temporary and recognized an impairment loss.

The classification of the restructuring costs and other special charges in the statement of operations consists of \$398.5 contained within restructuring, merger and other special charges, \$320.1 contained in cost of product sales, consisting of \$310.0 of excess and obsolete inventory and \$10.1 of impaired capitalized software, and \$106.6 contained in other income (expense), net.

The restructuring program is expected to be substantially completed by June 30, 2002, although our ability to sell and sublet facilities is subject to appropriate market conditions. The expected cash impact of the charge is \$254.7, of which \$55.4 was paid in 2001. Remaining cash expenditures relating to workforce reductions and contractual obligations are expected to be substantially paid by the end of 2002. Amounts relating to the consolidation of facilities will be paid over the respective lease terms through 2015. We expect to reduce costs in all areas of our operations as a result of the restructuring program, favorably impacting cost of sales, SG&A expenses and R&D expenses. Once fully implemented, the restructuring program, together with the second quarter 2001 reduction in force of approximately 1,100 people, is expected to reduce costs by approximately \$800.0 per year.

#### ***1999 Restructuring Program***

During 1999, we recorded a charge of \$223.6 related to restructuring, merger and other special charges primarily associated with the acquisition of Data General. The restructuring provided for the consolidation of our

operations and elimination of duplicative facilities worldwide. Accordingly, we recognized \$170.6 related to employee termination benefits, facility closure costs, asset disposals and other exit costs. The restructuring included a reduction of the workforce by approximately 1,100 employees, of which approximately 500 were terminated in 1999 and approximately 600 were terminated in 2000. The charge also includes merger costs of \$23.5 for financial advisory services, legal, accounting and other direct expenses related to the Data General acquisition. In addition, we recorded a \$14.1 charge related to asset impairments and \$15.4 for capitalized software and inventory write-downs. The expected cash impact of the charge is \$164.1, of which \$72.7 was paid in 1999, \$61.1 was paid in 2000 and \$6.4 was paid in 2001. The remaining obligations relate to executive severance that continues through 2005.

The classification of the charges in the statement of operations consists of \$208.2 contained within restructuring, merger and other special charges and \$15.4 contained in cost of product sales.

**1998 Restructuring Program**

In 1998, we recorded a charge of \$135.0 related to a Data General restructuring program and certain asset write-downs resulting from the program. The charge included \$82.4 related to employee termination benefits, asset write-downs and other exit costs and \$52.6 for capitalized software and inventory write-downs. The expected cash impact of the restructuring charge is \$58.5, of which \$24.4 was paid in 1998, \$21.6 was paid in 1999, \$3.0 was paid in 2000 and \$0.4 was paid in 2001. The remaining obligations relate to lease payments that continue through 2015.

The restructuring included a reduction of the workforce by approximately 480 employees, of which 400 were terminated in 1998 and 80 were terminated in 1999.

The amounts accrued and charged against the established provisions for the 1999 and 1998 restructuring programs for each of the three years ended December 31, is as follows:

	<u>Beginning balance</u>	<u>Current year provision</u>	<u>Current year utilization</u>	<u>Ending balance</u>
<b>2001</b>				
Workforce reduction	\$ 23.4	\$	\$ (4.1)	\$ 19.3
Asset disposal and other exit costs	2.8		(2.8)	
Consolidation of excess facilities	15.5		(0.9)	14.6
<b>Total</b>	<b>\$ 41.7</b>	<b>\$</b>	<b>\$ (7.8)</b>	<b>\$ 33.9</b>
<b>2000</b>				
Workforce reduction	\$ 75.5	\$	\$ (52.1)	\$ 23.4
Asset disposal and other exit costs	15.3		(12.5)	2.8
Consolidation of excess facilities	18.6		(3.1)	15.5
<b>Total</b>	<b>\$ 109.4</b>	<b>\$</b>	<b>\$ (67.7)</b>	<b>\$ 41.7</b>
<b>1999</b>				
Workforce reduction	\$ 21.4	\$ 121.5	\$ (67.4)	\$ 75.5
Asset disposal and other exit costs	8.8	37.9	(31.4)	15.3
Consolidation of excess facilities	13.3	11.2	(5.9)	18.6
<b>Total</b>	<b>\$ 43.5</b>	<b>\$ 170.6</b>	<b>\$ (104.7)</b>	<b>\$ 109.4</b>

### **Investment Income and Interest Expense**

Investment income increased to \$265.3 in 2001, from \$206.2 in 2000 and \$131.9 in 1999. Investment income was earned primarily from investments in cash equivalents, short and long-term investments and sales-type leases. Investment income increased in 2001 primarily due to greater realized gains on sale of investments. The increase in 2000 compared to 1999 was due to higher average cash and investment balances. The weighted average return on investments, excluding realized gains, was 4.8%, 5.8% and 5.8% in 2001, 2000 and 1999, respectively.

Interest expense decreased to \$11.3 in 2001 from \$14.6 in 2000 and \$33.5 in 1999. The decreases in 2001 compared to 2000 and 2000 compared to 1999 were primarily due to the conversion of our 3 ¼% convertible subordinated notes due 2002 in March 2000 and our 6% convertible subordinated notes due 2004 in May 2000.

### **Other Income (Expense), Net**

Other expense, net was \$133.1 in 2001 and \$7.3 in 2000 compared with other income, net of \$17.7 in 1999. Included in the 2001 amount was a third quarter \$106.6 non-cash charge for other than temporary declines in equity investments. These investments are in privately-held companies, primarily in the storage industry, many of which are in the start-up or development stage. These investments are carried at cost, subject to adjustment for impairment. Due to the continued global economic slow down in 2001, as well as the downturn in the storage industry, we determined that the decline in value of these investments was other than temporary and recognized an impairment loss. The increase in other expense, net, in 2000 compared to 1999 was due to an increase in the losses from the sale of fixed assets and an increase in the earnings, which includes the minority s share in such earnings, of McDATA Corporation, our former majority-owned subsidiary. The minority s share in the earnings of McDATA are accounted for as an item included in other expense. We distributed our ownership interest in McDATA in 2001.

### **Provision for Income Taxes**

The benefit for income taxes was \$69.3 for 2001 compared to a provision for income taxes of \$659.1 in 2000 and a provision of \$346.6 in 1999. As a result of our loss in 2001, we had an income tax benefit with an effective rate of 12.0%. In 2000 and 1999, we had pre-tax earnings resulting in effective tax rates of 27.0% in 2000 and 25.5% in 1999. Our worldwide tax structure provides for an overall lower effective tax rate compared to the statutory tax rate in years in which there is income. However, in years in which there is a loss, we do not receive a commensurate benefit. The effective tax rates in 2001, 2000 and 1999 were lower than the U.S. statutory rate due primarily to our global tax strategies and the effect of our European manufacturing operations. The rate of benefit in 2001 is lower than the rate of the tax provision in 2000 due to the mix of income and losses in foreign countries. The 2001 rate was also adversely affected by providing for the potential tax consequences resulting from audits in several foreign tax jurisdictions, partially offset by benefits realized from the favorable resolution of a merger-related contingency.

### **Financial Condition**

Cash and cash equivalents and short and long-term investments were \$5,083.6 and \$4,745.3 at December 31, 2001 and 2000, respectively, an increase of \$338.3. In 2001, cash and cash equivalents increased by \$145.8 and short and long-term investments increased by \$192.5.

Cash provided by operating activities was \$1,631.3 in 2001 compared to \$2,108.7 in 2000 and \$1,389.6 in 1999. The decline in 2001 compared to 2000 was primarily attributable to the \$507.7 loss incurred in the year. Offsetting the loss was an overall improvement in working capital associated with substantial reductions in accounts and notes receivable and inventories. The increase in cash provided by operating activities in 2000 compared to 1999 was primarily due to growth in net income.

Cash used for investing activities was \$1,513.6, \$1,842.4 and \$1,188.9 in 2001, 2000 and 1999, respectively. Capital additions were \$889.3, \$858.4 and \$542.2 in 2001, 2000 and 1999, respectively. The increase in capital additions resulted from the expansion of our infrastructure. Net purchases and maturities of investments, consisting primarily of debt securities, were \$409.4, \$647.9 and \$558.5 in 2001, 2000 and 1999, respectively.

Cash provided by financing activities was \$33.4, \$611.7 and \$73.2 in 2001, 2000 and 1999, respectively. In 2000, we generated \$376.6 from the issuance of common stock in the initial public offering of McDATA. In 2001, we distributed our ownership interest in McDATA. As a result of the distribution, McDATA's net assets are no longer consolidated with our assets, which resulted in a \$142.0 reduction in cash. The majority of the remaining cash generated in 2001, 2000 and 1999 was from the exercise of stock options. In 2000, \$665.4 of convertible debt was converted into our common stock.

We employ several strategies to enhance our liquidity and income. We derive revenues from both selling and leasing activity. We customarily sell the notes receivable resulting from our leasing activity. Generally, we do not retain any recourse on the sale of these notes. If recourse is retained, we assess and provide for any exposure that may exist. Additionally, from time to time we may sell accounts receivable when it is economically beneficial. We also lend certain fixed income securities to generate investment income. During 2001, we entered into various agreements to loan fixed income securities generally on an overnight basis. Under these securities lending agreements, the value of the collateral is equal to 102% of the fair market value of the loaned securities. The collateral is generally cash, U.S. government-backed securities or letters of credit. At December 31, 2001, there were no outstanding securities lending transactions.

We have available for use credit lines of \$50.0 in the United States and \$50.0 in Brazil. The Brazilian line requires us to borrow in Brazilian currency. As of December 31, 2001, we had \$40.0 outstanding on our line of credit in Brazil and none outstanding on our line of credit in the United States. The Brazilian line of credit requires us to meet certain financial covenants with respect to limitations on losses and maintaining minimum levels of cash and investments. In the event the covenants are not met, the lender may require us to provide collateral to secure the outstanding balance. As of December 31, 2001, we were in compliance with the covenants. The Brazilian line of credit has been established to help manage currency volatility between the local currency and the U.S. dollar and facilitate cash repatriation. In addition, throughout the world, we have bank guarantees and other bank facilities aggregating \$32.1 for the purpose of guaranteeing rent, taxes, duties and other obligations.

We have various contractual obligations impacting our liquidity, including both on and off-balance sheet arrangements. Off-balance sheet arrangements are obligations that are not recognized as liabilities on the balance sheet. Our off-balance sheet arrangements consist of operating leases and purchase obligations for goods and services not yet received. The following represents our notes payable, long-term debt and capital and operating leases as of December 31, 2001.

	Payments Due by Period				
	Total	Less than 1 year	1-3 years	4-5 years	After 5 years
Notes payable and long-term debt, including capital lease obligations	\$ 75.6	\$ 58.0	\$ 15.1	\$ 0.3	\$ 2.2
Operating leases	719.8	215.9	266.9	123.5	113.5
<b>Total contractual obligations</b>	<b>\$ 795.4</b>	<b>\$ 273.9</b>	<b>\$ 282.0</b>	<b>\$ 123.8</b>	<b>\$ 115.7</b>

At December 31, 2001, we also had outstanding purchase orders to purchase \$847.0 of manufacturing and non-manufacturing related goods and services in 2002 and, for certain items, thereafter. While purchase orders are generally cancelable without penalty, certain vendor agreements provide for percentage-based cancellation fees or minimum restocking charges based on the nature of the product or service.

Based on our current operating and capital expenditure forecasts, we believe that the combination of funds currently available, funds generated from operations and our available lines of credit will be adequate to finance our ongoing operations for the next twelve months.

To date, inflation has not had a material impact on our financial results.

### **Critical Accounting Policies**

EMC's significant accounting policies are presented within Note A to our Consolidated Financial Statements. While all the accounting policies impact the financial statements, certain policies may be viewed to be critical. These policies are those that are both most important to the portrayal of our financial condition and results of operations and require our management's most difficult, subjective or complex judgments and estimates. Actual results could differ from those estimates. Management believes the policies that fall within this category are the policies on revenue recognition, asset valuation and accounting for income taxes.

We derive revenue from information storage systems, software and services. We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable and collectibility is reasonably assured. Generally, these criteria are met at the time of shipment, provided that no significant post-delivery obligations remain. When significant post-delivery obligations exist, revenue is deferred until such obligations are fulfilled. In sales contracts that include a combination of systems, software or services, we allocate revenue amongst the items and defer revenue for the undelivered items based on fair value and recognize the difference between the total contract fee and the amount deferred for the undelivered items as revenue. We accrue for systems warranty costs, sales returns and other allowances at the time of shipment. Revenue from sales-type leases is recognized at the net present value of expected future payments. Service revenue is recognized over the contractual period or as services are rendered.

Revenue recognition is governed by various accounting principles, including the Securities and Exchange Commission's Staff Accounting Bulletin, No. 101, Revenue Recognition in Financial Statements, Statement of Position No. 97-2, Software Revenue Recognition, Statement of Financial Accounting Standards (FAS) No. 48, Revenue Recognition When Right of Return Exists, FAS No. 13, Accounting for Leases, and SOP No. 81-1, Accounting for Performance of Construction-Type and Certain Production-Type Contracts, among others. The application of the appropriate accounting principle to our revenue is dependent upon the specific transaction and whether the sale or lease includes systems, software and services or a combination of these items. As our business evolves, the mix of products and services sold will impact the timing of when revenue and related costs are recognized. Additionally, revenue recognition involves judgments, including assessments of expected returns and the likelihood of nonpayment. We analyze various factors, including a review of specific transactions, historical experience, credit-worthiness of customers and current market and economic conditions. Changes in judgments on these factors could impact the timing and amount of revenue and costs recognized.

As noted, we accrue for systems warranty costs at the time of shipment. While we engage in extensive product quality programs and processes, our warranty obligation is affected by product failure rates, material usage and service delivery costs. Should actual product failure rates, material usage or service delivery costs differ from our estimates, the amount of actual warranty costs could differ from our estimates.

Asset valuation includes assessing the recorded value of certain assets, including accounts and notes receivable, inventories, property, plant and equipment, investments, capitalized software and intangible and other assets. Asset valuation is governed by various accounting principles, including FAS No. 121, Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of (to be superseded in 2002 by FAS No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets), and Accounting Research Bulletin No. 43, among others. Management uses a variety of factors to assess valuation depending upon the asset. For example, accounts and notes receivable are evaluated based upon the credit-worthiness of customers, historical experience, an assessment of expected returns and current market and economic conditions. The recoverability of inventories is based upon the types and levels of inventory held, forecasted demand, pricing,



competition and changes in technology. Property, plant and equipment, capitalized software and intangible and other assets are evaluated utilizing various factors, including the expected period the asset will be utilized, forecasted cash flows, changes in technology and customer demand. Investments are evaluated for impairment based upon market conditions, the industry sectors in which the entity operates and the viability of each entity. Changes in judgments on any of these factors could impact the value of the asset.

As part of the process of preparing our financial statements, we are required to estimate our income taxes in each of the jurisdictions in which we operate. This process involves estimating our actual current tax exposure together with assessing temporary differences resulting from different treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are included within our balance sheet. We must then assess the likelihood that our deferred tax assets will be recovered from future taxable income and to the extent we believe that recovery is not likely, we must establish a valuation allowance. To the extent we establish a valuation allowance, we must include an expense within the tax provision in the statement of operations. In the event that actual results differ from these estimates, our provision for income taxes could be materially impacted.

