

EMC CORP  
Form 10-K  
February 27, 2015

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2014

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number 1-9853

EMC CORPORATION

(Exact name of registrant as specified in its charter)

Massachusetts

04-2680009

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification Number)

176 South Street

01748

Hopkinton, Massachusetts

(Zip Code)

(Address of principal executive offices)

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

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

Title of Each Class

Name of Each Exchange on Which Registered

Common Stock, par value \$.01 per share

New York Stock Exchange

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

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

Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes  No

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

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

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

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Large accelerated filer  Accelerated filer   
Non-accelerated filer  (Do not check if a smaller reporting company) Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes  No   
The aggregate market value of voting stock held by non-affiliates of the registrant was \$53,268,882,932 based upon the closing price on the New York Stock Exchange on the last business day of the registrant's most recently completed second fiscal quarter (June 30, 2014).

The number of shares of the registrant's Common Stock, par value \$.01 per share, outstanding as of January 30, 2015 was 1,988,086,911.

**DOCUMENTS INCORPORATED BY REFERENCE**

Information required in response to Part III of Form 10-K (Items 10, 11, 12, 13 and 14) is hereby incorporated by reference to the specified portions of the registrant's Proxy Statement for the Annual Meeting of Shareholders to be held on April 30, 2015.

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## FACTORS THAT MAY AFFECT FUTURE RESULTS

This Annual Report on Form 10-K contains forward-looking statements, within the meaning of the Federal securities laws, about our business and prospects. The forward-looking statements do not include the potential impact of any mergers, acquisitions, divestitures, securities offerings or business combinations that may be announced or closed after the date hereof. Any statements contained herein that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words “believes,” “plans,” “intends,” “expects,” “goals” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these words. Our future results may differ materially from our past results and from those projected in the forward-looking statements due to various uncertainties and risks, including, but not limited to, those described in Item 1A of Part I (Risk Factors). The forward-looking statements speak only as of the date of this Annual Report and undue reliance should not be placed on these statements. We disclaim any obligation to update any forward-looking statements contained herein after the date of this Annual Report.

## PART I

### ITEM 1. BUSINESS

#### The Opportunity

Throughout this report, we refer to EMC Corporation, together with its subsidiaries, as “EMC,” “we,” “us,” or “the Company.” EMC’s mission is to lead businesses and service providers to transform information technology (“IT”) operations to an “as a service” model (“ITaaS”). This transformation enables IT organizations to evolve from cost centers to value drivers that are more agile, more cost-effective and more responsive to business needs.

We manage our company as a federation of businesses, each of which plays a vital role in the transformation of IT: EMC Information Infrastructure and VMware Virtual Infrastructure, which together provide infrastructure-as-a-service; and Pivotal, which provides platform-as-a-service and application development. Together, these businesses enable customers to build cloud-based infrastructures for existing applications while at the same time helping customers build and run new applications.

As data centers become more agile, managing information becomes central to their operations. EMC Information Infrastructure provides a foundation for organizations to store, manage, protect, analyze and secure ever-increasing quantities of information, while at the same time improving business agility, lowering cost and increasing competitive advantage. EMC Information Infrastructure helps customers optimize client-server technologies as well as those of the mobile-cloud era. These benefits can be greatly enhanced with virtualization. VMware Virtual Infrastructure, which is represented by EMC’s majority equity stake in VMware, Inc. (“VMware”), is the leader in virtualization infrastructure solutions. VMware is also well positioned to help customers move from the client-server era to the mobile-cloud era of computing, enabling them to capture new levels of efficiency, control and agility. EMC’s majority-owned Pivotal Software, Inc. (“Pivotal”) is a leading provider of application and data infrastructure software, agile development services and data science consulting. Pivotal is building a new platform comprising next-generation data fabrics, application fabrics and a cloud-independent platform-as-a-service (“PaaS”). Under our federation model, each of the three businesses operates independently to build its own ecosystem and culture, operate with greater speed and agility and offer customers technology solutions that are free from vendor lock-in. At the same time, our businesses are strategically aligned in the mission to lead customers and partners through unprecedented transformational shifts occurring in IT. We believe this ability to draw on resources from across the federation to offer tightly integrated solutions that can be rapidly deployed while retaining choice for customers seeking flexibility is a distinct competitive advantage.

EMC was incorporated in Massachusetts in 1979. Our corporate headquarters are located at 176 South Street, Hopkinton, Massachusetts. EMC supports a broad range of customers, including businesses, governments, not-for-profit organizations and service providers, around the world and in every major industry, in both public and private sectors, and of sizes ranging from the Fortune 500 to small business and individual consumers.

EMC Strategy, Products and Services

Industry Transformation and Opportunity

The IT industry is experiencing one of the most disruptive periods of transition in its history. Macro trends toward technology that is mobile, social, cloud-based and Big Data-driven are forming what has become known as the third platform of IT. As a result, enterprise customers are investing beyond IT solutions built for the client-server era, known as the second platform, and increasingly

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building out solutions that accommodate the third platform of IT. While the second platform of IT continues to support the vast majority of enterprise workloads, much of the new data that is being generated, stored and managed by enterprises is best accommodated by third-platform technologies. As a result, customers are seeking solutions that bridge the two.

The adoption of the third platform is transforming the way IT is built, operated and consumed. IT leaders around the world are reinventing the way they operate, and forging a new, always-on, data-driven computing infrastructure that can be accessed from anywhere in the world by a highly mobile and social workforce.

Contributing to the rise of the third platform is the unrelenting expansion of the world's data, which is expected to expand at 40% per year into the next decade. Cloud infrastructures represent the best platform for organizations to leverage the massive quantities of data generated by the proliferation of smart phones, social networks, machine-to-machine communications and sensor networks. For businesses, this new relationship to Big Data is enabling profound opportunities for operational efficiency, strategic insights and solving some of the world's biggest problems.

Yet, the increasing sophistication of cyber criminals stands as a primary obstacle to accessing the full benefits of cloud computing and Big Data. To achieve true adoption, applications and services must be delivered on a fully trusted IT infrastructure.

The EMC strategy is to deliver best-of-breed products and services that allow customers to move to the third platform via an ITaaS model through cloud computing, gain value through analysis of Big Data and to do so within a trusted computing environment. This can be achieved while also enabling them to continue to run existing applications more efficiently and reliably.

#### Cloud Computing Transforms IT

An organization's ability to achieve revenue goals and operational excellence increasingly depends largely on the successful implementation of information technology. The global pervasiveness of smart, mobile devices and the broad exposure of consumers to online retailers, social networks and technology-enhanced entertainment have put pressure on the IT industry to provide highly responsive, always-on applications and services.

In order for the IT organization to become more agile and responsive to business and consumer needs, the IT infrastructure must be made more efficient, so it can act as an enabler of business. This is achieved first through virtualizing the infrastructure - creating shared pools of network, storage and compute resources that any application can exploit. Next, through increased automation, the infrastructure can run faster, more reliably and more efficiently. The business can then consume IT as a set of services with a greater understanding of what is being delivered, at what service level, and at what cost.

To achieve maximum efficiency and agility, data centers are becoming more and more driven by policy-based automation that improves the productivity and effectiveness of its operators. Such "software-defined data centers" feature virtualized infrastructure -- consisting of software-defined computing, software-defined networking, software-defined storage and software-defined security, all delivered as a service -- that can respond instantly to changing operating conditions and business imperatives.

Many companies are building a "private cloud" inside their own data centers - consolidating, standardizing, virtualizing and then automating much of the existing infrastructure and applications. Many organizations also look to hosted cloud services, delivered by service providers, that can run business applications, provide additional compute and storage capacity, and provide business continuity options. These public clouds will continue to provide and expand consumable IT services, especially for emerging development and analytic applications. IT departments are thus coming to rely on a combination of private cloud, managed private clouds, and public cloud infrastructures - moving to a hybrid cloud model.

With this in mind, companies choose EMC as their IT transformation partner for three reasons:

- First, we deliver the greatest improvements in efficiency of the IT infrastructure;

Second, we provide IT with a solution that gives companies confidence in their control of critical data and applications; and

Third, we offer choice - retaining an open architecture with the ability to run a broad range of applications on both virtual and physical infrastructure, and with platform-as-a-service that provides a foundation for next-generation applications to run on a variety of clouds.

## Big Data Transforms Business

The continued growth of data in the digital universe creates a huge challenge for IT departments that must store and manage information but Big Data also creates huge opportunities for a new generation of applications that help organizations turn massive amounts of data into insight and competitive advantage.

Many business-critical systems have amassed tens or hundreds of terabytes of structured and unstructured data - stored, managed and protected in many cases by EMC storage and security infrastructure. Companies want to analyze this data for trends and to gain understanding of customer or organizational behavior. In addition, many would like to use data to change business in real time, using fast-data techniques to adjust prices and product availability and to address changing external conditions. Analysts are also predicting rapid growth in the Internet of Things, where sensors and machinery are also generating steady streams of analyzable data.

To capitalize on the Big Data opportunity, IT leaders are developing applications that require new computing and storage workloads. These emerging workloads represent a new paradigm for data storage products, services and applications. As a long-time leader in storage technology and an emerging leader in analytics and applications for these workloads, EMC is strongly positioned to lead in this critical sector of the new IT economy.

## Trust Accelerates Transformation

The adoption of cloud computing and Big Data analytics is dependent upon IT's ability to maintain a trustworthy infrastructure and application environment, one that supports business expectations while protecting and securing data assets and intellectual property.

An increasingly mobile workforce along with increasing use of hosted or public cloud services challenges the boundaries that define enterprise IT and the notion of a perimeter-based approach to cyber security. As the value of enterprise information grows, security threats become stealthier, more pervasive and more advanced. A Big Data approach to security analyzes vast flows of information and patterns of behavior in order to spot anomalies in activity. IT must move from an approach of static security to dynamic security in order to secure trust in cloud computing models.

In the cloud era, trust in IT is achieved when an organization can anticipate, identify and repel advanced threats while ensuring availability of applications, systems and data. With our emphasis on innovations like RSA security analytics and forensics, advanced data protection, and next-generation backup, EMC plays a central role in enabling trusted cloud environments.

## EMC Information Infrastructure Products and Offerings

### Information Storage Segment

EMC offers a comprehensive portfolio of enterprise storage systems and software - including high-end EMC hybrid VMAX and mid-tier EMC VNX hybrid flash unified storage systems and more recently, the addition of EMC XtremIO all-flash storage arrays that has rapidly become the fastest-growing product in EMC's history.

Complementing these storage platforms, EMC also offers a portfolio of backup products that support a wide range of enterprise application workloads. EMC Isilon, EMC Atmos and Elastic Cloud Storage ("ECS") are storage families specifically designed to handle vast quantities of unstructured data, while software offerings such as ViPR and Storage Resource Manager ("SRM") automate the provisioning and management of storage networks and arrays. As the foundation of an information infrastructure within traditional data centers, virtual data centers and cloud-based IT infrastructures, EMC storage systems can be deployed in storage-area networks ("SAN"), networked-attached storage ("NAS"), unified storage combining NAS and SAN, object storage and/or direct-attached storage environments.

Customer adoption of EMC's storage products and offerings in 2014 was driven by storage innovations, new features and capabilities and a focused emphasis on expanding EMC's partner ecosystem. EMC storage systems leverage the latest Intel processor technology designed to consume less energy than alternative solutions and are optimized for



virtual environments. In 2014, EMC worked to more tightly integrate Information Storage products with those of VMware and Pivotal, as such integration is important to customers managing and optimizing their storage in virtual data centers and harnessing the power of their data. Virtualization integration continues to be a key competitive differentiator and enabler for EMC, helping customers realize the potential of transforming their IT to virtual infrastructures. Information storage and Pivotal product integration is also becoming increasingly important for customers adopting strategies for the storage, use and analytics of Big Data.

EMC continues to lead the high-end storage market. EMC built on this leadership with a major refresh of its high-end systems with the introduction of the EMC VMAX3 family, which began shipping in September of 2014. The new VMAX3 hybrid systems - including the 100K, 200K and 400K - are purpose-built to support the hybrid cloud by meeting the performance requirements

of dynamic mixed workloads. The new systems are designed so that customers can start small - from hundreds of virtual machines - and grow to tens of thousands of virtual machines, all while delivering predictable service levels on an exceptionally dense system leveraging 16TB of global cache, 384 Intel cores, over 3PB of flash which can be shared across 40,000 virtualized workloads.

EMC also leads the mid-range storage market with its award-winning EMC VNX unified storage family, which includes the VNX and VNXe. In 2014, EMC increased the VNX scalability limits with increased drive count and raw capacity support and added controller-based data-at-rest-encryption. EMC also opened up two new emerging market segments for VNX, first with the VNX-F, a purpose-built all-flash VNX optimized for price, density and speed, and secondly the VNX-VSS, targeted at the edge video storage market.

The significant demand for EMC's all-flash arrays in 2014 to support next-generation applications for mobile, cloud and virtual desktop ("VDI") implementations where very high and consistent performance is required illustrate EMC's ability to disrupt the conventional data center. EMC possesses what we believe to be the most comprehensive flash portfolio in the industry, including flash-optimized hybrid arrays, server-flash solutions and all-flash arrays. EMC gained flash storage market leadership during 2014 with the rapid growth of the EMC XtremIO all-flash storage array family, which exited 2014 at an annualized bookings run rate of over one billion dollars. In addition, EMC announced a new version of XtremCache software, enabling distributed cache coherency for Oracle RAC environments. This helps maintain data consistency across a server cluster. EMC's comprehensive flash portfolio addresses different market segments, use cases, workloads, applications, budgets and deployment scenarios based on customer needs. During 2014, EMC advanced its leadership position in the data protection market with new products and solutions that enable customers to address data protection requirements that are emerging with the rise of the third platform of IT. EMC's mainstay data protection offerings, such as EMC Data Domain, EMC Avamar, EMC NetWorker and EMC RecoverPoint, were all upgraded during the year, adding new functionality for cloud, multi-tenancy capabilities and integration points with leading cloud platforms such as VMware vCloud Air, Microsoft's Azure and Hypervisor and Amazon. New solutions like EMC ProtectPoint, which integrates Data Domain data protection with EMC's new VMAX3 platform, and RecoverPoint for Virtual Machines were released, further building out EMC's portfolio and supporting customers' migration to hybrid cloud environments. Additionally, EMC completed the acquisition of cloud data protection innovators Spanning and Maginatics, further extending the breadth of its cloud protection offerings. EMC believes few, if any, other vendors are as well positioned to deliver effective data protection solutions and strategies to holistically address IT requirements of today and tomorrow.

Long known for nearly limitless scale, EMC Isilon storage systems continue to give high performance at reduced costs for Big Data storage via a scale-out NAS architecture that delivers both capacity and performance alongside simplified management. In 2014, EMC introduced a new version of its OneFS operating systems designed to support next-generation cloud, analytics and mobile workflows. EMC also introduced groundbreaking technology in the industry's first enterprise-grade, scale-out Data Lake. The Data Lake, with Isilon as the foundation, enables customers to bring Hadoop to their Big Data rather than vice versa - avoiding the time and costs involved with moving petabytes of data. Also in 2014, EMC redefined scale-out NAS through two new EMC Isilon platforms - the Isilon S210 and Isilon X410 - delivering two times the performance and heightened agility over previous generations. Isilon also announced a partnership and product integration with Cloudera, and furthered its partnership with Pivotal through new joint offerings.

Also in 2014, EMC's approach to Advanced Software Division brought two critical innovations to market: update to ViPR Controller 2.0 and the Elastic Cloud Storage ("ECS") available as an appliance or software only offering. EMC introduced the ViPR branded Software-Defined Storage Platform in 2013. ViPR Controller is storage automation software that centralizes and transforms storage into a simple, extensible and open platform. It abstracts and pools resources to deliver automated, policy-driven storage services on demand via a self-service catalog. With vendor neutral centralized storage management, it helps customers reduce cost, provide choice, and deliver a path to the cloud. ViPR Controller also manages software defined block-storage capabilities on top of commodity hardware via ScaleIO, a company EMC acquired in 2013. EMC ScaleIO software is server-based storage area network (SAN) software that converges storage and compute resources to form a single-layer, enterprise-grade block storage product. ScaleIO storage is elastic, delivers linearly scalable performance and its scale-out architecture can grow from a few to

thousands of servers. ViPR Data Services provide cloud storage capabilities like Object (S3, Swift, Atmos APIs) and HDFS that can be deployed on a customer's choice of file storage. ECS Software is ViPR Data Services software branded uniquely for deployment on commodity hardware. It provides industrial Scale-out, Geo-replicated, Global Namespace Object storage platform that is deployed entirely in software on top of commodity hardware and supports multiple object APIs like Amazon S3, OpenStack Swift, EMC Atmos and CAS object storage. It also enables Big-Data analytics by exposing HDFS on top of same storage engine thus enabling multi-protocol access to same data underneath. ECS Appliance is shipped as a pre-packaged ECS software and EMC built commodity hardware. ViPR SRM is EMC's reporting and monitoring solution that provides capabilities for customers to understand their heterogeneous storage infrastructure. It helps customers reduce their capital and operating expenditures by driving visibility into underutilized storage. It ensures that storage SLAs are being delivered and that there is

transparency in the delivery cost. It sets the foundation for software-defined storage by giving complete visibility into customer's storage environments.

In October 2014, EMC launched a new EMC Enterprise Hybrid Cloud Solution that integrates hardware, software and services from EMC and VMware to unite the strengths of private and public cloud and designed to enable ITaaS in as few as 28 days. The EMC Enterprise Hybrid Cloud Solution ("EHCS") is capable of supporting traditional and next-gen applications, financial transparency so IT can prove its value to the business, and a seamless and secure management experience. The solution features interoperability with public clouds including VMware vCloud Air. EMC acquired Cloudscaling, a leading provider of OpenStack-powered Infrastructure-as-a-Service ("IaaS") for private and hybrid cloud solutions, to help EMC accelerate its infrastructure offerings based on OpenStack technology.

Increasingly, EMC's storage offerings are being offered through converged infrastructure, which augments storage with server and networking capabilities in a single system to simplify deployment of IT infrastructure. In December 2014, EMC acquired a controlling interest in VCE Company LLC ("VCE"). VCE was formed in 2009 by Cisco and EMC to develop products, solutions and services in the rapidly growing converged infrastructure market segment for both enterprises and service providers. VCE has been widely recognized as the market leader in converged infrastructure and offers a portfolio of converged infrastructure known as VCE Vblock Systems, which are the industry's first and only completely pre-integrated, pre-tested and pre-validated IT systems that combine best-of-breed technologies into a single product with unified support across all components.

VCE Vblock Systems accelerate the adoption of cloud-based computing models that reduce the cost of IT, simplify operations and increase business agility, enabling customers to transform their IT for faster time to market.

VCE solutions are available through an extensive partner network, and cover horizontal applications, vertical industry offerings, and application development environments, allowing customers to focus on business innovation instead of integrating, validating and managing IT infrastructure. More than 1,000 enterprises and service providers have deployed 2,000+ Vblock Systems globally.

Throughout 2014, VCE expanded its portfolio of offerings to address new customer use cases and emerging industry trends. VCE introduced a new converged infrastructure certification program designed to enable IT practitioners to administer entire converged systems beyond individual infrastructure components. VCE announced new hybrid cloud initiatives for integrating VCE converged infrastructure with Cisco Intercloud and VMware vCloud Air cloud computing services, which will enable seamless migration of workloads between Vblock Systems and IaaS offerings. Most recently, VCE introduced the industry's first all-flash-based converged infrastructure system, the Vblock System 540, which is based on EMC XtremIO all-flash arrays for consolidating mixed workloads.

#### EMC Global Services

EMC Global Services ("GS") enables customers and partners to transform IT, realize the agility and efficiency of a trusted cloud, and capitalize on the competitive advantage of Big Data. Our 16,000+ services professionals worldwide, plus our global network of partners, deliver the skills, knowledge and experience organizations need to accelerate their cloud, Big Data and trust initiatives and get the maximum value from their EMC technology investments. We provide a broad and comprehensive mix of services and consulting capabilities to assist customers with every phase of their journey - from developing a strategy to designing, deploying, operating and supporting their IT environment, and providing their workforce with the necessary skills, knowledge and certifications.

Global Services continually enhances its services portfolio and skills to support EMC's strategies and to stay ahead of rapidly evolving market and customer demands. We have invested in several new professional services offerings that enable our customers to realize the benefits of ITaaS through deploying the hybrid cloud. On the road to ITaaS, we help clients transform infrastructure, operating models and applications. For example, GS plays an integral role in accelerating time-to-value via the aforementioned EHCS Cloud solution.

In 2014, EMC Global Services:

- launched our Cloud Advisory Service ("CAS"), which takes an advanced, automated approach to help clients analyze application requirements to determine workload suitability for cloud;

introduced the IT Transformation Workshop (“ITTW”), a strategic planning engagement that helps CIOs prioritize concrete steps for IT Transformation;

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introduced the Big Data Vision Workshop, which examines the customer's business and explains how building a Data Lake - a storage framework that holds a vast amount of raw data in its native format until it is needed - can address the customer's Big Data challenges and take advantage of potential opportunities;

- and through our Education Services unit, established an industry-leading 'open' Cloud Curriculum applicable to business leaders, cloud architects, services managers, and cloud operations teams. As of 2014, with 50,000+ registrations, 'open' courses in Cloud, Storage, and Big Data focus on technology concepts, principles, and case studies ideal for multi-vendor, multi-technology environments.

Underpinning our course offerings is EMC Proven Professional, a leading education and certification program in the IT industry. The knowledge, expertise, and thought leadership provided by certified EMC Proven Professionals is increasingly vital as the IT industry undergoes transformation.

In 2014, Global Services continued to achieve record-high customer satisfaction scores and earned multiple industry awards for our exemplary customer service around our customer-centric service culture and our excellence in online service and support.

#### RSA Information Security Segment

RSA, the Security Division of EMC, delivers intelligence-driven security solutions that are designed to help organizations reduce the risks of operating in a digital world. Through visibility, analysis, and action, RSA solutions are engineered to give customers the ability to detect, investigate and respond to advanced threats; confirm and manage identities; and ultimately, help prevent intellectual property theft, fraud and cybercrime. These capabilities are made available through offerings in three primary lines of business: Identity and Data Protection, Security Management and Compliance, and Security Operations Center services.

RSA released a number of innovations throughout 2014. Most notably, RSA introduced the Advanced Security Operations Center ("ASOC") Solution, an integrated set of technologies and services designed to help organizations identify threats before a breach can occur. Integrating technologies from RSA Security Analytics, RSA ECAT Solution and RSA Archer Security Operations Management as well as training and services from the RSA Advanced Cyber Defense Practice, our ASOC Solution is engineered to deliver compliance and security requirements in one platform, empowering security teams to more effectively detect and respond to the most advanced attacks before they can impact the business.

Also in 2014, RSA launched several strategic initiatives and technology partnerships. RSA introduced its Managed Security Partner ("MSP") program that provides a technology platform and accompanying professional services and training to enable select partners to offer fully managed security and critical incident response services to customers. RSA signed Verizon Enterprise Solutions as its marquee global services partner along with three other managed security service providers, Foreground Security, DataShield Consulting and The Herjavec Group, to reach enterprise customers around the world.

Additionally, RSA combined efforts with Pivotal to provide a new reference architecture to provide the visibility, analytics and actionable intelligence organizations need to detect and investigate security threats while also providing a solid foundation for a broader Data Lake strategy, enabling organizations to control costs and to gain maximum value from IT systems.

#### Enterprise Content Division Segment

The Enterprise Content Division ("ECD"), formerly known as EMC Information Intelligence Group, provides enterprise software and cloud solutions that connect information to work, accelerating time to value. ECD's offerings in the areas of compliance and governance to streamlining mission-critical business processes - on premise or in the cloud - help customers solve the most complex information challenges they face today. The intelligent capture of information, content management, enterprise archiving and customer communications are offerings within ECD's EMC Documentum portfolio. EMC Syncplicity is specifically designed to provide secure online file synchronization, sharing and collaboration while giving IT control over and visibility into where content is shared.

In 2014, EMC made major innovations across its entire ECD technology portfolio, resulting in what we believe is the highest quality, easiest-to-deploy and most powerful content management platform available on the market today. A focus of this innovation was on shortening time-to-value for customers by simplifying deployment, accelerating application development and providing superior out-of-the-box functionality for file synchronization and sharing. Enhancements to EMC InfoArchive, the Documentum platform, D2 and xCP; the addition of the Captiva Mobile Toolkit; and massive innovation in mobility and connectivity with Syncplicity have provided customers with increased productivity, reduced costs and enhanced security across the ECD portfolio. ECD has a rich community of developers and a robust ecosystem of partners with over 100 EMC Certified Solutions, helping customers to develop, deploy and integrate comprehensive business solutions with its products.

## Pivotal Products and Offerings

The industry-wide transition to cloud computing and the vast quantities of Big Data present a significant opportunity for both VMware and EMC to provide thought and technology leadership, not only at the infrastructure level, but also across the rapidly growing and fast-moving application development and Big Data markets. As enterprises seek to leverage trends in cloud, mobile computing, social networking and Big Data, they are undergoing a fundamental transformation requiring next-generation software that can run across a variety of infrastructures, clouds and devices. The development of software that leverages these trends must be agile, flexible, fast and continuous. To meet the rapidly expanding demand from businesses, EMC formed Pivotal in 2013. Pivotal unites strategic technology, people and programs from EMC and VMware and has built a new platform comprising next-generation data, agile development practices, and a cloud-independent PaaS. These capabilities are made available through Pivotal's three primary offerings: the Pivotal Big Data Suite, Pivotal Labs and Pivotal Cloud Foundry.

In 2014, Pivotal achieved several milestones in its development, including the proliferation of Cloud Foundry as a standard for development, the introduction of the Pivotal Big Data Suite, and strong growth in Pivotal Labs, the agile development services unit at Pivotal. The Pivotal Big Data Suite is an annual subscription-based software, support, and maintenance package that bundles Pivotal Greenplum Database, Pivotal GemFire, Pivotal GemFire XD, Pivotal HAWQ, and Pivotal HD into a flexible pool of big and fast data products for customers. Pivotal Labs opened three new offices and expanded its teams to 550 developers. Pivotal Labs utilizes their pair programming methodology to teach customers to build next generation software that leverages Pivotal's software subscription products. Pivotal Cloud Foundry, the leading commercial version of Cloud Foundry, saw rapid adoption with enterprise customers across all sectors including finance, entertainment, telecommunications, aerospace, technology and agriculture. Capping the year was the formal launch of the Cloud Foundry Foundation, a non-profit organization in which more than 40 member companies, including EMC, IBM, HP, Intel, VMware, Verizon, NTT and GE, are collaborating to help drive global standards for PaaS. Pivotal is the lead corporate sponsor for the foundation. Cloud Foundry's open approach, current support for VMware and Amazon Web Services, and the intention of future support for platforms such as OpenStack, Microsoft and Google Compute, enable customers to retain choice while benefiting from innovation across the ecosystem.

As Pivotal sees strong growth in Pivotal Cloud Foundry and the Pivotal Big Data Suite, and as enterprise customers embrace our simplified subscription offerings, coupled with agile development services from Pivotal Labs, Pivotal plans to further invest in this business model. This transition from perpetual license sales to subscription negatively impacts the revenue growth in the near term, as larger, perpetual license sales are replaced with more granular increments of revenue that, while recognized more frequently, are much smaller in size. In the short term this transition will result in revenue, gross margin and operating margin pressure. However, the level of revenue at the beginning of each quarter steadily increases as the transition to subscription progresses, resulting in more stable levels of revenue over the long term.

## VMware Virtual and Cloud Infrastructure Products and Offerings

VMware is a leader in virtualization and cloud infrastructure solutions utilized by organizations to help transform the way they build, deliver and consume IT resources. VMware develops and markets its product and service offerings within three main product groups, and it also seeks to leverage synergies across these three business areas: Software-Defined Data Center, Cloud Services and End-User Computing.

In 2014, VMware continued its focus on delivering unique customer value in these three strategic growth areas. VMware launched key components of its comprehensive software-defined data center solution, including enhancements to VMware NSX, its network virtualization and security platform. VMware also introduced software-defined storage for VMware virtual environments with the launch of VMware Virtual SAN. Additionally, VMware enhanced its industry-leading cloud management capabilities with the refresh of the VMware vRealize Suite. VMware introduced VMware EVO:RAIL to help customers build and deploy a software-defined data center more rapidly. EVO:RAIL is VMware's first solution that combines VMware compute, networking, and storage resources into a hyper-converged infrastructure appliance enabling easy virtual machine deployment.



VMware also enhanced and extended VMware vCloud Air (formerly known as VMware vCloud Hybrid Service), which delivers customers a seamless connection between their private cloud and hybrid cloud infrastructure-as-a-service. In end-user computing, VMware acquired AirWatch, the leading provider of enterprise mobility management and security solutions. Expanding VMware's End-User Computing group, AirWatch's offerings form an expanded portfolio of mobile solutions that are complementary to VMware's existing portfolio, which includes VMware Horizon Suite, one of the industry's most comprehensive and integrated platforms to enable an increasingly mobile workforce.

Customers rely on VMware to help them transform the way they build, deliver and consume IT resources in a manner that is evolutionary and based on their specific needs. VMware has more than 500,000 customers and 75,000 partners. The company is headquartered in Palo Alto, California, with offices throughout the world.

## Markets and Distribution Channels

### Markets

EMC supports a broad range of customers, including service providers, around the world - in every major industry, in both public and private sectors, and of sizes ranging from the Fortune 500 to small business and individual consumers.

### Distribution Channels

We market our products through direct sales and 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 partners, including value-added resellers and distributors, cloud service providers, systems integrators, outsourcers, Independent Software Vendors (“ISVs”), and Original Equipment Manufacturers (“OEMs”). These agreements, subject to certain terms and conditions, help us extend our reach in established markets and expand EMC technologies into new markets.

EMC’s Business Partner Program is focused on partner enablement in a variety of ways, including reselling EMC solutions, providing cloud services powered by EMC technologies, including EMC as part of a strategic business solution, or embedding EMC technologies in their own technology and systems. These partners contribute over half of EMC’s storage revenue. In 2014, EMC introduced a new Business Partner Program, which offers partners direct connections to EMC’s federation of businesses. The new Business Partner Program is focused on simplifying and aligning operations to support where business partners are today, while offering them opportunities for further growth and profitability in the future.

The success of our Business Partner Program can be attributed to having a combination of a broad product portfolio, a program that rewards partners who are trained to effectively position, sell and service EMC products and go-to-market innovations, such as our VSPEX program. With thousands of solutions delivered since its launch in April of 2012, VSPEX is the fastest-growing reference architecture program in the industry. VSPEX, which is sold exclusively through partners, incorporates storage and data protection technology from EMC, and virtualization, server and networking technology from alliance partners like Brocade, Cisco, Citrix, Microsoft, Oracle and VMware, as well as support for business continuity and disaster recovery with EMC VPLEX, RecoverPoint, Avamar and Data Domain. VSPEX Labs has also enabled several ISVs to validate their software offerings as part of a VSPEX solution, further expanding the VSPEX technology partner ecosystem.

As a core element of EMC’s hybrid cloud strategy, EMC continues to establish focused and committed partnerships with service providers around the world to expand the range of options for IT organizations seeking to gain business agility through the efficiency and choice offered by cloud computing, without sacrificing trust or control. EMC’s Service Provider Partner program is designed to increase sales, marketing, planning and education benefits for our partners with the singular goal of delivering compelling cloud services to the global IT market. EMC also provides business development and services creation resources to enable partners to develop differentiated offerings built on EMC technology, as well as marketing support including market development funds, campaigns, field execution and sales enablement tools. The Service Provider Partner program is open to cloud service providers of all kinds, including networking and communications companies, managed hosting firms, outsourcers, ISVs, resellers, value-added resellers, distributors and enterprises. The program has evolved to enable qualified partner companies to participate and capture cloud opportunities.

VMware works closely with more than 1,100 technology partners, including leading server, microprocessor, storage, networking, software and security vendors. It shares the economic opportunities surrounding virtualization with its partners by facilitating solution development through open application programming interface formats and protocols.

## Technology Alliances

EMC engages in numerous alliances with other technology companies to deliver significant technology integration, create best practices, and expand choice for our customers to help accelerate their journey to implementing private, public and hybrid cloud environments. In 2014, EMC continued to strengthen its technology innovations and to expand its partner ecosystem globally by deepening existing relationships and solidifying new alliances with emerging technology companies in the cloud stack and data fabric areas:

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EMC established formal alliance relationships with distributors of Hadoop-based software to capitalize on the growth opportunities in the Hadoop and Big Data Analytics markets. We launched integrated solutions for Hadoop on Isilon and new reference architectures with XtremIO to satisfy the performance and scalability requirements of our clients.

We extended our customers' deployment options with enterprise software companies, including new certifications of VMAX, VNX2, EMC Data Domain and NetWorker as well as new plug-ins that enhance integration with EMC's storage arrays

In partnership with several network switching vendors, EMC continued to drive development of solutions to provide the levels of performance, utilization, availability, and simplicity needed to support demanding virtualized data center environments. In 2014, EMC added new technologies from these partners to its reselling programs.

In hybrid cloud, EMC continued to partner to develop solutions for customers seeking the ability to combine the power of public cloud computing with the security and reliability of privately managed EMC storage connected to public cloud via dedicated, high-speed circuits.

### Manufacturing and Quality

We conduct operations utilizing a formal, documented quality management system to ensure that our products and services satisfy customer needs and expectations. The quality management system also provides the framework for continual improvement of our processes and products. This system is certified to the ISO 9001 International Standard. Several additional ISO 9001 certifications are maintained for sales and service operations worldwide. We have also implemented Lean Six Sigma methodologies to ensure that the quality of our designs, manufacturing, test processes and supplier relationships are continually improved. Our order fulfillment, manufacturing and test facilities in Massachusetts, North Carolina and Ireland are certified to the ISO 14001 International Standard for environmental management systems. EMC's Franklin, Massachusetts, Apex, North Carolina and Cork, Ireland manufacturing facilities have achieved OHSAS 18001 certification, an international standard for facilities with world-class safety and health management systems. We also maintain Support Center Practices certification for our primary customer support centers. These internationally-recognized endorsements of ongoing quality and environmental management are among the highest levels of certifications available.

We maintain a robust Supplier Code of Conduct, actively manage recycling processes for our returned products, have won an Environmental Steward Award and are also certified by the Environmental Protection Agency as a Smartway Transport Partner.

Our hardware products are assembled and tested primarily at our facilities in the United States and Ireland or at global manufacturing service suppliers. We work closely with our suppliers to design, assemble and test product components in accordance with production standards and quality controls established by us. Our software products are designed, developed and tested primarily at our facilities in the United States and abroad. The products are tested to meet our quality standards.

### Product Components

We purchase many sophisticated components and products from an approved list of qualified suppliers. Our products utilize industry-standard and semi-custom components and subsystems. Among the most important components that we use are disk drives, solid-state drives, high-density memory components, microcontrollers 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 2014, 2013 and 2012, our research and development (“R&D”) expenses totaled \$2,991 million, \$2,761 million and \$2,560 million, respectively. We support our R&D efforts through state-of-the-art development labs worldwide. See Item 2, Properties.

## Backlog

We produce 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 deliver products shortly after receipt of the order. Service engagements are also included in certain orders. Customers generally may reschedule or cancel orders with little or no penalty. 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 companies in the industries we serve, including companies that offer a broad spectrum of IT products and services and others that offer specific information storage, protection, security, management and intelligence, data analytics or virtualization products or services. We believe that most of these companies compete based on their market presence, products, service or price. Some of these companies also compete by offering information storage, information governance, security or virtualization-related products or services, together with other IT products or services, at minimal or no additional cost in order to preserve or gain market share.

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 quality, breadth of offerings, 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 information infrastructure-focused direct sales force and a broad network of channel partners. We believe our advantages in service include our ability to provide our customers with a full range of expertise before, during and after their purchase of solutions from us or other vendors.

VMware competes with large and small vendors in different segments of the cloud computing, end-user computing and virtualization spaces, and expects that new entrants will continue to enter these industries and develop technologies that, if commercialized, may compete with VMware's products and services.

## Seasonality

We generally experience the lowest demand for our products and services in the first quarter of the year and the greatest demand for our products and services in the last quarter of the year, which is consistent with the seasonality of the IT industry as a whole.

## 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 5,100 patents issued by the U.S. Patent and Trademark Office, of which approximately 4,500 are owned by EMC, approximately 600 are owned by VMware, approximately 45 are owned by Pivotal, and 1 is owned by VCE. EMC, VMware, Pivotal and VCE have approximately 4,100 patent applications pending with the U.S. Patent and Trademark Office. We also have a corresponding number of international patents and patent applications. While the durations of our patents vary, we believe that the durations of our patents are 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 some of our technologies to third parties.

## Employees

As of December 31, 2014, we had approximately 70,000 employees worldwide, of which approximately 18,000 were employed by or working on behalf of VMware. None of our domestic employees is 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

EMC manages the Company as three federated businesses: EMC Information Infrastructure, Pivotal and VMware Virtual Infrastructure. EMC Information Infrastructure operates in three segments: Information Storage, Enterprise Content Division and RSA Information Security, while Pivotal and VMware Virtual Infrastructure each operate as a single segment.

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 five manufacturing facilities: two in Massachusetts,

which manufacture storage products and security products for the North American markets; two in Ireland, which manufacture storage products and security products for markets outside of North America; and one in North Carolina, which manufactures storage products for domestic markets. We also utilize contract manufacturers throughout the world to manufacture or assemble our Data Domain, Isilon, and, in limited amounts, other Information Infrastructure products. See Note S to the consolidated financial statements for information about revenues by segment and geographic area.

## Sustainability

We believe that investing in a sustainable future makes EMC a stronger and healthier company. We seek ways to use our technology and engage our talent to create prosperity, maximize value and provide for the well-being of our shareholders, the planet and society.

Sustainable business practices are creating financial value by producing savings from more efficient products and operations, generating revenues from leveraging new market opportunities, and positioning EMC for long-term success in a changing world. Incorporating principles of sustainability in our product designs, operations, and decision-making has enhanced our resilience and agility in the face of global social and environmental events. And our commitment to a healthy future plays an increasingly important role in attracting, retaining and energizing our talent pool.

EMC's sustainability efforts are founded on the principle that virtually all business decisions have economic, environmental, and social implications. We strive to maximize our impact by focusing on those issues where EMC has the greatest potential to create positive change, holding ourselves accountable by measuring and reporting our progress, maintaining open and candid communication with our internal and external stakeholders, and collaborating with our peer companies and those in our value chain to expand the scale of our contributions.

In 2014, we worked with our external and internal stakeholders to update our list of high priority issues. We identified five social and environmental priorities: Energy Efficiency and Climate Change; eWaste; Science, Technology, Engineering and Math ("STEM") education; Supply Chain Responsibility; and the Role of Information Technology in Society. Four additional areas of focus include Corporate Governance, Diversity & Inclusion, Information Privacy & Security, and Innovation.

Energy efficiency is critical to EMC as our primary greenhouse gas ("GHG") emissions arise indirectly from the generation and transmission of electricity needed to run our business and even more, to power our products at customer sites. Therefore, our energy and climate change strategy is focused on increasing energy efficiency in our products as well as in our facilities and data centers; supplying technology that enables energy efficient operations in our customers' data centers; engaging with suppliers to reduce emissions in the supply chain; and leveraging the transformative power of technology to reduce global energy demand. While availability of clean water is an urgent societal concern, EMC's primary interaction with water is in its use for the generation of electricity; as such we believe energy efficiency provides our greatest opportunity for positive impact on water supplies. In 2014, we announced a science-based absolute reduction target for GHG emissions in addition to a mid-term renewable energy target and product energy efficiency goals. We submitted our seventh annual GHG disclosure report to the Carbon Disclosure Project ("CDP") in 2014, and were honored to be included in the 2014 Carbon Disclosure Leadership Index for the sixth time. For detail about our new targets and our progress in emissions reduction, please see EMC's 2013 Sustainability Report "Thinking Forward".

EMC's takeback and eWaste program encompasses the full life cycle of our products. In the design phase, we continuously pursue opportunities to reduce the amount of material used in our products, and to find viable alternatives for substances which may be harmful to people or the environment. When the product reaches the end of



its useful life, we offer product takeback to all of our customers worldwide to help ensure those products are disposed of responsibly and in compliance with the law. To maximize environmental and financial benefit, we reuse, reprocess or recycle wherever possible. Any waste is handled with integrity and responsibility for the environment and human health. Our published principles include commitments to avoid shipment of eWaste from countries in the Organisation for Economic Co-operation and Development (“OECD”) to non-OECD countries, and to ensure that no prison, child or forced labor is used in the processing of our eWaste. We require our disposal suppliers to be properly certified by third parties, and in 2014, conducted business exclusively with disposal suppliers certified by the R2 or e-Stewards programs. For more information, please see the EMC Sustainability Detailed Report: Our Products.

Environmental and social responsibility within our supply chain is central to our sustainability principles. We work directly with hundreds of suppliers in more than 20 countries, and rely indirectly on many more. EMC is committed to building a resilient supply chain that respects workers and the environment, mitigates risks, and creates opportunities that benefit stakeholders. In support of these goals, we engage suppliers through our Supply Chain Social and Environmental Responsibility (“SER”) program. We are leveraging improved data collection to enhance our risk assessment and to prioritize capacity-building initiatives; engaging our internal staff, suppliers and stakeholders in new ways; and integrating SER more deeply into our business practices. In 2014,

we added public sustainability reporting as a metric within our supplier scorecard, and provided training and tools to our suppliers to assist them in their reporting. EMC is also committed to the responsible sourcing of minerals. We are working with our suppliers and other stakeholders to trace the sources of the tantalum, tin, tungsten and gold in our products, and take steps to build a “conflict-free” mineral supply chain. For more information on EMC’s extensive Supply Chain SER program, please see the EMC Sustainability Detailed Report: Supply Chain, and EMC’s Conflict Minerals Report.

STEM education is critical to closing tomorrow’s technology skills gap and is important to drive innovation, support communities, and provide a pipeline of skilled employees to our company. EMC and our employees invest time, talent and funds to support global education initiatives that expand access to education and encourage students, particularly from underrepresented groups, to pursue science and math programs. In 2014, we announced a new goal for the number of beneficiaries reached by EMC’s education and other community programs. For more information, please see the EMC Sustainability Detailed Report: Communities.

The role of IT in society explores the potential arising from the pervasive nature of IT to contribute to long-term environmental, societal, and economic prosperity. The technologies that comprise the third platform - mobile, social, cloud and Big Data - are driving growth, creating resource efficiencies, improving resilience, tackling problems previously considered intractable, and providing people around the globe access to health care, education, and economic opportunity. We also realize that an increasingly interconnected world can result in the creation of social issues never before encountered, and it is our responsibility to encourage the use of IT in ways that protect and promote well-being. In 2014, EMC undertook a number of projects focused on the positive impact of IT, including a collaborative effort with Partners Healthcare to improve the delivery of healthcare through analytics, and a program with Earthwatch, Schoodic Institute, and the National Park Service to study interactions between climate change and nature. For more information, please see the EMC Sustainability Detailed Report: Customers.

EMC is proud to have been listed in the 2014 Dow Jones Sustainability Index for North America for the fourth consecutive year.

Please see EMC's most current sustainability report for more information about EMC's sustainability goals and performance.

#### Available Information

Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to reports filed pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended, are made available free of charge on or through our website at [www.emc.com](http://www.emc.com) as soon as reasonably practicable after such reports are filed with, or furnished to, the SEC. The SEC also maintains a website, [www.sec.gov](http://www.sec.gov), that contains reports and other information regarding issuers that file electronically with the SEC. Copies of our (i) Corporate Governance Guidelines, (ii) charters for the Audit Committee, Leadership and Compensation Committee, Corporate Governance and Nominating Committee, Mergers and Acquisitions Committee and Finance Committee and (iii) Business Conduct Guidelines (code of business conduct and ethics) are available at [www.emc.com/corporate/investor-relations/governance/corporate-governance.htm](http://www.emc.com/corporate/investor-relations/governance/corporate-governance.htm). Copies will be provided to any shareholder upon request. Please go to [www.emc.com/corporate/investor-relations/index.htm](http://www.emc.com/corporate/investor-relations/index.htm) to submit an electronic request, or send a written request to EMC Investor Relations, 176 South Street, Hopkinton, MA 01748. None of the information posted on our website is incorporated by reference into this Annual Report.

#### ITEM 1A. RISK FACTORS

The risk factors that appear below could materially affect our business, financial condition and results of operations. The risks and uncertainties described below are not the only risks and uncertainties facing us. Our business is also

subject to general risks and uncertainties that affect many other companies.

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. In addition, our industry is experiencing one of the most disruptive periods of transition in its history as we move from IT solutions built for the client-server second platform into the next phase of IT growth and innovation, or the third platform. There can be no assurance that our existing products will be properly positioned in the third platform 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 and solutions or new products and solutions will receive customer acceptance. As competition in the IT industry increases, it may become increasingly difficult for us to maintain a technological advantage and to leverage that advantage toward increased revenues and profits. In addition, there can be no assurance that our vision of enabling

hybrid cloud computing, Big Data and trust through infrastructure and application transformation will be accepted or validated in the marketplace.

Risks associated with the development and introduction of new products include delays in development and changes in data storage, networking virtualization, infrastructure management, information security 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 inability to successfully manage the interoperability and transition from older products;
- the impact of customers' demand for new products on the products being replaced, thereby causing a decline in sales of existing products and an excessive, obsolete supply of inventory;
- delays in initial shipments of new products; and
- delays in sales caused by the desire of customers to evaluate new products for extended periods of time.

Further risks inherent in new product introductions include the uncertainty of price-performance relative to products of competitors and competitors' responses to such new product introductions. 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 transition to new products or new technologies could have a material adverse effect on our business, results of operations or financial condition.

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

We compete with many companies in the markets we serve. Some of our competitors offer a broad spectrum of IT products and services, and others offer specific information storage, protection, security, management, virtualization and intelligence products or services. Some of our competitors (whether independently or by establishing alliances) may have substantially greater financial, marketing or technological resources, larger distribution capabilities, earlier access to customers or greater opportunity to address customers' various IT requirements than us. In addition, through further consolidation in the IT industry, companies may improve their competitive position and ability to compete against us. We compete on the basis of our products' features, performance and price as well as our services. Our failure to compete on any of these bases could affect demand for our products or services, which could have a material adverse effect on our business, results of operations or financial condition.

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, including hardware and software products, and new services offered by our competitors, and the implementation of effective marketing or sales strategies by our competitors. The material adverse effect to our business could include a decrease in demand for our products and services and an increase in the length of our sales cycle due to customers taking longer to compare products and services and to complete their purchases.

We may have difficulty managing operations.

Our future operating results will depend on our overall ability to manage operations, which includes, among other things:

- successfully communicating and executing on our unique federation strategy;
- retaining and hiring the appropriate number of qualified employees;
- managing, protecting and enhancing, as appropriate, our infrastructure, including but not limited to, our information systems (and our ability to protect confidential information residing on such systems) and internal controls;
- accurately forecasting revenues;

- training our sales force to sell effectively, given the breadth of our offerings;
- successfully integrating new acquisitions;
- managing inventory levels, including minimizing excess and obsolete inventory, while maintaining sufficient inventory to meet customer demands;
- controlling expenses;
- managing our manufacturing capacity, real estate facilities and other assets;

meeting our sustainability goals; and  
executing on our plans.

An unexpected decline in revenues without a corresponding and timely reduction in expenses or a failure to manage other aspects of our operations 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 a lessening demand in the information technology market.

Our revenue and profitability depend on the overall demand for our products and services. Delays or reductions in IT spending could materially adversely affect demand for our products and services which could result in decreased revenues or earnings.

Our customers operate in a variety of sectors and across many geographies. Any adverse effects to such markets could materially adversely affect demand for our products and services which could result in decreased revenues or earnings.

Pricing pressures, increases in component and product design costs, decreases in sales volume, or changes to the relative mixture of our revenues could materially adversely affect our revenues, gross margins or earnings.

Our gross margins are impacted by a variety of factors, including competitive pricing, component and product design costs, sales volume and the relative mixture of product and services revenue. Increased component costs, increased pricing pressures, the relative and varying rates of increases or decreases in component costs and product price, changes in our product and services revenue mixture, including the mixture of subscription based product revenue, or decreased sales volume could have a material adverse effect on our revenues, gross margins or earnings.

The costs of third-party components comprise a significant portion of our product costs. We may have difficulty managing our component and product design costs if supplies of certain components become limited or component prices increase. Any such limitation could result in an increase in our component costs. An increase in component or design costs relative to our product prices could have a material adverse effect on our gross margins and earnings. Moreover, certain competitors may have advantages with respect to component costs due to vertical integration of their supply chain, which may include disk drives, microprocessors, memory components and servers.

The markets in which we do business are highly competitive, and we may encounter aggressive price competition for all of our products and services from numerous companies globally. There also has been, and may continue to be, a willingness on the part of certain competitors to reduce prices or provide information infrastructure and virtual infrastructure products or services, together with other IT products or services, at minimal or no additional cost in order to preserve or gain market share. Such price competition may result in pressure on our product and service prices, and reductions in product and service prices may have a material adverse effect on our revenues, gross margins or earnings.

Our financial performance is impacted by the financial performance of VMware.

Because we consolidate VMware's financial results in our results of operations, our financial performance is impacted by the financial performance of VMware. VMware's financial performance may be affected by a number of factors, including, but not limited to:

general economic conditions in its domestic and international markets and the effect that these conditions have on VMware's customers' capital budgets and the availability of funding for software purchases;

- fluctuations in demand, adoption rates, sales cycles and pricing levels for VMware's products and services;
- fluctuations in foreign currency exchange rates;
- changes in customers' budgets for information technology purchases and in the timing of their purchasing decisions;
- the timing of recognizing revenues in any given quarter, which, as a result of software revenue recognition policies, can be affected by a number of factors, including product announcements, beta programs and product promotions that can cause revenue recognition of certain orders to be deferred until future products to which customers are entitled become available;
- the sale of VMware's products and services in the time frames anticipated, including the number and size of orders in each quarter;

the ability of VMware, including relative to its competitors, to develop, introduce and ship in a timely manner upgrades, new products, new services and enhancements that meet customer demand, certification requirements and technical requirements;

- VMware's ability to compete effectively;
- the introduction of new pricing and packaging models for VMware's product offerings;
- the timing of the announcement or release of upgrades or new products and services by VMware or by their competitors;
- VMware's ability to maintain scalable internal systems for reporting, order processing, license fulfillment, product delivery, purchasing, billing and general accounting, among other functions;
- VMware's ability to control costs, including its operating expenses;
- changes to VMware's effective tax rate;
- the increasing scale of VMware's business and its effect on VMware's ability to maintain historical rates of growth;
- VMware's ability to attract and retain highly skilled employees, particularly those with relevant experience in software development and sales;
- VMware's ability to conform to emerging industry standards and to technological developments by its competitors and customers;
- renewal rates and the amounts of the renewals for enterprise license agreements, or ELA's, as original ELA terms expire;
- the timing and amount of software development costs that may be capitalized by VMware beginning when technological feasibility has been established and ending when the product is available for general release;
- unplanned events that could affect market perception of the quality or cost-effectiveness of VMware's products and solutions; and
- the recoverability by VMware of benefits from goodwill and acquired intangible assets, and the potential impairment of these assets.

Cybersecurity breaches could expose us to liability, damage our reputation, compromise our ability to conduct business, require us to incur significant costs or otherwise adversely affect our financial results.

We retain sensitive data, including intellectual property, proprietary business information and personally identifiable information, in our secure data centers and on our networks. We face a number of threats to our data centers and networks of unauthorized access, including security breaches and other system disruptions. It is critical to our business strategy that our infrastructure remains secure and is perceived by our customers and business partners to be secure. Despite our security measures, our infrastructure may be vulnerable to attacks by hackers or other disruptive problems, such as the sophisticated cyber attack on our RSA division that we disclosed in March 2011. Any such security breach may compromise information stored on our networks and may result in significant data losses or theft of our, our customers', our business partners' or our employees' intellectual property, proprietary business information or personally identifiable information. In addition, we have outsourced a number of our business functions to third party contractors, and any breach of their security systems could adversely affect us.

A cybersecurity breach could negatively affect our reputation as a trusted provider of information infrastructure by adversely affecting the market's perception of the security or reliability of our products or services. In addition, a cyber attack could result in other negative consequences, including remediation costs, disruption of internal operations, increased cybersecurity protection costs, lost revenues or litigation.

Our quarterly revenues or earnings could be materially adversely affected by uneven sales patterns or changing purchasing behaviors.

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 uneven sales pattern makes it difficult for



us to accurately predict revenues, earnings and working capital for each financial period and increases the risk of unanticipated variations in our quarterly results and financial condition. We believe this uneven sales pattern is a result of many factors, including:

- the relative dollar amount of our product and services offerings in relation to many of 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 nine months of the following year; and
- seasonal influences.

Our uneven sales pattern makes it extremely difficult to predict near-term demand and adjust manufacturing capacity or our supply chain accordingly. Our backlog at any particular time is also 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; and
- customers may generally reschedule or cancel orders with little or no penalty.

If predicted demand is substantially greater than orders, we will have excess inventory. Alternatively, if orders substantially exceed predicted demand, our ability to assemble, test and ship orders received in the last weeks and days of each quarter may be limited. This could materially adversely affect quarterly revenues or earnings as our revenues in any quarter are substantially dependent on orders booked and shipped in that quarter.

Loss of infrastructure, due to factors such as an information systems failure, loss of public utilities, natural disasters or extreme weather conditions, could also impact our ability to book orders or ship products in a timely manner. Delays in product shipping 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 or financial condition.

In addition, unanticipated changes in our customers' purchasing behaviors, such as customers taking longer to negotiate and complete their purchases or making smaller, incremental purchases based on their current needs, can also make it difficult for us to accurately predict revenues, earnings and working capital for each financial period and increase the risk of unanticipated variations in our quarterly results and financial condition.

Our business could be materially adversely affected as a result of general global economic and market conditions.

We are subject to the effects of general global economic and market conditions that are beyond our control. If these conditions remain challenging or worsen, our business, results of operations or financial condition could be materially adversely affected. Possible consequences of macroeconomic global challenges that could have a material adverse effect on our results of operations or financial condition include insolvency of key suppliers resulting in product delays, inability of customers to obtain credit to finance purchases of our products, customer insolvencies, increased risk that customers may delay payments, fail to pay or default on credit extended to them, and counterparty failures that negatively impact our treasury operations.

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. There can be no assurance that we will be successful in retaining and developing existing personnel or recruiting new personnel. The loss of one or more key employees, our inability to attract or develop additional qualified employees or any delay in hiring key personnel could have a material adverse effect on our business, results of operations or financial condition.

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

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

Our stock price is volatile and may be affected by factors related to VMware.

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

- the announcement of acquisitions, 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; and
- speculation in the press or investment community.

The trading price of our common stock has been and likely will continue to be affected by various factors related to VMware, including:

the trading price for VMware Class A common stock;

- actions taken or statements made by us, VMware, or others concerning our relationship with VMware;
- and

factors impacting the performance of VMware, including those discussed in the risk factor above regarding the impact of VMware's financial performance on our financial performance.

In addition, although we own a majority of VMware and consolidate its financial results in our results of operations, our stock price may not accurately reflect our pro rata ownership interest of VMware.

Due to the global nature of our business, political, economic or regulatory changes or other factors in a specific country or region could impair our international operations, future revenue or financial condition.

A substantial portion of our revenues is derived from sales outside the United States including, increasingly, in rapid growth markets such as Brazil, Russia, India and China. 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 relating to our operations outside the United States, including, among others, the following:

- changes in foreign currency exchange rates;
- changes in a specific country's or region's economic conditions;
- political or social unrest;
- trade restrictions;
- import or export licensing requirements;
- the overlap of different tax structures or changes in international tax laws;
- changes in regulatory requirements;
- difficulties in staffing and managing international operations;
- stringent privacy policies in some foreign countries;
- compliance with a variety of foreign laws and regulations; and
- longer payment cycles in certain countries.

Our foreign operations, particularly in those countries with developing economies, are also subject to laws prohibiting improper payments and bribery, including the U.S. Foreign Corrupt Practices Act and similar regulations in foreign jurisdictions. Our employees, contractors and agents may take actions in violation of our policies that are designed to ensure compliance with these laws. Any such violations could subject us to civil or criminal penalties or otherwise have an adverse effect on our business and reputation.

In addition, we hold a significant portion of our cash and investments in our international subsidiaries. Potential regulations could impact our ability to transfer this cash and these investments to the United States. Although the international cash is permanently reinvested, should we be required to repatriate cash, we may incur a significant tax obligation.

We operate a Venezuelan sales subsidiary with a U.S. dollar functional currency. As a result, Bolivar-denominated transactions are subject to exchange gains and losses that may impact our earnings. As of quarter end, three exchange rates are available, via legal mechanisms administered by the Venezuelan government, to convert Bolivars into U.S. dollars. These three mechanisms are CENCOEX (official exchange rate), SICAD I and SICAD II. We have continued to use CENCOEX to remeasure these balances

based upon the expected rate at which we believe is most appropriate for these items to be settled. We are closely monitoring information concerning these rates in the event it becomes appropriate to adopt a rate other than CENCOEX. Changing the rate used to re-measure our Bolivar-denominated transactions to either the SICAD I or SICAD II rates could have an adverse effect on our financial position, results of operations or cash flows.