### **New Accounting Pronouncements**

In July 2001, the Financial Accounting Standards Board (the FASB) issued FAS No. 141, Business Combinations and FAS No. 142, Goodwill and Other Intangible Assets. FAS 141 supercedes Accounting Principles Bulletin No. 16, Business Combinations and FAS No. 38, Accounting for Preacquisition Contingencies of Purchased Enterprises. FAS 142 supercedes Accounting Principles Bulletin No. 17, Intangible Assets. These new statements require use of the purchase method of accounting for all business combinations initiated after June 30, 2001, thereby eliminating use of the pooling-of-interests method. Goodwill will no longer be amortized but will be tested for impairment under a two-step process. Under the first step, an entity's net assets are broken down into reporting units and compared to their fair value. If the carrying amount of a reporting unit exceeds its fair value, the second step of the goodwill impairment test is performed to measure the amount of impairment loss, if any. The second step compares the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill. If the carrying amount of a reporting unit's goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized in an amount equal to that excess. In addition, within six months of adopting the accounting standard, a transitional impairment test must be completed, and any impairments identified must be treated as a cumulative effect of a change in accounting principle. Additionally, new criteria have been established that determine whether an acquired intangible asset should be recognized separately from goodwill. The statements are effective for business combinations initiated after June 30, 2001, with the entire provisions of FAS 141 and FAS 142 becoming effective for us commencing with our 2002 fiscal year. We have completed our transitional impairment test and concluded that there is no impairment to goodwill. As a result of adopting FAS 142, approximately \$45.0 of goodwill amortization will not be recognized in 2002.

In August 2001, the FASB issued FAS No. 143 Accounting for Obligations Associated with the Retirement of Long-Lived Assets. The provisions of FAS 143 apply to all entities that incur obligations associated with the retirement of tangible long-lived assets. FAS 143 is effective for financial statements issued for fiscal years beginning after June 15, 2002 and will become effective for us commencing with our 2003 fiscal year. This accounting pronouncement is not expected to have a significant impact on our financial position or results of operations.

In October 2001, the FASB issued FAS No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets. FAS 144 provides guidance on the accounting for the impairment or disposal of long-lived assets. The objectives of FAS 144 are to address issues relating to the implementation of FAS No. 121, Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of, and to develop a model for long-lived assets to be disposed of by sale, whether previously held and used or newly acquired. FAS 144 is effective for us commencing with our 2002 fiscal year. This accounting pronouncement could have a significant impact on our financial position or results of operations should there be future asset impairments or disposals.

## **FACTORS THAT MAY AFFECT FUTURE RESULTS**

Our prospects are subject to certain uncertainties and risks. This Annual Report on Form 10-K also contains certain forward-looking statements within the meaning of the Federal securities laws. Our future results may differ materially from our current results and actual results could differ materially from those projected in the forward-looking statements as a result of certain risk factors, including but not limited to those set forth below, other one-time events and other important factors disclosed previously and from time to time in our other filings with the Securities and Exchange Commission.

### **Our business could continue to be materially adversely affected as a result of general economic and market conditions.**

We are subject to the effects of general global economic and market conditions. Our operating results have been materially adversely affected as a result of recent unfavorable economic conditions and reduced information technology spending. If economic and market conditions do not improve, our business, results of operations or financial condition could continue to be materially adversely affected.

### **Our business could continue to be materially adversely affected as a result of a lessening demand in the information technology market.**

Our revenue and profitability depend on the overall demand for information storage systems, software and services, particularly in the product segments in which we compete. During 2001, there was a decrease in demand for information storage products as customers delayed or reduced information technology expenditures. Sales expected to occur in the last month and weeks and days of a quarter were cancelled or deferred until future quarters. There can be no assurance that such cancellations or deferrals will result in sales in the near term, or at all. For 2002, customer forecasts indicate that information technology budgets may be further reduced. Further delays or reductions in information technology spending, domestically or internationally, could continue to materially adversely affect demand for our products and services which could result in decreased revenues or earnings.

### **We may have difficulty managing operations.**

With the weakened global economy, we have experienced lower than expected revenues and, in the third quarter of 2001, we implemented a restructuring program to reduce our cost structure and focus our resources on the highest potential growth areas of our business. Our future operating results will depend on the success of our restructuring program as well as on our overall ability to manage operations, which includes, among other things:

- retaining and hiring, as required, the appropriate number of qualified employees

- enhancing and expanding, as appropriate, our infrastructure, including but not limited to, our information systems and management team

- accurately forecasting revenues

- managing inventory levels to minimize excess and obsolete inventory

- controlling expenses

- managing our manufacturing capacity, real estate facilities and other assets

- executing on our plans

An unexpected further decline in revenues without a corresponding and timely reduction in expenses or a failure to manage other aspects of operations could have a further material adverse effect on our business, results of operations or financial condition.

**Competitive pricing and difficulty managing product costs could materially adversely affect our revenues and earnings.**

Competitive pricing pressures exist in the information storage market and have had, and in the future may have, a material adverse effect on our revenues and earnings. There also has been and may continue to be a willingness on the part of certain competitors to reduce prices or provide information storage products or services, together with other products or services, at minimal or no additional cost in order to preserve or gain market share. We currently believe that pricing pressures are likely to continue.

To date, we have been able to manage our component and product design costs. However, there can be no assurance that we will be able to continue to achieve reductions in component and product design costs. Further, the relative and varying rates of increases or decreases in product price and component cost could have a material adverse effect on our earnings.

**Our business could be materially adversely affected as a result of war or acts of terrorism.**

The terrorist attacks of September 11, 2001 exacerbated global economic conditions and adversely impacted many businesses, including our business. Terrorist acts or acts of war may cause damage or disruption to our employees, facilities, customers, partners, suppliers and distributors and resellers, which could have a material adverse effect on our business, results of operations or financial condition. Such conflicts may also cause damage or disruption to transportation and communication systems and to our ability to manage logistics in such an environment, including receipt of components and distribution of products.

**We may be unable to keep pace with rapid industry, technological and market changes.**

The markets in which we compete are characterized by rapid technological change, frequent new product introductions, evolving industry standards and changing needs of customers. There can be no assurance that our existing products will continue to be properly positioned in the market or that we will be able to introduce new or enhanced products into the market on a timely basis, or at all. We spend a considerable amount of money on research and development and introduce new products from time to time. There can be no assurance that enhancements to existing products or new products will receive customer acceptance.

Risks associated with the development and introduction of new products include delays in development and changes in data storage, networking and operating system technologies which could require us to modify existing products. Risks inherent in the transition to new products include the difficulty in forecasting customer preferences or demand accurately, the inability to expand production capacity to meet demand for new products, the impact of customers' demand for new products on the products being replaced, thereby causing an excessive obsolete supply of inventory, and delays in initial shipments of new products. Further risks inherent in new product introductions include the uncertainty of price-performance relative to products of competitors, competitors' responses to the introductions and the desire by customers to evaluate new products for longer periods of time. Our failure to introduce new or enhanced products on a timely basis, keep pace with rapid industry, technological or market changes or effectively manage the transitions to new products or new technologies could have a material adverse effect on our business, results of operation or financial condition.

**If our suppliers do not meet our quality or delivery requirements, we could have decreased revenues and earnings.**

We purchase many sophisticated components and products from one or a limited number of qualified suppliers, including some of our competitors. These components and products include disk drives, high density memory components and power supplies. We have experienced delivery delays from time to time because of high industry demand or the inability of some vendors to consistently meet our quality or delivery requirements. If any of our suppliers were to cancel contracts or commitments with us or fail to meet the quality or delivery

requirements needed to satisfy customer orders for our products, we could lose time-sensitive customer orders and have significantly decreased quarterly revenues and earnings, which would have a material adverse effect on our business, results of operations and financial condition.

Additionally, we periodically transition our product line to incorporate new technologies. The importance of transitioning our customers smoothly to new technologies, along with our historically uneven pattern of quarterly sales, intensifies the risk that a supplier who fails to meet its quality or delivery requirements will have a material adverse impact on our revenues and earnings.

**Our business may suffer if we are unable to retain or attract key personnel.**

Our business depends to a significant extent on the continued service of senior management and other key employees, the development of additional management personnel and the hiring of new qualified employees. Competition for highly skilled personnel is intense in the high technology industry. Because of the importance of stock-based incentive compensation in our total compensation program, the volatility or lack of positive performance in our stock price may from time to time adversely affect our ability to retain or attract key employees. There can be no assurance that we will be successful in retaining existing personnel or recruiting new personnel. The loss of one or more key or other employees, our inability to attract additional qualified employees or the delay in hiring key personnel could have a material adverse effect on our business, results of operations or financial condition.

**Historically uneven sales patterns could significantly impact our quarterly revenues and earnings.**

Our quarterly sales have historically reflected an uneven pattern in which a disproportionate percentage of a quarter's total sales occur in the last month and weeks and days of each quarter. This pattern makes prediction of revenues, earnings and working capital for each financial period especially difficult and uncertain and increases the risk of unanticipated variations in quarterly results and financial condition. We believe this uneven sales pattern is a result of many factors including:

- the significant size of our average product price in relation to our customers' budgets, resulting in long lead times for customers' budgetary approval, which tends to be given late in a quarter

- the tendency of customers to wait until late in a quarter to commit to purchase in the hope of obtaining more favorable pricing from one or more competitors seeking their business

- the fourth quarter influence of customers' spending their remaining capital budget authorization prior to new budget constraints in the first quarter of the following year

- seasonal influences

Our uneven sales pattern also makes it extremely difficult to predict near-term demand and adjust manufacturing capacity accordingly. If predicted demand is substantially greater than orders, there will be excess inventory. Alternatively, if orders substantially exceed predicted demand, the ability to assemble, test and ship orders received in the last weeks and days of each quarter may be limited, which could materially adversely affect quarterly revenues and earnings.

In addition, our revenues in any quarter are substantially dependent on orders booked and shipped in that quarter and our backlog at any particular time is not necessarily indicative of future sales levels. This is because:

- we assemble our products on the basis of our forecast of near-term demand and maintain inventory in advance of receipt of firm orders from customers

- we generally ship products shortly after receipt of the order

- customers may reschedule or cancel orders with little or no penalty

Moreover, delays in product shipping, caused by loss of power or telecommunications or similar services, or an unexpected decline in revenues without a corresponding and timely slowdown in expenses, could intensify the impact of these factors on our business, results of operations and financial condition.

**Risks associated with our distribution channels may materially adversely affect our financial results.**

In addition to our direct sales force, we have agreements in place with many distributors, systems integrators, resellers and OEMs to market and sell our products and services. We may, from time to time, derive a significant percentage of our revenues from such distribution channels. Our financial results could be materially adversely affected if our contracts with channel partners were terminated, if our relationship with channel partners were to deteriorate or if the financial condition of our channel partners were to weaken. In addition, as our market opportunities change, we may have an increased reliance on channel partners, which may negatively impact gross margins. There can be no assurance that we will be successful in maintaining or expanding these channels. If we are not successful, we may lose sales opportunities, customers and market share. Furthermore, the partial reliance on channel partners may materially reduce the visibility to our management of potential customers and demand for products and services, thereby making it more difficult to accurately forecast such demand. In addition, there can be no assurance that our channel partners will not develop or market products or services in competition with us in the future.

**Our business could be materially adversely affected as a result of the risks associated with acquisitions and investments.**

As part of our business strategy, we seek to acquire businesses that offer complementary products, services or technologies. These acquisitions are accompanied by the risks commonly encountered in an acquisition of a business including, among other things:

the effect of the acquisition on our financial and strategic position and reputation

the failure of an acquired business to further our strategies

the difficulty of integrating the acquired business

the lack of experience in new markets, products or technologies or the initial dependence on unfamiliar supply or distribution partners

the diversion of our management's attention from other business concerns

the impairment of relationships with customers of the acquired business

the potential loss of key employees of the acquired company

the potential impairment of acquired assets

These factors could have a material adverse effect on our business, results of operations or financial condition. To the extent that we issue shares of our common stock or other rights to purchase common stock in connection with any future acquisition, existing stockholders may experience dilution and potentially decreased earnings per share.

We also seek to invest in businesses that offer complementary products, services or technologies. These investments are accompanied by risks similar to those encountered in an acquisition of a business.

**The markets we serve are highly competitive, and we may be unable to compete effectively.**

We compete with many established companies in the markets we serve and some of these companies may have substantially greater financial, marketing and technological resources, larger distribution capabilities, earlier access to customers and more opportunity to address customers various information technology requirements than us. We also compete with many smaller, less established companies in specific product segments. Some of

these companies may develop new technologies or products in advance of us or establish business models or technologies disruptive to us. Our business may be materially adversely affected by the announcement or introduction of new products by our competitors, including hardware and software products and services, and the implementation of effective marketing or sales strategies by our competitors.

**Changes in foreign conditions could impair our international sales.**

A substantial portion of our revenues is derived from sales outside the United States. In addition, a substantial portion of our products is manufactured outside of the United States. Accordingly, our future results could be materially adversely affected by a variety of factors, including changes in foreign currency exchange rates, changes in a specific country's or region's political or economic conditions, trade restrictions, import or export licensing requirements, the overlap of different tax structures or changes in international tax laws, changes in regulatory requirements, compliance with a variety of foreign laws and regulations and longer payment cycles in certain countries.

**Undetected problems in our products could directly impair our financial results.**

If flaws in design, production, assembly or testing of our products were to occur by us or our suppliers, we could experience a rate of failure in our products that would result in substantial repair or replacement costs and potential damage to our reputation. Continued improvement in manufacturing capabilities, control of material and manufacturing quality and costs and product testing, are critical factors in our future growth. There can be no assurance that our efforts to monitor, develop, modify and implement appropriate test and manufacturing processes for our products will be sufficient to permit us to avoid a rate of failure in our products that results in substantial delays in shipment, significant repair or replacement costs or potential damage to our reputation, any of which could have a material adverse effect on our business, results of operations or financial condition.

**Our business could be materially adversely affected as a result of the risks associated with alliances.**

We have alliances with leading information technology companies and we plan to continue our strategy of developing key alliances in order to expand our reach into markets. There can be no assurance that we will be successful in our ongoing strategic alliances or that we will be able to find further suitable business relationships as we develop new products and strategies. Any failure to continue or expand such relationships could have a material adverse effect on our business, results of operations or financial condition.

There can be no assurance that companies with which we have strategic alliances, certain of which have substantially greater financial, marketing or technological resources than us, will not develop or market products in competition with us in the future, discontinue their alliances with us or form alliances with our competitors.

**Our business may suffer if we cannot protect our intellectual property.**

We generally rely upon patent, copyright, trademark and trade secret laws and contract rights in the United States and in other countries to establish and maintain our proprietary rights in our technology and products. However, there can be no assurance that any of our proprietary rights will not be challenged, invalidated or circumvented. In addition, the laws of certain countries do not protect our proprietary rights to the same extent as do the laws of the United States. Therefore, there can be no assurance that we will be able to adequately protect our proprietary technology against unauthorized third-party copying or use, which could adversely affect our competitive position. Further, there can be no assurance that we will be able to obtain licenses to any technology that we may require to conduct our business or that, if obtainable, such technology can be licensed at a reasonable cost.

From time to time, we receive notices from third parties claiming infringement by our products of third-party patent or other intellectual property rights. Responding to any such claim, regardless of its merit, could be

time-consuming, result in costly litigation, divert management's attention and resources and cause us to incur significant expenses. In the event there is a temporary or permanent injunction entered prohibiting us from marketing or selling certain of our products or a successful claim of infringement against us requiring us to pay royalties to a third party, and we fail to develop or license a substitute technology, our business, results of operations or financial condition could be materially adversely affected.