If our suppliers are not able to meet our requirements, we could have decreased revenues and earnings.

We purchase or license many sophisticated components and products from one or a limited number of qualified suppliers, including some of our competitors. These components and products include flash drives, disk drives, high density memory components, power supplies and software developed and maintained by third parties. 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. Natural disasters have also in the past impacted, and may continue to impact, our ability to procure certain components in a timely fashion, and an economic crisis could also negatively affect the solvency of our suppliers, resulting in product delays. Current or future social and environmental regulations or issues, such as those relating to the sourcing of conflict minerals from the Democratic Republic of the Congo or the elimination of environmentally sensitive materials from our products, could restrict the supply of resources used in production or increase our costs. If any of our suppliers were to cancel or materially change 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, be unable to develop or sell certain products cost-effectively or on a timely basis, if at all, and have significantly decreased quarterly revenues and earnings, which would have a material adverse effect on our business, results of operations or financial condition. Additionally, we periodically transition our product line to incorporate new technologies. The importance of transitioning our customers smoothly to such new technologies, along with our historically uneven pattern of quarterly sales (as discussed in a prior risk factor), intensifies the risk that the failure of a supplier to meet our quality or delivery requirements will have a material adverse impact on our revenues and earnings.

Our investment portfolio could experience a decline in market value which could adversely affect our financial results.

We held \$8.3 billion in short- and long-term investments as of December 31, 2014. These investments consist primarily of investment grade debt securities, and we limit the amount of investment with any one issuer. A further deterioration in the economy, including a tightening of credit markets, increased defaults by issuers, or significant volatility in interest rates, could cause these investments to decline in value or could otherwise impact the liquidity of our portfolio. If market conditions deteriorate significantly, our results of operations or financial condition could be materially adversely affected.

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 original equipment manufacturers to market and sell our products and services. We 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, if the financial condition of our channel partners were to weaken, if our channel partners were not able to timely and effectively implement their planned actions or if the level of demand for our channel partners' products and services were to decrease. In addition, as our market opportunities change, we may have an increased reliance on channel partners, which may negatively impact our gross margins. There can be no assurance that we will be successful in maintaining or expanding these channels. If we are not successful in maintaining or expanding these channels, we may lose sales opportunities, customers and market share. Furthermore, our partial reliance on channel partners may materially reduce our management's visibility 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, market or sell products or services or acquire other companies that develop, market or sell products or services in competition with us in the future.

In addition, as we focus on new market opportunities and additional customers through our various distribution channels, including small-to-medium sized businesses, we may be required to provide different levels of service and support than we typically have provided in the past. We may have difficulty managing directly or indirectly through our channels these different service and support requirements and may be required to incur substantial costs to provide such services, which may adversely affect 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 strategic alliances with leading information technology companies, some of whom may be our competitors in other areas, and we plan to continue our strategy of developing key alliances in order to expand our reach into existing and new 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.

In addition, although we believe we have adequate security measures, if our intellectual property or other sensitive data is misappropriated, we could suffer monetary and other losses and reputational harm, which could materially adversely affect our business, results of operations or financial condition.

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

From time to time, we may become involved in various legal proceedings relating to matters incidental to the ordinary course of our business, including patent, commercial, product liability, employment, class action, whistleblower and other litigation and claims, and governmental and other regulatory investigations and proceedings. Such matters can be time-consuming, divert management's attention and resources and cause us to incur significant expenses. Furthermore, because litigation is inherently unpredictable, 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.

Issues arising during the upgrade of our enterprise resource planning system could affect our operating results and ability to manage our business effectively.



We are in the process of upgrading our enterprise resource planning, or ERP, computer system to enhance operating efficiencies and provide more effective management of our business operations. While one phase of our upgrade was implemented in the third quarter of 2012, we still have further planned phases to our upgrade. The upgrade could cause substantial business interruption that could adversely impact our operating results. We are investing significant financial and personnel resources into this project. However, there is no assurance that the system upgrade will meet our current or future business needs or that it will operate as designed. We are heavily dependent on such computer systems, and any significant failure or delay in the system upgrade could cause a substantial interruption to our business and additional expense, which could result in an adverse impact on our operating results, cash flows 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. Due to economic and political conditions, tax rates in various jurisdictions may be subject to significant change, which might significantly impact our effective income tax rate in the future. 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 we pay is subject to our interpretation of applicable tax laws in the jurisdictions in which we file and changes to tax laws. 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.

As part of the current Administration's ongoing negotiations, President Obama and the House of Representatives and Senate Committees have called for a comprehensive tax reform, which might change certain U.S. tax rules for U.S. corporations doing business outside the United States. While the scope of future changes differs among various tax proposals and remains unclear, proposed changes might include limiting the ability of U.S. corporations to deduct certain expenses attributable to offshore earnings, modifying the foreign tax credit rules and taxing currently certain transfers of intangibles offshore. The enactment of some or all of these proposals could increase the Company's effective tax rate and adversely affect our profitability.

Recent developments in 2014, including the Irish government's announced changes to the taxation of certain existing non-resident Irish companies beginning in January 2021, and the Organisation for Economic Co-operation and Development's project on Base Erosion and Profit Shifting, could ultimately impact our tax liabilities to foreign jurisdictions and treatment of our foreign earnings from a U.S. perspective, which may adversely impact our effective tax rate.

Changes in laws or 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 are newly implemented or changed. In addition, our compliance with existing regulations may have a material adverse impact on us. Under applicable federal securities laws, including the Sarbanes-Oxley Act of 2002, we are required to evaluate and determine the effectiveness of our internal control structure and procedures for financial reporting. Should we or our independent auditors determine that we have material weaknesses in our internal controls, our results of operations or financial condition may be materially adversely affected or our stock price may decline.

Changes in generally accepted accounting principles may materially adversely affect us.

From time to time, the Financial Accounting Standards Board ("FASB") promulgates new accounting principles that could have a material adverse impact on our results of operations or financial condition. The FASB is currently contemplating a number of new accounting pronouncements which, if approved, could materially change our reported results. Such changes could have a material adverse impact on our results of operations and financial position.

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

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

which may include, 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 strategic plans;
- the failure of the acquisition to result in expected benefits, which may include benefits relating to enhanced revenues, technology, human resources, cost savings, operating efficiencies and other synergies;
- the difficulty and cost of integrating the acquired business, including costs and delays in implementing common systems and procedures and costs and delays caused by communication difficulties or geographic distances between the two companies' sites;
- the assumption of known or unknown liabilities of the acquired business, including litigation-related liability;
- the potential impairment of acquired assets;

- 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 or suppliers of the acquired business or our customers or suppliers;
- the recoverability of benefits from goodwill and intangible assets and the potential impairment of these assets;
- the potential loss of key employees of the acquired company; and
- the potential incompatibility of business cultures.

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 our common stock in connection with any future acquisition, existing shareholders may experience dilution. Additionally, regardless of the form of consideration issued, acquisitions could negatively impact our net income and our earnings per share.

In addition to the risks commonly encountered in the acquisition of a business as described above, we may also experience risks relating to the challenges and costs of closing a transaction or failing to close an announced transaction. Further, the risks described above may be exacerbated as a result of managing multiple acquisitions at the same time.

We also seek to invest in businesses that offer complementary products, services or technologies and to, from time to time, create new joint ventures or alliances. These investments and ventures are accompanied by risks similar to those encountered in an acquisition of a business.

Our pension plan assets are subject to market volatility.

We have a noncontributory defined benefit pension plan assumed as part of our Data General acquisition. The plan's assets are invested in common stocks, bonds and cash. The expected long-term rate of return on the plan's assets was 6.75%. This rate represents the average of the expected long-term rates of return weighted by the plan's assets as of December 31, 2014. As market conditions permit, we expect to continue to shift the asset allocation to lower the percentage of investments in equities and increase the percentage of investments in long-duration fixed-income securities. The effect of such change could result in a reduction in the long-term rate of return on plan assets and an increase in future pension expense. As of December 31, 2014, the ten-year historical rate of return on plan assets was 7.18%, and the inception to date return on plan assets was 9.97%. In 2014, we experienced a 13.14% gain on plan assets. Should we not achieve the expected rate of return on the plan's assets or if the plan experiences a decline in the fair value of its assets, we may be required to contribute assets to the plan which could materially adversely affect our results of operations or financial condition.

Our business could be materially adversely affected by changes in regulations or standards regarding energy use of our products.

We continually seek ways to increase the energy efficiency of our products. Recent environmental analyses have focused on the estimated amount of global carbon emissions that are generated by information technology products. As a result, governmental and non-governmental organizations have turned their attention to the development of regulations and standards to drive technological improvements to reduce the amount of such carbon emissions. There is a risk that any regulations or standards developed by these organizations will not fully address the complexity of the products and technology developed by the IT industry or will favor certain technological approaches to reducing such carbon emissions. Depending on the regulations or standards that are ultimately adopted, compliance with such regulations or standards could materially adversely affect our business, results of operations or financial condition.

Our business could be materially adversely affected as a result of war, acts of terrorism, natural disasters or climate change.

Terrorist acts, acts of war, natural disasters, or the direct and indirect effects of climate change (such as a rise in sea level, increased storm severity, drought, flooding, wildfires, pandemics, and social unrest from resource depletion and rising food prices) may cause damage or disruption to our employees, facilities, customers, partners, suppliers, distributors and resellers, which could have a material adverse effect on our business, results of operations or financial condition. Such events 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.

Our failure to pay quarterly dividends to our shareholders could materially adversely affect our stock price.

Our ability to pay quarterly dividends will be subject to, among other things, our financial position and results of operations, available cash and cash flow, and capital requirements. Any reduction or discontinuation of quarterly dividends could cause our stock price to decline significantly.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

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## ITEM 2. PROPERTIES

As of December 31, 2014, we owned or leased the facilities described below:

Location	Approximate Sq. Ft.*	Principal Use(s)	Principal Segment(s)
Hopkinton, MA	owned: 1,681,000	executive and administrative offices, R&D, customer service, sales and marketing	Information Storage, Enterprise Content Division
Franklin, MA	owned: 922,000 leased: 288,000	manufacturing	Information Storage
Bedford, MA	leased: 328,000	R&D, customer service, sales, administrative offices and marketing	RSA Information Security
Apex, NC	owned: 390,000	manufacturing	Information Storage
Palo Alto, CA	owned: 1,500,000 leased: 18,000	executive and administrative offices, R&D, sales, marketing and data center	VMware Virtual Infrastructure
Other North American Locations	owned: 1,361,000 leased: 4,883,000	executive and administrative offices, sales, customer service, R&D, data center and marketing	**
Asia Pacific	leased: 4,195,000	sales, marketing, customer service, R&D, data center and administrative offices	**
Cork, Ireland	owned: 588,000 leased: 266,000	manufacturing, customer service, R&D, administrative offices, sales and marketing	**
Europe, Middle East and Africa (excluding Cork, Ireland)	owned: 160,000 leased: 1,859,000	sales, manufacturing, customer service, R&D, data center, marketing and administrative offices	**
Latin America	owned: 28,000 leased: 250,000	sales, customer service, R&D and marketing	**

Of the total square feet owned and leased, approximately 441,000 square feet was vacant, approximately 135,000 square feet was leased or subleased to non-EMC businesses and approximately 655,000 square feet were under construction for various VMware projects.

\*\* All segments of our business generally utilize these facilities.

We also own land in Massachusetts and Ireland for possible future expansion purposes. We believe our existing facilities are suitable and adequate for our present purposes. For further information regarding our lease obligations, see Note N to the consolidated financial statements.

## ITEM 3. LEGAL PROCEEDINGS

See the information under "Litigation" in Note N to the consolidated financial statements, which we incorporate here by reference.

## ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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## EXECUTIVE OFFICERS OF THE REGISTRANT

Our executive officers are as follows:

Name	Age	Position
Joseph M. Tucci	67	Chairman, President and Chief Executive Officer
William J. Teuber, Jr.	63	Vice Chairman
Jeremy Burton	47	President, Products and Marketing
Paul T. Dacier	57	Executive Vice President and General Counsel
Howard D. Elias	57	President and Chief Operating Officer, Global Enterprise Services
David I. Goulden	55	Chief Executive Officer, EMC Information Infrastructure
ML Krakauer	58	Executive Vice President, Human Resources
Paul Maritz	59	Chief Executive Officer, Pivotal
Zane C. Rowe	44	Executive Vice President and Chief Financial Officer
William F. Scannell	52	President, Global Sales and Customer Operations
Amit Yoran	44	President, RSA, The Security Division of EMC
Harry L. You	55	Executive Vice President, Office of the Chairman

Joseph M. Tucci has been the Chairman of the Board of Directors since January 2006 and has been Chief Executive Officer and a Director since January 2001. He has served as President since February 2014, and also from January 2000 to July 2012. 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. Mr. Tucci is the Chairman of the Board of Directors of VMware and a director of Paychex, Inc., a provider of payroll, human resources and benefits outsourcing solutions.

William J. Teuber, Jr. has been our Vice Chairman since May 2006. In this role, Mr. Teuber assists the Chairman and Chief Executive Officer in the day-to-day management of EMC. From 2006 to July 2012, he oversaw EMC Customer Operations, our global sales and distribution organization where he was responsible for driving EMC's growth and market leadership worldwide. Mr. Teuber served as our Vice Chairman and Chief Financial Officer from May 2006 to August 2006 and as Executive Vice President and Chief Financial Officer from November 2001 to May 2006. Prior to serving as our Chief Financial Officer, he served as our Controller. Mr. Teuber joined EMC in 1995. Mr. Teuber is a director of Popular, Inc., a diversified financial services company.

Jeremy Burton has been our President, Products and Marketing since March 2014. He was Executive Vice President, Product Operations and Marketing from July 2012 to March 2014. Mr. Burton joined EMC in March 2010 as our Chief Marketing Officer. Prior to joining EMC, Mr. Burton was President and Chief Executive Officer of Serena Software, Inc., a global independent software company. Previously, Mr. Burton was Group President of the Security and Data Management Business Unit of Symantec Corporation, a provider of security, storage and systems management solutions, where he was responsible for the company's \$2 billion Enterprise Security product line. Prior to that role, he served as Executive Vice President of the Data Management Group at VERITAS Software Corporation (now a part of Symantec) where he was responsible for the company's backup and archiving products. He also served as VERITAS' Chief Marketing Officer. Earlier in his career, Mr. Burton spent nearly a decade at Oracle Corporation, a large enterprise software company, ultimately in the role of Senior Vice President of Product and Services Marketing.

Paul T. Dacier has been our Executive Vice President and General Counsel since May 2006. Mr. Dacier served as Senior Vice President and General Counsel from February 2000 to May 2006 and joined EMC in 1990 as Corporate Counsel. Mr. Dacier is a director of AerCap Holdings N.V., a global aircraft leasing company.

Howard D. Elias has been our President and Chief Operating Officer, Global Enterprise Services since January 2013 and was our President and Chief Operating Officer, EMC Information Infrastructure and Cloud Services from September 2009 to January 2013. Previously, Mr. Elias served as President, EMC Global Services and EMC Ionix from September 2007 to September 2009. Mr. Elias served as our Executive Vice President, Global Services and Resource Management Software Group from May 2006 to September 2007 and served as our Executive Vice President, Global Marketing and Corporate Development from January 2006 to May 2006. He served as Executive Vice President, Corporate Marketing, Office of Technology and New Business Development from January 2004 to January 2006. Prior to joining EMC, Mr. Elias served in various capacities at Hewlett-Packard Company, a provider of information technology products, services and solutions for enterprise customers, most recently as Senior Vice

President of Business Management and Operations in the Enterprise Systems Group. Mr. Elias is a director of Gannett Company, Inc., an international media and marketing solutions company.

David I. Goulden has been Chief Executive Officer of our EMC Information Infrastructure business since January 2014. Prior to this, he was President and Chief Operating Officer overseeing EMC's business units as well as Global Sales and Customer Operations, Global Services, Global Marketing and G&A functions since July 2012. Mr. Goulden was our Chief Financial Officer from August 2006 until October 2014. Prior to this, Mr. Goulden served as Executive Vice President and Chief Financial Officer from August 2006 to July 2012 and served as our Executive Vice President, Customer Operations from April 2004 to August 2006. He served as Executive Vice President, Customer Solutions and Marketing and New Business Development from November 2003 to April 2004. Prior to joining EMC in 2002, Mr. Goulden served in various capacities at Getronics N.V., an information technology services company, most recently as a member of the Board of Management, President and Chief Operating Officer for the Americas and Asia Pacific.

ML Krakauer has been our Executive Vice President, Human Resources since April 2012. Ms. Krakauer served as Chief Operating Officer, Technical Solutions and Services from April 2011 to April 2012. She joined EMC as Senior Vice President, Technical Solutions and Services in September 2008. Prior to joining EMC, she held multiple executive leadership roles at Hewlett-Packard Company, a provider of information technology products, services and solutions for enterprise customers. Before joining Hewlett-Packard, she was at Compaq, Digital Equipment and other technology companies.

Paul Maritz has been Chief Executive Officer of Pivotal Software, Inc., an entity jointly owned by EMC and VMware, since April 2013. Prior to this, he served as Chief Strategist of EMC from September 2012 to March 2013. Mr. Maritz was Chief Executive Officer at VMware from July 2008 to August 2012 and he also served as VMware's President from July 2008 to January 2011. Prior to joining VMware, he was President of EMC's Cloud Infrastructure and Services Division after EMC acquired Pi Corporation in February 2008. Mr. Maritz was a founder of Pi and served as its Chief Executive Officer. Pi was a software company focused on building cloud-based solutions. Before founding Pi, he spent 14 years working at Microsoft Corporation, where he served as a member of the five-person Executive Committee that managed the overall company. As Vice President of the Platform Strategy and Developer Group, among other roles, he oversaw the development and marketing of System Software Products (including Windows 95, Windows NT, and Windows 2000), Development Tools (Visual Studio) and Database Products (SQL Server) and the complete Office and Exchange Product Lines. Prior to Microsoft, he spent five years working at Intel Corporation as a software and tools developer. Mr. Maritz is a director of VMware.

Zane C. Rowe has been our Executive Vice President and Chief Financial Officer since October 2014. Prior to joining EMC, Mr. Rowe was Vice President of North American Sales of Apple Inc., a technology company that designs, develops, and sells consumer electronics, computer software, online services, and personal computers, from May 2012 until May 2014. He was Executive Vice President and Chief Financial Officer of United Continental Holdings, Inc., an airline holdings company, from October 2010 until April 2012 and was Executive Vice President and Chief Financial Officer of Continental Airlines from August 2008 to September 2010. Mr. Rowe joined Continental in 1993.

William F. Scannell has been our President, Global Sales and Customer Operations since July 2012. He is responsible for driving EMC's global growth and continued market leadership by delivering and supporting the full range of EMC products, services and solutions to organizations in established and new markets around the world. Mr. Scannell was Executive Vice President, Americas and EMEA Sales from March 2011 to July 2012, in which role he oversaw customer operations in the Americas and EMEA, and he was Executive Vice President, Americas from August 2010 to March 2011. He served as Executive Vice President, Sales Americas and Global Sales Programs from March 2007 to August 2011. Mr. Scannell joined EMC in 1986 and has held various positions including Senior Vice President, Worldwide Sales and Vice President, North America Regional Sales.

Amit Yoran has been our President, RSA, The Security Division of EMC, since October 2014. Mr. Yoran served as Senior Vice President, Security Management and Compliance at RSA from August 2011 to September 2014 and Senior Vice President and General Manager, NetWitness at RSA from April 2011 to August 2011. Prior to RSA acquiring NetWitness in 2011, Mr. Yoran was its founder and served as the CEO. Mr. Yoran was Director, National Cyber Security Division of the U.S. Department of Homeland Security from 2003 to October 2004.

Harry L. You has been our Executive Vice President, Office of the Chairman, since February 2008. In this role, Mr. You focuses on EMC's corporate strategy. Prior to joining EMC, Mr. You served as Chief Executive Officer of BearingPoint, Inc., a management and technology consulting firm, from March 2005 to December 2007 and as BearingPoint's Interim Chief Financial Officer from July 2005 to October 2006. From 2004 to 2005, Mr. You was Executive Vice President and Chief Financial Officer of Oracle Corporation, a large enterprise software company, and from 2001 to 2004, he was the Chief Financial Officer of Accenture Ltd, a global management consulting, technology services and outsourcing company. Mr. You is a director of Korn/Ferry International, a global executive recruiting company.

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## PART II

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

Our common stock, par value \$.01 per share, trades on the New York Stock Exchange under the symbol EMC. 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 and the dividends declared per share during such periods:

Fiscal 2014	High	Low	Dividends
First Quarter	\$28.26	\$23.47	\$0.10
Second Quarter	28.10	24.92	0.115
Third Quarter	30.18	26.34	0.115
Fourth Quarter	30.92	26.11	0.115
Fiscal 2013	High	Low	Dividends
First Quarter	\$25.75	\$22.76	N/A
Second Quarter	25.38	21.45	\$0.10
Third Quarter	27.34	23.25	0.10
Fourth Quarter	25.84	23.15	0.10

We had 9,190 holders of record of our common stock as of February 26, 2015.

In May 2013, our Board of Directors approved the initiation of a quarterly cash dividend to EMC shareholders of \$0.10 per share and in April 2014, our Board of Directors approved an increase in the quarterly cash dividend paid to EMC shareholders of \$0.115 per share. We currently expect that comparable cash dividends will continue to be paid in the future. In December 2014, our Board of Directors authorized the repurchase of an additional 250 million shares of our common stock. This repurchase authorization does not have a fixed termination date. We currently expect to use cash to repurchase our common stock during 2015.

## ISSUER PURCHASES OF EQUITY SECURITIES IN THE FOURTH QUARTER OF 2014

(table in millions, except per share amounts)

Period	Total Number of Shares Purchased <sup>(1)</sup>	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs
October 1, 2014 – October 31, 2014	10	\$28.29	10	94
November 1, 2014 – November 30, 2014	20	29.53	20	74
December 1, 2014 – December 31, 2014	25	29.80	25	299
Total	55	<sup>(2)</sup> \$29.43	55	299

Except as noted in note (2), all shares were purchased in open-market transactions pursuant to authorizations by (1) our Board of Directors in February 2013 and December 2014 to repurchase a total of 500 million shares of our common stock. These repurchase authorizations do not have fixed termination dates.

(2) Includes shares withheld from employees for the payment of taxes.



ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA  
 FIVE YEAR SELECTED CONSOLIDATED FINANCIAL DATA  
 (in millions, except per share amounts)

	Year Ended December 31,				
	2014 <sup>(1)</sup>	2013 <sup>(2)</sup>	2012 <sup>(4)</sup>	2011 <sup>(5)</sup>	2010 <sup>(6)</sup>
Summary of Operations:					
Revenues	\$24,440	\$23,222	\$21,714	\$20,008	\$17,015
Operating income	4,037	4,150	3,964	3,442	2,683
Net income attributable to EMC Corporation	2,714	2,889	2,733	2,461	1,900
Net income attributable to EMC Corporation per weighted average share, basic	\$1.34	\$1.39	\$1.31	\$1.20	\$0.92
Net income attributable to EMC Corporation per weighted average share, diluted	\$1.32	\$1.33	\$1.23	\$1.10	\$0.88
Weighted average shares, basic	2,028	2,074	2,093	2,056	2,056
Weighted average shares, diluted	2,059	2,160	2,206	2,229	2,148
Dividend declared per common share	\$0.45	\$0.30	\$—	\$—	\$—
Balance Sheet Data:					
Working capital	\$4,023	\$5,479	\$1,745	\$1,179	\$372
Total assets	45,885	45,849	37,962	34,469	30,833
Current obligations <sup>(3)</sup>	—	1,665	1,652	3,305	3,215
Long-term obligations	5,495	5,494	—	—	—
Total shareholders' equity	23,525	23,786	23,524	20,280	18,634

(1) In 2014, EMC acquired all of the outstanding shares of 11 companies (see Note C to the consolidated financial statements).

(2) In 2013, EMC acquired all of the outstanding shares of 8 companies (see Note C to the consolidated financial statements).

(3) Current obligations relate to the convertible debt and notes converted and payable, which were classified as current at December 31, 2013, 2012, 2011 and 2010 (see Note E to the consolidated financial statements).

(4) In 2012, EMC acquired all of the outstanding share of 17 companies.

(5) In 2011, EMC acquired all of the outstanding shares of 7 companies.

(6) In 2010, EMC acquired all of the outstanding shares of 10 companies.



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

This Management's Discussion and Analysis ("MD&A") of Financial Condition and Results of Operations should be read in conjunction with our consolidated financial statements and notes thereto which appear elsewhere in this Annual Report on Form 10-K.

Certain tables may not add or recalculate due to rounding.

### INTRODUCTION

We manage our company as a federation of businesses, each of which plays a vital role in the delivery of IT-as-a-service ("ITaaS"): EMC Information Infrastructure, Pivotal and VMware Virtual Infrastructure. This federation approach allows each of the businesses to individually build best-of-breed products, go-to-market capabilities and ecosystems that they need to succeed in their respective markets while sharing the same goal of helping customers transform their IT infrastructures. In 2014, we continued to invest in the best technology and in building the most complete portfolio to capitalize on the emerging and rapidly growing trends of cloud computing, Big Data, mobile, social networking and security. As a result, we feel we are better equipped than competitors to provide cloud-based infrastructures for existing applications as well as solutions for building and running new applications. The ability of our federated businesses to work together results in differentiated solutions with broad transformational capabilities which allows our customers to maximize their control, efficiency and choice. We believe this strategy enables us to take advantage of the growth opportunity of EMC Information Infrastructure and the faster growth opportunities of VMware Virtual Infrastructure and Pivotal.

#### EMC Information Infrastructure

Our EMC Information Infrastructure business consists of three segments: Information Storage, Enterprise Content Division, formerly known as Information Intelligence Group, and RSA Information Security. The objective for our EMC Information Infrastructure business is to simultaneously increase our market share through our strong and ever expanding portfolio of offerings while investing in the business. During 2014, we continued to invest in expanding our total addressable market through increased internal research and development ("R&D") and through business acquisitions, with a focus on flash, Big Data storage, software-defined storage and converged infrastructure to facilitate the enablement of cloud infrastructures, both public and private. We have developed a product portfolio with customers' current and future needs in mind which will continue to evolve as the largest transformation in IT history is creating enormous opportunities in cloud computing, Big Data and Trusted IT.

Our go-to market model, where we continue to leverage our direct sales force and services organization, as well as our channel and services partners and service providers, positions us well to help enable customers to transition to cloud computing and benefit from Big Data in the most advantageous manner for their businesses. As IT headcount grows at a fraction of the pace of data and the demands from the data center escalate, customers continue to look for simple and scalable ways to build out their ITaaS function. We offer three alternatives to help our customers transition to cloud architectures and leverage Big Data to meet these needs: our best-of-breed infrastructure products, proven infrastructure through our VSPEX reference architecture and converged infrastructure. Our service provider program continues to be an important part of our strategy to lead our customers to private, managed private and public clouds.

#### Pivotal

Pivotal is focused on building a platform comprising the next generation of data fabrics, application fabrics and a cloud independent platform-as-a-service ("PaaS") to support cloud computing and Big and Fast Data Applications. The first version of this integrated technology platform was a cornerstone offering in 2014 together with high-value strategic services, a trend we expect to continue in 2015. The foundation of our technology platform, Cloud Foundry, continues to gain momentum as an open platform for developing and operating new cloud applications that can be run on multiple leading private and public clouds in addition to our own and not lock a customer into any one cloud in particular. On top of this platform, Pivotal will continue to offer its own suite of big and fast data capabilities, featuring game changing innovations that use Hadoop Distributed File System ("HDFS") and scalar processing

technologies. Additionally, its agile development services business, Pivotal Labs, continues to help existing customers and digital era startups build industrial-strength applications with more agility, more speed, and better quality. Pivotal is becoming an increasingly important factor in our cross EMC solutions. These solutions offer a combination of products, converged infrastructure and services that offer a unique value proposition to customers, which position the business for rapid growth in the future.

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### VMware Virtual Infrastructure

VMware is the leader in virtualization infrastructure solutions utilized by organizations to help transform the way they build, deliver and consume IT resources. VMware develops and markets its product and service offerings within three main product groups, and it leverages synergies across these three product and service areas: SDDC or Software-Defined Data Center, Hybrid Cloud Computing and End-User Computing.

Historically, the majority of VMware license sales have been from its standalone vSphere product, which is included in its compute product category within its SDDC architecture. However, over the last two years, the growth rate of its standalone vSphere product license sales has declined as certain large markets for data center server virtualization have matured. The growth rate of license sales beyond its standalone vSphere product has increased over this period as it transitions to offering a wider range of products and services to enable the entire SDDC. As the transformation of the IT industry continues, VMware expects that its growth rates will be increasingly derived from sales of its newer products, suites and services solutions across its SDDC portfolio, beyond standalone vSphere. Hybrid cloud computing has also experienced growth throughout 2014. VMware continues to expand its hybrid cloud global footprint as well as its service offerings. VMware's acquisition of AirWatch during 2014 has expanded its portfolio of mobile solutions within the enterprise mobile and security space. AirWatch products and services contributed to the growth VMware experienced in sales of its end-user computing products during 2014.

VMware generally sells its solutions using enterprise license agreements ("ELAs") or as part of its non-ELA, transactional, business. ELAs are comprehensive volume license offerings, offered both directly by VMware and through certain channel partners that also provide for multi-year maintenance and support.

On a consolidated basis, we grew and gained share in a tough IT environment, and continued to make strategic investments in the business while returning capital to shareholders. Our vision, strategy and market leading assets within our portfolio, and our go-to market capabilities position us to continue to anticipate and capitalize on the mega trends of cloud, mobile, Big Data and security as the IT industry transitions from the second to the third platform. With these advantages in a time of rapid evolution of the enterprise data center, and supported by a customer facing team that is adept at leveraging this broad portfolio to deliver business outcomes for our customers and partners, we are confident that we will grow faster than the markets we serve in 2015 as we simultaneously invest in the business and grow earnings per share.

## RESULTS OF OPERATIONS

### Revenues

The following table presents total revenue by our segments (in millions):

	2014	2013	2012	Percentage Change		
				2014 vs 2013	2013 vs 2012	
Information Storage	\$16,542	\$16,262	\$15,573	2	% 4	%
Enterprise Content Division	640	647	640	(1	) 1	
RSA Information Security	1,035	987	889	5	11	
Pivotal	227	179	137	27	31	
VMware Virtual Infrastructure	5,996	5,147	4,475	16	15	
Total revenues	\$24,440	\$23,222	\$21,714	5	% 7	%

Consolidated product revenues increased 3% to \$14,051 million in 2014. Despite a challenging and rapidly changing IT environment and the impact of foreign currency fluctuations, we demonstrated solid performance across our major segments within our federation of businesses. The growth was driven by continued demand for our leading portfolio of offerings that help customers optimize their existing infrastructures and build new ones that take advantage of opportunities created by cloud, mobile, social and Big Data.

The Information Storage segment's product revenues increased slightly to \$10,785 million in 2014 as EMC invested heavily in key technologies and innovations across all businesses. Revenue from the Emerging Storage business increased 52% for 2014 with notably strong growth for EMC XtremIO and EMC ViPR. EMC XtremIO has secured the lead in the all-flash array market segment in its first year in the market. Additionally, Isilon revenue growth in 2014 accelerated, benefiting from growing demand for true scale-out systems and for Big Data analytics where EMC Isilon Hadoop capabilities offer advantages in ease of use and total cost of ownership. Revenue from the Unified and Backup Recovery business increased 4% in 2014 primarily driven by growth generated from both our VNX and Data Domain offerings. Revenue from the high-end storage business, which includes

revenues from EMC VMAX, decreased 13% due to an overall slow-down in the high-end market as many new customers invest in third platform applications which are better suited for alternative architectures that we also offer in our product portfolio. In addition, there was a pause in purchasing in anticipation of the new VMAX high-end storage system which became generally available at the end of the third quarter. Despite this, the transition to our new EMC VMAX 3 is occurring at the pace we expected, representing about 30% of the new systems sold in the fourth quarter of 2014.

The Pivotal segment's product revenues decreased 3% to \$65 million in 2014. The decrease is primarily attributable to an increase in license orders for Pivotal Cloud Foundry and Big Data Suite, which have subscription-based, ratable revenue recognition rather than up-front revenue recognition. As a result, Pivotal's product revenue decline does not reflect the strong growth in demand compared to the prior year. Pivotal is benefiting from the transition to next-gen applications by the enterprise and continues to expand the number of customers adopting Pivotal Cloud Foundry, an open source, cloud-independent PaaS, which now has over 45 members, and also adopting the Big Data Suite.

The VMware Virtual Infrastructure segment's product revenues increased 14% to \$2,575 million in 2014. VMware's license revenues increased in 2014 primarily due to increased sales of integrated product suites, including VMware vCloud Suite and vSphere with Operations Management. Customers continue to transition to purchasing suite solutions rather than products such as vSphere that are sold on a standalone basis. Integrated product suites include various product offerings and are generally sold at a higher price than products that are sold on an individual basis. Additionally, revenue from VMware's network virtualization solution, VMware NSX, as well as its end-user computing products, including AirWatch mobile solutions, also contributed to the increase in license revenues.

The RSA Information Security segment's product revenues increased 2% to \$462 million in 2014. The increase in product revenue was driven by growth in both our Identity and Data Protection and Security Management and Compliance businesses. Security remains a high customer priority as RSA continues to benefit from its market leadership in GRC, technology leadership in Security Analytics and strong base in risk-based Identity which enables us to help customers secure their next-generation cloud-based IT environments.

The Enterprise Content Division segment's product revenues decreased 9% to \$164 million in 2014. The year-over-year decrease in product revenues was primarily due to the timing of revenue recognition due to the increase in subscription-based offerings with ratable revenue recognition such as Syncplicity. As a result of the rapid growth of our Syncplicity offering, its revenue doubled for the three months ended December 31, 2014 and for the full year. This business continues to make progress as it continues to innovate to meet customers' demand for technologies that work seamlessly in mobile cloud environments.

Consolidated product revenues increased 5% to \$13,690 million in 2013. Although IT spending was lower than we had expected causing several of our larger peers in the technology industry experienced declining revenues, we experienced growth during the year across each of the segments within our federation of businesses. The growth was driven by the continued demand for our best-of-breed portfolio of offerings to address the storage, data analysis and virtualization needs for continued information growth, particularly as customers continue to build out their data centers to support their private or public cloud infrastructures and begin to transition from the second to the third platform of IT.

Consolidated services revenues increased 9% to \$10,389 million in 2014. The consolidated services revenues increase was primarily driven by the Information Storage and VMware Virtual Infrastructure segments' services revenues resulting from increased revenue associated with maintenance services and increased demand for professional services due to an increased focus on delivering business outcomes, as well as from its role in assembling cross-federation solutions.

The Information Storage segment's services revenues increased 4% to \$5,757 million in 2014. The increase in services revenues was primarily attributable to higher revenue associated with maintenance services due to a larger installed base.

The Pivotal segment's services revenues increased 44% to \$162 million in 2014. The increase in services revenues was primarily attributable to higher professional services as Pivotal transitions to enterprise customers, with their renewed focus on agile development and services surrounding their Pivotal One and Pivotal CF platforms.

The VMware Virtual Infrastructure segment's services revenues increased 18% to \$3,421 million in 2014. The increase in services revenues was primarily attributable to growth in VMware's software maintenance revenues which benefited from renewals, multi-year software maintenance contracts sold in previous periods and additional maintenance contracts sold in conjunction with new software license sales.

The RSA Information Security segment's services revenues increased 7% to \$573 million in 2014. Services revenues increased due to increases in both maintenance revenues, resulting from continued demand for support from our installed base, and professional services.

The Enterprise Content Division segment's services revenues increased 2% to \$476 million in 2014. The increase in services revenues was due to continued demand for support from our installed base and increased customer demand for services related to new product offerings and strategic professional services.

Consolidated services revenues increased 10% to \$9,532 million in 2013. The consolidated services revenues increase was primarily driven by the Information Storage and VMware Virtual Infrastructure segments' services revenues resulting from increased revenue associated with maintenance services and increased demand for professional services as we continue to provide expertise to customers on effective ways to enable cloud computing and to leverage their Big Data assets.

Consolidated revenues by geography were as follows (in millions):

	2014	2013	2012	Percentage Change		
				2014 vs 2013	2013 vs 2012	
United States	\$12,835	\$12,230	\$11,510	5	% 6	%
Europe, Middle East and Africa	6,981	6,355	5,908	10	% 8	%
Asia Pacific	3,191	3,193	3,017	—	% 6	%
Latin America, Mexico and Canada	1,433	1,444	1,279	(1	)% 13	%
Total Revenues	\$24,440	\$23,222	\$21,714	5	% 7	%

Revenues increased in 2014 compared to 2013 in our United States and Europe, Middle East and Africa markets due to greater demand for our products and services offerings. Revenues stayed flat in our Asia Pacific market and declined slightly in our Latin America, Mexico and Canada market. Revenues increased in 2013 compared to 2012 in all of our markets.

Changes in exchange rates negatively impacted the total revenue increase by 1% in 2014 compared to 2013. The impact of the change in rates was most significant in the Asia Pacific markets, primarily Australia and Japan, and Brazil, partially offset by the United Kingdom. Changes in exchange rates negatively impacted the total revenue increase by 1% in 2013 compared to 2012. The impact of the change in rates was most significant in the Asia Pacific market, primarily Australia and Japan, Brazil and South Africa, partially offset by the Euro.

## Costs and Expenses

The following table presents our costs and expenses, operating income and net income attributable to EMC Corporation (in millions):

	2014	2013	2012	Percentage Change		
				2014 vs 2013	2013 vs 2012	
Cost of revenue:						
Information Storage	\$7,362	\$7,153	\$6,662	3	% 7	%
Enterprise Content Division	223	228	208	(2	) 9	
RSA Information Security	337	332	285	2	17	
Pivotal	121	88	35	38	151	
VMware Virtual Infrastructure	755	558	499	35	12	
Corporate reconciling items	393	390	387	1	1	
Total cost of revenue	9,191	8,749	8,076	5	8	
Gross margins:						
Information Storage	9,180	9,109	8,911	1	2	
Enterprise Content Division	417	419	432	—	(3	)
RSA Information Security	698	655	604	6	9	
Pivotal	106	91	102	16	(11	)
VMware Virtual Infrastructure	5,241	4,589	3,976	14	15	
Corporate reconciling items	(393	) (390	) (387	) 1	1	
Total gross margin	15,249	14,473	13,638	5	6	
Operating expenses:						
Research and development <sup>(1)</sup>	2,991	2,761	2,560	8	8	
Selling, general and administrative <sup>(2)</sup>	7,982	7,338	7,004	9	5	
Restructuring and acquisition-related charges	239	224	110	7	102	
Total operating expenses	11,212	10,323	9,674	9	7	
Operating income	4,037	4,150	3,964	(3	) 5	
Investment income, interest expense and other expenses, net	(275	) (285	) (160	) (4	) 78	
Income before income taxes	3,762	3,865	3,804	(3	) 2	
Income tax provision	868	772	918	12	(16	)
Net income	2,894	3,093	2,886	(6	) 7	
Less: Net income attributable to the non-controlling interest in VMware, Inc.	(180	) (204	) (153	) (12	) 33	
Net income attributable to EMC Corporation	\$2,714	\$2,889	\$2,733	(6	)% 6	%

(1) Amount includes corporate reconciling items of \$387 million, \$365 million and \$334 million for the years ended December 31, 2014, 2013 and 2012, respectively.

(2) Amount includes corporate reconciling items of \$826 million, \$603 million and \$626 million for the years ended December 31, 2014, 2013 and 2012, respectively.

## Gross Margins

Our gross margin percentages were 62.4%, 62.3% and 62.8% in 2014, 2013 and 2012, respectively. The increase in the gross margin percentage in 2014 compared to 2013 was attributable to the VMware Virtual Infrastructure segment, which increased overall gross margins by 51 basis points, the RSA Information Security segment, which increased overall gross margins by 5 basis points, and the Enterprise Content Division segment, which increased overall gross margins by 1 basis point; these increases were largely offset by the Information Storage segment, which decreased overall gross margins by 43 basis points, and the Pivotal segment, which decreased overall gross margins by 6 basis points. The increase in corporate reconciling items, consisting of stock-based compensation, acquisition-related



intangible asset amortization, restructuring and acquisition-related charges and amortization of VMware's capitalized software from prior periods, decreased the consolidated gross margin percentage by 1 basis point. The decrease in the gross margin percentage in 2013 compared to 2012 was attributable to the Information Storage segment,

which decreased overall gross margins by 103 basis points, the Pivotal segment, which decreased overall gross margins by 17 basis points, the Enterprise Content Division segment, which decreased overall gross margins by 8 basis points, and the RSA Information Security segment, which decreased overall gross margins by 4 basis points, somewhat offset by the VMware Virtual Infrastructure segment, which increased overall gross margins by 86 basis points. The increase in corporate reconciling items, consisting of stock-based compensation, acquisition and other related intangible asset amortization and the amortization of VMware's capitalized software from prior periods, decreased the consolidated gross margin percentage by 2 basis points.

For segment reporting purposes, stock-based compensation, acquisition and other related intangible asset amortization and the amortization of VMware's capitalized software from prior periods are recognized as corporate expenses and are not allocated among our various operating segments. The increase of \$3 million in the corporate reconciling items in 2014 was attributable to a \$22 million increase in stock-based compensation expense and a \$15 million increase in intangible asset amortization expense, partially offset by a \$34 million decrease in amortization of VMware's capitalized software from prior periods. The \$22 million increase in stock-based compensation expense was driven by incremental growth in headcount, both organic and through acquisitions including AirWatch and DSSD. The \$15 million increase in intangible asset amortization expense was due to a larger intangible asset balance resulting from business acquisitions. The decrease in amortization of VMware's capitalized software from prior periods was due to the balance being fully amortized during 2013. The increase of \$3 million in the corporate reconciling items in 2013 was attributable to a \$33 million increase in intangible asset amortization expense, partially offset by a \$28 million decrease in amortization of VMware's capitalized software from prior periods and a \$2 million decrease in stock-based compensation expense. The \$33 million increase in intangible asset amortization expense in 2013 was due to a larger intangible asset balance resulting from business acquisitions. The \$28 million decrease in amortization of VMware's capitalized software from prior periods was due to the balance being fully amortized towards the end of 2013 compared to an entire year of amortization during 2012.

The gross margin percentages for the Information Storage segment were 55.5%, 56.0% and 57.2% in 2014, 2013 and 2012, respectively. The decrease in gross margin percentage in 2014 compared to 2013 was primarily due to a decrease in product margins during the first half of 2014. The decrease in product margins was primarily due to lower sales volume without a corresponding decrease in fixed costs and pricing pressures on our high-end storage products. The decrease in gross margin percentage in 2013 compared to 2012 was primarily attributable to a decrease in product and service margins. The decrease in product margins in 2013 was due to higher execution costs related to increasingly back-end loaded quarters. Service margins decreased in 2013 due to higher costs to support increased field service activity.

The gross margin percentages for the Pivotal segment were 46.5%, 50.7% and 74.4% in 2014, 2013 and 2012, respectively. The decrease in gross margin percentage in 2014 compared to 2013 was primarily due to an increase in the revenue mix towards lower margin services resulting from an increase in subscriptions sales. The decrease in gross margin percentage in 2013 compared to 2012 was primarily due to a decrease in services margins resulting from the continued build-up of services capabilities as Pivotal worked with customers to determine how best to leverage newer technologies such as Pivotal CF and Pivotal One.

The gross margin percentages for the VMware Virtual Infrastructure segment were 87.4%, 89.2% and 88.9% in 2014, 2013 and 2012, respectively. The decrease in gross margin percentage in 2014 compared to 2013 was primarily attributable to a decrease in service margins driven by the investment in growth and in its software as a service ("SaaS") and professional service offerings, which led to higher costs. The increase in gross margin percentage in 2013 compared to 2012 was primarily attributable to improvements in product margins due to a decrease in software capitalized amortization expense and a decrease in royalty and licensing costs for technology licensed from third-party providers that is used in its products.

The gross margin percentages for the RSA Information Security segment were 67.4%, 66.4% and 68.0% in 2014, 2013 and 2012, respectively. The increase in the gross margin percentage in 2014 compared to 2013 was primarily due to higher product margins somewhat offset by a decline in service margins. The decrease in gross margin percentage in 2013 compared to 2012 was primarily due to an atypically higher gross margin in 2012 due to the

release of the residual reserve related to the one-time impact of RSA remediation associated with working with customers to implement remediation programs which occurred in the three months ended June 30, 2012.

The gross margin percentages for the Enterprise Content Division segment were 65.2%, 64.8% and 67.5% in 2014, 2013 and 2012, respectively. The increase in gross margin percentage in 2014 compared to 2013 was attributable to an increase in services margins. The decrease in gross margin percentage in 2013 compared to 2012 was attributable to a decrease in product revenue.

## Research and Development

As a percentage of revenues, R&D expenses were 12% in 2014, 2013 and 2012. R&D expenses increased \$230 million in 2014 primarily due to an increase in personnel-related costs, which are expenses driven by incremental headcount from strategic hiring and business acquisitions, depreciation expense, material costs and infrastructure costs. Personnel-related costs increased by \$196 million, depreciation expense increased by \$37 million, material costs increased by \$27 million and infrastructure costs increased by \$18 million. Partially offsetting these increases was a decrease in business development costs of \$15 million and higher capitalization of software development costs of \$41 million which decreased overall R&D expenses. R&D expenses increased \$201 million in 2013 primarily due to an increase in personnel-related costs, which are expenses driven by incremental headcount from strategic hiring and business acquisitions, depreciation expense, infrastructure costs and business development costs. Personnel-related costs increased by \$179 million, depreciation expense increased by \$32 million, infrastructure costs increased by \$26 million and business development costs increased by \$8 million. Partially offsetting these increases were higher capitalized software development costs of \$48 million which decreased overall R&D expenses.

Corporate reconciling items within R&D, which consist of stock-based compensation and intangible asset amortization, increased \$22 million and \$31 million to \$387 million and \$365 million in 2014 and 2013, respectively. Stock-based compensation expense increased \$25 million and \$32 million in 2014 and 2013, respectively. Acquisition-related intangible asset amortization decreased \$3 million and \$1 million in 2014 and 2013, respectively. The increase in stock-based compensation expense in 2014 was primarily driven by the issuance of restricted stock and stock options in connection with acquisitions including AirWatch and DSSD. The increase in stock-based compensation expense in 2013 was primarily driven by VMware's issuance of restricted stock in connection with the acquisition of Nicira in the third quarter of 2012.

R&D expenses within EMC's Information Infrastructure business, as a percentage of EMC's Information Infrastructure business revenues, were 8% in 2014, 2013 and 2012. R&D expenses increased \$28 million in 2014 primarily due to changes in personnel-related costs, which are expenses driven by incremental headcount from strategic hiring and business acquisitions, material costs, depreciation expense and infrastructure costs. Personnel-related costs increased by \$35 million, material costs increased by \$27 million, depreciation expense increased by \$19 million and infrastructure costs increased by \$14 million. Somewhat offsetting these increased costs was a decrease in business development costs of \$18 million and an increase in the capitalization of software development costs of \$51 million. The increase in capitalized software development costs was primarily due to the timing of products reaching technological feasibility. R&D expenses increased \$51 million in 2013 primarily due to an increase in personnel-related costs, depreciation expense, infrastructure costs and business development costs. Personnel-related costs increased by \$49 million, depreciation expense increased by \$25 million, infrastructure costs increased by \$23 million and business development costs increased by \$7 million. Partially offsetting these increased costs were higher capitalized software development costs of \$57 million which decreased overall R&D expenses within EMC's Information Infrastructure business.

R&D expenses within the Pivotal business, as a percentage of Pivotal's revenues, were 56%, 61% and 85% in 2014, 2013 and 2012, respectively. R&D expenses increased \$19 million in 2014, primarily due to personnel-related costs, which are expenses driven by incremental headcount from strategic hiring, and capitalized software development costs. Personnel-related costs increased by \$4 million and capitalized software development costs decreased by \$9 million in 2014, which increased overall R&D expense. R&D expense decreased \$7 million in 2013 primarily due to fluctuations in personnel-related costs as the business continued to transition to its new strategic focus.

R&D expenses within the VMware Virtual Infrastructure business, as a percentage of VMware's revenues, were 16% in 2014, 2013 and 2012. R&D expenses increased \$161 million in 2014 primarily due to increased personnel-related costs of \$131 million driven by incremental headcount from strategic hiring and acquisitions as well as increased depreciation costs of \$22 million and increased infrastructure costs of \$3 million. R&D expenses increased \$126

million in 2013 largely due to an increase in personnel-related costs of \$110 million driven by incremental headcount from strategic hiring, as well as an increase in depreciation costs of \$8 million and an increase in infrastructure costs of \$7 million.

#### Selling, General and Administrative

As a percentage of revenues, selling, general and administrative (“SG&A”) expenses were 33%, 32% and 32% in 2014, 2013 and 2012, respectively. SG&A expenses increased by \$644 million in 2014 primarily due to increases in personnel-related costs, which are expenses driven by incremental headcount from strategic hiring and business acquisitions including variable compensation bonuses relating to future employment conditions of certain key AirWatch and DSSD employees and increases in commissions, business development expenses, infrastructure costs and depreciation expenses. Personnel-related costs increased by \$540 million, business development expenses increased by \$33 million, infrastructure costs increased by \$46 million and

depreciation expenses increased by \$27 million. SG&A expenses increased by \$334 million in 2013 primarily due to increases in personnel-related costs, business development expenses, infrastructure costs and travel expenses. Personnel-related costs increased by \$279 million, business development costs increased by \$24 million, infrastructure costs increased by \$22 million and travel expenses increased by \$9 million in 2013.

Corporate reconciling items within SG&A, which consist of stock-based compensation, intangible asset amortization and acquisition and other related charges, increased \$223 million to \$826 million in 2014 and decreased \$23 million to \$603 million in 2013. The increase in 2014 was primarily due to acquisition and other related costs relating to the specified future employment conditions of AirWatch and DSSD employees, which increased \$173 million. Also contributing to this increase was stock-based compensation expense, which increased by \$38 million, and VMware litigation and other contingencies of \$11 million. The increase in stock-based compensation expense in 2014 was primarily driven by the issuance of restricted stock in connection with VMware's acquisition of AirWatch in the first quarter of 2014 and EMC's acquisition of DSSD in the second quarter of 2014. In 2013, stock-based compensation expense decreased by \$16 million and intangible asset amortization decreased by \$7 million, as a result of a lower impact of expense from previous large acquisitions.

SG&A expenses within EMC's Information Infrastructure business, as a percentage of EMC's Information Infrastructure business revenues, were 25%, 26% and 26% in 2014, 2013 and 2012, respectively. SG&A expenses increased \$12 million in 2014 primarily due to increases in personnel-related costs, which are expenses driven by incremental headcount from strategic hiring and business acquisitions, and increases in infrastructure costs and depreciation expense. Personnel-related costs increased by \$21 million, infrastructure costs increased by \$4 million and depreciation expense increased by \$16 million in 2014. These increases were partially offset by a decrease in travel related costs of \$29 million due to controlled discretionary spending. SG&A expenses increased \$83 million in 2013 primarily due to increases in personnel-related costs, business development costs, infrastructure costs and depreciation expense. Personnel-related costs increased by \$45 million, business development costs increased \$16 million, infrastructure costs increased by \$15 million and depreciation expense increased by \$5 million in 2013.

SG&A expenses within the Pivotal business, as a percentage of Pivotal's revenues, were 81%, 90% and 110% in 2014, 2013 and 2012, respectively. SG&A expenses increased \$22 million in 2014, primarily due to fluctuations in personnel-related costs as the business continues to transition to its new strategic focus. Personnel-related costs increased by \$14 million, travel costs increased by \$3 million and business development costs increased by \$2 million in 2014. SG&A expenses increased \$10 million in 2013 primarily due to increases in business development costs of \$5 million, infrastructure costs of \$3 million and travel costs of \$3 million in 2013.

SG&A expenses within the VMware Virtual Infrastructure business, as a percentage of VMware's revenues, were 40%, 39% and 39%, in 2014, 2013 and 2012, respectively. SG&A expenses increased \$387 million in 2014 primarily due to growth in personnel-related expenses of \$280 million driven by incremental headcount from strategic hiring and acquisitions as well as compensation expense relating to specified future employment conditions of certain key AirWatch employees. In addition, there were increases to business development costs of \$29 million, infrastructure costs of \$41 million, travel related costs of \$20 million and depreciation expense of \$11 million in 2014. SG&A expenses increased \$264 million in 2013 primarily due to growth in personnel-related expenses of \$259 million driven by incremental headcount. In addition, there were increases to business development costs of \$3 million and increases to infrastructure costs of \$3 million in 2013.

#### Restructuring and Acquisition-Related Charges

In 2014, 2013 and 2012, we incurred restructuring and acquisition-related charges of \$239 million, \$224 million and \$110 million, respectively. In 2014, EMC incurred \$210 million of restructuring charges, primarily related to our current year restructuring programs, and \$6 million of charges in connection with acquisitions for financial, advisory, legal and accounting services. In 2013, EMC incurred \$139 million of restructuring charges, primarily related to our 2013 restructuring programs, and \$8 million of charges in connection with acquisitions for financial, advisory, legal

and accounting services. In 2012, EMC incurred \$101 million of restructuring charges, primarily related to our 2012 restructuring program, and \$9 million of charges in connection with acquisitions for financial, advisory, legal and accounting services. In 2014, VMware incurred \$18 million of restructuring charges related to workforce reductions as part of its current year restructuring program and \$7 million of charges in connection with acquisitions for financial, advisory, legal and accounting services. In 2013, VMware incurred \$54 million of restructuring charges related to workforce reductions as part of its 2013 restructuring program and \$5 million of charges in connection with acquisitions for financial, advisory, legal and accounting services. In addition, VMware incurred a benefit of \$2 million and a charge of \$18 million primarily related to impairment charges related to its business realignments in 2014 and 2013, respectively. VMware had no restructuring charges in 2012.

During 2014, 2013 and 2012, EMC implemented restructuring programs to re-balance the business and streamline its operations which will result or have resulted in workforce reductions of approximately 2,100, 1,900 and 1,100 positions, respectively. The actions impact positions around the globe covering our Information Storage, RSA Information Security, Enterprise Content Division and Pivotal segments. All of these actions are expected to be completed or were completed within a year of the start of each program.

During 2014, VMware eliminated approximately 180 positions across all major functional groups and geographies to streamline its operations. During 2013, VMware approved and initiated a business realignment plan to streamline its operations. The plan included the elimination of approximately 710 positions across all major functional groups and geographies. All of these actions are expected to be completed or were completed within a year of the program. During 2014, 2013 and 2012, we recognized \$18 million, \$18 million and \$21 million, respectively, of lease termination costs for facilities vacated in the period in accordance with our plan as part of all of our restructuring programs and for costs associated with terminating other contractual obligations. These costs are expected to be utilized by the end of 2016. The remaining cash portion owed for these programs in 2015 is approximately \$5 million, plus an additional \$2 million over the period from 2016 and beyond.

On January 28, 2015, EMC management approved a restructuring plan. The plan consists of a reduction in force which will be substantially completed by the end of the first quarter of 2015 and fully completed by the end of 2015. The total charge resulting from this plan is expected to be approximately \$130 million to \$150 million, with total cash payments associated with the plan expected to be in the range of \$120 million to \$140 million.

#### Investment Income

Investment income was \$123 million, \$128 million and \$115 million in 2014, 2013 and 2012, respectively.

Investment income decreased in 2014 due to a decrease in interest income. Interest income was \$99 million, \$106 million and \$103 million in 2014, 2013 and 2012, respectively. Investment income increased in 2013 due to an increase in net realized gains. Net realized gains were \$19 million, \$17 million and \$9 million in 2014, 2013 and 2012, respectively.

#### Interest Expense

Interest expense was \$147 million, \$156 million and \$79 million in 2014, 2013 and 2012, respectively. Interest expense during 2014 consists primarily of interest on the \$5.5 billion aggregate principal amount of senior notes (collectively, the "Notes"), which we issued in June 2013. Interest expense during 2013 and 2012 consists primarily of interest on the \$1.725 billion 1.75% convertible senior notes due 2013 (the "2013 Notes") and interest on the \$1.725 billion 1.75% convertible senior notes due 2011 (the "2011 Notes"), which we issued in November 2006. Included in interest expense are non-cash interest charges related to amortization of the debt discount attributable to the conversion feature, of \$58 million and \$61 million for the years ended December 31, 2013 and 2012, respectively, as we accreted the 2013 Notes and 2011 Notes to their stated values over their terms. The increase in interest expense from 2012 to 2013 is due to interest related to the Notes which were issued during 2013. See Note E to the consolidated financial statements.

#### Other Expense, Net

Other expense, net was \$251 million, \$257 million and \$196 million in 2014, 2013 and 2012, respectively. Other expense, net primarily consists of our consolidated share of the losses from our converged infrastructure joint venture, VCE Company LLC ("VCE"), net gains and losses on strategic investments and foreign exchange losses.