**We may become involved in litigation that may materially adversely affect us.**

In the ordinary course of business, we may become involved in litigation, administrative proceedings and governmental proceedings. Such matters can be time-consuming, divert management's attention and resources and cause us to incur significant expenses. Furthermore, there can be no assurance that the results of any of these actions will not have a material adverse effect on our business, results of operations or financial condition.

**We may have exposure to additional income tax liabilities.**

As a multinational corporation, we are subject to income taxes in both the United States and various foreign jurisdictions. Our domestic and international tax liabilities are subject to the allocation of revenues and expenses in different jurisdictions and the timing of recognizing revenues and expenses. Additionally, the amount of income taxes paid is subject to our interpretation of applicable tax laws in the jurisdictions in which we file. From time to time, we are subject to income tax audits. While we believe we have complied with all applicable income tax laws, there can be no assurance that a governing tax authority will not have a different interpretation of the law and assess us with additional taxes. Should we be assessed with additional taxes, there could be a material adverse effect on our results of operations or financial condition.

**Changes in regulations could materially adversely affect us.**

Our business, results of operations or financial condition could be materially adversely affected if laws, regulations or standards relating to us or our products were newly implemented or changed.

**Our stock price is volatile.**

Our stock price, like that of other technology companies, is subject to significant volatility because of factors such as:

- the announcement of new products, services or technological innovations by us or our competitors

- quarterly variations in our operating results

- changes in revenue or earnings estimates by the investment community

- speculation in the press or investment community

In addition, our stock price is affected by general economic and market conditions and has recently been negatively affected by unfavorable global economic conditions. If such conditions continue to deteriorate, our stock price could decline further.

**ITEM 7A: QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK****Market Risk**

We are exposed to market risk, primarily from changes in foreign exchange rates, interest rates and credit risk. To manage the volatility relating to these exposures, we enter into various derivative transactions pursuant to our policies to hedge against known or forecasted market exposures.

**Foreign Exchange Risk Management**

As a multinational corporation, we are exposed to changes in foreign exchange rates. Any foreign currency transaction, defined as a transaction denominated in a currency other than the U.S. dollar, will be reported in U.S. dollars at the applicable exchange rate. The primary foreign currency denominated transactions include revenues and expenses and the resultant accounts receivable and accounts payable balances reflected on our balance sheet. Therefore, the change in the value of the U.S. dollar as compared to foreign currencies will have either a positive or negative effect on our financial position and results of operations. We enter into derivative contracts with the sole objective of decreasing the volatility of the impact of currency fluctuations. These exposures may change over time and could have a material adverse impact on our financial results. Historically, our primary exposure related to sales denominated in the Euro, the Japanese yen and the British pound. Additionally, our exposure to emerging market economies, particularly in Latin America and South East Asia, continues to increase as we further expand our presence in these markets. Despite the relative size of our exposure in these markets, the inherent volatility of these economies could negatively impact our financial results.

We use foreign currency forward and option contracts to manage the risk of exchange rate fluctuations. In all cases, we use these derivative instruments to reduce our foreign exchange risk by essentially creating offsetting market exposures. The instruments we hold are not leveraged and are not held for trading or speculative purposes.

We use a combination of option and forward contracts to hedge our net asset and anticipated cash flow positions. The hedging activity is intended to offset the impact of currency fluctuations on assets, liabilities and cash flows denominated in foreign currencies. The success of the hedging program depends on forecasts of transaction activity in the various currencies. To the extent that these forecasts are overstated or understated during periods of currency volatility, we could experience unanticipated currency gains or losses.

We employ a variance/covariance model to calculate value-at-risk for our combined foreign exchange position. This model assumes that the relationships among market rates and prices that have been observed over the last year are valid for estimating risk over the next trading day. Estimates of volatility and correlations of market factors are drawn from the RiskMetrics dataset as of December 31, 2001. This model measures the potential loss in fair value that could arise from changes in market conditions, using a 95% confidence level and assuming a one-day holding period. The value-at-risk on the combined foreign exchange position was \$1.1 million as of December 31, 2001 and \$2.2 million as of December 31, 2000. The average, high and low value-at-risk amounts for 2001 and 2000 were as follows (in millions):

	<u>Average</u>	<u>High</u>	<u>Low</u>
2001	\$ 1.8	\$ 2.2	\$ 1.1
2000	2.1	2.9	1.2

The average value represents an average of the quarter-end values. The high and low valuations represent the highest and lowest values of the quarterly amounts.

**Interest Rate Risk**

We maintain an investment portfolio consisting of debt securities of various issuers, types and maturities. The investments are classified as available for sale and are all denominated in U.S. dollars. These securities are



recorded on the balance sheet at market value, with any unrealized gain or loss recorded in other comprehensive income (loss). These instruments are not leveraged, and are not held for trading purposes. A portion of our investment portfolio is comprised of mortgage-backed securities that are subject to prepayment risk.

We employ a variance/covariance model to calculate value-at-risk for our combined investment portfolios. This model assumes that the relationships among market rates and prices that have been observed over the last year are valid for estimating risk over the next trading day. Estimates of volatility and correlations of market factors are drawn from the RiskMetrics dataset as of December 31, 2001. This model measures the potential loss in fair value that could arise from changes in market conditions, using a 95% confidence level and assuming a one-day holding period. The value at risk on the investment portfolios was \$9.3 million as of December 31, 2001 and \$8.3 million as of December 31, 2000. The average, high and low value-at-risk amounts for 2001 and 2000 were as follows (in millions):

	<u>Average</u>	<u>High</u>	<u>Low</u>
2001	\$ 10.6	\$ 12.8	\$ 9.3
2000	4.5	8.3	2.2

The average value represents an average of the quarter-end values. The high and low valuations represent the highest and lowest values of the quarterly amounts.

#### **Credit Risk**

Financial instruments that potentially subject us to concentrations of credit risk consist principally of temporary cash investments, short and long-term investments and trade and notes receivable. We place our temporary cash investments and short and long-term investments in investment grade instruments and limit the amount of investment with any one financial institution. The credit risk associated with accounts and notes receivables is minimal due to the large number of customers and their broad dispersion over many different industries and geographic areas. We customarily sell the notes receivable we derive from our leasing activity. Generally, we do not retain any recourse on the sale of these notes. If recourse is retained, we assess and provide for any exposure that may exist.

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

**EMC CORPORATION AND SUBSIDIARIES  
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS AND SCHEDULE  
COVERED BY REPORT OF INDEPENDENT ACCOUNTANTS**

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

**REPORT OF INDEPENDENT ACCOUNTANTS**

To the Stockholders and the  
Board of Directors of EMC Corporation:

In our opinion, the consolidated financial statements listed in the index appearing under Item 14(a)(1) present fairly, in all material respects, the financial position of EMC Corporation and its subsidiaries at December 31, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 14(a)(2) presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. These financial statements and the financial statement schedule are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which 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, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

PricewaterhouseCoopers  
LLP

Boston, Massachusetts  
January 23, 2002

## EMC CORPORATION

**CONSOLIDATED BALANCE SHEETS**  
(in thousands, except per share amounts)

	December 31,	
	2001	2000
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 2,129,019	\$ 1,983,221
Short-term investments	445,428	673,731
Accounts and notes receivable, less allowance for doubtful accounts of \$36,169 and \$38,560	1,348,569	2,114,368
Inventories	583,985	1,024,964
Deferred income taxes	287,597	188,074
Other current assets	128,644	115,693
	<u>4,923,242</u>	<u>6,100,051</u>
Total current assets	4,923,242	6,100,051
Long-term investments	2,509,112	2,088,379
Property, plant and equipment, net	1,827,331	1,510,088
Intangible and other assets, net	583,110	839,281
Deferred income taxes	46,840	
	<u>9,889,635</u>	<u>10,537,799</u>
Total assets	\$ 9,889,635	\$ 10,537,799
<b>LIABILITIES AND STOCKHOLDERS EQUITY</b>		
Current liabilities:		
Notes payable and current portion of long-term obligations	\$ 56,677	\$ 11,816
Accounts payable	424,132	516,469
Accrued expenses	1,024,211	823,079
Income taxes payable	315,368	477,318
Deferred revenue	359,026	284,965
	<u>2,179,414</u>	<u>2,113,647</u>
Total current liabilities	2,179,414	2,113,647
Deferred income taxes		100,913
Other liabilities	109,401	146,030
Commitments and contingencies		
Stockholders' equity:		
Series preferred stock, par value \$.01; authorized 25,000 shares; none outstanding		
Common stock, par value \$.01; authorized 6,000,000 shares; issued 2,221,442 and 2,195,489 shares	22,214	21,955
Additional paid-in capital	3,470,325	3,138,061
Deferred compensation	(29,209)	(49,525)
Retained earnings	4,188,755	5,072,600
Accumulated other comprehensive loss, net	(33,007)	(5,882)
Treasury stock, at cost; 1,060 and 0 shares	(18,258)	
	<u>7,600,820</u>	<u>8,177,209</u>
Total stockholders' equity	7,600,820	8,177,209
	<u>9,889,635</u>	<u>10,537,799</u>
Total liabilities and stockholders' equity	\$ 9,889,635	\$ 10,537,799

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



**EMC CORPORATION**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(in thousands, except per share amounts)

	For the Year Ended December 31,		
	2001	2000	1999
<b>Revenues:</b>			
Net sales	\$ 5,915,695	\$ 7,966,974	\$ 5,983,009
Services	1,174,938	905,842	732,601
	<u>7,090,633</u>	<u>8,872,816</u>	<u>6,715,610</u>
<b>Costs and expenses:</b>			
Cost of sales	3,525,145	3,125,908	2,751,360
Cost of services	721,897	603,857	506,885
Research and development	928,701	783,166	572,517
Selling, general and administrative	2,214,223	2,102,982	1,435,508
Restructuring, merger and other special charges	398,508		208,246
	<u>(697,841)</u>	<u>2,256,903</u>	<u>1,241,094</u>
Operating income (loss)	(697,841)	2,256,903	1,241,094
Investment income	265,285	206,240	131,911
Interest expense	(11,338)	(14,604)	(33,490)
Other income (expense), net	(133,141)	(7,341)	17,650
	<u>(577,035)</u>	<u>2,441,198</u>	<u>1,357,165</u>
Income (loss) before taxes	(577,035)	2,441,198	1,357,165
Income tax provision (benefit)	(69,323)	659,123	346,595
	<u>(507,712)</u>	<u>1,782,075</u>	<u>1,010,570</u>
Net income (loss)	\$ (507,712)	\$ 1,782,075	\$ 1,010,570
	<u>(0.23)</u>	<u>0.82</u>	<u>0.49</u>
Net income (loss) per weighted average share, basic	\$ (0.23)	\$ 0.82	\$ 0.49
	<u>(0.23)</u>	<u>0.79</u>	<u>0.46</u>
Net income (loss) per weighted average share, diluted	\$ (0.23)	\$ 0.79	\$ 0.46
	<u>2,211,273</u>	<u>2,164,180</u>	<u>2,061,101</u>
Weighted average shares, basic	2,211,273	2,164,180	2,061,101
Weighted average shares, diluted	2,211,273	2,245,203	2,219,065

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

**EMC CORPORATION**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(in thousands)

	For the Year Ended December 31,		
	2001	2000	1999
<b>Cash flows from operating activities:</b>			
Net income (loss)	\$ (507,712)	\$ 1,782,075	\$ 1,010,570
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	654,698	516,798	424,803
Non-cash restructuring, inventory and other special charges	449,364	21,000	59,526
Other than temporary declines in equity investments	106,560		
Amortization of deferred compensation	19,514	27,027	22,311
Provision for doubtful accounts	32,711	27,537	25,817
Deferred income taxes	(227,429)	35,349	(122,973)
Net loss on disposal of property, plant and equipment	2,282	18,523	9,896
Tax benefit from stock options exercised	137,901	207,694	58,033
Minority interest	29	2,235	135
Changes in assets and liabilities, net of acquired assets and liabilities:			
Accounts and notes receivable	806,002	(647,577)	(409,364)
Inventories	127,581	(406,985)	2,417
Other assets	(19,303)	(155,306)	(73,319)
Accounts payable	(78,429)	147,675	70,798
Accrued expenses	201,301	200,033	158,191
Income taxes payable	(157,007)	228,089	88,442
Deferred revenue	69,637	109,594	67,116
Other liabilities	13,558	(5,105)	(2,834)
<b>Net cash provided by operating activities</b>	<b>1,631,258</b>	<b>2,108,656</b>	<b>1,389,565</b>
<b>Cash flows from investing activities:</b>			
Additions to property, plant and equipment	(889,309)	(858,423)	(542,209)
Proceeds from sales of property, plant and equipment	17,310	200	1
Capitalized software development costs	(120,724)	(102,772)	(88,201)
Purchases of short and long-term available-for-sale securities	(4,981,376)	(2,644,077)	(2,752,925)
Sales of short and long-term available-for-sale securities	4,445,271	1,961,208	1,445,237
Maturity of short and long-term available-for-sale securities	126,683	35,000	
Purchases of short and long-term held-to-maturity securities			(191,254)
Maturity of short and long-term held-to-maturity securities			940,483
Business acquisitions, net of cash acquired	(111,455)	(233,554)	
<b>Net cash used by investing activities</b>	<b>(1,513,600)</b>	<b>(1,842,418)</b>	<b>(1,188,868)</b>
<b>Cash flows from financing activities:</b>			
Issuance of common stock	170,284	234,057	101,424
Issuance of subsidiary's stock		376,607	
Purchase of treasury stock	(18,258)		
Cash portion of McData Corporation spin-off dividend	(141,981)		
Redemption of 6% convertible subordinated notes due 2004		(155)	
Payment of long-term and short-term obligations	(16,859)	(10,244)	(30,435)
Issuance of long-term and short-term obligations	40,206	11,392	2,256
<b>Net cash provided by financing activities</b>	<b>33,392</b>	<b>611,657</b>	<b>73,245</b>

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Effect of exchange rate changes on cash	(5,252)	(4,083)	1
Net increase in cash and cash equivalents	151,050	877,895	273,942
Cash and cash equivalents at beginning of period	1,983,221	1,109,409	835,466
	<u>          </u>	<u>          </u>	<u>          </u>
Cash and cash equivalents at end of period	\$ 2,129,019	\$ 1,983,221	\$ 1,109,409
	<u>          </u>	<u>          </u>	<u>          </u>
Non-cash activity:			
Conversion of convertible subordinated notes, net of debt issuance costs	\$	\$ 665,397	\$ 57,101
Capital lease obligations	24,490		
Options associated with business acquisitions	1,050	11,372	
Distribution of net assets in McData Corporation dividend	234,152		

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



## EMC CORPORATION

CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY  
(in thousands)