Prior to EMC's acquisition of the controlling interest in VCE in December 2014, the VCE joint venture had been accounted for under the equity method and our consolidated share of VCE's losses was based upon our portion of the overall funding, which was approximately 64% for the year ended December 31, 2014, and 63% for each of the years ended December 31, 2013 and 2012; this represented our share of the net losses of the joint venture, net of equity accounting adjustments. The losses recognized from the joint venture excluded our consolidated revenues and gross margins from sales of products and services to VCE, and any additional related selling expenses. See Note J to the consolidated financial statements. During 2014, 2013 and 2012, we incurred losses related to VCE of \$357 million, \$298 million and \$245 million, respectively.



During 2014, we recognized a gain on previously held interests in strategic investments and joint ventures of \$101 million in conjunction with our business acquisitions. In addition, we recognized net gains from strategic investments of \$27 million. These were partially offset by foreign currency exchange losses and an impairment of a strategic investment of \$33 million. During 2013, we recognized net losses from strategic investments of \$11 million which were partially offset by foreign currency exchange gains. Additionally, during 2013, we recorded net gains on the divestiture of businesses of \$31 million. During 2012, we recognized

net gains from strategic investments of \$38 million which were partially offset by losses on interest rate swaps. In addition, during 2012, we recorded a non-recurring gain on our strategic investment of \$32 million as well as net gains on the divestiture of a business.

#### Provision for Income Taxes

Our effective income tax rate was 23.1%, 20.0% and 24.1% in 2014, 2013 and 2012, respectively. The effective income tax rate is based upon income before provision for income taxes for the year, composition of the income in different countries, effect of tax law changes and adjustments, if any, for potential tax consequences, benefits and/or resolutions of tax audits or other tax contingencies. Our aggregate income tax rate in foreign jurisdictions is lower than our income tax rate in the United States; substantially all of our income before provision for income taxes from foreign operations has been earned by our Irish subsidiaries. Our effective income tax rate may be adversely affected by earnings being lower than anticipated in countries where we have lower statutory income tax rates and higher than anticipated in countries where we have higher statutory income tax rates.

In 2014, the lower aggregate income tax rate in foreign jurisdictions reduced our effective income tax rate by 11.3 percentage points compared to our statutory federal tax rate of 35.0%. On December 19, 2014, the Tax Increase Prevention Act was signed into law. Some of the provisions were retroactive to January 1, 2014 including an extension of the U.S. federal tax credit for increasing research activities through December 31, 2014. The federal tax credit for increasing research activities reduced our 2014 effective income tax rate by 1.6 percentage points. The net effect of other tax credits, state taxes, change in valuation allowance, U.S. domestic production activities deduction, non-deductible permanent differences, prior year true up adjustments, change in tax contingency reserves and other items collectively increased the effective income tax rate by 1.0 percentage points.

In 2013, the lower aggregate income tax rate in foreign jurisdictions reduced our effective income tax rate by 15.0 percentage points compared to our statutory federal tax rate of 35.0%. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law. Some of the provisions were retroactive to January 1, 2012 including an extension of the U.S. federal tax credit for increasing research activities through December 31, 2013. Because the extension was enacted after December 31, 2012, our 2013 income tax provision included the federal tax credit for increasing research activities for 2012 as well as for 2013, which reduced our 2013 effective income tax rate by 3.5 percentage points. The net effect of other tax credits, state taxes, change in valuation allowance, U.S. domestic production activities deduction, non-deductible permanent differences, prior year true up adjustments, change in tax contingency reserves and other items collectively increased the effective income tax rate by 3.5 percentage points.

In 2012, the lower aggregate income tax rate in foreign jurisdictions reduced our effective income tax rate by 13.6 percentage points compared to our statutory federal tax rate of 35.0%. The net effect of tax credits, state taxes, change in valuation allowance, U.S. domestic production activities deduction, non-deductible permanent differences, prior year true up adjustments, change in tax contingency reserves and other items collectively increased the effective income tax rate by 2.7 percentage points. Our 2012 effective income tax rate did not reflect our 2012 federal tax credit for increasing research activities even though it was reported on our 2012 federal income tax returns.

The effective income tax rate increased from 2013 to 2014 by 3.1%, from 20.0% to 23.1%, respectively. This increase was principally attributable to higher income in the U.S. in 2014 and the inclusion of 2012 federal tax credit for increasing research activities in 2013 as discussed above.

The effective income tax rate decreased from 2012 to 2013 by 4.1%, from 24.1% to 20.0%, respectively. This decrease was principally attributable to the retroactive renewal of the U.S. federal tax credit for increasing research activities on January 2, 2013 as discussed above.

Non-controlling Interest in VMware, Inc.

The net income attributable to the non-controlling interest in VMware was \$180 million, \$204 million and \$153 million in 2014, 2013 and 2012, respectively. The decrease in 2014 was due to a decrease in VMware's net income compared to 2013 and the increase in 2013 was due to an increase in VMware's net income compared to 2012. VMware's reported net income was \$886 million, \$1,014 million and \$746 million in 2014, 2013 and 2012, respectively. The weighted-average non-controlling interest in VMware was approximately 20% in 2014, 2013 and 2012. As of December 31, 2014, EMC has purchased approximately 16 million shares of VMware common stock for \$1.2 billion.

## Financial Condition

Cash provided by operating activities was \$6,523 million, \$6,923 million and \$6,262 million for 2014, 2013 and 2012, respectively. Cash received from customers was \$25,360 million, \$24,319 million and \$22,585 million in 2014, 2013 and 2012, respectively. The increase in cash received from customers from 2012 to 2013 and from 2013 to 2014 was attributable to an increase in sales volume and a corresponding increase in customer collections. Cash paid to suppliers and employees was \$17,893 million, \$16,708 million and \$16,019 million in 2014, 2013 and 2012, respectively. The increase in cash paid to suppliers and employees from 2012 to 2013 and from 2013 to 2014 was primarily due to a general growth in the business to support the increased revenue base as well as costs relating to the specified future employment conditions of AirWatch and DSSD employees. Income taxes paid were \$953 million, \$761 million and \$374 million in 2014, 2013 and 2012, respectively. These payments are comprised of estimated taxes for the current year, extension payments for the prior year and refunds or payments associated with income tax filings and tax audits. Tax payments were higher in 2014 due to lower allowable deductions.

Cash used in investing activities was \$2,551 million, \$5,760 million and \$3,906 million in 2014, 2013 and 2012, respectively. Cash used for business acquisitions, net of cash acquired, was \$1,973 million, \$770 million and \$2,136 million in 2014, 2013 and 2012, respectively. This activity varies from period to period based upon the number and size of acquisitions in a given period. During 2014, VMware increased its restricted cash by \$78 million primarily related to amounts to be paid to certain AirWatch employees subject to the achievement of defined employment conditions. Net cash used for strategic and other related investments was \$43 million, \$96 million and \$47 million in 2014, 2013 and 2012, respectively. We provided funding of \$360 million, \$411 million and \$228 million to our joint venture, VCE Company LLC, in 2014, 2013 and 2012, respectively, prior to our acquisition of the controlling interest of VCE in December 2014. During 2013, we received \$38 million from the dispositions of certain lines of business and during 2012, we received \$58 million in cash proceeds from the divestiture of our Iomega business. Capital additions were \$979 million, \$943 million and \$819 million in 2014, 2013 and 2012, respectively. The increases in 2014 compared to 2013 and 2013 compared to 2012 were primarily attributable to investments in building and equipment. Capitalized software development costs were \$509 million, \$465 million and \$419 million in 2014, 2013 and 2012, respectively. The increases in 2014 compared to 2013 and 2013 compared to 2012 were primarily attributable to EMC Information Infrastructure's software development activities. Net sales of investments were \$1,391 million in 2014 and net purchases of investments were \$3,113 million and \$315 million in 2013 and 2012, respectively. This activity varies from period to period based upon our cash collections, cash requirements and maturity dates of our investments as well as cash available after the issuance and payment of debt.

Cash used in financing activities was \$5,437 million in 2014; cash provided by financing activities was \$2,076 million in 2013; cash used in financing activities was \$2,149 million in 2012. In 2013, we received \$5.5 billion in proceeds through the issuance of long-term notes. In 2014, 2013 and 2012, we spent \$1,665 million, \$46 million and \$1,715 million, respectively, for repayment of our long- and short-term obligations including convertible debt. Additionally, we have continued to spend more cash on share repurchases as part of our enhanced buyback program. In 2014, 2013 and 2012, cash used to repurchase 107 million, 122 million and 27 million shares of EMC common stock was \$2,969 million, \$3,015 million and \$685 million, respectively. In 2013 and 2012, cash used to purchase 2 million and 3 million shares of VMware common stock was \$160 million and \$290 million, respectively, and in 2014, 2013 and 2012, VMware spent \$700 million, \$508 million and \$468 million to repurchase 8 million, 7 million and 5 million shares of its common stock, respectively. In 2014, 2013 and 2012, we generated \$667 million, \$539 million and \$813 million, respectively, from the issuance of common stock and we generated \$102 million, \$116 million and \$261 million, respectively, of excess tax benefits from stock-based compensation. During 2014 and 2013, EMC paid dividends of \$879 million and \$415 million, respectively, to shareholders. Contributions from non-controlling interests were \$7 million and \$105 million in 2014 and 2013, respectively. In 2012, we spent \$70 million on the settlement of interest rate contracts.

At December 31, 2014, our total cash, cash equivalents, and short-term and long-term investments were \$14.7 billion. This balance includes approximately \$7.1 billion held by VMware, of which \$5.0 billion is held outside of the U.S., and \$5.3 billion held by EMC in entities outside of the U.S. If these overseas funds are needed for our operations in

the U.S., we would be required to accrue and pay U.S. taxes to repatriate these funds. However, our intent is to permanently reinvest these funds outside of the U.S. and our current plans do not demonstrate a need to repatriate them to fund our U.S. operations.

We believe that existing cash and cash equivalents, together with any cash generated from operations, will be sufficient to meet normal operating requirements for the next twelve months. We expect to continue to generate positive cash flows from operations and to use cash generated by operations as a primary source of liquidity.

On January 23, 2015, EMC paid a cash dividend of \$228 million to shareholders of record as of the close of business on January 2, 2015. We expect installment payments of approximately \$206 million to certain key employees of AirWatch and DSSD. In addition, EMC intends to spend up to \$3.0 billion and VMware intends to spend approximately \$1.0 billion in the repurchase of their shares, respectively, during the year ending December 31, 2015.

On February 27, 2015, we entered into a credit agreement with the lenders named therein, Citibank, N.A., as Administrative Agent, Bank of America, N.A. and JPMorgan Chase Bank, N.A., as Syndication Agents, and Citigroup Global Markets, Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated and J.P. Morgan Securities LLC, as Joint Lead Arrangers and Joint Bookrunners (the "Credit Agreement"). The Credit Agreement provides for a \$2.5 billion unsecured revolving credit facility to be used for general corporate purposes that is scheduled to mature on February 27, 2020. At our option, subject to certain conditions, any loan under the Credit Agreement will bear interest at a rate equal to, either (i) the LIBOR Rate or (ii) the Base Rate (defined as the highest of (a) the Federal Funds rate plus 0.50%, (b) Citibank, N.A.'s "prime rate" as announced from time to time, or (c) one-month LIBOR plus 1.00%), plus, in each case the Applicable Margin, as defined in the Credit Agreement. The Credit Agreement contains customary representations and warranties, covenants and events of default. We may also, upon the agreement of the existing lenders and/or additional lenders not currently parties to the agreement, increase the commitments under the credit facility by up to an additional \$1.0 billion. In addition, we may request to extend the maturity date of the credit facility, subject to certain conditions, for additional one-year periods.

In June 2013, we issued \$5.5 billion aggregate principal amount of senior notes (collectively, the "Notes") which pay a fixed rate of interest semi-annually in arrears. The first interest payment occurred on December 2, 2013. The proceeds from the Notes have been used to satisfy the cash payment obligation of the converted 2013 Notes as well as for general corporate purposes including stock repurchases, business acquisitions, dividend payments, working capital needs and other business opportunities. The Notes of each series are senior, unsecured obligations of EMC and are not convertible or exchangeable. Unless previously purchased and canceled, we will repay the Notes of each series at 100% of the principal amount, together with accrued and unpaid interest thereon, at maturity. However, EMC has the right to redeem any or all of the Notes at specified redemption prices. As of December 31, 2014, we were in compliance with all debt covenants, which are customary in nature.

The 2011 Notes matured and were settled in 2012. The 2013 Notes matured and a majority of the noteholders exercised their right to convert the outstanding 2013 Notes at the end of 2013. Pursuant to the settlement terms, the majority of the converted 2013 Notes were not settled until January 7, 2014. At that time, we paid the noteholders \$1.7 billion in cash for the outstanding principal and 35 million shares for the \$858 million in excess of the conversion value over the principal amount, as prescribed by the terms of the 2013 Notes.

In connection with the issuance of the 2011 Notes and 2013 Notes, we entered into separate convertible note hedge transactions with respect to our common stock (the "Purchased Options"). The Purchased Options allowed us to receive shares of our common stock and/or cash related to the excess conversion value that we would pay to the holders of the 2011 Notes and 2013 Notes upon conversion. The Purchased Options covered, subject to customary anti-dilution adjustments, approximately 215 million shares of our common stock. We paid an aggregate amount of \$669 million of the proceeds from the sale of the 2011 Notes and 2013 Notes for the Purchased Options that was recorded as additional paid-in-capital in shareholders' equity. In 2013, we exercised the remaining 108 million of the Purchased Options in conjunction with the planned settlements of the 2013 Notes, and we received 35 million shares of net settlement on January 7, 2014, representing the excess conversion value of the options.

We also entered into separate transactions in which we sold warrants to acquire, subject to customary anti-dilution adjustments, approximately 215 million shares of our common stock at an exercise price of approximately \$19.55 per share of our common stock. We received aggregate proceeds of \$391 million from the sale of the associated warrants. Upon exercise, the value of the warrants was required to be settled in shares. Approximately half of the associated warrants were exercised in 2012 and the remaining 109 million associated warrants were exercised between February 18, 2014 and March 17, 2014 and were settled with 29 million shares of our common stock.

#### Use of Non-GAAP Financial Measures and Reconciliations to GAAP Results

The financial statements are prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). EMC uses certain non-GAAP financial measures, which exclude stock-based compensation,

intangible asset amortization, restructuring charges, acquisition and other related charges, the amortization of VMware's capitalized software from prior periods, infrequently occurring gains, losses, benefits and charges, and special tax items to measure its gross margin, operating margin, net income and diluted earnings per share for purposes of managing our business. EMC also assesses its financial performance by measuring its free cash flow which is also a non-GAAP financial measure. Free cash flow is defined as net cash provided by operating activities, less additions to property, plant and equipment and capitalized software development costs. These non-GAAP financial measures should be considered in addition to, not as a substitute for, measures of EMC's financial performance or liquidity prepared in accordance with GAAP. EMC's non-GAAP financial measures may be defined differently from time to time and may be defined differently than similar terms used by other companies, and accordingly, care should be exercised in understanding how EMC defines its non-GAAP financial measures.

EMC's management uses the non-GAAP financial measures to gain an understanding of EMC's comparative operating performance (when comparing such results with previous periods or forecasts) and future prospects and excludes these items from its internal financial statements for purposes of its internal budgets and each reporting segment's financial goals. These non-GAAP financial measures are used by EMC's management in their financial and operating decision-making because management believes they reflect EMC's ongoing business in a manner that allows meaningful period-to-period comparisons. EMC's management believes that these non-GAAP financial measures provide useful information to investors and others (a) in understanding and evaluating EMC's current operating performance and future prospects in the same manner as management does, if they so choose, and (b) in comparing in a consistent manner EMC's current financial results with EMC's past financial results.

Our non-GAAP operating results for the three months and years ended December 31, 2014 and 2013 were as follows (in millions):

	For the Three Months Ended		For the Year Ended		
	December 31, 2014	December 31, 2013	December 31, 2014	December 31, 2013	
Gross margin	\$4,608	\$4,316	\$15,642	\$14,863	
Gross margin percentage	65.4	% 64.6	% 64.0	% 64.0	%
Operating income	2,035	1,828	5,882	5,732	
Operating income percentage	28.9	% 27.4	% 24.1	% 24.7	%
Income tax provision	468	386	1,327	1,228	
Net income attributable to EMC	1,405	1,276	3,919	3,894	
Diluted earnings per share attributable to EMC	\$0.69	\$0.60	\$1.90	\$1.80	

The improvements in the non-GAAP gross margin were attributable to higher sales volume during both the three and twelve months ended December 31, 2014 compared to the prior year. The increase in gross margin percentage during the three months ended December 31, 2014 was primarily attributable to improvements in Information Storage and Pivotal margins and an increase in the mix of VMware which is a higher margin business. Gross margin percentages remained flat for the twelve months ended December 31, 2014 compared to the prior year. Information Storage and VMware gross margin percentages decreased compared to the prior year, however the mix of VMware, which is a higher margin business, increased which offset the decreases in gross margins. Information Storage gross margin percentage decreased slightly year over year primarily due to a decrease in product margins during the first half of 2014. The decrease in product margins was primarily due to lower sales volume without a corresponding decrease in fixed costs and pricing pressures on our high-end storage products. VMware gross margin decreased primarily due to a decrease in service margins as VMware continues to drive its strategic growth initiatives through investments in SaaS and professional service offerings.

The increase in the non-GAAP operating income was attributable to higher sales volume both the three and twelve months ended December 31, 2014 compared to the prior year. Non-GAAP operating margin percentage for the three months ended December 31, 2014 increased due to an increase in gross margin percentage as well as strong cost controls which contained the year-over-year increase in operating expenses. The decrease in operating expenses at EMC Information Infrastructure somewhat offset increases in operating expenses at Pivotal and VMware as we continue to invest in those businesses. Non-GAAP operating margin percentage for the twelve months ended December 31, 2014 decreased primarily due to increases in operating expenses resulting from our continued investments in strategic high growth areas and business acquisitions. The increase in operating expenses was primarily driven by the investments we are making at Pivotal and VMware.



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The reconciliation of the above financial measures from GAAP to non-GAAP is as follows (in millions):

For the Three Months Ended December 31, 2014

	Gross margin	Operating income	Income tax provision	Net income attributable to EMC	Diluted Earnings per share attributable to EMC
GAAP	\$4,505	\$1,570	\$336	\$1,147	\$0.56
Stock-based compensation expense	39	260	49	190	0.10
Intangible asset amortization	64	102	28	68	0.03
Restructuring charges	—	47	12	34	0.02
Acquisition and other related charges	—	56	20	31	0.02
R&D tax credit	—	—	34	(32)	(0.02)
Gain on previously held interests in strategic investments and joint venture	—	—	(11)	(33)	(0.02)
Non-GAAP	\$4,608	\$2,035	\$468	\$1,405	\$0.69

For the Three Months Ended December 31, 2013

	Gross margin	Operating income	Income tax provision	Net income attributable to EMC	Diluted Earnings per share attributable to EMC
GAAP	\$4,224	\$1,461	\$298	\$1,022	\$0.48
Stock-based compensation expense	32	239	41	176	0.08
Intangible asset amortization	59	98	32	62	0.03
Restructuring charges	—	27	8	19	0.01
Acquisition and other related charges	—	2	2	—	—
Amortization of VMware's capitalized software from prior periods	1	1	—	1	—
Special tax items	—	—	5	(4)	—
Non-GAAP	\$4,316	\$1,828	\$386	\$1,276	\$0.60

For the Year Ended December 31, 2014

	Gross margin	Operating income	Income tax provision	Net income attributable to EMC	Diluted Earnings per share attributable to EMC
GAAP	\$15,249	\$4,037	\$868	\$2,714	\$1.32
Stock-based compensation expense	146	1,020	224	713	0.35
Intangible asset amortization	247	402	118	263	0.13
Restructuring charges	—	226	56	168	0.08
Acquisition and other related charges	—	186	60	108	0.05
Gain on previously held interests in strategic investments and joint venture	—	—	(11)	(77)	(0.04)
Impairment of strategic investment	—	—	10	23	0.01
VMware litigation and other contingencies	—	11	2	7	—
Non-GAAP	\$15,642	\$5,882	\$1,327	\$3,919	\$1.90



## For the Year Ended December 31, 2013

	Gross margin	Operating income	Income tax provision	Net income attributable to EMC	Diluted Earnings per share attributable to EMC
GAAP	\$14,473	\$4,150	\$772	\$2,889	\$1.33
Stock-based compensation expense	124	935	225	638	0.30
Intangible asset amortization	232	389	117	257	0.12
Restructuring charges	—	212	54	148	0.07
Acquisition and other related charges	—	12	3	8	—
Amortization of VMware's capitalized software from prior periods	34	34	11	18	0.01
Net gain on disposition of certain lines of business and other	—	—	(3)	(22)	(0.01)
Special tax items	—	—	(18)	19	0.01
R&D tax credit	—	—	67	(61)	(0.03)
Non-GAAP	\$14,863	\$5,732	\$1,228	\$3,894	\$1.80

We also monitor our ability to generate free cash flow in relationship to our non-GAAP net income attributable to EMC over comparable periods. For the year ended December 31, 2014, our free cash flow was \$5,035 million, a decrease of 9% compared to the free cash flow generated for the year ended December 31, 2013. The free cash flow for the year ended December 31, 2014 exceeded our non-GAAP net income attributable to EMC by \$1,116 million. EMC uses free cash flow, among other measures, to evaluate the ability of its operations to generate cash that is available for purposes other than capital expenditures and capitalized software development costs. Management believes that information regarding free cash flow provides investors with an important perspective on the cash available to make strategic acquisitions and investments, fund joint ventures, repurchase shares, service debt, pay dividends and fund ongoing operations. As free cash flow is not a measure of liquidity calculated in accordance with GAAP, free cash flow should be considered in addition to, but not as a substitute for, the analysis provided in the statements of cash flows.

The reconciliation of the above free cash flow from GAAP to non-GAAP is as follows (in millions):

	For the Three Months Ended		For the Year Ended	
	December 31, 2014	December 31, 2013	December 31, 2014	December 31, 2013
Cash Flow from Operations	\$2,231	\$2,190	\$6,523	\$6,923
Capital Expenditures	(286)	(270)	(979)	(943)
Capitalized Software Development Costs	(127)	(123)	(509)	(465)
Free Cash Flow	\$1,818	\$1,797	\$5,035	\$5,515

Free cash flow represents a non-GAAP measure related to operating cash flows. In contrast, our GAAP measures of cash flow consist of three components. These are cash flows provided by operating activities of \$6,523 million and \$6,923 million for the years ended December 31, 2014 and 2013, respectively, cash used in investing activities of \$2,551 million and \$5,760 million for the years ended December 31, 2014 and 2013, respectively, and cash used in financing activities of \$5,437 million and cash provided by financing activities of \$2,076 million for the years ended December 31, 2014 and 2013, respectively.

All of the foregoing non-GAAP financial measures have limitations. Specifically, the non-GAAP financial measures that exclude the items noted above do not include all items of income and expense that affect EMC's operations or cash flows. Further, these non-GAAP financial measures are not prepared in accordance with GAAP, may not be

comparable to non-GAAP financial measures used by other companies and do not reflect any benefit that such items may confer on EMC. Management compensates for these limitations by also considering EMC's financial results as determined in accordance with GAAP.

## Investments

The following table summarizes the composition of our investments at December 31, 2014 (in millions):

	Amortized Cost	Unrealized Gains	Unrealized (Losses)	Aggregate Fair Value
U.S. government and agency obligations	\$1,951	\$2	\$(2)	\$1,951
U.S. corporate debt securities	1,998	1	(4)	1,995
High yield corporate debt securities	570	9	(16)	563
Asset-backed securities	53	—	—	53
Municipal obligations	948	2	—	950
Auction rate securities	29	—	(2)	27
Foreign debt securities	2,566	2	(4)	2,564
Total fixed income securities	8,115	16	(28)	8,103
Publicly traded equity securities	117	103	(11)	209
Total	\$8,232	\$119	\$(39)	\$8,312

Our fixed income and equity investments are classified as available for sale and recorded at their fair market values. At December 31, 2014, with the exception of our auction rate securities, the vast majority of our investments were priced by third-party pricing vendors. These pricing vendors utilize the most recent observable market information in pricing these securities or, if specific prices are not available for these securities, use other observable inputs like market transactions involving identical or comparable securities. In the event observable inputs are not available, we assess other factors to determine the security's market value, including broker quotes or model valuations. Each month, we perform independent price verifications of all of our fixed income holdings. In the event a price fails a pre-established tolerance check, it is researched so that we can assess the cause of the variance to determine what we believe is the appropriate fair market value.

For all of our securities where the amortized cost basis was greater than the fair value at December 31, 2014, we have concluded that currently we neither plan to sell the security nor is it more likely than not that we would be required to sell the security before its anticipated recovery. In making the determination as to whether the unrealized loss is other-than-temporary, we considered the length of time and extent the investment has been in an unrealized loss position, the financial condition and near-term prospects of the issuers, the issuers' credit rating and the time to maturity.

## Off-Balance Sheet Arrangements, Contractual Obligations, Contingent Liabilities and Commitments

## Contractual Obligations

We have various contractual obligations impacting our liquidity. The following represents our contractual obligations as of December 31, 2014 (in millions):

	Payments Due By Period				
	Total	Less than 1 year	1-2 years*	3-4 years**	More than 4 years
Operating leases	\$1,938	\$328	\$505	\$279	\$826
Long-term debt	5,495	—	—	2,499	2,996
Product warranty obligations	210	—	—	—	—
Other long-term obligations, including post retirement obligations	431	265	1	—	—
Purchase orders	2,929	—	—	—	—
Uncertain tax positions and related interest	434	—	—	—	—
Total	\$11,437	\$593	\$506	\$2,778	\$3,822

\*Includes payments from January 1, 2016 through December 31, 2017.

\*\*Includes payments from January 1, 2018 through December 31, 2019.

As of December 31, 2014, we had \$210 million of product warranty obligations, \$165 million of long-term post retirement obligations, \$2,929 million of purchase orders and \$434 million of liabilities for uncertain tax positions.

We are not able to provide a reasonably reliable estimate of the timing of future payments relating to these obligations. The purchase orders are for manufacturing and non-manufacturing related goods and services. While the purchase orders are generally cancellable without

penalty, certain vendor agreements provide for percentage-based cancellation fees or minimum restocking charges based on the nature of the product or service. Our operating leases are primarily for office space around the world. We believe leasing such space in most cases is more cost-effective than purchasing real estate. The long-term debt pertains to the \$5.5 billion aggregate principal amount of senior notes issued in June 2013.

We have no other off-balance sheet arrangements.

#### Guarantees and Indemnification Obligations

EMC's subsidiaries have entered into arrangements with financial institutions for such institutions to provide guarantees for rent, taxes, insurance, leases, performance bonds, bid bonds and customs duties aggregating \$125 million as of December 31, 2014. The guarantees vary in length of time. In connection with these arrangements, we have agreed to guarantee substantially all of the guarantees provided by these financial institutions. EMC and certain of its subsidiaries have also entered into arrangements with financial institutions in order to facilitate the management of currency risk. EMC has agreed to guarantee the obligations of its subsidiaries under these arrangements.

We enter into agreements in the ordinary course of business with, among others, customers, resellers, original equipment manufacturers ("OEMs"), systems integrators and distributors. Most of these agreements require us to indemnify the other party against third-party claims alleging that an EMC product infringes a patent and/or copyright. Certain agreements in which we grant limited licenses to specific EMC-trademarks require us to indemnify the other party against third-party claims alleging that the use of the licensed trademark infringes a third-party trademark. Certain of these agreements require us to indemnify the other party against certain claims relating to the loss or processing of data, to real or tangible personal property damage, personal injury or the acts or omissions of EMC, its employees, agents or representatives. In addition, from time to time, we have made certain guarantees regarding the performance of our systems to our customers. We have also made certain guarantees for obligations of affiliated third parties.

We have agreements with certain vendors, financial institutions, lessors and service providers pursuant to which we have agreed to indemnify the other party for specified matters, such as acts and omissions of EMC, its employees, agents or representatives.

We have procurement or license agreements with respect to technology that is used in our products and agreements in which we obtain rights to a product from an OEM. Under some of these agreements, we have agreed to indemnify the supplier for certain claims that may be brought against such party with respect to our acts or omissions relating to the supplied products or technologies.

We have agreed to indemnify the directors, executive officers and certain other officers of EMC and our subsidiaries, to the extent legally permissible, against all liabilities reasonably incurred in connection with any action in which such individual may be involved by reason of such individual being or having been a director or officer.

In connection with certain acquisitions, we have agreed to indemnify the current and former directors, officers and employees of the acquired company in accordance with the acquired company's by-laws and charter in effect immediately prior to the acquisition or in accordance with indemnification or similar agreements entered into by the acquired company and such persons. In a substantial majority of instances, we have maintained the acquired company's directors' and officers' insurance, which should enable us to recover a portion of any future amounts paid. These indemnities vary in length of time.

Based upon our historical experience and information known as of December 31, 2014, we believe our liability on the above guarantees and indemnities at December 31, 2014 is not material.

#### Pension

We have a noncontributory defined benefit pension plan that was assumed as part of the Data General acquisition, which covers substantially all former Data General employees located in the United States. This plan has been frozen resulting in employees no longer accruing pension benefits for future services. The assets for this defined benefit plan are invested in common stocks and bonds. The expected long-term rate of return on assets for the year ended December 31, 2014 was 6.75%.

As market conditions permit, we expect to continue to shift the asset allocation to lower the percentage of investments in equities and increase the percentage of investments in long-duration fixed-income securities. The effect of such a change could result in a reduction to the long-term rate of return on plan assets and an increase in future pension

expense. The actual long-term rate of return for the ten years ended December 31, 2014 was 7.18%. Based upon current market conditions, the expected long-term rate of return for 2015 will be 6.50%. A 25 basis point change in the expected long-term rate of return on the plans' assets would have approximately a \$1 million impact on the 2015 pension expense.



As of December 31, 2014, the pension plan had a \$184 million unrecognized actuarial loss that will be expensed over the average future working lifetime of active participants. For the year ended December 31, 2014, the discount rate to determine the benefit obligation was 3.86%. The discount rate selected was based on highly rated long-term bond indices and yield curves that match the duration of the plan's benefit obligations. The bond indices and yield curve analyses reflect high quality bond yields in effect at December 31, 2014. The discount rate reflects the rate at which the pension benefits could be effectively settled. A 25 basis point change in the discount rate would have approximately a \$1 million impact on the 2015 pension expense.

#### Critical Accounting Policies

Our consolidated financial statements are based on the selection and application of generally accepted accounting principles which require us to make estimates and assumptions about future events that affect the amounts reported in our financial statements and the accompanying notes. Future events and their effects cannot be determined with certainty. Therefore, the determination of estimates requires the exercise of judgment. Actual results could differ from those estimates, and any such differences may be material to our financial statements. We believe that the areas set forth below may involve a higher degree of judgment and complexity in their application than our other accounting policies and represent the critical accounting policies used in the preparation of our financial statements. If different assumptions or conditions were to prevail, the results could be materially different from our reported results. Our significant accounting policies are presented within Note A to the consolidated financial statements.

#### Revenue Recognition

The application of the appropriate guidance within the Accounting Standards Codification to our revenue is dependent upon the specific transaction and whether the sale or lease includes information systems, including hardware storage and hardware-related devices, software, including required storage operating systems and optional value-added software application programs, and services, including installation, professional, software and hardware maintenance and training, 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 estimates of fair value and selling price in arrangements with multiples deliverables, assessments of expected returns and the likelihood of nonpayment. We analyze various factors, including a review of specific transactions, the credit-worthiness of our customers, our historical experience and market and economic conditions. Changes in judgments on these factors could materially impact the timing and amount of revenue and costs recognized. Should market or economic conditions deteriorate, our actual return experience could exceed our estimate.

#### Warranty Costs

We accrue for systems warranty costs at the time of shipment. We estimate systems warranty costs based upon historical experience, specific identification of system requirements and projected costs to service items under warranty. 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. To the extent that our actual systems warranty costs differed from our estimates by 5 percent, consolidated pre-tax income would have increased/decreased by approximately \$11 million and \$14 million in 2014 and 2013, respectively.

#### Asset Valuation

Asset valuation includes assessing the recorded value of certain assets, including accounts and notes receivable, investments, inventories, goodwill and other intangible assets. We use a variety of factors to assess valuation, depending upon the asset.

Accounts and notes receivable are evaluated based upon the credit-worthiness of our customers, our historical experience, the age of the receivable and current market and economic conditions. Should current market and economic conditions deteriorate, our actual bad debt experience could exceed our estimate.

The market value of our short- and long-term investments is based primarily upon the listed price of the security. At December 31, 2014, with the exception of our auction rate securities, the vast majority of our investments were priced by pricing vendors. These pricing vendors utilize the most recent observable market information in pricing these securities or, if specific prices are not available for these securities, use other observable inputs such as market transactions involving identical or comparable securities. In the event observable inputs are not available, we assess other factors to determine the security's market value, including broker quotes or model valuations. Each month, we

perform independent price verifications of all of our fixed income holdings. In the event a price fails a pre-established tolerance check, it is researched so that we can assess the cause of the variance to determine what we believe is the appropriate fair market value. In the event the fair market values that we determine are not accurate or we are unable to liquidate our investments in a timely manner, we may not realize the recorded value of our investments. We hold investments whose market values are below our cost. The determination of whether unrealized losses on investments are other-than-temporary is based upon the type of investments held, market conditions, financial condition and near-term prospects

of the issuers, the time to maturity, length of the impairment, magnitude of the impairment and ability and intent to hold the investment to maturity. Should current market and economic conditions deteriorate, our ability to recover the cost of our investments may be impaired.

The recoverability of inventories is based upon the types and our levels of inventory held, forecasted demand, pricing, competition and changes in technology. Should current market and economic conditions deteriorate, our actual recovery could be less than our estimate.

Other intangible assets are evaluated based upon the expected period the asset will be utilized, forecasted cash flows, changes in technology and customer demand. Changes in judgments on any of these factors could materially impact the value of the asset. We perform an assessment of the recoverability of goodwill, at least annually, in the fourth quarter of each year. Our assessment is performed at the reporting unit level which, for certain of our operating segments, is one step below our segment reporting level. We employ both qualitative and quantitative tests of our goodwill. For some of our reporting units, we performed a qualitative assessment on goodwill to determine whether a quantitative assessment was necessary and determined there were no indicators of potential impairment. For other reporting units, we evaluated goodwill using a quantitative model. For all of our goodwill assessments, we determined that there was sufficient market value above the carrying value of those reporting units so that we would not expect any near term changes in the operating results that would trigger an impairment. The determination of relevant comparable industry companies impacts our assessment of fair value. Should the operating performance of our reporting units change in comparison to these companies or should the valuation of these companies change, this could impact our assessment of the fair value of the reporting units. Our discounted cash flow analyses factor in assumptions on revenue and expense growth rates. These estimates are based upon our historical experience and projections of future activity, factoring in customer demand, changes in technology and a cost structure necessary to achieve the related revenues. Additionally, these discounted cash flow analyses factor in expected amounts of working capital and weighted average cost of capital. Changes in judgments on any of these factors could materially impact the value of the reporting unit.

#### Restructuring Charges

We recognized restructuring charges in 2014, 2013, 2012 and prior years. The restructuring charges include, among other items, estimated employee termination benefit costs, subletting leased facilities and the cost of terminating various contracts. In addition, during 2013 and 2014, VMware incurred impairment charges related to its business realignment. The amount of the actual obligations may be different than our estimates due to various factors, including market conditions, negotiations with third parties and finalization of severance agreements with employees. Should the actual amounts differ from our estimates, the amount of the restructuring charges could be materially impacted.

#### Accounting for Income Taxes

As part of the process of preparing our financial statements, we are required to estimate our provision for income taxes in each of the jurisdictions in which we operate. This process involves estimating our actual current tax exposure, including assessing the risks associated with tax audits, together with assessing temporary differences resulting from the different treatment of items for tax and financial reporting purposes. These differences result in deferred tax assets and liabilities, which are included within our consolidated balance sheets. We assess the likelihood that our deferred tax assets will be realized through future taxable income and record a valuation allowance to reduce gross deferred tax assets to an amount we believe is more likely than not to be realized. In the event that actual results differ from these estimates, our provision for income taxes could be materially impacted.

#### Accounting for Stock-Based Compensation

For our share-based payment awards, we make estimates and assumptions to determine the underlying value of stock options, including volatility, expected life and forfeiture rates. Additionally, for awards which are performance-based, we make estimates as to the probability of the underlying performance being achieved. Changes to these estimates and assumptions may have a significant impact on the value and timing of stock-based compensation expense recognized, which could have a material impact on our consolidated financial statements.



## 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 foreign exchange risk, 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. 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 daily rates for the period. The primary foreign currency denominated transactions include revenue and expenses and the resultant accounts receivable and accounts payable balances are 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 has related to sales denominated in the Euro, the Japanese yen, the Australian dollar and the British pound. Additionally, we have exposure to emerging market economies, particularly in Latin America and Southeast Asia. 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 success of the hedging program depends on our 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. The instruments we hold are not leveraged and are not held for trading or speculative purposes.

We performed sensitivity analyses as of December 31, 2014, 2013 and 2012 based on scenarios in which market spot rates are hypothetically changed in order to produce a potential net exposure loss. The hypothetical change was based on a 10 percent strengthening or weakening in the U.S. dollar, whereby all other variables are held constant. The analyses include all of our foreign currency contracts outstanding as of December 31 for each year, as well as the offsetting underlying exposures. The sensitivity analyses indicated that a hypothetical 10 percent adverse movement in foreign currency exchange rates would result in a foreign exchange loss of \$10 million, \$12 million and \$19 million at December 31, 2014, 2013 and 2012, respectively.

## Interest Rate Risk

We maintain an investment portfolio consisting of debt and equity securities of various 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 consolidated balance sheet at market value, with any unrealized gain or temporary non-credit related loss recorded in other comprehensive loss. These instruments are not leveraged and are not held for trading purposes. We employ a Historical Value-At-Risk calculation to calculate value-at-risk for changes in interest rates for our combined investment portfolios. This model assumes that the relationships among market rates and prices that have been observed daily over the last 180 days are valid for estimating risk over the next trading day. This model measures the potential loss in fair value that could arise from changes in interest rates, using a 95% confidence level and assuming a one-day holding period. The value-at-risk on the debt portion of the investment portfolio was \$8 million as of December 31, 2014 and \$3 million as of December 31, 2013. The average, high and low value-at-risk amounts for 2014 and 2013 were as follows (in millions):

	Average	High	Low
2014	\$5	\$8	\$2
2013	4	8	1

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 concentration of credit risk consist principally of bank deposits, money market investments, short- and long-term investments, accounts and notes receivable, and foreign currency exchange contracts. Deposits held with banks in the United States may exceed the amount of FDIC insurance provided on such deposits. Deposits held with banks outside the United States generally do not benefit from FDIC insurance. The majority of our day-to-day banking operations globally are maintained with Citibank. We believe that Citibank's position as a primary clearing bank, coupled with

the substantial monitoring of their daily liquidity, both by their internal processes and by the Federal Reserve and the FDIC, mitigate some of our risk.

Our money market investments are placed with money market funds that are 2a-7 qualified. Rule 2a-7, adopted by the SEC under the Investment Company Act of 1940, establishes strict standards for quality, diversity and maturity, the objective of which is to maintain a constant net asset value of a dollar. We limit our investments in money market funds to those that are primarily associated with large, money center financial institutions and limit our exposure to Prime funds. Our short- and long-term investments are invested primarily in investment grade securities, and we limit the amount of our investment in any single issuer and institution. Due to the European financial crisis, in the fourth quarter of 2011, we took steps to limit exposure to investments and financial institutions in this region.

We provide credit to customers in the normal course of business. Credit is extended to new customers based upon checks of credit references, credit scores and industry reputation. Credit is extended to existing customers based on prior payment history and demonstrated financial stability. The credit risk associated with accounts and notes receivables is generally limited due to the large number of customers and their broad dispersion over many different industries and geographic areas. We establish an allowance for the estimated uncollectible portion of our accounts and notes receivable. The allowance was \$74 million and \$65 million at December 31, 2014 and 2013, respectively. 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. Our sales are generally dispersed to a large number of customers, minimizing the reliance on any particular customer or group of customers.

The counterparties to our foreign currency exchange contracts consist of a number of major financial institutions. In addition to limiting the amount of contracts we enter into with any one party, we monitor the credit quality of the counterparties on an ongoing basis.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

EMC CORPORATION AND SUBSIDIARIES  
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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.



## MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of EMC is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rule 13a-15(f) or 15d-15(f) promulgated under the Exchange Act as a process designed by, or under the supervision of, the company's principal executive and principal financial officers and effected by the company's board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America and includes those policies and procedures that:

- Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the company;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

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

EMC's management assessed the effectiveness of the company's internal control over financial reporting as of December 31, 2014. In making this assessment, EMC's management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control – Integrated Framework (2013). Based on our assessment, EMC's management determined that, as of December 31, 2014, EMC's internal control over financial reporting is effective and operating at the reasonable assurance level based on those criteria. PricewaterhouseCoopers LLP, an independent registered public accounting firm, has audited the effectiveness of our internal control over financial reporting as stated in their report which appears on page 54 of this Annual Report on Form 10-K.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of EMC Corporation

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of EMC Corporation and its subsidiaries at December 31, 2014 and December 31, 2013 and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2014 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2014 based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company’s management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management’s Report on Internal Control over Financial Reporting appearing under Item 8. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company’s internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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

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

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts

February 27, 2015

EMC CORPORATION  
CONSOLIDATED BALANCE SHEETS  
(in millions, except per share amounts)

	December 31,	
	2014	2013
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$6,343	\$7,891
Short-term investments	1,978	2,773
Accounts and notes receivable, less allowance for doubtful accounts of \$72 and \$62	4,413	3,861
Inventories	1,276	1,334
Deferred income taxes	1,070	912
Other current assets	653	507
Total current assets	15,733	17,278
Long-term investments	6,334	6,924
Property, plant and equipment, net	3,766	3,478
Intangible assets, net	2,125	1,780
Goodwill	16,134	14,424
Other assets, net	1,793	1,965
Total assets	\$45,885	\$45,849
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$1,696	\$1,434
Accrued expenses	3,141	2,783
Notes converted and payable	—	1,665
Income taxes payable	852	639
Deferred revenue	6,021	5,278
Total current liabilities	11,710	11,799
Income taxes payable	306	296
Deferred revenue	4,144	3,701
Deferred income taxes	274	421
Long-term debt	5,495	5,494
Other liabilities	431	352
Total liabilities	22,360	22,063
Commitments and contingencies (See Note N)		
Shareholders' equity:		
Preferred stock, par value \$0.01; authorized 25 shares; none outstanding	—	—
Common stock, par value \$0.01; authorized 6,000 shares; issued and outstanding 1,985 and 2,020 shares	20	20
Additional paid-in capital	—	1,406
Retained earnings	22,242	21,114
Accumulated other comprehensive income (loss), net	(366 )	(239 )
Total EMC Corporation's shareholders' equity	21,896	22,301
Non-controlling interests	1,629	1,485
Total shareholders' equity	23,525	23,786
Total liabilities and shareholders' equity	\$45,885	\$45,849

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



EMC CORPORATION  
CONSOLIDATED INCOME STATEMENTS  
(in millions, except per share amounts)

	For the Year Ended December 31,		
	2014	2013	2012
Revenues:			
Product sales	\$ 14,051	\$ 13,690	\$ 13,061
Services	10,389	9,532	8,653
	24,440	23,222	21,714
Costs and expenses:			
Cost of product sales	5,738	5,650	5,259
Cost of services	3,453	3,099	2,817
Research and development	2,991	2,761	2,560
Selling, general and administrative	7,982	7,338	7,004
Restructuring and acquisition-related charges	239	224	110
Operating income	4,037	4,150	3,964
Non-operating income (expense):			
Investment income	123	128	115
Interest expense	(147	) (156	) (79
Other expense, net	(251	) (257	) (196
Total non-operating income (expense)	(275	) (285	) (160
Income before provision for income taxes	3,762	3,865	3,804
Income tax provision	868	772	918
Net income	2,894	3,093	2,886
Less: Net income attributable to the non-controlling interest in VMware, Inc.	(180	) (204	) (153
Net income attributable to EMC Corporation	\$ 2,714	\$ 2,889	\$ 2,733
Net income per weighted average share, basic attributable to EMC Corporation common shareholders	\$ 1.34	\$ 1.39	\$ 1.31
Net income per weighted average share, diluted attributable to EMC Corporation common shareholders	\$ 1.32	\$ 1.33	\$ 1.23
Weighted average shares, basic	2,028	2,074	2,093
Weighted average shares, diluted	2,059	2,160	2,206
Cash dividends declared per common share	\$ 0.45	\$ 0.30	\$ —

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

EMC CORPORATION  
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME  
(in millions)

	For the Year Ended December 31,		
	2014	2013	2012
Net income	\$2,894	\$3,093	\$2,886
Other comprehensive income (loss), net of taxes (benefits):			
Foreign currency translation adjustments	(135 )	(44 )	2
Changes in market value of investments:			
Changes in unrealized gains (losses), net of taxes (benefits) of \$36, \$(13) and \$31	57	(22 )	53
Reclassification adjustment for net gains realized in net income, net of taxes of \$23, \$6 and \$4	(39 )	(11 )	(5 )
Net change in market value of investments	18	(33 )	48
Changes in market value of derivatives:			
Changes in market value of derivatives, net of taxes (benefits) of \$2, \$3 and \$(20)	24	13	(36 )
Reclassification adjustment for net losses (gains) included in net income, net of benefits (taxes) of \$0, \$(2) and \$15	(18 )	(10 )	28
Net change in the market value of derivatives	6	3	(8 )
Change in actuarial net gain (loss) from pension and other postretirement plans:			
Recognition of actuarial net gain (loss) from pension and other postretirement plans, net of taxes (benefits) of \$(12), \$20 and \$(10)	(22 )	34	(22 )
Reclassification adjustments for net losses from pension and other postretirement plans, net of benefits \$3, \$6 and \$5	6	9	8
Net change in actuarial gain (loss) from pension and other postretirement plans	(16 )	43	(14 )
Other comprehensive income (loss)	(127 )	(31 )	28
Comprehensive income	2,767	3,062	2,914
Less: Net income attributable to the non-controlling interest in VMware, Inc.	(180 )	(204 )	(153 )
Less: Other comprehensive (income) loss attributable to the non-controlling interest in VMware, Inc.	—	—	(2 )
Comprehensive income attributable to EMC Corporation	\$2,587	\$2,858	\$2,759

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

EMC CORPORATION  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
(in millions)

	For the Year Ended December 31,		
	2014	2013	2012
Cash flows from operating activities:			
Cash received from customers	\$25,360	\$24,319	\$22,585
Cash paid to suppliers and employees	(17,893	) (16,708	) (16,019
Dividends and interest received	143	169	103
Interest paid	(134	) (96	) (33
Income taxes paid	(953	) (761	) (374
Net cash provided by operating activities	6,523	6,923	6,262
Cash flows from investing activities:			
Additions to property, plant and equipment	(979	) (943	) (819
Capitalized software development costs	(509	) (465	) (419
Purchases of short- and long-term available-for-sale securities	(9,982	) (11,250	) (6,347
Sales of short- and long-term available-for-sale securities	8,722	5,292	4,983
Maturities of short- and long-term available-for-sale securities	2,651	2,845	1,049
Business acquisitions, net of cash acquired	(1,973	) (770	) (2,136
Purchases of strategic and other related investments	(144	) (131	) (117
Sales of strategic and other related investments	101	35	70
Joint venture funding	(360	) (411	) (228
Proceeds from divestiture of business	—	38	58
Increase in restricted cash	(78	) —	—
Net cash used in investing activities	(2,551	) (5,760	) (3,906
Cash flows from financing activities:			
Proceeds from the issuance of EMC's common stock	503	342	560
Proceeds from the issuance of VMware's common stock	164	197	253
EMC repurchase of EMC's common stock	(2,969	) (3,015	) (685
EMC purchase of VMware's common stock	—	(160	) (290
VMware repurchase of VMware's common stock	(700	) (508	) (468
Excess tax benefits from stock-based compensation	102	116	261
Payment of long-term and short-term obligations	(1,665	) (46	) (1,715
Proceeds from the issuance of long-term and short-term obligations	—	5,460	5
Contributions from non-controlling interests	7	105	—
Interest rate contract settlement	—	—	(70
Dividend payment	(879	) (415	) —
Net cash (used in) provided by financing activities	(5,437	) 2,076	(2,149
Effect of exchange rate changes on cash and cash equivalents	(83	) (62	) 15
Net (decrease) increase in cash and cash equivalents	(1,548	) 3,177	222
Cash and cash equivalents at beginning of period	7,891	4,714	4,492
Cash and cash equivalents at end of period	\$6,343	\$7,891	\$4,714
Reconciliation of net income to net cash provided by operating activities:			
Net income	\$2,894	\$3,093	\$2,886
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	1,864	1,665	1,528
Non-cash interest expense on debt	1	62	46
Non-cash restructuring and other special charges	19	8	13

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Stock-based compensation expense	1,031	935	895	
Provision for (recovery of) doubtful accounts	10	(1	) 39	
Deferred income taxes, net	(396	) (202	) (118	)
Excess tax benefits from stock-based compensation	(102	) (116	) (261	)
Gain on previously held interests in strategic investments and joint venture	(101	) —	(32	)
Impairment of strategic investment	33	—	—	
Other, net	20	40	22	
Changes in assets and liabilities, net of acquisitions:				
Accounts and notes receivable	(309	) (377	) (535	)
Inventories	(149	) (408	) (459	)
Other assets	345	269	174	
Accounts payable	167	380	89	
Accrued expenses	(286	) (162	) (94	)

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EMC CORPORATION  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
(in millions)

	For the Year Ended December 31,		
	2014	2013	2012
Income taxes payable	314	222	661
Deferred revenue	1,126	1,475	1,367
Other liabilities	42	40	41
Net cash provided by operating activities	\$6,523	\$6,923	\$6,262
Non-cash investing and financing activity:			
Issuance of common stock and stock options exchanged in business acquisitions	\$35	\$1	\$24
Investment in joint venture	\$—	\$—	\$33
Dividends declared	\$242	\$213	\$—

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

EMC CORPORATION  
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY  
(in millions)

	Common Stock		Additional	Retained	Accumulated	Non-controlling	Shareholders'
	Shares	Par Value	Paid-in Capital	Earnings	Other Comprehensive Loss	Interest in VMware	Equity
Balance, January 1, 2012	2,050	\$21	\$3,405	\$16,120	\$(235 )	\$ 969	\$20,280
Stock issued through stock option and stock purchase plans	42	—	560	—	—	—	560
Tax benefit from stock options exercised	—	—	267	—	—	—	267
Restricted stock grants, cancellations and withholdings, net	11	—	(126 )	—	—	—	(126 )
Repurchase of common stock (27 )	—	—	(700 )	—	—	—	(700 )
EMC purchase of VMware stock	—	—	(258 )	—	—	(42 )	(300 )
Stock options issued in business acquisitions	—	—	20	—	—	—	20
Stock-based compensation	—	—	898	—	—	—	898
Impact from equity transactions of non-controlling interests	—	—	(436 )	—	—	86	(350 )
Actuarial loss on pension plan	—	—	—	—	(14 )	—	(14 )
Change in market value of investments	—	—	—	—	47	1	48
Change in market value of derivatives	—	—	—	—	(8 )	—	(8 )
Translation adjustment	—	—	—	—	2	—	2
Convertible debt conversions and warrant settlement	31	—	(1 )	—	—	—	(1 )
Reclassification of convertible debt from mezzanine (Note E)	—	—	62	—	—	—	62
Net income	—	—	—	2,733	—	153	2,886
Balance, December 31, 2012	2,107	21	3,691	18,853	(208 )	1,167	23,524
Stock issued through stock option and stock purchase plans	24	—	342	—	—	—	342
Tax benefit from stock options exercised	—	—	90	—	—	—	90
Restricted stock grants, cancellations and withholdings, net	11	—	(126 )	—	—	—	(126 )
Repurchase of common stock (122 )	(1 )	(1 )	(2,999 )	—	—	—	(3,000 )
EMC purchase of VMware stock	—	—	(124 )	—	—	(26 )	(150 )

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Stock options issued in business acquisitions	—	—	1	—	—	—	1
Stock-based compensation	—	—	946	—	—	—	946
Cash dividends declared	—	—	—	(628	)	—	(628 )
Impact from equity transactions of non-controlling interests	—	—	(473	)	—	140	(333 )
Actuarial loss on pension plan	—	—	—	—	43	—	43
Change in market value of investments	—	—	—	—	(33	)	(33 )
Change in market value of derivatives	—	—	—	—	3	—	3
Translation adjustment	—	—	—	—	(44	)	(44 )
Reclassification of convertible debt from mezzanine (Note E)	—	—	58	—	—	—	58
Net income	—	—	—	2,889	—	204	3,093
Balance, December 31, 2013	2,020	20	1,406	21,114	(239	)	1,485
Stock issued through stock option and stock purchase plans	33	—	503	—	—	—	503
Tax benefit from stock options exercised	—	—	98	—	—	—	98
Restricted stock grants, cancellations and withholdings, net	10	—	(110	)	—	—	(110 )

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	Common Stock		Additional	Retained	Accumulated	Non-controlling	Shareholders'
	Shares	Par Value	Paid-in Capital	Earnings	Other Comprehensive Loss	Interest in VMware	Equity
Repurchase of common stock	(107 )	—	(2,333 )	(667 )	—	—	(3,000 )
Stock options issued in business acquisitions	—	—	35	—	—	—	35
Stock-based compensation	—	—	1,055	—	—	—	1,055
Cash dividends declared	—	—	—	(919 )	—	—	(919 )
Impact from equity transactions of non-controlling interests	—	—	(654 )	—	—	(36 )	(690 )
Actuarial gain on pension plan	—	—	—	—	(16 )	—	(16 )
Change in market value of investments	—	—	—	—	18	—	18
Change in market value of derivatives	—	—	—	—	6	—	6
Translation adjustment	—	—	—	—	(135 )	—	(135 )
Convertible debt conversions and warrant settlement	29	—	—	—	—	—	—
Net income	—	—	—	2,714	—	180	2,894
Balance, December 31, 2014	1,985	\$20	\$—	\$22,242	\$(366 )	\$ 1,629	\$23,525

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 (“EMC”) and its subsidiaries develop, deliver and support the information technology (“IT”) industry’s broadest range of information infrastructure and virtual infrastructure technologies, solutions and services. EMC manages the Company as part of a federation of businesses: EMC Information Infrastructure, VMware Virtual Infrastructure and Pivotal.

EMC’s Information Infrastructure business provides a foundation for organizations to store, manage, protect, analyze and secure ever-increasing quantities of information, while at the same time improving business agility, lowering cost, and enhancing competitive advantage. EMC’s Information Infrastructure business comprises three segments – Information Storage, Enterprise Content Division, formerly known as Information Intelligence Group, and RSA Information Security.

EMC’s VMware Virtual Infrastructure business, which is represented by EMC’s majority equity stake in VMware, Inc. (“VMware”), is the leader in virtualization infrastructure solutions utilized by organizations to help them transform the way they build, deliver and consume IT resources. VMware’s virtualization infrastructure solutions, which include a suite of products and services designed to deliver a software-defined data center, run on industry-standard desktop computers and servers and support a wide range of operating system and application environments, as well as networking and storage infrastructures.

EMC’s Pivotal business (“Pivotal”) unites strategic technology, people and programs from EMC and VMware and has built a new platform comprising of next-generation data, agile development practices and a cloud independent platform-as-a-service (“PaaS”). These capabilities are made available through Pivotal’s three primary offerings: the Pivotal Big Data Suite, Pivotal Labs and Pivotal Cloud Foundry.

Accounting Principles

The financial statements and accompanying notes are prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”).

Principles of Consolidation

These consolidated financial statements include the accounts of EMC, its wholly-owned subsidiaries, and Pivotal and VMware, companies which are majority-owned by EMC. All intercompany transactions have been eliminated. EMC’s interest in VMware was approximately 80% at both December 31, 2014 and 2013. VMware’s financial results have been consolidated with that of EMC for all periods presented as EMC is VMware’s controlling stockholder. The portion of the results of operations of VMware allocable to its other owners is shown as net income attributable to the non-controlling interest in VMware, Inc. on EMC’s consolidated income statements. Additionally, the cumulative portion of the results of operations of VMware allocable to its other owners, along with the interest in the net assets of VMware attributable to those other owners, is shown as a component of non-controlling interests on EMC’s consolidated balance sheets and as a reduction of net income attributable to EMC shareholders.

EMC’s economic interest in Pivotal was approximately 84% at both December 31, 2014 and 2013. Pivotal’s financial results have been consolidated with that of EMC for all periods presented. The non-controlling interests’ share of equity in Pivotal is reflected as a component of the non-controlling interests in EMC’s consolidated balance sheets and as a reduction of net income attributable to EMC shareholders. Because the non-controlling interest in Pivotal is in the form of a preferred equity instrument, there is no net income attributable to non-controlling interest related to Pivotal on EMC’s consolidated income statements.

Use of Accounting Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements, 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.



EMC CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Revenue Recognition

We derive revenue from sales of systems, software licenses and services. We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable and collectability is reasonably assured. This policy is applicable to all sales, including sales to resellers and end users. Delivery is achieved when our product has been physically shipped or made available for use by electronic delivery and the risk of loss has been transferred which, for most of our product sales, occurs upon shipment. The following summarizes the major terms of our contractual relationships with our customers and the manner in which we account for sales transactions.