	Common Stock		Additional Paid-in Capital	Deferred Compen- sation	Retained Earnings	Other Compre- hensive Loss	Treasury Stock		Stock- holders Equity
	Shares	Par Value					Shares	Cost	
Balance, January 1, 1999	2,045,905	\$ 20,458	\$ 1,469,595	\$ (36,516)	\$ 2,289,251	\$ (7,890)	130	\$ (5,908)	\$ 3,728,990
Exercise of stock options	22,745	227	103,105				52	(1,908)	101,424
Tax benefit from stock options exercised			58,033						58,033
Grant of stock options			16,077	(16,077)					
Issuance of common stock pursuant to conversion of notes	10,082	101	57,000						57,101
Amortization of deferred compensation				22,311					22,311
Retirement of treasury stock	(182)		(7,816)				(182)	7,816	
Minimum pension liability						6,252			6,252
Change in market value of investments						(31,804)			(31,804)
Change in market value of derivatives						1,212			1,212
Translation adjustment						(2,303)			(2,303)
Net income					1,010,570				1,010,570
<b>Balance, December 31, 1999</b>	<b>2,078,550</b>	<b>20,786</b>	<b>1,695,994</b>	<b>(30,282)</b>	<b>3,299,821</b>	<b>(34,533)</b>			<b>4,951,786</b>
Exercise of stock options	27,083	270	233,787						234,057
Tax benefit from stock options exercised			207,694						207,694
Grant of stock options			55,919	(55,919)					
Issuance of common stock pursuant to conversion of notes	86,361	864	664,533						665,397
Amortization of deferred compensation				27,027					27,027
Reversal of deferred compensation due to employee terminations			(9,649)	9,649					
Pooling of interests acquisitions	3,495	35	7,930		(9,296)				(1,331)
Purchase acquisitions			11,372						11,372
Sale of subsidiary's stock			270,481						270,481
Change in market value of investments						37,020			37,020
Change in market value of derivatives						(4,209)			(4,209)
Translation adjustment						(4,160)			(4,160)
Net income					1,782,075				1,782,075
<b>Balance, December 31, 2000</b>	<b>2,195,489</b>	<b>21,955</b>	<b>3,138,061</b>	<b>(49,525)</b>	<b>5,072,600</b>	<b>(5,882)</b>			<b>8,177,209</b>
Exercise of stock options	25,953	259	170,025						170,284
Tax benefit from stock options exercised			137,901						137,901
Grant of stock options			29,282	(29,282)					
Purchase of treasury stock							(1,060)	(18,258)	(18,258)
Amortization of deferred compensation				19,514					19,514
Reversal of deferred compensation due to employee terminations			(5,994)	5,994					

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Purchase acquisitions				1,050					1,050
McData spin-off				24,090		(376,133)			(352,043)
Change in market value of investments						16,142			16,142
Change in market value of derivatives						3,077			3,077
Minimum pension liability						(42,194)			(42,194)
Translation adjustment						(4,150)			(4,150)
Net loss						(507,712)			(507,712)
Balance, December 31, 2001	2,221,442	\$ 22,214	\$ 3,470,325	\$ (29,209)	\$ 4,188,755	\$ (33,007)	(1,060)	\$ (18,258)	\$ 7,600,820

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

## EMC CORPORATION

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**  
(in thousands)

	For the Year Ended December 31,		
	2001	2000	1999
Net income (loss)	\$ (507,712)	\$ 1,782,075	\$ 1,010,570
Other comprehensive income (loss), net of tax (benefit):			
Foreign currency translation adjustments, net of taxes (benefit) of \$1,940, \$(2,053) and \$(768)	(4,150)	(4,160)	(2,303)
Equity adjustment for minimum pension liability, net of taxes (benefit) of \$(26,414), \$0 and \$2,084	(42,194)		6,252
Changes in market value of investments, net of taxes (benefit) of \$4,470, \$12,905 and \$(10,601)	16,142	37,020	(31,804)
Changes in market value of derivatives, net of taxes (benefit) of \$1,117, \$(1,512) and \$404	3,077	(4,209)	1,212
Other comprehensive income (loss)	(27,125)	28,651	(26,643)
Comprehensive income (loss)	\$ (534,837)	\$ 1,810,726	\$ 983,927

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

**EMC CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**A. Summary of Significant Accounting Policies**

*Company*

EMC Corporation and its subsidiaries ( EMC ) design, manufacture, market and support a wide range of storage platforms and software offerings, as well as related services, that enable its customers to store, manage, protect and share electronic information.

*Principles of Consolidation*

The consolidated financial statements include the accounts of EMC and its subsidiaries. All significant intercompany transactions and balances have been eliminated.

*Basis of Presentation*

EMC's fiscal year ends on December 31. On October 12, 1999, EMC completed the acquisition of Data General Corporation ( Data General ), which was accounted for as a pooling-of-interests. Prior to the acquisition, Data General's fiscal year end was the last Saturday in September and its month end was the last Saturday of the month. Data General's financial information has been conformed to a calendar year end for each of the years presented.

Certain prior year amounts have been reclassified to conform to the 2001 presentation.

*Use of Accounting Estimates*

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

*Revenue Recognition*

EMC derives revenue from sales of information storage systems, software and services. EMC recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable and collectibility is reasonably assured. Generally, these criteria are met at the time of shipment, provided that no significant post-delivery obligations remain. When significant post-delivery obligations exist, revenue is deferred until such obligations are fulfilled. In sales contracts that include a combination of systems, software or services, EMC allocates revenue amongst the items and defers revenue for the undelivered items based on fair value and recognizes the difference between the total contract fee and the amount deferred for the undelivered items as revenue. EMC accrues for systems' warranty costs, sales returns and other allowances at the time of shipment. Revenue from sales-type leases is recognized at the net present value of future payments. Service revenue is recognized over the contractual period or as services are rendered.

*Advertising Costs*

Advertising costs are expensed as incurred.

*Shipping and Handling Costs*

EMC classifies shipping and handling costs in cost of sales.

**EMC CORPORATION**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

*Foreign Currency Translation*

The local currency is the functional currency of the majority of EMC's subsidiaries. Assets and liabilities are translated into U.S. dollars at exchange rates in effect at the balance sheet date, and income and expense items are translated at average rates for the period. EMC's subsidiaries in Ireland, Israel and Hong Kong are generally dependent on the U.S. dollar and therefore, their functional currency is the U.S. dollar. Consolidated foreign currency transaction results included in other income (expense), net, were losses of \$3.6 million in 2001, compared to gains of \$5.8 million and \$2.7 million in 2000 and 1999, respectively.

*Derivatives*

All derivatives are recognized on the balance sheet at fair value. Changes in fair value of derivatives are recorded each period in the statement of operations or other comprehensive loss. EMC does not engage in currency speculation. EMC may enter into derivative instruments to hedge against known or forecasted market exposures.

EMC uses a combination of forward and option contracts to hedge its net asset and anticipated cash flow positions. The gains or losses arising from contracts hedging EMC's net asset position are recorded in other income or expense as offsets to the gains or losses resulting from the underlying hedged items. Gains and losses from contracts hedging cash flow exposures are recognized in the statement of operations in the same period in which the related underlying hedged item is recognized. For purposes of presentation within the statement of cash flows, derivative gains and losses are presented within cash provided by operating activities.

*Cash and Cash Equivalents*

Cash and cash equivalents include all highly liquid investments with a maturity of ninety days or less at the time of purchase. Cash equivalents consist primarily of commercial paper and money market securities. Cash equivalents are stated at amortized cost plus accrued interest, which approximates market. Total cash equivalents were \$1,403.0 million and \$1,131.9 million at December 31, 2001 and 2000, respectively.

*Investments*

EMC's investments are comprised primarily of debt securities that are classified at purchase as available-for-sale. Investments with remaining maturities of less than twelve months from the balance sheet date are classified as short-term investments. Investments with remaining maturities of more than twelve months from the balance sheet date are classified as long-term investments. These investments are carried at their market value. EMC also holds strategic equity investments. Strategic equity investments in publicly traded companies are classified as available-for-sale when there are no restrictions on EMC's ability to liquidate such securities. These investments are also carried at their market value. Strategic equity investments in privately-held companies are carried at the lower of cost or net realizable value due to their illiquid nature. EMC periodically reviews these investments to ascertain whether unrealized losses are other than temporary. Investment activity is accounted for using the average cost method.

Unrealized investment gains and temporary losses are included as a separate component of stockholders' equity, net of any related tax effect. Realized gains and losses on non-strategic investments are reflected in the statement of operations in investment income. Realized gains and losses and other-than-temporary impairments on strategic investments are reflected in the statement of operations in other income (expense), net.

*Securities Lending*

EMC lends fixed income securities generally on an overnight basis to generate investment income. Under its securities lending agreements, EMC receives collateral equal to 102% of the fair market value of the loaned securities. The collateral is generally cash, U.S. Government-backed securities or letters of credit.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Statement of Cash Flows Supplemental Information (table in thousands):

	2001	2000	1999
Cash paid for:			
Income taxes	\$ 175,541	\$ 189,140	\$ 325,990
Interest	10,978	13,835	31,285

*Inventories*

Inventories are stated at the lower of cost (first in, first out) or market, not in excess of net realizable value.

*Property, Plant and Equipment*

Property, plant and equipment are recorded at cost. Assets under development are included in construction in progress. Depreciation commences upon placing the asset in service on a straight-line basis over the estimated useful lives of the assets, as follows:

Furniture and fixtures	5 7 years
Equipment	1 10 years
Improvements	5 25 years
Buildings	25 3 1/2 years

When assets are retired or disposed of, the cost and accumulated depreciation thereon are removed from the accounts and the related gains or losses are included in the statement of operations.

*Capitalized Software Development Costs*

Research and development costs are expensed as incurred. Software development costs incurred subsequent to establishing technological feasibility through the general release of the software products are capitalized. Technological feasibility is demonstrated by the completion of a working model. Capitalized costs are amortized on a straight-line basis over two years. Unamortized software development costs were \$145.3 million and \$142.3 million at December 31, 2001 and 2000, respectively, and are included in intangible and other assets. Amortization expense was \$106.5 million, \$84.6 million and \$60.3 million in 2001, 2000 and 1999, respectively.

*Intangible Assets*

Intangible assets consist of assets acquired in business combinations, including goodwill, developed technology, trademarks and patents. Intangible assets are amortized over their useful lives ranging from two to five years.

*Impairment of Long-Lived Assets*

EMC reviews long-lived assets, including goodwill and other intangible assets, for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable or that the useful lives of these assets are no longer appropriate. Each impairment test is based on a comparison of the undiscounted cash flows to the recorded value of the asset. If an impairment is indicated, the asset is written down to its estimated fair value on a discounted cash flow basis.

**EMC CORPORATION**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

*Income Taxes*

Deferred tax liabilities and assets are recognized for the expected future tax consequences of events that have been included in the financial statements or tax returns. Deferred tax liabilities and assets are determined based on the difference between the tax bases of assets and liabilities and their reported amounts using enacted tax rates in effect for the year in which the differences are expected to reverse. Tax credits are generally recognized as reductions of income tax provisions in the year in which the credits arise.

EMC does not provide for a U.S. income tax liability on undistributed earnings of its foreign subsidiaries. The earnings of non-U.S. subsidiaries, which reflect full provision for non-U.S. income taxes, are indefinitely reinvested in non-U.S. operations or will be remitted substantially free of additional tax.

*Earnings (Loss) Per Share*

Basic net income (loss) per share is computed using the weighted average number of common shares outstanding during the period. Diluted net income (loss) per share is computed using the weighted average number of common and dilutive common equivalent shares outstanding during the period. Dilutive common equivalent shares consist of stock options and convertible debt.

*Retirement/Post Employment Benefits*

Net pension cost for EMC's domestic defined benefit pension plan is funded to the extent that current pension cost is deductible for U.S. Federal tax purposes and to comply with ERISA and the General Agreement on Tariff and Trade Bureau (GATT) additional minimum funding requirements. Net pension cost for EMC's international defined benefit pension plans are generally funded as accrued. The net transition surplus or obligation for these international plans, when applicable, is amortized over nine years.

Net post-retirement benefit cost for EMC's domestic post-retirement benefits plan is generally funded on a pay-as-you-go basis to the extent that current cost is deductible for U.S. Federal tax purposes.

*Accounting for Stock-Based Compensation*

Statement of Financial Accounting Standards (FAS) No. 123, Accounting for Stock-Based Compensation defined a fair value method of accounting for stock options and other equity instruments. Under the fair value method, compensation cost is measured at the grant date based on the fair value of the award and is recognized over the service period, which is usually the vesting period. As provided for in FAS 123, EMC elected to apply Accounting Principles Board Opinion No. 25 and related interpretations in accounting for its stock-based compensation plans.

*Concentrations of Credit Risk*

Financial instruments which potentially subject EMC to concentrations of credit risk consist principally of temporary cash investments, short and long-term investments and accounts and notes receivable. EMC places its temporary cash investments and short and long-term investments in investment grade instruments and limits the amount of investment with any one financial institution. The credit risk associated with accounts and notes receivables is limited due to the large number of customers and their broad dispersion over many different industries and geographic areas.

**EMC CORPORATION**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

*New Accounting Pronouncements*

In July 2001, the Financial Accounting Standards Board (the FASB) issued FAS No. 141, Business Combinations and FAS No. 142, Goodwill and Other Intangible Assets. FAS 141 supercedes Accounting Principles Bulletin No. 16, Business Combinations and FAS No. 38, Accounting for Preacquisition Contingencies of Purchased Enterprises. FAS 142 supercedes Accounting Principles Bulletin No. 17, Intangible Assets. These new statements require use of the purchase method of accounting for all business combinations initiated after June 30, 2001, thereby eliminating use of the pooling-of-interests method. Goodwill will no longer be amortized but will be tested for impairment under a two-step process. Under the first step, an entity's net assets are broken down into reporting units and compared to their fair value. If the carrying amount of a reporting unit exceeds its fair value, the second step of the goodwill impairment test is performed to measure the amount of impairment loss, if any. The second step compares the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill. If the carrying amount of a reporting unit's goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized in an amount equal to that excess. In addition, within six months of adopting the accounting standard, a transitional impairment test must be completed, and any impairments identified must be treated as a cumulative effect of a change in accounting principle. Additionally, new criteria have been established that determine whether an acquired intangible asset should be recognized separately from goodwill. The statements are effective for business combinations initiated after June 30, 2001, with the entire provisions of FAS 141 and FAS 142 becoming effective for EMC commencing with its 2002 fiscal year. EMC has completed its transitional impairment test and concluded that there is no impairment to goodwill. As a result of adopting FAS 142, approximately \$45.0 million of goodwill amortization will not be recognized in 2002.

In August 2001, the FASB issued FAS No. 143 Accounting for Obligations Associated with the Retirement of Long-Lived Assets. The provisions of FAS 143 apply to all entities that incur obligations associated with the retirement of tangible long-lived assets. FAS 143 is effective for financial statements issued for fiscal years beginning after June 15, 2002 and will become effective for EMC commencing with its 2003 fiscal year. This accounting pronouncement is not expected to have a significant impact on EMC's financial position or results of operations.

In October 2001, the FASB issued FAS No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets. FAS 144 provides guidance on the accounting for the impairment or disposal of long-lived assets. The objectives of FAS 144 are to address issues relating to the implementation of FAS No. 121, Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of, and to develop a model for long-lived assets to be disposed of by sale, whether previously held and used or newly acquired. FAS 144 is effective for EMC commencing with its 2002 fiscal year. This accounting pronouncement could have a significant impact on EMC's financial position or results of operations should there be future asset impairments or disposals.

**B. Business Acquisitions and Intangible Assets**

In 2001, EMC acquired all of the outstanding shares of capital stock of FilePool N.V. and Luminate Software Corporation (Luminate), both software development companies, as well as other minor acquisitions, for aggregate consideration of \$112.5 million, net of cash acquired. EMC accounted for these acquisitions under the purchase method of accounting. Under the purchase method, the results of operations of acquired companies are included prospectively from the date of acquisition and the acquisition cost is allocated to the acquirees' assets and liabilities based upon their fair market values at the date of acquisition. Pro forma results of operations have not been presented because the effects of these acquisitions were not material to EMC on either an individual or an aggregate basis. Based upon a preliminary purchase price allocation, an aggregate of \$16.3 million was allocated to developed technology and an aggregate of \$91.1 million was allocated to goodwill. The intangible assets, with



## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

the exception of the goodwill arising from the Luminate acquisition, are being amortized on a straight-line basis over their estimated useful life of five years. In accordance with the new business combination rules, goodwill from the Luminate acquisition was not amortized in 2001. A summary of the assets acquired and liabilities assumed is as follows (table in thousands):

Fair value of assets acquired	\$ 119,484
Cash paid for stock, net of cash acquired	(111,455)
	<u>                    </u>
Liabilities assumed	\$ 8,029
	<u>                    </u>

In 2000, EMC acquired all of the outstanding shares of common stock of Softworks, Inc., a software company, by means of a tender offer, whereby all of the shares of Softworks were converted into the right to receive cash. Also in 2000, EMC acquired all of the outstanding common stock of software companies Terascape Software, Inc., Avalon Consulting Group and Digital Bitcasting, Inc. The aggregate consideration issued in these transactions was \$245.0 million, net of cash acquired of \$28.0 million. EMC accounted for each of these acquisitions under the purchase method. Pro forma results of operations have not been presented because the effects of these acquisitions were not material to EMC on either an individual or an aggregate basis. A summary of the assets acquired and liabilities assumed is as follows (table in thousands):

Fair value of assets acquired	\$274,686
Cash paid for stock, net of cash acquired	(233,554)
	<u>                    </u>
Liabilities assumed	\$ 41,132
	<u>                    </u>

EMC calculated amounts allocated to in-process research and development ( IPRD ) using established valuation techniques and expensed such amounts in the quarter that each acquisition was consummated because technological feasibility of the in-process technology had not been achieved and no alternate future use has been established. EMC computed its valuations of IPRD for the acquisitions using a discounted cash flow analysis on the anticipated income stream to be generated by the purchased technology. During 2000, EMC recorded a \$3.3 million charge to research and development expense representing the write-off of IPRD.

In October 2000, EMC acquired all of the outstanding common stock of CrosStor Software, Inc., a software company, in exchange for approximately 3,495,000 shares of EMC common stock. EMC accounted for this acquisition under the pooling-of-interests method. CrosStor's historical operations were not material to EMC's consolidated operations and therefore prior period statements have not been restated for this transaction.

In October 1999, EMC acquired all of the outstanding common stock of Data General, a designer, manufacturer and marketer of CLARiiON information storage systems and AViiON open systems servers, for approximately 32,000,000 shares of EMC common stock. EMC accounted for this acquisition under the pooling-of-interests method.

Intangible assets consist of (table in thousands):

	<u>December 31, 2001</u>	<u>December 31, 2000</u>
Goodwill	\$ 250,287	\$ 233,674
Purchased technology	95,305	79,005
Patents	57,157	56,799
Trademarks and customer lists	14,684	11,373
	<u>                    </u>	<u>                    </u>
	417,433	380,851
Accumulated amortization	(160,150)	(114,957)
	<u>                    </u>	<u>                    </u>
	\$ 257,283	\$ 265,894
	<u>                    </u>	<u>                    </u>



## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Amortization expense on intangibles was \$86.0 million, \$77.3 million and \$63.1 million in 2001, 2000 and 1999, respectively. Amortization expense on purchased technology, patents and trademarks and customer lists for each of the next five years is as follows (table in thousands):

2002	\$26,529
2003	22,650
2004	13,493
2005	3,810
2006	2,445
<b>Total</b>	<b>\$ 68,927</b>

Changes in the carrying amount of goodwill, net, in total and by segment consist of the following (tables in thousands):

	Year ended December 31, 2001			
	Information Storage Products	Information Storage Services	Other	Total
Balance, beginning of the year	\$ 168,884	\$ 7,454	\$	\$ 176,338
Goodwill acquired	89,323	1,804		91,127
Amortization expense	(49,064)	(3,325)		(52,389)
Impairment losses	(22,402)	(4,318)		(26,720)
<b>Balance, end of the year</b>	<b>\$ 186,741</b>	<b>\$ 1,615</b>	<b>\$</b>	<b>\$ 188,356</b>
	Year ended December 31, 2000			
	Information Storage Products	Information Storage Services	Other	Total
Balance, beginning of the year	\$ 9,714	\$ 33,720	\$	\$ 43,434
Goodwill acquired	193,947			193,947
Amortization expense	(34,777)	(5,266)		(40,043)
Impairment losses		(21,000)		(21,000)
<b>Balance, end of the year</b>	<b>\$ 168,884</b>	<b>\$ 7,454</b>	<b>\$</b>	<b>\$ 176,338</b>

In the third quarter of 2001, in connection with its restructuring program (see Note C), EMC recognized an impairment loss of \$33.1 million, consisting of \$26.7 million of goodwill and \$6.4 million of other intangible assets. The impairment charge is equal to the amount by which the assets' carrying amount exceeded the present value of their estimated discounted future cash flows. The goodwill impairment charge included \$22.4 million in the information storage products segment and \$4.3 million in the information storage services segment. The other intangible assets impairment charge consisted of \$6.4 million in the information storage products segment. The impairment charges are classified in the statement of operations within restructuring, merger and other special charges.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**C. Restructuring, Merger and Other Special Charges***2001 Restructuring Program**General*

As a result of the decline in general economic and business conditions in 2001, EMC implemented several workforce reductions. Additionally, in the third quarter of 2001, EMC implemented a restructuring program to reduce its cost structure and focus its resources on the highest potential growth areas of its business. EMC also recorded a provision for excess and obsolete inventory and recognized an other than temporary decline in certain of its equity investments. As a result, in the third quarter of 2001, EMC incurred an aggregate pre-tax charge of \$825.2 million for restructuring costs and other special charges that included the following components:

*Worldwide Reduction in Force*

EMC's third quarter 2001 restructuring program included a reduction in force of approximately 4,000 employees across all business functions and geographic regions. Approximately 62% of such employees are or were based in North America and the remainder are or were based in Europe, Latin America and the Asia Pacific region. The workforce reduction resulted in a pre-tax charge of \$111.5 million for termination benefits. As of December 31, 2001, approximately 2,750 employees had been terminated with the remainder to be terminated by the end of the second quarter of 2002. Additionally, as a result of the sale of an information storage services business, EMC reduced its workforce by an additional 426 employees in the fourth quarter of 2001.

*Impairment of Goodwill, Purchased Intangibles and Other Long-Lived Assets*

The restructuring program included terminating the sale of AViiON servers, exiting certain aspects of the media solutions business and certain aspects of the information storage services business and discontinuing the sale of certain software products. As a result, a pre-tax charge of \$104.5 million related to the impairment of goodwill, purchased intangibles and other long-lived assets was taken. The impairment charge is equal to the amount by which the assets' carrying amount exceeded the present value of their estimated discounted future cash flows. Additionally, a pre-tax charge of \$34.5 million was taken to recognize the cost of related and other contractual obligations for which EMC will no longer derive an economic benefit.

*Consolidation of Excess Facilities and Other Special Charges*

The restructuring program included a pre-tax charge of \$158.1 million for the consolidation of space within EMC's corporate headquarters and nearby facilities and elimination of excess field office space worldwide. Included in the charge is \$110.1 million for lease terminations and estimated losses on subleases and \$48.0 million for non-recoverable investments in buildings and leasehold improvements.

A summary of the restructuring cost is outlined as follows (table in thousands):

	<u>Provision</u>	<u>Adjustments to the provision</u>	<u>Current year utilization</u>	<u>Ending balance</u>
Workforce reduction	\$ 111,459	\$ (18,280)	\$ (45,030)	\$ 48,149
Impairment of goodwill, purchased intangibles and other long-lived assets and related and other contractual obligations	138,979	(8,032)	(107,302)	23,645
Consolidation of excess facilities	158,137	26,312	(56,962)	127,487
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Total	\$ 408,575	\$	\$ (209,294)	\$ 199,281
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>

**EMC CORPORATION**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The adjustment to the provision for the workforce reduction primarily relates to voluntary employee resignations. The adjustment to the provision for the impairment of goodwill, purchased intangibles and other long-lived assets and related and other contractual obligations represents a favorable settlement of an estimated liability for the closure of an information storage services business. The adjustment for the consolidation of excess facilities primarily relates to additional leased facilities being vacated.

*Provision for Excess and Obsolete Inventory*

EMC recorded a \$310.0 million pre-tax provision for excess and obsolete inventory. Due to the decline in demand for information storage products and the development by EMC of new technologies, EMC evaluated its inventory and determined that \$310.0 million was not recoverable. As of December 31, 2001, EMC had charged \$54.5 million against the reserve, leaving a balance of \$255.5 million.

*Other than Temporary Investment Declines*

EMC recorded a pre-tax charge of \$106.6 million for other than temporary declines in equity investments. These investments are in privately-held companies, primarily in the storage industry, many of which are in the start-up or development stage. These investments are carried at cost, subject to adjustment for impairment. Due to the continued global economic slow down in 2001, as well as the downturn in the storage industry, EMC determined that the decline in these investments was other than temporary and recognized an impairment loss.

The classification of the restructuring costs and other special charges in the statement of operations consists of \$398.5 million contained within restructuring, merger and other special charges, \$320.1 million contained in cost of product sales, consisting of \$310.0 of excess and obsolete inventory and \$10.1 of impaired capitalized software, and \$106.6 million contained in other income (expense), net.

The restructuring program is expected to be substantially completed by June 30, 2002, although the ability to sell and sublet facilities is subject to appropriate market conditions. The expected cash impact of the charge is \$254.7 million, of which \$55.4 million was paid in 2001. Remaining cash expenditures relating to workforce reductions and contractual obligations are expected to be substantially paid by the end of 2002. Amounts relating to the consolidation of facilities will be paid over the respective lease terms through 2015.

***1999 Restructuring Program***

During 1999, EMC recorded a charge of \$223.6 million related to restructuring, merger and other special charges primarily related to the acquisition of Data General. The restructuring provided for the consolidation of EMC's operations and elimination of duplicative facilities worldwide. Accordingly, EMC recognized \$170.6 million related to employee termination benefits, facility closure costs, asset disposals and other exit costs. The restructuring included a reduction of the workforce by approximately 1,100 employees, of which approximately 500 were terminated in 1999 and approximately 600 were terminated in 2000. The charge also includes merger costs of \$23.5 million for financial advisory services, legal, accounting and other direct expenses related to the Data General acquisition. In addition, EMC recorded a \$14.1 million charge related to asset impairments and \$15.4 million for capitalized software and inventory write-downs. The expected cash impact of the charge is \$164.1 million, of which \$72.7 million was paid in 1999, \$61.1 million was paid in 2000 and \$6.4 million was paid in 2001. The remaining obligations relate to executive severance that continues through 2005.

The classification of the charges in the statement of operations consists of \$208.2 million contained within restructuring, merger and other special charges and \$15.4 million contained in cost of product sales.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**1998 Restructuring Program**

In 1998, EMC recorded a charge of \$135.0 million related to a Data General restructuring program and certain asset write-downs resulting from the program. The charge included \$82.4 million related to employee termination benefits, asset write-downs and other exit costs and \$52.6 million for capitalized software and inventory write-downs. The restructuring program included a reduction of the workforce by approximately 480 employees, of which 400 were terminated in 1998 and 80 were terminated in 1999. The expected cash impact of the charge is \$58.5 million, of which \$24.4 million was paid in 1998, \$21.6 million was paid in 1999, \$3.0 million was paid in 2000 and \$0.4 million was paid in 2001. The remaining obligations relate to lease payments that continue through 2015.

The amounts accrued and charged against the established provisions for the 1999 and 1998 restructuring programs for each of the three years ended December 31, is as follows (table in thousands):

	<u>Beginning balance</u>	<u>Current year provision</u>	<u>Current year utilization</u>	<u>Ending balance</u>
<b>2001</b>				
Workforce reduction	\$ 23,374	\$	\$ (4,109)	\$ 19,265
Asset disposal and other exit costs	2,820		(2,820)	
Consolidation of excess facilities	15,552		(945)	14,607
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Total	\$ 41,746	\$	\$ (7,874)	\$ 33,872
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
<b>2000</b>				
Workforce reduction	\$ 75,481	\$	\$ (52,107)	\$ 23,374
Asset disposal and other exit costs	15,311		(12,491)	2,820
Consolidation of excess facilities	18,655		(3,103)	15,552
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Total	\$ 109,447	\$	\$ (67,701)	\$ 41,746
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
<b>1999</b>				
Workforce reduction	\$ 21,359	\$ 121,539	\$ (67,417)	\$ 75,481
Asset disposal and other exit costs	8,856	37,878	(31,423)	15,311
Consolidation of excess facilities	13,321	11,193	(5,859)	18,655
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Total	\$ 43,536	\$ 170,610	\$ (104,699)	\$ 109,447
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>

**D. Derivatives**

EMC uses derivatives to hedge foreign currency cash flows on a continuing basis for periods consistent with its net asset and anticipated cash flow exposures. Any foreign currency transaction, defined as a transaction denominated in a currency other than the U.S. dollar, will be reported in U.S. dollars at the applicable exchange rate. The primary foreign currency denominated transactions include revenues and expenses and the resultant accounts receivable and accounts payable balances reflected on EMC's balance sheet. Therefore, the change in the value of the U.S. dollar as compared to foreign currencies will have either a positive or negative effect on EMC's financial position and results of operations. EMC enters into derivative contracts with the sole objective of decreasing the volatility of the impact of currency fluctuations. Since EMC is using foreign exchange derivative contracts to hedge foreign exchange exposures, the changes in the value of the derivatives are highly effective in offsetting changes in the fair value or cash flows of the hedged item. Any ineffective portion of the derivatives is recognized in current earnings, which represented an immaterial amount for the fiscal years covered. The ineffective portion of the derivatives consists of option premiums, discounts or premiums on forward contracts and gains or losses associated with differences between actual and forecasted amounts.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

EMC hedges its net asset position with foreign currency forward and option contracts. Since these derivatives hedge existing net assets that are denominated in foreign currencies, the contracts do not qualify for hedge accounting. The changes in fair value from these contracts as well as the underlying exposures are generally offsetting, and are recorded in other income (expense) on the statement of operations. These derivative contracts mature within one year or less.

EMC uses foreign currency forward and option contracts to hedge a portion of its anticipated revenue and expense transactions. These derivatives are designated as cash flow hedges, and changes in their fair value are carried in accumulated other comprehensive income (loss) until the underlying forecasted transaction occurs. To achieve hedge accounting, the criteria specified in FAS No. 133, Accounting for Derivative Instrument and Hedging Activities must be met. Absent meeting this criteria, changes in fair value are recognized currently in other income (expense) in the statement of operations. Once the underlying forecasted transaction is realized, the appropriate gain or loss from the derivative designated as a hedge of the transaction is reclassified from accumulated other comprehensive income (loss) to the statement of operations, in revenue or expense, as appropriate. In the event the underlying forecasted transaction does not occur, the amount recorded in accumulated other comprehensive income (loss) will be reclassified to the other income (expense) line of the statement of operations in the then-current period. Such amounts were immaterial for 2001, 2000 and 1999, respectively. EMC's cash flow hedges generally mature within nine months or less.