Product revenue

Product revenue consists of systems and software licenses sales that are delivered, sold as a subscription or sold on a consumption basis. System sales include storage hardware, required system software and other hardware-related devices. Software license sales include optional, stand-alone software applications. Our software applications provide customers with resource management, backup and archiving, information security, information management and intelligence, data analytics and server virtualization capabilities. Depending on the nature of the arrangement, revenue for system and software license sales is generally recognized upon shipment, electronic delivery. For certain arrangements, revenue is recognized based on usage or ratably over the term of the arrangement. License revenue from royalty arrangements is recognized upon either receipt of royalty reports or payments from third parties.

Services revenue

Services revenue consists of installation services, professional services, software maintenance, hardware maintenance, training and software sold as a service.

We recognize revenue from fixed-price support or maintenance contracts sold for both hardware and software, including extended warranty contracts, ratably over the contract period and recognize the costs associated with these contracts as incurred. Generally, installation and professional services are not considered essential to the functionality of our products as these services do not alter the product capabilities and may be performed by our customers or other vendors. Installation services revenues are recognized as the services are being performed. Professional services revenues on engagements for which reasonably dependable estimates of progress toward completion are capable of being made are recognized using the proportional performance method, which recognizes revenue based on labor costs incurred in proportion to total expected labor costs to perform the service. Where services are considered essential to the functionality of our products, revenue for the products and services is recorded over the service period. Professional services engagements that are sold on a time and materials basis are recognized based upon the labor costs incurred. Revenues from software sold as a service is recognized based on usage or ratably over the term of the service period depending upon the nature of the arrangement. Revenues on all other professional services engagements are recognized upon completion.

Multiple element arrangements

When more than one element, such as hardware, software and services are contained in a single arrangement, we first allocate revenue based upon the relative selling price into two categories: (1) non-software components, such as hardware and any hardware-related items, such as required system software that functions with the hardware to deliver the essential functionality of the hardware and related post-contract customer support, software as a service subscriptions and other services and (2) software components, such as optional software applications and related items, such as post-contract customer support and other services. We then allocate revenue within the non-software

category to each element based upon their relative selling price using a hierarchy of vendor-specific objective evidence (“VSOE”), third-party evidence of selling price (“TPE”) or estimated selling prices (“ESP”), if VSOE or TPE does not exist. We allocate revenue within the software category to the undelivered elements based upon their fair value using VSOE with the residual revenue allocated to the delivered elements. If we cannot objectively determine the VSOE of the fair value of any undelivered software element, we defer revenue for all software components until all elements are delivered and services have been performed, until fair value can objectively be determined for any remaining undelivered elements, or until software maintenance is the only undelivered element in which case revenue is recognized over the maintenance term for all software elements.

We allocate the amount of revenue recognition for delivered elements to the amount that is not subject to forfeiture or refund or contingent on the future delivery of products or services.



EMC CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Customers under software maintenance agreements are entitled to receive updates and upgrades on a when-and-if-available basis, and various types of technical support based on the level of support purchased. In the event specific features, functionality, entitlements, or the release version of an upgrade or new product have been announced but not delivered, and customers will receive that upgrade or new product as part of a current software maintenance contract, a specified upgrade is deemed created and product revenues are deferred on purchases made after the announcement date until delivery of the upgrade or new product. The amount and elements to be deferred are dependent on whether we have established VSOE of fair value for the upgrade or new product.

#### Indirect channel sales

We market and sell our products through our direct sales force and indirect channels such as independent distributors and value-added resellers. For substantially all of our indirect sales, we recognize revenues on products sold to resellers and distributors on a sell through basis. These product sales are evidenced by a master distribution agreement, together with evidence of an end-user arrangement, on a transaction-by-transaction basis.

We offer rebates to certain channel partners. We generally recognize the amount of the rebates as a reduction of revenues when the underlying revenue is recognized. We also offer marketing development funds to certain channel partners. We generally record the amount of the marketing development funds, based on the maximum potential liability, as a marketing expense as the funds are earned by the channel partners.

#### Shipping terms

Our sales contracts generally provide for the customer to accept risk of loss when the product leaves our facilities. When shipping terms or local laws do not allow for passage of risk of loss at shipping point, we defer recognizing revenue until risk of loss transfers to the customer.

#### Leases

Revenue from sales-type leases is recognized at the net present value of future lease payments. Revenue from operating leases is recognized over the lease period.

#### Other

We accrue for the estimated costs of systems' warranty at the time of sale. We reduce revenue for estimated sales returns at the time of sale. Systems' warranty costs are estimated based upon our historical experience and specific identification of systems' requirements. Sales returns are estimated based upon our historical experience and specific identification of probable returns.

#### Deferred Revenue

Our deferred revenue consists primarily of deferred hardware and software maintenance and unearned license fees, which are recognized ratably over the contract term as either product or services revenue depending on the nature of the item, and deferred professional services, including education and training, which are recognized in services revenue as the services are provided.

#### Shipping and Handling Costs

Shipping and handling costs are classified in cost of product sales.

#### Foreign Currency Translation

The local currency is the functional currency of the majority of our subsidiaries. Assets and liabilities are translated into U.S. dollars at exchange rates in effect at the balance sheet date. Income and expense items are translated at daily rates.

Gains and losses from foreign currency transactions are included in other expense, net, and consist of net losses of \$30 million, \$2 million and \$16 million in 2014, 2013 and 2012, respectively. Foreign currency translation adjustments are included in other comprehensive income (loss).

EMC CORPORATION  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

### Derivatives

We use derivatives to hedge foreign currency exposures related to foreign currency denominated assets and liabilities and forecasted revenue and expense transactions.

We hedge our exposure in foreign currency denominated monetary assets and liabilities with foreign currency forward and option contracts. Since these derivatives hedge existing exposures that are denominated in foreign currencies, the contracts do not qualify for hedge accounting. Accordingly, these outstanding non-designated derivatives are recognized on the consolidated balance sheet at fair value and the changes in fair value from these contracts are recorded in other expense, net, in the consolidated income statements. These derivative contracts mature in less than one year.

We also use foreign currency forward and option contracts to hedge our exposure on a portion of our forecasted revenue and expense transactions. These derivatives are designated as cash flow hedges. We did not have any derivatives designated as fair value hedges as of December 31, 2014. All outstanding cash flow hedges are recognized on the consolidated balance sheets at fair value with changes in their fair value recorded in accumulated other comprehensive income (loss) until the underlying forecasted transactions occur. To achieve hedge accounting, certain criteria must be met, which includes (i) ensuring at the inception of the hedge that formal documentation exists for both the hedging relationship and the entity's risk management objective and strategy for undertaking the hedge, and (ii) at the inception of the hedge and on an ongoing basis, the hedging relationship is expected to be highly effective in achieving offsetting changes in fair value attributed to the hedged risk during the period that the hedge is designated. Further, an assessment of effectiveness is required at a minimum on a quarterly basis. Absent meeting these criteria, changes in fair value are recognized currently in other expense, net, in the consolidated income statements. Once the underlying forecasted transaction occurs, the gain or loss from the derivative designated as a hedge of the transaction is reclassified from accumulated other comprehensive income (loss) to the consolidated income statements, in the related revenue or expense caption, 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 other income (expense), net, in the consolidated income statements in the then-current period. Any ineffective portion of the derivatives designated as cash flow hedges is recognized in current earnings. The ineffective portion of the derivatives includes gains or losses associated with differences between actual and forecasted amounts. Our cash flow hedges generally mature within six months or less. The notional amount of cash flow hedges outstanding as of December 31, 2014, 2013 and 2012 were \$245 million, \$384 million and \$201 million, respectively.

We do not engage in currency speculation. For purposes of presentation within the consolidated statement of cash flows, derivative gains and losses are presented within net cash provided by operating activities.

Our derivatives and their related activities are not material to our consolidated balance sheets or consolidated income statements.

### Cash and Cash Equivalents

Cash and cash equivalents include highly liquid investments with a maturity of ninety days or less at the time of purchase. Cash equivalents consist primarily of money market securities, U.S. Treasury bills, U.S. Agency discount notes and commercial paper. Cash equivalents are stated at fair value. See Note F.

### Allowance for Doubtful Accounts

We maintain an allowance for doubtful accounts for the estimated probable losses on uncollectible accounts and notes receivable. The allowance is based upon the creditworthiness of our customers, our historical experience, the age of the receivable and current market and economic conditions. Uncollectible amounts are charged against the allowance account. The allowance for doubtful accounts is maintained against both our current and non-current accounts and notes receivable balances. The balances in the allowance accounts at December 31, 2014 and 2013 were as follows (table in millions):

	December 31,	
	2014	2013
Current	\$72	\$62
Non-current (included in other assets, net)	2	3
	\$74	\$65

EMC CORPORATION  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

### Investments

Unrealized gains and temporary loss positions on investments classified as available-for-sale are included within accumulated other comprehensive income (loss), net of any related tax effect. Upon realization, those amounts are reclassified from accumulated other comprehensive income (loss) to investment income. Realized gains and losses and other-than-temporary impairments are reflected in the consolidated income statement in investment income. For investments accounted for utilizing the fair value option, changes to fair value are recognized in the consolidated income statement in non-operating income (expense), net.

### 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. Buildings under development are included in building construction in progress. Depreciation commences upon placing the asset in service and is recognized on a straight-line basis over the estimated useful lives of the assets, as follows:

Furniture and fixtures	5-10 years
Equipment and software	2-10 years
Improvements	5-31 years
Buildings	15-51 years

Upon retirement or disposition, the asset cost and related accumulated depreciation are removed with any gain or loss recognized in the consolidated income statements. Repair and maintenance costs, including planned maintenance, are expensed as incurred.

### Research and Development and Capitalized Software Development Costs

Research and development (“R&D”) costs are expensed as incurred. R&D costs include salaries and benefits, stock-based compensation, consultants, facilities related costs, material costs, depreciation and travel. Material 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 detailed program design or working model, if no program design is completed. GAAP requires that annual amortization expense of the capitalized software development costs be the greater of the amounts computed using the ratio of gross revenue to a products’ total current and anticipated revenues, or the straight-line method over the products’ remaining estimated economic life. Capitalized costs are amortized over periods ranging from eighteen months to two years which represents the products’ estimated economic life.

Unamortized software development costs were \$829 million and \$762 million at December 31, 2014 and 2013, respectively, and are included in other assets, net. Amortization expense was \$482 million, \$427 million and \$398 million in 2014, 2013 and 2012, respectively. Amounts capitalized were \$549 million, \$487 million and \$432 million in 2014, 2013 and 2012, respectively. The amounts capitalized include stock-based compensation which is not reflected in the consolidated statements of cash flows as it is a non-cash item.

### Long-lived Assets

Purchased intangible assets, other than goodwill, are amortized over their estimated useful lives which range from one to eighteen years. Intangible assets include goodwill, purchased technology, trademarks and tradenames, customer relationships and customer lists, software licenses, patents, leasehold interest and other intangible assets, which include backlog, non-competition agreements and non-solicitation agreements. Most of our intangible assets are amortized based upon the pattern in which the economic benefits of the intangible assets are being utilized; the remainder are amortized on a straight-line basis. Goodwill is not amortized and is carried at its historical cost.

We periodically review our long-lived assets for impairment. We initiate reviews 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, other than goodwill, is based on a comparison of the un-discounted cash flows to the recorded value of the asset. If an impairment is indicated, the asset is written down to its estimated fair value.

EMC CORPORATION  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

We test goodwill for impairment in the fourth quarter of each year or more frequently if events or changes in circumstances indicate that the asset might be impaired. The test is based on a comparison of the reporting unit's book value to its estimated fair market value. We perform both qualitative and quantitative tests of our goodwill.

#### Investments in Joint Ventures

We make investments in joint ventures. For each joint venture investment we consider the facts and circumstances in order to determine whether it qualifies for cost, equity or fair value method accounting or whether it should be consolidated.

In 2009, Cisco and EMC formed VCE Company LLC ("VCE"), with investments from VMware and Intel. VCE, through Vblock infrastructure platforms, delivers an integrated IT offering that combines network, computing, storage, management, security and virtualization technologies for converged infrastructures and cloud based computing models.

In December 2014, EMC acquired the controlling interest in VCE. Prior to the acquisition of the controlling interest in VCE, we considered VCE a variable interest entity. Authoritative guidance related to variable interest entities states that the primary beneficiary of a variable interest entity must have both of the following characteristics: (a) the power to direct the activities of a variable interest entity that most significantly will impact the entity's economic performance; and (b) the obligation to absorb losses that could be potentially significant to the variable interest entity or the right to receive benefits from the entity that could potentially be significant to the variable interest entity. Since the power to direct the activities of VCE which most significantly impact its economic performance was determined by its board of directors, which was comprised of equal representation of EMC and Cisco, and all significant decisions required the approval of the minority shareholders, we determined that prior to acquiring the controlling interest, we were not the primary beneficiary, and as such we accounted for the investment under the equity method with our portion of the gains and losses recognized in other expense, net in the consolidated income statements for the majority of 2014, and all of 2013 and 2012. Since the date of acquiring the controlling interest in VCE, we have consolidated VCE's financial position and results as part of EMC's consolidated financial statements.

#### Advertising

Advertising costs are expensed as incurred. Advertising expense was \$25 million, \$23 million and \$30 million in 2014, 2013 and 2012, respectively.

#### Legal Costs

Legal costs incurred in connection with loss contingencies are recognized when the costs are probable of occurrence and can be reasonably estimated.

#### 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 basis 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. The measurement of deferred tax assets is reduced by a valuation allowance if, based upon available evidence, it is more likely than not that some or all of the deferred tax assets will

not be realized.

Accounting for uncertainty in income taxes recognized in the financial statements is in accordance with accounting authoritative guidance, which prescribes a two-step process to determine the amount of tax benefit to be recognized. First, the tax position must be evaluated to determine the likelihood that it will be sustained upon external examination. If the tax position is deemed “more-likely-than-not” to be sustained, the tax position is then assessed to determine the amount of benefit to recognize in the financial statements. The amount of the benefit that may be recognized is the largest amount that has a greater than 50 percent likelihood of being realized upon ultimate settlement.

We do not provide for a U.S. income tax liability on undistributed earnings of our foreign subsidiaries. The earnings of non-U.S. subsidiaries, which reflect full provision for non-U.S. income taxes, are currently indefinitely reinvested in non-U.S. operations or are expected to be remitted substantially free of additional tax.

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EMC CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Sales Taxes

Sales and other taxes collected from customers and subsequently remitted to government authorities are recorded as cash or accounts receivable with a corresponding offset recorded to sales taxes payable. These balances are removed from the consolidated balance sheet as cash is collected from the customers and remitted to the tax authority.

Earnings Per Share

Basic net income per share is computed using the weighted-average number of shares of our common stock outstanding during the period. Diluted net income per share is computed using the weighted-average number of common and dilutive common equivalent shares outstanding during the period. Common equivalent shares consist of stock options, unvested restricted stock and restricted stock units, the shares issuable under our \$1.725 billion 1.75% convertible senior notes due 2013 (the "2013 Notes") and the associated warrants. See Note E for further information regarding the 2013 Notes and the associated warrants and Note O for further information regarding the calculation of diluted net income per weighted-average share. Additionally, for purposes of calculating diluted net income per common share, net income is adjusted for the difference between VMware's reported diluted and basic earnings per share, if any, multiplied by the number of shares of VMware held by EMC.

Retirement Benefits

Pension cost for our domestic defined benefit pension plan is funded to the extent that the current pension cost is deductible for U.S. Federal tax purposes and to comply with the Employee Retirement Income Security Act and the General Agreement on Tariff and Trade Bureau additional minimum funding requirements. Net pension cost for our international defined benefit pension plans are generally funded as accrued.

Concentrations of Risks

Financial instruments that potentially subject us to concentration of credit risk consist principally of bank deposits, money market investments, short- and long-term investments, accounts and notes receivable, and foreign currency exchange contracts. Deposits held with banks in the United States may exceed the amount of FDIC insurance provided on such deposits. Deposits held with banks outside the United States generally do not benefit from FDIC insurance. The majority of our day-to-day banking operations globally are maintained with Citibank. We believe that Citibank's position as a primary clearing bank, coupled with the substantial monitoring of their daily liquidity, both by their internal processes and by the Federal Reserve and the FDIC, mitigate some of our risk.

Our money market investments are placed with money market funds that are 2a-7 qualified. Rule 2a-7, adopted by the United States Securities and Exchange Commission (the "SEC") under the Investment Company Act of 1940, establishes strict standards for quality, diversity and maturity, the objective of which is to maintain a constant net asset value of a dollar. We limit our investments in money market funds to those that are primarily associated with large, money center financial institutions and limit our exposure to Prime funds. Our short- and long-term investments are invested primarily in investment grade securities, and we limit the amount of our investment in any single issuer.

We provide credit to customers in the normal course of business. Credit is extended to new customers based on checks of credit references, credit scores and industry reputation. Credit is extended to existing customers based on prior payment history and demonstrated financial stability. The credit risk associated with accounts and notes receivables is generally limited due to the large number of customers and their broad dispersion over many different industries and geographic areas. We establish an allowance for the estimated uncollectible portion of our accounts and notes

receivable. 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. Our sales are generally dispersed among a large number of customers, minimizing the reliance on any particular customer or group of customers.

The counterparties to our foreign currency exchange contracts consist of a number of major financial institutions. In addition to limiting the amount of contracts we enter into with any one party, we monitor the credit quality of the counterparties on an ongoing basis.

We purchase or license many sophisticated components and products from one or a limited number of qualified suppliers. If any of our suppliers were to cancel or materially change 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 customer orders. We attempt to minimize this risk by finding alternative suppliers or maintaining adequate inventory levels to meet our forecasted needs.

EMC CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Accounting for Stock-Based Compensation

We have selected the Black-Scholes option-pricing model to determine the fair value of our stock option awards. For stock options, restricted stock and restricted stock units, we recognize compensation cost on a straight-line basis over the awards' vesting periods for those awards which contain only a service vesting feature. For awards with a performance condition vesting feature, when achievement of the performance condition is deemed probable, we recognize compensation cost on a graded-vesting basis over the awards' expected vesting periods.

Reclassifications

Certain prior year amounts have been reclassified to conform with the current year's presentation. During the first quarter of 2014, the Information Storage segment acquired the Data Computing Appliance and implementation services businesses from the Pivotal segment. The acquisition of these businesses was accounted for as a business combination between entities under common control. We reflected the impact of the transaction in our segment disclosures and included the financial results of the acquired businesses in the Information Storage segment and excluded these from the Pivotal segment for the years ended December 31, 2014 and 2013. None of the segment reclassifications impact EMC's previously reported consolidated financial statements. See Note S for further discussion of the segment reclassifications.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued a standard on revenue recognition providing a single, comprehensive revenue recognition model for all contracts with customers. The revenue standard is based on the principle that revenue should be recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard is effective beginning January 1, 2017, with no early adoption permitted. The principles may be applied retrospectively to each prior period presented or retrospectively with the cumulative effect recognized as of the date of initial application. We are currently evaluating the adoption method options and the impact of the new guidance on our consolidated financial statements.

New Accounting Guidance Recently Adopted

In April 2014, the FASB issued new accounting guidance on reporting discontinued operations and disclosures of disposals of components of an entity which clarifies the scope of what should be reported as discontinued operations and expands required disclosures.

In July 2013, the FASB issued new accounting guidance on the presentation of unrecognized tax benefits. This new guidance requires an entity to present an unrecognized tax benefit, or a portion of an unrecognized tax benefit, as a reduction to a deferred tax asset when a net operating loss carryforward, a similar tax loss or a tax credit carryforward exists, with limited exceptions.

In March 2013, the FASB issued new accounting guidance that requires a parent company to release any related cumulative translation adjustment into net income only if the sale or transfer results in the complete or substantially complete liquidation of the foreign entity in which the subsidiary or group of assets had resided.

The adoption of the new accounting guidance discussed above during 2014 did not have a material impact on our consolidated financial statements.

B. Non-controlling Interests

The non-controlling interests' share of equity in VMware is reflected as a component of the non-controlling interests in the accompanying consolidated balance sheets and was \$1,524 million and \$1,380 million as of December 31, 2014 and 2013, respectively. At December 31, 2014, EMC held approximately 97% of the combined voting power of VMware's outstanding common stock and approximately 80% of the economic interest in VMware.



## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The effect of changes in our ownership interest in VMware on our equity was as follows (table in millions):

	For the Year Ended	
	December 31, 2014	December 31, 2013
Net income attributable to EMC Corporation	\$2,714	\$2,889
Transfers (to) from the non-controlling interest in VMware, Inc.:		
Increase in EMC Corporation's additional paid-in-capital for VMware's equity issuances	\$7	92
Decrease in EMC Corporation's additional paid-in-capital for VMware's other equity activity	(741)	(565)
Net transfers (to) from non-controlling interest	(654)	(473)
Change from net income attributable to EMC Corporation and transfers from the non-controlling interest in VMware, Inc.	\$2,060	\$2,416

The non-controlling interests' share of equity in Pivotal is reflected as a component of the non-controlling interests in the accompanying consolidated balance sheets as \$105 million at both December 31, 2014 and 2013. At December 31, 2014, EMC consolidated held approximately 84% of the economic interest in Pivotal. GE's interest in Pivotal is in the form of a preferred equity instrument. Consequently, there is no net income attributable to non-controlling interest related to Pivotal on the consolidated income statements. Additionally, due to the terms of the preferred instrument, GE's non-controlling interest on the consolidated balance sheets is generally not impacted by Pivotal's equity related activity. The preferred equity instrument is convertible into common shares at GE's election at any time.

## C. Acquisitions

## 2014 Acquisitions

## Acquisition of AirWatch

On February 24, 2014, VMware acquired all of the outstanding capital stock of A.W.S. Holding, LLC ("AirWatch Holding"), the sole member and equity holder of AirWatch LLC ("AirWatch"). AirWatch is a leader in enterprise mobile management and security solutions. VMware acquired AirWatch to expand its solutions within the enterprise mobile and security space. The aggregate consideration paid for AirWatch was \$1,128 million, net of cash acquired, including cash of \$1,104 million and the fair value of assumed unvested equity attributed to pre-combination services totaling \$24 million.

Merger consideration totaling \$300 million is payable to certain employees of AirWatch subject to specified future employment conditions and will be recognized as expense over the requisite service period. Compensation expense totaling \$141 million was recognized from the date of acquisition through December 31, 2014.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The following table summarizes the allocation of the consideration to the fair value of the assets acquired and net liabilities assumed, net of cash acquired (table in millions):

Other current assets	\$61	
Intangible assets:		
Purchased technology (weighted-average useful life of 6 years)	118	
Customer relationships and customer lists (weighted-average useful life of 8 years)	78	
Trademarks and tradenames (weighted-average useful life of 8 years)	40	
Other (weighted-average useful life of 3 years)	14	
Total intangible assets, net, excluding goodwill	250	
Goodwill	868	
Other assets	30	
Total assets acquired	1,209	
Unearned revenue	(45)	)
Other assumed liabilities, net of acquired assets	(72)	)
Total net liabilities assumed	(117)	)
Fair value of assets acquired and net liabilities assumed	\$1,092	

These VMware intangible assets are being amortized on a straight-line basis. Goodwill is calculated as the excess of the consideration over the fair value of the net assets, including intangible assets, recognized and primarily related to expected synergies from the transaction. The majority of the goodwill and identifiable intangible assets are expected to be deductible for U.S. federal income tax purposes. The results of this acquisition have been included in the consolidated financial statements from the date of purchase. Pro forma results of operations have not been presented as the results of the acquired company were not material to our consolidated results of operations for the year ended 2014 or 2013.

## Other 2014 Acquisitions

During the year ended December 31, 2014, EMC acquired seven businesses which were not material either individually or in the aggregate to our 2014 results. Complementing the Information Storage segment, we acquired the controlling interest in VCE, a joint venture with Cisco, which delivers through Vblock infrastructure platforms an integrated IT offering that combines network, computing, storage, management, security and virtualization technologies for converged infrastructures and cloud based computing models; all of the outstanding capital stock of DSSD, Inc., a developer of an innovative new rack-scale flash storage architecture for I/O-intensive in-memory databases and Big Data workloads; and TwinStrata, Inc., a provider of advanced tiering cloud technology. We also acquired all of the outstanding capital stock of The Cloudscaling Group, Inc., a leading provider of OpenStack Powered Infrastructure-as-a-Service (“IaaS”) for private and hybrid cloud solutions; Maginatics, Inc., a cloud technology provider offering a highly consistent global namespace accessible from any device or location; and Spanning Cloud Apps, Inc., a leading provider of subscription-based backup and recovery for cloud based applications and data.

Complementing our RSA Information Security segment, we acquired Simplified, Inc., a provider of a comprehensive cloud identity solution that helps service-oriented IT organizations simplify user access, regain visibility and control over application usage and meet security and compliance requirements.

In addition to the acquisition of AirWatch, during the year ended December 31, 2014, VMware completed three business combinations which were not material either individually or in the aggregate. VMware acquired all of the outstanding common stock of CloudVolumes, Inc., a provider of real-time application delivery technology that

enables enterprises to deliver native applications to virtualized environments on-demand. Additionally, in the fourth quarter of 2014, VMware completed two other immaterial business combinations.

The aggregate consideration for these ten acquisitions, excluding AirWatch, was \$1,515 million, which consisted of \$1,404 million of cash consideration, net of cash acquired and \$10 million for the fair value of assumed unvested equity attributed to pre-combination services. In connection with these acquisitions, we recognized a \$101 million gain on previously held interests in strategic investments and joint ventures which was recognized in other expense, net in the consolidated income statements in 2014. The consideration was allocated to the fair value of the assets acquired and liabilities assumed based on estimated fair values as of the respective acquisition dates. The aggregate allocation to goodwill, intangibles, and net liabilities was approximately \$847 million, \$484 million and \$184 million, respectively.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The fair value of our stock options for all of the aforementioned acquisitions, excluding AirWatch, in 2014 was estimated using the following weighted-average assumptions:

Expected term (in years)	2.6	
Expected volatility	27.3	%
Risk-free interest rate	0.7	%
Dividend yield	1.7	%

The following represents the aggregate allocation of the purchase price for all of the aforementioned acquisitions, excluding AirWatch, to intangible assets (table in millions):

Purchased technology (weighted-average useful life of 6 years)	\$460
Customer relationships (weighted-average useful life of 5 years)	10
Trademarks and tradenames (weighted-average useful life of 4 years)	14
Total intangible assets	\$484

The total weighted-average amortization period for the intangible assets is 6 years. Most of our intangible assets are being amortized based upon the pattern in which the economic benefits of the intangible assets are being utilized; the remainder are amortized on a straight-line basis. Goodwill is calculated as the excess of the consideration over the fair value of the net assets, including intangible assets, and is primarily related to expected synergies from the transaction. The goodwill is not deductible for U.S. federal income tax purposes. The results of these acquisitions have been included in the consolidated financial statements from the date of purchase. Pro forma results of operations have not been presented as the results of the acquired companies were not material to our consolidated results of operations for the year ended December 31, 2014 or 2013.

## 2013 Acquisitions

During the year ended December 31, 2013, EMC acquired five businesses. Complementing the Information Storage segment, we acquired substantially all of the assets of Adaptivity, Inc., a provider of software solutions that automate and accelerate enterprise IT migration to the cloud and all of the outstanding capital stock of ScaleIO, a provider of server-side storage software. A member of our board of directors is an investor in a limited partnership which held an equity interest in ScaleIO. The director did not participate in any votes of the board of directors or any committee thereof approving the acquisition, and the terms of the acquisition were negotiated at arms' length.

Complementing the Enterprise Content Division segment, we also acquired all of the outstanding capital stock of Sitrof Technologies, a document management consultancy provider. Complementing the RSA Information Security segment, we acquired all of the outstanding common stock of Aveksa, Inc., a provider of cloud-based identity and access management solutions and PassBan Corporation, a developer of mobile and cloud-based multi-factor authentication technology. Complementing the Pivotal segment, Pivotal acquired all of the outstanding common stock of Xtreme Labs, a provider of mobile strategy and product development during the year ended December 31, 2013.

Additionally, during the year ended December 31, 2013, VMware acquired all of the outstanding common stock of two companies, which were not material either individually or in the aggregate, including Virsto Software, a provider of software that optimizes storage performance and utilization in virtual environments and Deskstone, Inc., a provider of desktop-as-a-service for delivering Windows desktops and applications as a cloud service.