At December 31, 2001 and 2000, the fair value of the derivatives resulted in a liability on both the net assets and cash flow hedges of \$0.4 million and \$17.7 million, respectively. Such amounts are classified within other current assets within the consolidated balance sheet.

The following table summarizes activity in other comprehensive income (loss) related to derivatives held by EMC for 2001, 2000 and 1999 (table in thousands):

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Unrealized gains (losses) on derivative instruments, beginning of year	\$ (4,105)	\$ 1,616	\$
Add: increase (decrease) in fair value of derivatives	34,601	14,335	(198)
Less: gains (losses) reclassified into revenue or expenses	30,407	20,056	(1,814)
	<u>          </u>	<u>          </u>	<u>          </u>
Unrealized gains (losses) on derivative instruments, end of year	<u>\$ 89</u>	<u>\$ (4,105)</u>	<u>\$ 1,616</u>

The unrealized gains at December 31, 2001 will be reclassified from other accumulated comprehensive income (loss) to earnings in the statement of operations in 2002.

#### E. Fair Value of Financial Instruments

##### *Fair Value*

The carrying amounts reflected in the consolidated balance sheets for cash and cash equivalents, accounts and notes receivable, current portion of long-term debt and accounts and notes payable approximate fair value due to the short maturities of these instruments.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

*Investments*

The following tables summarize the composition of EMC's available for sale short and long-term investments at December 31, 2001 and 2000 (tables in thousands):

	December 31, 2001	
	Amortized Cost Basis	Aggregate Fair Value
Asset and mortgage-backed securities	\$ 450,108	\$ 457,481
U.S. government and agency obligations	1,111,550	1,123,706
U.S. corporate debt securities	595,674	609,139
Foreign debt securities	23,483	23,850
Municipal obligations	732,718	740,364
<b>Total</b>	<b>\$ 2,913,533</b>	<b>\$ 2,954,540</b>

	December 31, 2000	
	Amortized Cost Basis	Aggregate Fair Value
Asset and mortgage-backed securities	\$ 496,220	\$ 499,505
U.S. government and agency obligations	610,869	614,370
U.S. corporate debt securities	1,088,597	1,096,761
Foreign debt securities	6,771	6,793
Municipal obligations	538,458	544,681
<b>Total</b>	<b>\$ 2,740,915</b>	<b>\$ 2,762,110</b>

Gross unrealized gains on these investments were \$47.2 million and \$25.3 million at December 31, 2001 and 2000, respectively. Gross unrealized losses on these investments were \$6.2 million and \$4.1 million at December 31, 2001 and 2000, respectively. Gross realized gains on these investments were \$53.7 million, \$10.4 million and \$0.6 million in 2001, 2000 and 1999, respectively. Gross realized losses on these investments were \$8.3 million, \$14.9 million and \$4.6 million in 2001, 2000 and 1999 respectively.

The contractual maturities of investments held at December 31, 2001 and 2000 are as follows (tables in thousands):

	December 31, 2001	
	Amortized Cost Basis	Aggregate Fair Value
Due within one year	\$ 438,649	\$ 445,428
Due after one year through 8 years	2,474,884	2,509,112
<b>Total</b>	<b>\$ 2,913,533</b>	<b>\$ 2,954,540</b>

December 31, 2000



	<b>Amortized Cost Basis</b>	<b>Aggregate Fair Value</b>
Due within one year	\$ 673,276	\$ 673,731
Due after one year through 8 years	2,067,639	2,088,379
<b>Total</b>	<b>\$ 2,740,915</b>	<b>\$ 2,762,110</b>

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Investment income consists principally of interest income, including interest on notes receivable from sales-type leases, and realized gains and losses on investments.

The following table summarizes EMC's strategic investments at December 31, 2001 and 2000 (table in thousands):

	December 31, 2001		December 31, 2000	
	Cost	Market	Cost	Market
Strategic investments	\$ 14,543	\$ 15,343	\$ 139,492	\$ 139,492

Gross unrealized gains on these investments were \$0.8 million and \$0 at December 31, 2001 and 2000, respectively. Gross realized gain on these investments were \$2.4 million, \$0 and \$23.8 million in 2001, 2000 and 1999, respectively. Gross realized losses on these investments were \$122.4 million, \$0 and \$10.7 million in 2001, 2000 and 1999, respectively, including other-than-temporary impairments. See Note C.

**F. Inventories**

Inventories consist of (table in thousands):

	December 31, 2001	December 31, 2000
Purchased parts	\$ 28,508	\$ 62,636
Work-in-process	396,304	701,907
Finished goods	159,173	260,421
	\$ 583,985	\$ 1,024,964

**G. Notes Receivable**

Notes receivable are primarily from sales-type leases of EMC's products. The payment schedule for such notes at December 31, 2001 is as follows (table in thousands):

2002	\$ 131,477
2003	112,701
2004	58,951
2005	2,688
Face value	305,817
Less amounts representing interest	(30,480)
Present value	275,337
Current portion	(114,645)
Long-term portion (included in intangible and other assets)	\$ 160,692

Actual cash collections may differ from amounts shown on the table due to early customer buyouts, trade-ins or refinancings. In addition, EMC may sell its notes receivable and underlying equipment associated with its sales-type leases to third parties.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**H. Property, Plant and Equipment**

Property, plant and equipment consists of (table in thousands):

	December 31, 2001	December 31, 2000
	<u>          </u>	<u>          </u>
Furniture and fixtures	\$ 146,369	\$ 129,721
Equipment	1,888,361	1,539,510
Buildings and improvements	683,515	499,823
Land	93,159	69,522
Construction in progress	328,172	321,587
	<u>          </u>	<u>          </u>
	3,139,576	2,560,163
Accumulated depreciation	(1,312,245)	(1,050,075)
	<u>          </u>	<u>          </u>
	\$ 1,827,331	\$ 1,510,088
	<u>          </u>	<u>          </u>

Construction in progress at December 31, 2001 includes \$97.1 million of facilities under construction that EMC has temporarily placed on hold. Depreciation expense was \$462.2 million, \$354.9 million and \$301.5 million in 2001, 2000 and 1999, respectively.

**I. Accrued Expenses**

Accrued expenses consist of (table in thousands):

	December 31, 2001	December 31, 2000
	<u>          </u>	<u>          </u>
Salaries and benefits	\$ 310,214	\$ 313,094
Warranty	118,347	107,266
Restructuring	233,153	41,746
Other	362,497	360,973
	<u>          </u>	<u>          </u>
	\$ 1,024,211	\$ 823,079
	<u>          </u>	<u>          </u>

**J. Income Taxes**

EMC's provision (benefit) for income taxes consists of (table in thousands):

	2001	2000	1999
	<u>          </u>	<u>          </u>	<u>          </u>
Federal			
Current	\$ (36,440)	\$ 507,442	\$ 385,147
Deferred	(221,598)	46,237	(108,203)
	<u>          </u>	<u>          </u>	<u>          </u>
	(258,038)	553,679	276,944
State			
Current	344	45,955	39,127
Deferred	(14,690)	3,691	(6,853)
	<u>          </u>	<u>          </u>	<u>          </u>
	(14,346)	49,646	32,274

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Foreign			
Current	194,209	70,377	45,294
Deferred	8,852	(14,579)	(7,917)
	<u>203,061</u>	<u>55,798</u>	<u>37,377</u>
Total provision (benefit) for income taxes	\$ (69,323)	\$ 659,123	\$ 346,595

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

A reconciliation of EMC's income tax provision to the statutory federal tax rate is as follows:

	2001	2000	1999
Statutory federal tax rate	(35.0)%	35.0%	35.0%
State taxes (benefit), net of federal tax benefit	(3.0)	2.1	2.4
International related tax items	38.9	(10.5)	(9.6)
Reduction of deferred tax assets due to liquidation of subsidiaries	9.8		
U.S. tax credits	(0.3)	(0.2)	(1.1)
Valuation allowance	(4.4)		(4.8)
Acquisition and merger contingencies	(17.5)		3.5
Other	(0.5)	0.6	0.1
	<u>(12.0)%</u>	<u>27.0%</u>	<u>25.5%</u>

The components of the current and non-current deferred tax assets and liabilities are as follows (table in thousands):

	December 31, 2001	December 31, 2000
<b>Current deferred tax assets:</b>		
Accounts and notes receivable	\$ 53,556	\$ 46,369
Inventory	105,147	47,546
Accrued expenses	77,088	59,366
Deferred revenue	46,945	20,865
Other	4,861	13,928
<b>Total current deferred tax assets</b>	<u>\$ 287,597</u>	<u>\$ 188,074</u>
<b>Non-current deferred tax assets (liabilities):</b>		
Notes receivable, net	\$ 15,015	\$ 1,540
Property, plant and equipment, net	8,838	(32,517)
Intangible and other assets, net	43,463	(13,069)
Equity	14,574	11,576
Other non-current liabilities	(128,438)	(85,186)
Credit carryforwards	3,680	5,014
Net operating loss carryforwards	163,883	130,166
Valuation allowance	(95,237)	(120,609)
FAS 130	21,062	2,172
<b>Total non-current deferred tax assets (liabilities)</b>	<u>\$ 46,840</u>	<u>\$ (100,913)</u>

EMC has federal and foreign net operating loss carryforwards of \$510.0 million. Certain net operating losses will begin to expire in the year 2002, while others have an unlimited carryforward period. The valuation allowance decreased from \$120.6 million at December 31, 2000 to \$95.2 million at December 31, 2001. The decrease was primarily attributable to the former Data General subsidiaries' foreign net operating losses that were eliminated pursuant to the reorganization of such entities. Partially offsetting the reduction was an increase in the valuation allowance resulting from uncertainty of realizing capital loss carryforwards. The valuation allowance at December 31, 2001 primarily relates to foreign operating losses that are subject to limitation and

**EMC CORPORATION**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

capital loss carryforwards. In 1999, in conjunction with the acquisition of Data General, EMC reviewed the net realizability of its deferred tax assets and recognized a benefit of \$65.0 million as a reduction of the valuation allowance.

EMC's worldwide tax structure provides for an overall lower effective tax rate compared to the statutory tax rate in years in which there is income. However, in years in which there is a loss, EMC does not receive a commensurate benefit. In 2001, as a result of the favorable resolution of merger-related contingencies, EMC recognized a benefit of \$133.2 million. In 2001, EMC has provided for the potential tax consequences resulting from audits in several tax jurisdictions.

Deferred income taxes have not been provided on basis differences related to investments in foreign subsidiaries. These basis differences were \$2,447.5 million and \$2,604.6 million at December 31, 2001 and 2000, respectively, and consisted of undistributed earnings permanently invested in these entities. The unrecognized deferred tax liability associated with these unremitted earnings is \$672.2 million and \$842.9 million as of December 31, 2001 and 2000, respectively. Income before income taxes from foreign operations for 2001, 2000 and 1999 was \$79.3 million, \$879.1 million and \$449.8 million, respectively.

**K. Retirement Plans and Retiree Medical Benefits**

*401(k) Plan*

EMC has established a deferred compensation program for certain employees that is qualified under Section 401(k) of the Internal Revenue Code of 1986, as amended. At the end of each calendar quarter, EMC makes a cash contribution that matches 100% of the employee's contribution up to 3% of the employee's quarterly compensation. Additionally, provided that certain quarterly profit goals are attained, in succeeding quarters, EMC provides an additional matching cash contribution of 1% of the employee's quarterly compensation up to a maximum quarterly matching contribution not to exceed 6% of compensation or \$750 per person per quarter. EMC's contribution amounted to \$28.4 million in 2001, \$23.7 million in 2000 and \$12.7 million in 1999.

Employees may elect to invest their contributions into a variety of funds, including an EMC stock fund. The deferred compensation program limits an employee's maximum investment allocation in the EMC stock fund to 30% of their total contribution. EMC's matching contribution mirrors the investment allocation of the employee's contribution.

*Defined Benefit Pension Plans*

EMC has a noncontributory defined benefit pension plan which was assumed as part of the Data General acquisition, which covers substantially all former Data General employees located in the U.S. EMC also had a supplemental retirement benefit plan, which covered certain former Data General employees located in the U.S. In 2000, the supplemental retirement benefit plan was liquidated and all payments due under the plan had been made. In addition, certain of the former Data General foreign subsidiaries also have retirement plans covering substantially all of their employees.

Benefits under these plans are generally based on either career average or final average salaries and creditable years of service as defined in the plans. The annual cost for these plans is determined using the projected unit credit actuarial cost method that includes actuarial assumptions and estimates which are subject to change in the near term. Prior service cost is amortized over the average remaining service period of employees expected to receive benefits under the plan. Funds contributed to the plans are invested primarily in common stock, mutual funds, bond funds and cash equivalent securities.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

EMC's investment policy provides that no security, except issues of the U.S. Government, shall comprise more than 5% of total plan assets, measured at market. At December 31, 2001, the Data General U.S. Pension Plan held \$0.3 million of EMC common stock.

The Data General U.S. pension plan, U.S. supplemental retirement benefit plan and certain foreign retirement plans (the Pension Plans) are summarized in the following tables. Prior year amounts have been restated to exclude immaterial plans of former Data General foreign subsidiaries.

The components of the change in benefit obligation of the Pension Plans are as follows (table in thousands):

	December 31, 2001	December 31, 2000
Benefit obligation at beginning of year	\$ 267,148	\$ 250,126
Service cost	1,580	3,270
Interest cost	19,058	19,036
Participant contributions	457	850
Foreign exchange gain	(1,371)	(3,761)
Curtailment gain		(1,079)
Benefits paid	(6,976)	(10,213)
Settlement payments	(3,306)	(1,034)
Actuarial loss	14,829	9,953
	<u>          </u>	<u>          </u>
Benefit obligation at end of year	\$ 291,419	\$ 267,148

The reconciliation of the beginning and ending balances of the fair value of the assets of the Pension Plans is as follows (table in thousands):

	December 31, 2001	December 31, 2000
Fair value of plan assets at beginning of year	\$ 250,466	\$ 271,811
Actual return on plan assets	(11,506)	(9,157)
Employer contributions	905	2,342
Participant contributions	457	850
Foreign exchange loss	(1,416)	(4,133)
Benefits paid	(6,976)	(10,213)
Settlement payments	(3,306)	(1,034)
	<u>          </u>	<u>          </u>
Fair value of plan assets at end of year	\$ 228,624	\$ 250,466

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The funded status of the Pension Plans is as follows (table in thousands):

	December 31, 2001	December 31, 2000
Funded status	\$ (62,795)	\$ (16,682)
Unrecognized actuarial loss	75,283	26,869
Unrecognized transition asset	(2,955)	(3,783)
Net amount recognized at year end	\$ 9,533	\$ 6,404

Amounts recognized in the balance sheet consist of the following (table in thousands):

	December 31, 2001	December 31, 2000
Prepaid benefit cost	\$	\$ 9,796
Accrued benefit liability	(59,075)	(3,392)
Accumulated other comprehensive loss	68,608	
Net amount recognized at year end	\$ 9,533	\$ 6,404

The components of net periodic benefit cost of the Pension Plans are as follows (table in thousands):

	2001	2000	1999
Service cost	\$ 1,580	\$ 3,270	\$ 10,508
Interest cost	19,058	19,036	17,702
Expected return on plan assets	(20,969)	(23,243)	(21,427)
Amortization of transition asset	(829)	(807)	(761)
Amortization of prior service cost			1,287
Recognized actuarial (gain) loss	735	(168)	239
Curtailment, net of settlements	138	(53)	7,947
Net periodic benefit cost (credit)	\$ (287)	\$ (1,965)	\$ 15,495

The weighted-average assumptions used in the Pension Plans are as follows:

	December 31, 2001	December 31, 2000	December 31, 1999
Discount rate	7.0%	7.3%	7.6%
Expected long-term rate of return on plan assets	8.6%	8.5%	9.4%
Rate of compensation increase	3.8%	4.0%	4.0%

As of December 31, 1999, the U.S. and Canadian Data General pension plans were frozen. As employees will no longer accrue pension benefits under the plans for future service, the wind-up resulted in a plan curtailment resulting in income of approximately \$0.2 million in 2000. The curtailment of \$7.9 million in 1999 was a result of the freezing of the U.S. pension plan.



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The projected benefit obligation, accumulated benefit obligation and fair value of plan assets for the Pension Plans with accumulated benefit obligations in excess of plan assets was \$291.4 million, \$288.0 million and \$228.6 million, respectively, as of December 31, 2001, and \$223.1 million, \$223.1 million and \$204.7 million, respectively, as of December 31, 2000.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

*Post-Retirement Medical and Life Insurance Plan*

EMC's post-retirement benefit plan, which was assumed in connection with the acquisition of Data General, provides certain medical and life insurance benefits for retired former Data General employees. With the exception of certain participants who retired prior to 1986, the medical benefit plan requires monthly contributions by retired participants in an amount equal to insured equivalent costs less a fixed EMC contribution which is dependent on the participant's length of service and Medicare eligibility. Benefits are continued to dependents of eligible retiree participants for 39 weeks after the death of the retiree. The life insurance benefit plan is noncontributory. Funds contributed to the plan are invested primarily in common stocks, mutual funds and cash equivalent securities.

The components of the change in benefit obligation are as follows (table in thousands):

	December 31, 2001	December 31, 2000
Benefit obligation at beginning of year	\$ 5,900	\$ 6,407
Interest cost	363	457
Benefits paid	(344)	(994)
Actuarial (gain) loss	(398)	30
Benefit obligation at end of year	\$ 5,521	\$ 5,900

The reconciliation of the beginning and ending balances of the fair value of plan assets is as follows (table in thousands):

	December 31, 2001	December 31, 2000
Fair value of plan assets at beginning of year	\$ 347	\$ 371
Actual return on plan assets	(10)	(24)
Employer contributions	344	994
Benefits paid	(344)	(994)
Fair value of plan assets at end of year	\$ 337	\$ 347

The funded status of the plan is as follows (table in thousands):

	December 31, 2001	December 31, 2000
Funded status	\$ (5,184)	\$ (5,553)
Unrecognized actuarial gain	(967)	(653)
Unrecognized prior service credit	(1,450)	(1,551)
Accrued benefit liability	\$ (7,601)	\$ (7,757)

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The components of net periodic benefit cost are as follows (table in thousands):

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Service cost	\$	\$	\$ 319
Interest cost	363	457	752
Expected return on plan assets	(31)	(33)	(54)
Amortization of prior service cost	(101)	(101)	67
Amortization of transition asset			164
Recognized actuarial gain	(43)	(21)	(4)
	<u>          </u>	<u>          </u>	<u>          </u>
Net periodic benefit cost	\$ 188	\$ 302	\$ 1,244
	<u>          </u>	<u>          </u>	<u>          </u>

The weighted-average assumptions used in the plan are as follows:

	<u>December 31, 2001</u>	<u>December 31, 2000</u>	<u>December 31, 1999</u>
Discount rate	7.3%	7.5%	8.0%
Expected long-term rate of return on plan assets	9.0%	9.0%	10.0%
Rate of compensation increase	N/A	N/A	4.0%

The effects of a one percent change in the assumed health care cost trend rates are as follows (table in thousands):

	<u>1% increase</u>	<u>1% decrease</u>
Effect on total service and interest cost components for 2001	\$ 5	\$ (5)
Effect on year-end post retirement obligation	82	(73)

#### L. Commitments and Contingencies

##### *Operating Lease Commitments*

EMC leases office and warehouse facilities and equipment under various operating leases. Rent expense was \$266.5 million, \$229.1 million and \$155.3 million in 2001, 2000 and 1999, respectively. EMC's commitments under its operating leases, including facilities to be sublet (see Note C), are as follows (table in thousands):

2002	\$	215,932
2003		164,579
2004		102,305
2005		73,861
2006		49,661
Thereafter		113,486
		<u>          </u>
Total minimum lease payments	\$	719,824
		<u>          </u>

##### *Lines of Credit*

EMC has available for use credit lines of \$50.0 million in the United States and \$50.0 million in Brazil. As of December 31, 2001, EMC had \$40.0 million outstanding on its line of credit in Brazil and none outstanding on its line of credit in the United States. The U.S. credit line bears interest at the bank's base rate and requires EMC, upon utilization of the credit line, to meet certain financial covenants with respect to limitations on losses. The Brazilian credit line bears interest at the rate quoted by the lender (21% at December 31, 2001) and requires



**EMC CORPORATION**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

EMC to meet certain financial covenants with respect to limitations on losses and maintaining minimum levels of cash and investments. In the event the covenants are not met, the lender may require EMC to provide collateral to secure the outstanding balance. At December 31, 2001, EMC was in compliance with the covenants. The Brazilian credit line is denominated in local currency and as such, bears an interest rate commensurate with local currency short-term interest rates. The Brazilian line of credit has been established to help manage the currency volatility between the local currency and the U.S. dollar and facilitate cash repatriation. In addition, throughout the world, EMC has bank guarantees and other bank facilities aggregating \$32.1 million for the purpose of guaranteeing rent, taxes, duties and other obligations.

*Purchase Orders*

At December 31, 2001, EMC had outstanding purchase orders to purchase \$847.0 million of manufacturing and non-manufacturing related goods and services in 2002 and, for certain items, thereafter. While purchase orders are generally cancelable without penalty, certain vendor agreements provide for percentage-based cancellation fees or minimum restocking charges based on the nature of the product or service.

*3 1/4% Notes*

In March 1997, EMC sold \$517.5 million of 3 1/4% convertible subordinated notes due 2002 (the 3/4% Notes ). The 3/4% Notes were generally convertible into shares of EMC common stock at a conversion price of \$5.67 per share, subject to adjustment in certain events. Interest was payable semi-annually and the 3 1/4% Notes were redeemable at the option of EMC at set redemption prices (which ranged from 100.65% to 101.3% of principal), plus accrued interest, commencing March 15, 2000. On February 15, 2000, EMC announced that it would redeem all of the outstanding 3 1/4% Notes. As of March 15, 2000, all outstanding 3 1/4% Notes were converted into shares of EMC common stock.

*6% Notes*

In May 1997, Data General sold \$212.8 million of 6% convertible subordinated notes due 2004 (the 6% Notes ), which were assumed by EMC in connection with the acquisition of Data General in 1999. The 6% Notes were generally convertible into shares of EMC common stock at a conversion price of \$41.91 per share, subject to adjustment in certain events. Interest was payable semi-annually and the 6% Notes were redeemable at the option of EMC at set redemption prices (which ranged from 100.857% to 103.429% of principal), plus accrued interest, commencing May 14, 2000. On April 14, 2000, EMC announced that it would redeem all of the outstanding 6% Notes. On May 18, 2000, \$212.6 million of the 6% Notes were converted into shares of EMC common stock. EMC paid approximately \$155,000 in 2000 to redeem the remaining 6% Notes.

*Litigation*

EMC is a party to litigation that it considers routine and incidental to its business. Management does not expect the results of any of these actions to have a material adverse effect on EMC's business, results of operations or financial condition.

**M. Stockholders' Equity**

*Stock Split*

On May 3, 2000, EMC announced a 2-for-1 stock split in the form of a 100% stock dividend with a record date of May 19, 2000 and a distribution date of June 2, 2000. On February 25, 1999, EMC announced a 2-for-1 stock split in the form of a 100% stock dividend with a record date of May 14, 1999 and a distribution date of May 28, 1999. Share and per share amounts have been restated to reflect the stock splits for all periods presented.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

*Net Income (Loss) Per Share*

Calculation of diluted per share earnings (loss) is as follows (table in thousands, except per share amounts):

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Net income (loss)	\$ (507,712)	\$ 1,782,075	\$ 1,010,570
Add back of interest expense on 3 1/4% convertible notes, net of tax		1,792	9,584
Net income (loss) for calculating diluted earnings (loss) per share	\$ (507,712)	\$ 1,783,867	\$ 1,020,154
Weighted average common shares outstanding	2,211,273	2,164,180	2,061,101
Weighted common stock equivalents		81,023	157,964
Total weighted average shares	2,211,273	2,245,203	2,219,065
Net income (loss) per share, diluted	\$ (0.23)	\$ 0.79	\$ 0.46

All options outstanding in 2001 were excluded from the calculation of diluted earnings per share because of their antidilutive effect. As of December 31, 2001, 151.6 million options were outstanding. The calculation of diluted earnings per share for 1999 and 2000 excludes the 6% Notes as these were also antidilutive.

*Accumulated Other Comprehensive Loss*

Accumulated other comprehensive loss, which amounts are shown net of taxes, consists of the following (table in thousands):

	<u>December 31, 2001</u>	<u>December 31, 2000</u>
Foreign currency translation adjustments	\$ (22,506)	\$ (18,356)
Equity adjustment for minimum pension liability	(42,194)	
Unrealized gains on investments	31,613	15,471
Unrealized gains (losses) on derivatives	80	(2,997)
	\$ (33,007)	\$ (5,882)

Reclassification adjustments between other comprehensive loss and the statement of operations, consist of the following (table in thousands):

	<u>Year Ended December 31,</u>		
	<u>2001</u>	<u>2000</u>	<u>1999</u>
Realized gains (losses) on investments, net of taxes (benefit) of \$8,223, \$(2,005) and \$5,043	\$ 23,737	\$ (2,495)	\$ 4,057
Realized gains (losses) on derivatives, net of taxes (benefit) of \$8,210, \$5,415 and \$(454)	22,197	14,641	(1,360)

*Preferred Stock*

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EMC's Series Preferred Stock may be issued from time to time in one or more series, with such terms as the Board of Directors may determine, without further action by the stockholders of EMC.

### *Stock Option Plans*

EMC has three stock option plans (the 1985 Plan, the 1993 Plan and the 2001 Plan) that provide for the granting of incentive stock options and nonqualified stock options to key employees. A total of 548.0 million shares of EMC common stock have been reserved for issuance under the plans.

**EMC CORPORATION**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Under the terms of each of the plans, the exercise price of incentive stock options issued must be equal to at least the fair market value of the EMC common stock on the date of grant. In the event that nonqualified stock options are granted under the 1985 Plan, the exercise price may be less than the fair market value at the time of grant, but in the case of employees not subject to Section 16 of the Securities Exchange Act of 1934 ( Section 16 ), not less than par value which is \$.01 per share, and in the case of employees subject to Section 16, not less than 50% of the fair market value on the date of grant. In the event that nonqualified stock options are granted under the 1993 Plan or the 2001 Plan, the exercise price may be less than the fair market value at the time of grant but not less than par value.

In 2001, 2000 and 1999, options to purchase 402,000, 310,000 and 522,000 shares, respectively, of EMC common stock at \$.01 per share were granted to certain employees. In 1999, options to purchase an aggregate of 290,000 shares of EMC common stock at \$32.13 per share were granted to certain employees, representing 73% of the per share fair market value on the date of grant. Discounts from fair market value have been recorded as deferred compensation and are being amortized over the three-year vesting periods of the options.

In 2001, performance-related options to purchase 3,497,000 shares of EMC common stock were granted at \$36.66 per share, the fair market value on the date of grant, to certain employees. Such options will become 50% vested upon the price of the EMC common stock reaching \$73.32 per share for at least 10 consecutive trading days on or prior to April 18, 2004. The remaining 50% will become vested upon the price of the EMC common stock reaching \$109.98 for at least 10 consecutive trading days on or prior to April 18, 2004, provided that such options may not become exercisable prior to April 18, 2003. Absent meeting the price targets, the options will become fully exercisable in April 2006 and have a final exercise date in April 2011.

EMC has a stock option plan that provides for the granting of stock options to members of its Board of Directors (the Directors Plan ). A total of 14.4 million shares of EMC common stock have been reserved for issuance under the Directors Plan. The exercise price for each option granted under the Directors Plan will be at a price per share determined at the time the option is granted, but not less than 50% of the per share fair market value of EMC common stock on the date of grant.

At December 31, 2001, there was an aggregate of approximately 54.6 million shares available for issuance pursuant to future option grants under the 1985 Plan, the 1993 Plan, the 2001 Plan and the Directors Plan. Options generally become exercisable in annual installments over a period of three to five years after the date of grant and expire ten years after the date of grant.

EMC has, in connection with the acquisition of various companies, assumed the stock option plans of these companies. Details of the stock option plans assumed in connection with the acquisition of Data General are set out below. EMC does not intend to make future grants under any of such plans.

Data General had authorized the grant of either incentive stock options or non-qualified stock options to employees and directors to purchase up to an aggregate of 7.5 million shares of EMC common stock under certain stock option plans ( Data General Plans ). In 1999, 142,000 shares were granted at an average price of \$8.63, representing 40% of the per share fair market value on the date of grant. Discounts from fair market value have been recorded as deferred compensation and are being amortized over the five-year vesting period of the options.

Total compensation expense for stock options granted below fair market value was \$19.5 million, \$27.0 million and \$22.3 million for 2001, 2000 and 1999, respectively.



## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

*Supplemental Disclosures for Stock-Based Compensation*

Activity under all stock option plans for the three years ended December 31, 2001 is as follows (shares in thousands):

	Number of Shares	Wtd. Avg. Exercise Price
Outstanding, January 1, 1999	109,522	\$ 5.28
Granted	19,168	29.89
Canceled	(2,428)	9.59
Exercised	(21,262)	3.56
Outstanding, December 31, 1999	105,000	10.02
Options relating to business acquisitions	391	27.85
Granted	31,563	76.31
Canceled	(6,412)	41.79
Exercised	(25,860)	6.45
Outstanding, December 31, 2000	104,682	29.01
Options relating to business acquisitions	46	8.28
Granted	84,701	22.69
Canceled	(13,687)	40.52
Exercised	(24,118)	3.55
Outstanding, December 31, 2001	151,624	\$ 28.50

Summarized information about stock options outstanding at December 31, 2001 is as follows (shares in thousands):

Range of Exercise Price		Number of Options Outstanding	Weighted Avg. Remaining Contractual Life	Weighted Avg. Exercise Price	Exercisable	
					Number of Options	Weighted Avg. Exercise Price
\$0.01	\$2.74	6,378	4.5	\$ 1.74	5,769	\$ 1.92
2.75	4.12	3,452	4.5	2.94	3,036	2.92
4.13	6.18	11,389	5.5	5.97	6,911	5.99
6.19	9.27	2,782	5.9	7.57	1,514	7.61
9.28	13.91	54,919	9.3	11.71	4,018	12.75
13.92	20.87	8,891	9.2	17.80	513	16.01
20.88	31.31	1,209	7.2	26.36	345	26.77
31.32	46.97	34,398	8.7	35.07	4,052	32.01
46.98	70.46	8,043	8.2	60.17	1,582	60.24
70.47	90.00	20,163	8.7	83.53	3,214	85.98
Totals		151,624	8.3	\$28.50	30,954	\$20.77

There were 31.0 million, 36.5 million and 39.3 million outstanding options that were exercisable at December 31, 2001, 2000 and 1999, respectively.



## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The fair value of each option granted during 2001, 2000 and 1999 is estimated on the date of grant using the Black-Scholes option-pricing model with the following assumptions:

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Dividend yield	None	None	None
Expected volatility	55.0%	55.0%	52.0%
Risk-free interest rate	4.36%	6.21%	5.5%
Expected life (years)	5.0	5.0	5.0

Weighted average fair value of options granted at fair market value during:

2001	\$ 11.91
2000	\$ 42.28
1999	\$ 15.86

Weighted average fair value of options granted below fair market value during:

2001	\$ 31.43
2000	\$ 58.33
1999	\$ 22.97

Had compensation cost for EMC's 2001, 2000 and 1999 stock option grants and employee stock purchase plan issuances been determined consistent with SFAS 123, EMC's net income (loss) and net income (loss) per share would have been (table in thousands, except per share amounts):

	<u>Net Income (Loss)</u>	<u>Net Income (Loss) Per Share, Basic</u>	<u>Net Income (Loss) Per Share, Diluted</u>
As reported:			
2001	\$ (507,712)	\$ (0.23)	\$ (0.23)
2000	\$ 1,782,075	\$ 0.82	\$ 0.79
1999	\$ 1,010,570	\$ 0.49	\$ 0.46
Pro forma:			
2001	\$ (843,415)	\$ (0.38)	\$ (0.38)
2000	\$ 1,599,880	\$ 0.74	\$ 0.71
1999	\$ 945,144	\$ 0.46	\$ 0.43

The effects of applying SFAS 123 in this pro forma disclosure are not necessarily indicative of future amounts. SFAS 123 does not apply to awards made prior to 1995. Additional awards in future years are anticipated.

#### Employee Stock Purchase Plan

Under the 1989 Employee Stock Purchase Plan (the 1989 Plan), eligible employees of EMC may purchase shares of EMC common stock, through payroll deductions, at the lower of 85% of fair market value of the stock at the time of grant or 85% of fair market value at the time of exercise. A total of 48.0 million shares have been reserved for issuance under the 1989 Plan. Options to purchase shares are granted twice yearly, on January 1 and July 1, and are exercisable on the succeeding June 30 or December 31. Grants for the last three years are as follows (shares in thousands):

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Shares	5,909	1,223	1,484
Weighted average exercise price	\$ 15.72	\$ 51.72	\$ 19.77
Weighted average fair value	\$ 6.04	\$ 20.63	\$ 9.60

**EMC CORPORATION**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

*Common Stock Buy Back*

EMC's Board of Directors has authorized the repurchase of up to 50.0 million shares of its common stock from time to time. The purchased shares will be available for various corporate purposes, including for use in connection with stock option and employee stock purchase plans. EMC utilizes the cost method to account for the purchase of treasury stock which presents the aggregate cost of reacquired shares as a component of stockholders' equity. As of December 31, 2001, EMC has repurchased approximately 1.1 million shares.

*Issuance of Subsidiary Stock*

On August 9, 2000, EMC completed the initial public offering of 14.4 million shares of Class B common stock of its indirect majority owned subsidiary, McDATA Corporation. The offering represented approximately 13% of the McDATA common stock outstanding on August 9, 2000. McDATA offered the shares at a price of \$28 per share and realized net proceeds from the offering of \$376.6 million. McDATA retained the net proceeds for general corporate purposes. As of December 31, 2000, EMC owned approximately 74% of the outstanding McDATA common stock. On December 28, 2000, EMC's Board of Directors declared a stock dividend of approximately .0368069 of a share of McDATA Class A common stock for each share of EMC common stock. The dividend was distributed on February 7, 2001 to holders of record on January 24, 2001. As a result of the distribution, EMC no longer has any equity ownership interest in McDATA.

**N. Related Party Transactions**

EMC has retained a company owned by the brother of a member of the EMC Board of Directors as a broker to provide various forms of corporate insurance. EMC paid such company approximately \$1.6 million, \$2.8 million and \$1.5 million in 2001, 2000 and 1999, respectively. Such amounts include broker's fees of \$35,000, \$70,000 and \$35,000 in 2001, 2000 and 1999, respectively. As of December 31, 2001, approximately \$26,000 was owed to this company. No payments were due as of December 31, 2000.

In 2001, 2000 and 1999, a distributor or provider of components supplied to EMC received payments of approximately \$321,000, \$280,000 and \$49,000, respectively, on component sales to EMC and approximately \$1.1 million, \$3.0 million and \$1.2 million, respectively, on component sales to unaffiliated third parties who in turn sold products incorporating such components to EMC. A member of the EMC Board of Directors who resigned in 2001 is an officer and member of the Board of Directors of the distributor or provider. No amounts were owed to this company as of December 31, 2001 or 2000.

In 2001, 2000 and 1999, EMC leased certain real estate from a company owned by a member of the EMC Board of Directors and such director's siblings, for which payments aggregated approximately \$2.4 million, \$2.4 million and \$0.6 million, respectively. No amounts were owed to this company as of December 31, 2001 or 2000. EMC acquired such leased property in connection with its acquisition of Data General in 1999.

In January 2000, EMC acquired all of the issued and outstanding capital stock of Terascape Software, Inc. A member of the EMC Board of Directors is a principal in a limited partnership, which was a stockholder of Terascape. The limited partnership received proceeds of approximately \$5.9 million. The director, together with his children, had beneficial interests of approximately \$0.6 million in such proceeds.

EMC believes that the terms of each of these arrangements described above were fair and not less favorable to EMC than could have been obtained from unaffiliated parties.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**O. Risks and Uncertainties**

EMC's future results of operations involve a number of risks and uncertainties. Factors that could affect EMC's future operating results and cause actual results to vary materially from expectations include, but are not limited to, further adverse changes in general economic conditions; further delays or reductions in information technology spending; EMC's ability to effectively manage operating costs and increase operating efficiencies; further declines in revenues; insufficient, excess or obsolete inventory; competitive factors, including but not limited to pricing pressures; component quality and availability; rapid technological and market change and the transition to new products; the uncertainty of customer acceptance of new products; the relative and varying rates of product price and component cost declines; the effects of war or acts of terrorism, including the effect on the economy generally, on particular industry segments, on transportation and communication systems and on EMC's ability to manage logistics in such an environment, including receipt of components and distribution of products; the ability to attract and retain highly qualified employees; the risk of additional income tax liabilities; the uneven pattern of quarterly sales; fluctuating currency exchange rates; risks associated with strategic investments and acquisitions; EMC's ability to execute on its plans; and other one-time events.

**P. Segment Information**

EMC operates in the following segments: information storage products, information storage services and other businesses. The following table presents the revenue components for information storage products (table in thousands):

	2001	2000	1999
Information storage systems	\$ 4,307,244	\$ 6,245,765	\$ 4,564,956
Information storage software	1,560,022	1,435,133	821,727
<b>Total information storage products</b>	<b>\$ 5,867,266</b>	<b>\$ 7,680,898</b>	<b>\$ 5,386,683</b>

EMC's management makes financial decisions and allocates resources based on revenues and gross profit achieved at the segment level. EMC does not allocate selling, general and administrative or research and development expenses to each segment, as management does not use this information to measure the performance of the operating segments. The revenues and gross profit attributable to these segments are included in the following table (table in thousands):

	Information Storage Products	Information Storage Services	Other Businesses	Consolidated
<b>2001</b>				
Revenues	\$ 5,867,266	\$ 972,274	\$ 251,093	\$ 7,090,633
Gross profit (1)	2,697,936	373,294	92,427	3,163,657
Gross profit percentage	46.0%	38.4%	36.8%	44.6%
<b>2000</b>				
Revenues	\$ 7,680,898	\$ 612,089	\$ 579,829	\$ 8,872,816
Gross profit	4,716,755	206,932	219,364	5,143,051
Gross profit percentage	61.4%	33.8%	37.8%	58.0%
<b>1999</b>				
Revenues	\$ 5,386,683	\$ 361,806	\$ 967,121	\$ 6,715,610
Gross profit	3,034,062	94,311	328,992	3,457,365
Gross profit percentage	56.3%	26.1%	34.0%	51.5%

(1) Excludes \$320.1 million provision for excess and obsolete inventory and impaired capitalized software.



## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

EMC's revenues are attributed to the geographic areas according to the location of the customers. Revenues by geographic area are included in the following table (table in thousands):

	2001	2000	1999
United States	\$ 4,032,190	\$ 5,298,847	\$ 4,142,554
Other North America	153,214	137,380	114,562
Europe, Middle East, Africa	1,774,889	2,351,773	1,844,320
Asia Pacific	893,373	880,121	438,967
Latin America	236,967	204,695	175,207
Total International	3,058,443	3,573,969	2,573,056
Total	\$ 7,090,633	\$ 8,872,816	\$ 6,715,610

No country other than the United States accounted for 10% or more of revenues in 2001, 2000 and 1999.

Long-lived assets, excluding financial instruments, intangible assets and deferred tax assets in the United States were \$1,551.5 million, \$1,304.9 million and \$832.5 million, at December 31, 2001, 2000 and 1999, respectively. Long-lived assets, excluding financial instruments, intangible assets and deferred tax assets in Ireland were \$181.4 million at December 31, 2001, \$148.3 million at December 31, 2000 and \$119.5 million at December 31, 1999. No other country accounted for 10% or more of these assets at December 31, 2001, 2000 or 1999.

**Q. Selected Quarterly Financial Data (unaudited)**

Quarterly financial data for 2001 and 2000 is as follows (table in thousands, except per share amounts):

	Q1 2001	Q2 2001	Q3 2001	Q4 2001
<b>2001</b>				
Net sales and service	\$ 2,344,795	\$ 2,020,855	\$ 1,212,273	\$ 1,512,710
Gross profit	1,292,511	949,312	43,828	557,940
Net income (loss)	398,795	108,862	(945,207)	(70,162)
Net income (loss) per share, diluted	\$ 0.18	\$ 0.05	\$ (0.43)	\$ (0.03)
	Q1 2000	Q2 2000	Q3 2000	Q4 2000
<b>2000</b>				
Net sales and service	\$ 1,822,598	\$ 2,145,927	\$ 2,283,005	\$ 2,621,286
Gross profit	1,031,539	1,243,495	1,316,409	1,551,608
Net income	331,987	429,037	458,178	562,873
Net income per share, diluted	\$ 0.15	\$ 0.19	\$ 0.20	\$ 0.25

Quarterly financial data for the third quarter of 2001 includes an after-tax restructuring charge of \$675.3 million or \$0.31 per diluted share.

**ITEM 9. DISAGREEMENTS ON ACCOUNTING AND FINANCIAL DISCLOSURES**

None.

**PART III**

**ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT**

We will furnish to the Securities and Exchange Commission a definitive Proxy Statement not later than 120 days after the close of the fiscal year ended December 31, 2001. Certain information required by this item is incorporated herein by reference to the Proxy Statement. Also see Executive Officers of the Registrant in Part I of this form.

**ITEM 11. EXECUTIVE COMPENSATION**

The information required by this item is incorporated herein by reference to the Proxy Statement.

**ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT**

The information required by this item is incorporated herein by reference to the Proxy Statement.

**ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

The information required by this item is incorporated herein by reference to the Proxy Statement and included in Note N to our Consolidated Financial Statements.

**PART IV**

**ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULE AND REPORTS ON FORM 8-K**

(a)

1. Financial Statements

The financial statements listed in the Index to Consolidated Financial Statements are filed as part of this report.

2. Schedule

The Schedule on page S-1 is filed as part of this report.

3. Exhibits

See Index to Exhibits on page 68 of this report.

The exhibits are filed with or incorporated by reference in this report.

(b) Reports on Form 8-K.

We did not file any current report on Form 8-K during the quarter ended December 31, 2001.



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**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, EMC Corporation has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on March 22, 2002.

EMC CORPORATION

By:

/s/ MICHAEL C. RUETTGERS

Michael C. Ruettgers  
*Executive Chairman of the Board of Directors*

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of EMC Corporation and in the capacities indicated as of March 22, 2002.

Signature

Title

/s/ MICHAEL C. RUETTGERS

Executive Chairman of the Board of Directors  
*(Principal Executive Officer)*

Michael C. Ruettgers

/s/ JOSEPH M. TUCCI

President, Chief Executive Officer and Director

Joseph M. Tucci

/s/ WILLIAM J. TEUBER, JR.

Executive Vice President and Chief Financial Officer  
*(Principal Financial and Accounting Officer)*

William J. Teuber, Jr.

/s/ MICHAEL J. CRONIN

Director

Michael J. Cronin

/s/ JOHN R. EGAN

Director

John R. Egan

/s/ W. PAUL FITZGERALD

Director

W. Paul Fitzgerald

/s/ WINDLE B. PRIEM

Director

Windle B. Priem

/s/ ALFRED M. ZEIEN

Director

Alfred M. Zeien

**EXHIBIT INDEX**

The exhibits listed below are filed with or incorporated by reference in this Annual Report on Form 10-K.

3.1	Restated Articles of Organization of EMC Corporation, as amended. (1)
3.2	Amended and Restated By-laws of EMC Corporation. (2)
4.1	Form of Stock Certificate. (3)
10.1*	EMC Corporation 1985 Stock Option Plan, as amended.(4)
10.2*	EMC Corporation 1992 Stock Option Plan for Directors, as amended. (4)
10.3*	EMC Corporation 1993 Stock Option Plan, as amended. (4)
10.4*	EMC Corporation 2001 Stock Option Plan. (5)
10.5*	EMC Corporation Executive Deferred Compensation Plan, as amended. (6)
10.6*	Form of Severance Agreement for the Named Executive Officers (filed herewith).
21.1	Subsidiaries of Registrant (filed herewith).
23.1	Consent of Independent Accountants (filed herewith).

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\* This exhibit is a management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 14(c) of Form 10-K.

- (1) Incorporated by reference to EMC Corporation's Quarterly Report on Form 10-Q filed August 9, 2001 (No. 1-9853).
- (2) Incorporated by reference to EMC Corporation's Annual Report on Form 10-K filed March 17, 2000 (No. 1-9853)
- (3) Incorporated by reference to EMC Corporation's Annual Report on Form 10-K filed March 31, 1988 (No. 0-14367).
- (4) Incorporated by reference to EMC Corporation's Annual Report on Form 10-K filed March 12, 2001 (No. 1-9853).
- (5) Incorporated by reference to Exhibit A of EMC Corporation's Proxy Statement filed March 16, 2001, in connection with EMC Corporation's 2001 Annual Meeting Stockholders.
- (6) Incorporated by reference to EMC Corporation's Quarterly Report on Form 10-Q filed November 8, 2001 (No. 1-9853).

**EMC CORPORATION AND SUBSIDIARIES**  
**SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS**

<b>Description</b>	<b>Balance at Beginning of Period</b>	<b>Charged to Costs and Expenses</b>	<b>Charged to Other Accounts</b>	<b>Deductions</b>	<b>Balance at End of Period</b>
Year ended December 31, 2001 allowance for doubtful accounts	\$ 38,560	\$ 32,711	\$	\$ (35,102)	\$ 36,169
Year ended December 31, 2000 allowance for doubtful accounts	34,279	27,537		(23,256)	38,560
Year ended December 31, 1999 allowance for doubtful accounts	26,755	25,817		(18,293)	34,279

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**EMACM-10K-02**