The aggregate consideration for these eight acquisitions was \$771 million, which consisted of \$770 million of cash consideration, net of cash acquired, and \$1 million for the fair value of our stock options granted in exchange for the acquirees' stock options. The consideration paid was allocated to the fair value of the assets acquired and liabilities assumed based on estimated fair values as of the respective acquisition dates. The aggregate allocation to goodwill,



intangibles and net liabilities was approximately \$596 million, \$182 million and \$8 million, respectively. The results of these acquisitions have been included in the consolidated financial statements from the date of purchase.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The fair value of our stock options for all of the aforementioned acquisitions in 2013 was estimated using the following weighted-average assumptions:

Expected term (in years)	1.8	
Expected volatility	26.4	%
Risk-free interest rate	0.3	%
Dividend yield	1.5	%

The following represents the aggregate allocation of the purchase price for all of the aforementioned acquisitions to intangible assets (table in millions):

Developed technology (weighted-average useful life of 5 years)	\$ 138
Customer relationships (weighted-average useful life of 4 years)	34
In-process research and development	10
Total intangible assets	\$ 182

The total weighted-average amortization period for the intangible assets is 4 years. Most of our intangible assets are being amortized based upon the pattern in which the economic benefits of the intangible assets are estimated to be utilized and the remainder are amortized on a straight-line basis.

## 2012 Acquisitions

## Acquisition of Nicira

On August 24, 2012, VMware acquired all of the outstanding capital stock of Nicira, a developer of software-defined networking solutions. This acquisition expanded VMware's product portfolio to provide a suite of software-defined networking capabilities. The aggregate consideration paid for Nicira was \$1,100 million, net of cash acquired, including cash of \$1,083 million and the fair value of assumed equity attributed to pre-combination services of \$17 million. Additionally, VMware assumed all of Nicira's unvested stock options and restricted stock outstanding at the completion of the acquisition. The assumed unvested stock options converted into 1 million stock options to purchase VMware Class A common stock. The assumed restricted stock converted into 1 million shares of restricted VMware Class A common stock. The fair value of the restricted stock was based on the acquisition-date closing price of \$92.21 per share for VMware's Class A common stock.

The fair value of VMware's stock options for the acquisition of Nicira was estimated using the following weighted-average assumptions:

Expected term (in years)	2.7	
Expected volatility	35.7	%
Risk-free interest rate	0.3	%

The purchase price was allocated to the assets acquired and the liabilities assumed based on estimated fair values as of the acquisition date. The following table summarizes the allocation of the Nicira purchase price (table in millions):

Intangible assets:

Purchased technology (weighted-average useful life of 7 years)	\$ 266	
Trademarks and tradenames (weighted-average useful life of 10 years)	20	
In-process research and development	49	
Total intangible assets	335	
Goodwill	893	
Deferred tax liabilities, net	(77)	)

Income tax payable	(50	)
Other assumed liabilities, net of acquired assets	(1	)
Total purchase price	\$1,100	

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EMC CORPORATION  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

In-process Research and Development

In connection with the Nicira acquisition, we acquired one in-process research and development (“IPR&D”) project which was completed by the end of 2012 and is being amortized over its estimated useful life of 8 years.

Other 2012 Acquisitions

During the year ended December 31, 2012, EMC acquired eleven businesses. Complementing the Information Storage segment, we acquired all of the outstanding capital stock of Pivotal Labs, a provider of services and technology to build Big Data applications; Likewise Software, a provider of technology for managing cross-platform access to data files and software for managing unstructured data; XtremIO, a provider of Flash enterprise storage systems; Watch4Net, a provider of enterprise and carrier-class performance management software; Tiburon Technologies, a provider of support and modernization services for legacy database management systems; More VRP Resources, a provider of database performance and monitoring software; and iWave Software, a provider of storage and cloud automation software solutions.

Complementing our Enterprise Content Division, we acquired all of the outstanding capital stock of Syncplicity, a provider of cloud-based sync and share file management and Trinity Technologies, a provider of enterprise content management consulting and development services. Complementing our RSA Information Security segment, we acquired Silicium Security, a provider of enterprise malware detection solutions and Silver Tail Systems, a provider of web fraud detection.

Additionally, during the year ended December 31, 2012, VMware acquired five companies, in addition to the acquisition of Nicira, which were not material either individually or in the aggregate. In connection with these acquisitions, we recognized a \$32 million gain on previously held interests in strategic investments which was recognized in other expense, net in the consolidated statements of income in 2012.

The aggregate consideration for these sixteen acquisitions, excluding Nicira, was \$1,060 million which consisted of \$1,053 million of cash consideration, net of cash acquired, and \$7 million for the fair value of our stock options granted in exchange for the acquirees’ stock options. The consideration paid was allocated to the fair value of the assets acquired and liabilities assumed based on estimated fair values as of the respective acquisition dates.

The aggregate allocation to goodwill, intangibles and net liabilities, excluding Nicira, was approximately \$819 million, \$311 million and \$70 million, respectively. The results of these acquisitions have been included in the consolidated financial statements from the date of purchase.

The fair value of our stock options for all of the aforementioned acquisitions, excluding Nicira, in 2012 was estimated assuming no expected dividends and the following weighted-average assumptions:

Expected term (in years)	1.9	
Expected volatility	31.6	%
Risk-free interest rate	0.3	%

The following represents the aggregate allocation of the purchase price for all of the aforementioned acquisitions, excluding Nicira, to intangible assets (table in millions):

Developed technology (weighted-average useful life of 5 years)	\$255
Customer relationships (weighted-average useful life of 6 years)	54
Trademarks and tradenames (weighted-average useful life of 3 years)	2
Total intangible assets	\$311

The total weighted-average amortization period for the intangible assets is 5 years. Most of our intangible assets are being amortized based upon the pattern in which the economic benefits of the intangible assets are estimated to be utilized and the remainder are amortized on a straight-line basis.

EMC CORPORATION  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

## D. Intangibles and Goodwill

## Intangible Assets

Intangible assets, excluding goodwill, as of December 31, 2014 and 2013 consist of (tables in millions):

	December 31, 2014		
	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Purchased technology	\$2,935	\$(1,668)	) \$1,267
Patents	225	(117)	) 108
Software licenses	108	(93)	) 15
Trademarks and tradenames	226	(136)	) 90
Customer relationships and customer lists	1,473	(974)	) 499
Leasehold interest	152	(16)	) 136
Other	44	(34)	) 10
Total intangible assets, excluding goodwill	\$5,163	\$(3,038)	) \$2,125
	December 31, 2013		
	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Purchased technology	\$2,356	\$(1,429)	) \$927
Patents	225	(102)	) 123
Software licenses	101	(90)	) 11
Trademarks and tradenames	171	(118)	) 53
Customer relationships and customer lists	1,386	(855)	) 531
Leasehold interest	145	(11)	) 134
Other	28	(27)	) 1
Total intangible assets, excluding goodwill	\$4,412	\$(2,632)	) \$1,780

Amortization expense on intangibles was \$402 million, \$389 million and \$365 million in 2014, 2013 and 2012, respectively. As of December 31, 2014, amortization expense on intangible assets for the next five years is expected to be as follows (table in millions):

2015	\$390
2016	336
2017	309
2018	290
2019	241
Total	\$1,566

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

## Goodwill

Changes in the carrying amount of goodwill, net, on a consolidated basis and by segment, for the year ended December 31, 2014 consists of the following (table in millions):

	Year Ended December 31, 2014					
	Information Storage	Enterprise Content Division	RSA Information Security	Pivotal	VMware Virtual Infrastructure	Total
Balance, beginning of the year	\$7,486	\$1,487	\$2,203	\$177	\$3,071	\$14,424
Goodwill resulting from acquisitions	774	—	—	—	941	1,715
Finalization of purchase price allocations and other, net	—	(1 )	—	—	(4 )	(5 )
Goodwill transferred in acquisition of Pivotal businesses	6	—	—	(6 )	—	—
Balance, end of the year	\$8,266	\$1,486	\$2,203	\$171	\$4,008	\$16,134

The transfer of goodwill pursuant to the Information Storage segment acquisition of the Data Computing Appliance and implementation services businesses from the Pivotal segment is shown above for the year ended December 31, 2014. The amount of transferred goodwill was determined using the relative fair value method. See Note S for further discussion of the segment disclosures.

Changes in the carrying amount of goodwill, net, on a consolidated basis and by segment, for the year ended December 31, 2013 consists of the following (table in millions):

	Year Ended December 31, 2013					
	Information Storage	Enterprise Content Division	RSA Information Security	Pivotal	VMware Virtual Infrastructure	Total
Balance, beginning of the year	\$7,442	\$1,484	\$2,022	\$—	\$2,892	\$13,840
Goodwill resulting from acquisitions	145	1	181	37	233	597
Finalization of purchase price allocations and other, net	11	2	—	—	(26 )	(13 )
Goodwill transferred in formation of Pivotal	(112 )	—	—	140	(28 )	—
Balance, end of the year	\$7,486	\$1,487	\$2,203	\$177	\$3,071	\$14,424

EMC and VMware formed Pivotal, with an investment from GE, during 2013. As Pivotal is considered a separate reportable segment, the transfer of goodwill from the Information Storage and VMware Virtual Infrastructure segments to the newly formed Pivotal segment is shown above for 2013. The amount of transferred goodwill was determined using the relative fair value method.

## Valuation of Goodwill and Intangibles

We perform an assessment of the recoverability of goodwill, at least annually, in the fourth quarter of each year. Our assessment is performed at the reporting unit level which, for certain of our operating segments, is one step below our reporting segment level. We employ both qualitative and quantitative tests of our goodwill. For some of our reporting units, we performed a qualitative assessment on goodwill to determine whether a quantitative assessment was necessary and determined there were no indicators of potential impairment. For other reporting units we evaluated goodwill using a quantitative model. For all of our goodwill assessments, we concluded that there was sufficient market value above the carrying value of those reporting units so that we would not expect any near term changes in the operating results that would trigger an impairment. Accordingly, there was no impairment in 2014, 2013 or 2012.

The determination of relevant comparable industry companies impacts our assessment of fair value. Should the operating performance of our reporting units change in comparison to these companies or should the valuation of these companies change, this could impact our assessment of the fair value of the reporting units. Our discounted cash flow analyses factor in assumptions on revenue and expense growth rates. These estimates are based upon our historical experience and projections of future activity, factoring in customer demand, changes in technology and a cost structure necessary to achieve the related revenues. Additionally, these discounted cash flow analyses factor in expected amounts of working capital and weighted average cost of capital. Changes in judgments on any of these factors could materially impact the value of the reporting unit.



EMC CORPORATION  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Other intangible assets are evaluated based upon the expected period the asset will be utilized, forecasted cash flows, changes in technology and customer demand. Changes in judgments on any of these factors could materially impact the value of the assets.

E. Debt

Long-Term Debt

In June 2013, we issued \$5.5 billion aggregate principal amount of senior notes (collectively, the “Notes”) which pay a fixed rate of interest semi-annually in arrears. The first interest payment occurred on December 2, 2013. The proceeds from the Notes have been used to satisfy the cash payment obligation of the converted 2013 Notes as well as for general corporate purposes including stock repurchases, dividend payments, business acquisitions, working capital needs and other business opportunities. The Notes of each series are senior, unsecured obligations of EMC and are not convertible or exchangeable. Unless previously purchased and canceled, we will repay the Notes of each series at 100% of the principal amount, together with accrued and unpaid interest thereon, at maturity. However, EMC has the right to redeem any or all of the Notes at specified redemption prices. As of December 31, 2014, we were in compliance with all debt covenants, which are customary in nature.

Our long-term debt as of December 31, 2014 was as follows (dollars in millions):

Senior Notes	Issued at Discount to Par		Carrying Value
\$2.5 billion 1.875% Notes due 2018	99.943	%	\$2,499
\$2.0 billion 2.650% Notes due 2020	99.760	%	1,996
\$1.0 billion 3.375% Notes due 2023	99.925	%	1,000
			\$5,495

The unamortized discount on the Notes consists of \$5 million, which will be fully amortized by June 1, 2023. The effective interest rate on the Notes was 2.54% for the year ended December 31, 2014.

Convertible Debt

In November 2006, we issued our \$1.725 billion 1.75% convertible senior notes due 2011 (the “2011 Notes”) and our 2013 Notes for total gross proceeds of \$3.5 billion. The 2011 Notes matured and were settled in 2012. At that time, we paid the noteholders \$1.7 billion in cash for the outstanding principal and 30 million shares for the \$661 million in excess of the conversion value over the principal amount, as prescribed by the terms of the 2011 Notes.

The 2013 Notes matured and a majority of the noteholders exercised their rights to convert the outstanding 2013 Notes as of December 31, 2013. Pursuant to the settlement terms, the majority of the converted 2013 Notes were not settled until January 7, 2014. At that time, we paid the noteholders \$1.7 billion in cash for the outstanding principal and 35 million shares for the \$858 million excess of the conversion value over the principal amount, as prescribed in the terms of the 2013 Notes.

With respect to the conversion value in excess of the principal amount of the 2013 Notes converted, we elected to settle the excess with shares of our common stock based on a daily conversion value, determined in accordance with the indenture, calculated on a proportionate basis for each day of the relevant 20-day observation period. The actual conversion rate for the 2013 Notes was 62.6978 shares of our common stock per one thousand dollars of principal amount of 2013 Notes, which represents a 26.5% conversion premium from the date the 2013 Notes were issued and

is equivalent to a conversion price of approximately \$15.95 per share of our common stock.

The 2013 Notes paid interest in cash at a rate of 1.75% semi-annually in arrears on December 1 and June 1 of each year. The effective interest rate on the 2011 Notes and 2013 Notes was 5.6% for both the years ended December 31, 2013 and 2012.

The following table represents the key components of our interest expense on convertible debt (table in millions):

	For the year ended	
	2013	2012
Contractual interest expense on the coupon	\$27	\$30
Amortization of the discount component recognized as interest expense	58	61
Total interest expense on the convertible debt	\$85	\$91

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

In connection with the issuance of the 2011 Notes and 2013 Notes, we entered into separate convertible note hedge transactions with respect to our common stock (the "Purchased Options"). The Purchased Options allowed us to receive shares of our common stock and/or cash related to the excess conversion value that we would pay to the holders of the 2011 Notes and 2013 Notes upon conversion. The Purchased Options covered, subject to customary anti-dilution adjustments, approximately 215 million shares of our common stock. We paid an aggregate amount of \$669 million of the proceeds from the sale of the 2011 Notes and 2013 Notes for the Purchased Options that was recorded as additional paid-in-capital in shareholders' equity. In 2011, we exercised approximately half of the Purchased Options and in 2013, we exercised the remaining 108 million of the Purchased Options in conjunction with the planned settlements of the 2013 Notes. We received 35 million shares of net settlement on January 7, 2014, representing the excess conversion value of the options.

We also entered into separate transactions in which we sold warrants to acquire, subject to customary anti-dilution adjustments, approximately 215 million shares of our common stock at an exercise price of approximately \$19.55 per share of our common stock. We received aggregate proceeds of \$391 million from the sale of the associated warrants. Upon exercise, the value of the warrants was required to be settled in shares. Approximately half of the associated warrants were exercised in 2012 and the remaining 109 million associated warrants were exercised between February 18, 2014 and March 17, 2014 and were settled with 29 million shares of our common stock.

The Purchased Options and associated warrants had the effect of increasing the conversion price of the 2013 Notes to approximately \$19.31 per share of our common stock, representing an approximate 53% conversion premium based on the closing price of \$12.61 per share of our common stock on November 13, 2006, which was the issuance date of the 2013 Notes.

#### Interest Rate Swap Contracts

In 2010, EMC entered into interest rate swap contracts with an aggregate notional amount of approximately \$900 million. These swaps were designated as cash flow hedges of the semi-annual interest payments of the forecasted issuance of debt in 2011. As such, the unrealized loss on these hedges was recognized in other comprehensive loss. During 2011 and 2012, we settled the swaps and replaced them with new interest rate swap contracts for revised forecasted debt issuance dates. Each of these new swaps was deemed as an effective hedge as the notional amounts and other terms matched the underlying hedged item and accordingly, losses on the interest rate swap contracts were deferred as they were expected to be realized over the life of the new debt issued under the related interest rate swap contracts. In 2012, the change in the forecasted timeframe for the issuance of debt resulted in certain previously-anticipated hedge interest payments no longer being expected to occur within the window covered by the hedge designation. As a result, \$40 million of accumulated realized losses in other comprehensive income related to these previously-anticipated interest payments were reclassified from other comprehensive income and recognized in the 2012 consolidated income statements.

In the second half of 2012, we settled the interest rate swap contracts and did not replace them. Accumulated losses at the time of settlement of \$176 million were deferred as they were expected to be realized over the life of the new debt issued under the related interest rate swap contracts. The accumulated realized losses related to the settled swaps included in accumulated other comprehensive income are being realized over the remaining life of our ten year Notes. During 2014, \$11 million in losses were reclassified from other comprehensive income and recognized as interest expense in the consolidated income statements.

#### F. Fair Value of Financial Assets and Liabilities

Our fixed income and equity investments are classified as available for sale and recorded at their fair market values. We determine fair value using the following hierarchy:

Level 1 – Quoted prices in active markets for identical assets or liabilities.

Level 2 – Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Most of our fixed income securities are classified as Level 2, with the exception of some of our U.S. government and agency obligations and our investments in publicly traded equity securities, which are classified as Level 1, and all of our auction rate securities, which are classified as Level 3. In addition, our strategic investments held at cost are classified as Level 3. At December 31, 2014 and 2013, the vast majority of our Level 2 securities were priced by pricing vendors. These pricing vendors

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

utilize the most recent observable market information in pricing these securities or, if specific prices are not available for these securities, use other observable inputs like market transactions involving identical or comparable securities. In the event observable inputs are not available, we assess other factors to determine the security's market value, including broker quotes or model valuations. Each month, we perform independent price verifications of all of our fixed income holdings. In the event a price fails a pre-established tolerance check, it is researched so that we can assess the cause of the variance to determine what we believe is the appropriate fair market value.

In general, investments with remaining effective maturities of 12 months or less from the balance sheet date are classified as short-term investments. Investments with remaining effective maturities of more than 12 months from the balance sheet date are classified as long-term investments. Our publicly traded equity securities are classified as long-term investments and our strategic investments held at cost are classified as other assets. As a result of the lack of liquidity for auction rate securities, we have classified these as long-term investments as of December 31, 2014 and 2013. At December 31, 2014 and 2013, all of our short- and long-term investments, excluding auction rate securities, were recognized at fair value, which was determined based upon observable inputs from our pricing vendors for identical or similar assets. At December 31, 2014 and 2013, auction rate securities were valued using a discounted cash flow model.

The following tables summarize the composition of our short- and long-term investments at December 31, 2014 and 2013 (tables in millions):

	December 31, 2014			
	Amortized	Unrealized	Unrealized	Aggregate
	Cost	Gains	(Losses)	Fair Value
U.S. government and agency obligations	\$1,951	\$2	\$(2)	) \$1,951
U.S. corporate debt securities	1,998	1	(4)	) 1,995
High yield corporate debt securities	570	9	(16)	) 563
Asset-backed securities	53	—	—	53
Municipal obligations	948	2	—	950
Auction rate securities	29	—	(2)	) 27
Foreign debt securities	2,566	2	(4)	) 2,564
Total fixed income securities	8,115	16	(28)	) 8,103
Publicly traded equity securities	117	103	(11)	) 209
Total	\$8,232	\$119	\$(39)	) \$8,312
	December 31, 2013			
	Amortized	Unrealized	Unrealized	Aggregate
	Cost	Gains	(Losses)	Fair Value
U.S. government and agency obligations	\$3,726	\$4	\$(3)	) \$3,727
U.S. corporate debt securities	2,260	8	(2)	) 2,266
High yield corporate debt securities	515	19	(3)	) 531
Municipal obligations	860	3	—	863
Auction rate securities	63	—	(3)	) 60
Foreign debt securities	2,152	6	(3)	) 2,155
Total fixed income securities	9,576	40	(14)	) 9,602
Publicly traded equity securities	72	24	(1)	) 95
Total	\$9,648	\$64	\$(15)	) \$9,697

We held approximately \$2,564 million in foreign debt securities at December 31, 2014. These securities have an average credit rating of A+, and approximately 5% of these securities are deemed sovereign debt with an average credit rating of AA+. None of the securities deemed sovereign debt are from Argentina, Greece, Italy, Ireland, Portugal, Spain or Cyprus.



## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The following tables represent our fair value hierarchy for our financial assets and liabilities measured at fair value as of December 31, 2014 and 2013 (in millions):

	December 31, 2014			Total
	Level 1	Level 2	Level 3	
Cash	\$2,022	\$—	\$—	\$2,022
Cash equivalents	3,710	611	—	4,321
U.S. government and agency obligations	1,141	810	—	1,951
U.S. corporate debt securities	—	1,995	—	1,995
High yield corporate debt securities	—	563	—	563
Asset-backed securities	—	53	—	53
Municipal obligations	—	950	—	950
Auction rate securities	—	—	27	27
Foreign debt securities	—	2,564	—	2,564
Publicly traded equity securities	209	—	—	209
Total cash and investments	\$7,082	\$7,546	\$27	\$14,655
Other items:				
Strategic investments carried at cost	\$—	\$—	\$333	\$333
Investment in joint venture	—	—	37	37
Long-term debt carried at discounted issuance cost	—	(5,544)	—	(5,544)
Foreign exchange derivative assets	—	44	—	44
Foreign exchange derivative liabilities	—	(71)	—	(71)
Commodity derivative assets	—	12	—	12
	December 31, 2013			Total
	Level 1	Level 2	Level 3	
Cash	\$1,725	\$—	\$—	\$1,725
Cash equivalents	5,674	492	—	6,166
U.S. government and agency obligations	1,797	1,930	—	3,727
U.S. corporate debt securities	—	2,266	—	2,266
High yield corporate debt securities	—	531	—	531
Municipal obligations	—	863	—	863
Auction rate securities	—	—	60	60
Foreign debt securities	—	2,155	—	2,155
Publicly traded equity securities	95	—	—	95
Total cash and investments	\$9,291	\$8,237	\$60	\$17,588
Other items:				
Strategic investments carried at cost	\$—	\$—	\$379	\$379
Investment in joint venture	—	—	35	35
Long-term debt carried at discounted issuance cost	—	(5,419)	—	(5,419)
Foreign exchange derivative assets	—	31	—	31
Foreign exchange derivative liabilities	—	(20)	—	(20)
Commodity derivative assets	—	4	—	4

Our auction rate securities are predominantly rated investment grade and are primarily collateralized by student loans. The underlying loans of all but one of our auction rate securities, with a market value of \$7 million, have partial guarantees by the U.S. government as part of the Federal Family Education Loan Program (“FFELP”) through the U.S.

Department of Education. FFELP guarantees at least 95% of the loans which collateralize the auction rate securities. We believe the quality of the collateral underlying most of our auction rate securities will enable us to recover our principal balance.

To determine the estimated fair value of our investment in auction rate securities, we used a discounted cash flow model using a five year time horizon. As of December 31, 2014, the coupon rates used ranged from 0% to 3% and the discount rate was 1%,

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## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

which rate represents the rate at which similar FFELP backed securities with a five year time horizon outside of the auction rate securities market were trading at December 31, 2014. The assumptions used in preparing the discounted cash flow model include an incremental discount rate for the lack of liquidity in the market (“liquidity discount margin”) for an estimated period of time. The discount rate we selected was based on AA-rated banks as the majority of our portfolio is invested in student loans where EMC acts as a financier to these lenders. The liquidity discount margin represents an estimate of the additional return an investor would require for the lack of liquidity of these securities over an estimated five-year holding period. The rate used for the discount margin was 1% at both December 31, 2014 and 2013, due to the narrowing of credit spreads on AA-rated banks during 2013 and into 2014.

Significant changes in the unobservable inputs discussed above could result in a significantly lower or higher fair value measurement. Generally, an increase in the discount rate, liquidity discount margin or coupon rate results in a decrease in our fair value measurement and a decrease in the discount rate, liquidity discount margin or coupon rate results in an increase in our fair value measurement.

During the year ended December 31, 2014, we had \$34 million of auction rate securities called and during the year ended December 31, 2013, we sold \$8 million of our auction rate securities.

EMC has a 49% ownership percentage of LenovoEMC Limited, a joint venture with Lenovo that was formed in 2012. We account for our LenovoEMC joint venture using the fair value method of accounting. To determine the estimated fair value at inception of our investment, we used a discounted cash flow model using a three year time horizon, and utilized a discount rate of 6%, which represented the incremental borrowing rate for a market participant. The assumptions used in preparing the discounted cash flow model include an analysis of estimated Lenovo NAS revenue against a prescribed target as well as consideration of the purchase price put and call features included in the joint venture agreement. The put and call features create a floor and a cap on the fair value of the investment. As such, there is a limit to the impact on the fair value that would result from significant changes in the unobservable inputs. We had no changes to the assumptions utilized in the fair value calculation in the fourth quarter of 2014. There was no material change to the fair value of this joint venture during the years ended December 31, 2014 and 2013.

The carrying value of the strategic investments carried at cost were accounted for under the cost method. As part of our quarterly impairment review, we perform a fair value calculation of our strategic investments carried at cost using the most currently available information. To determine the estimated fair value of private strategic investments carried at cost, we use a combination of several valuation techniques including discounted cash flow models, acquisition and trading comparables. In addition, we evaluate the impact of pre- and post-money valuations of recent financing events and the impact of those on our fully diluted ownership percentages, and we consider any available information regarding the issuer’s historical and forecasted performance as well as market comparables and conditions. The fair value of these investments is considered in our review for impairment if any events and changes in circumstances occur that might have a significant adverse effect on their value.

## Investment Losses

Unrealized losses on investments at December 31, 2014 and 2013 by investment category and length of time the investment has been in a continuous unrealized loss position are as follows (table in millions):

December 31, 2014	Less Than 12 Months		12 Months or Greater		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
U.S. government and agency obligations	\$1,168	\$(2 )	\$—	\$—	\$1,168	\$(2 )
U.S. corporate debt securities	1,383	(4 )	—	—	1,383	(4 )

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High yield corporate debt securities	244	(16	) —	—	244	(16	)
Auction rate securities	—	—	27	(2	) 27	(2	)
Foreign debt securities	1,563	(4	) —	—	1,563	(4	)
Publicly traded equity securities	17	(9	) 3	(2	) 20	(11	)
Total	\$4,375	\$(35	) \$30	\$(4	) \$4,405	\$(39	)

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## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

December 31, 2013	Less Than 12 Months		12 Months or Greater		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
U.S. government and agency obligations	\$1,161	\$(3 )	\$20	\$—	\$1,181	\$(3 )
U.S. corporate debt securities	532	(2 )	17	—	549	(2 )
High yield corporate debt securities	120	(3 )	—	—	120	(3 )
Municipal obligations	51	—	—	—	51	—
Auction rate securities	—	—	60	(3 )	60	(3 )
Foreign debt securities	695	(3 )	6	—	701	(3 )
Publicly traded equity securities	—	—	25	(1 )	25	(1 )
Total	\$2,559	\$(11 )	\$128	\$(4 )	\$2,687	\$(15 )

For all of our securities for which the amortized cost basis was greater than the fair value at December 31, 2014 and 2013, we have concluded that currently we neither plan to sell the security nor is it more likely than not that we would be required to sell the security before its anticipated recovery. In making the determination as to whether the unrealized loss is other-than-temporary, we considered the length of time and extent the investment has been in an unrealized loss position, the financial condition and near-term prospects of the issuers, the issuers' credit rating and the time to maturity.

During 2014, net realized gains of \$101 million were recorded in other expense, net on the consolidated income statements for gains related to previously held interests in strategic investments and joint venture. During 2012, a realized gain of \$32 million was recorded in other expense, net on the consolidated income statements for a gain related to previously held interests in strategic investments.

## Contractual Maturities

The contractual maturities of fixed income securities held at December 31, 2014 are as follows (table in millions):

	December 31, 2014	
	Amortized Cost Basis	Aggregate Fair Value
Due within one year	\$1,946	\$1,946
Due after 1 year through 5 years	5,332	5,330
Due after 5 years through 10 years	548	540
Due after 10 years	289	287
Total	\$8,115	\$8,103

Short-term investments on the consolidated balance sheet include \$32 million in variable rate notes which have contractual maturities in 2015, and are not classified within investments due within one year above.

## G. Inventories

Inventories consist of (table in millions):

	December 31, 2014	December 31, 2013
Work-in-process	\$627	\$696
Finished goods	649	638
	\$1,276	\$1,334

## H. Accounts and Notes Receivable and Allowance for Credit Losses

Accounts and notes receivable are recorded at cost. The portion of our notes receivable due in one year or less are included in accounts and notes receivable and the long-term portion is included in other assets, net on the consolidated balance sheets. Lease receivables arise from sales-type leases of products. We typically sell, without recourse, the contractual right to the lease payment stream and assets under lease to third parties. For certain customers, we retain the lease.



## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The contractual amounts due under the leases we retained as of December 31, 2014 were as follows (table in millions):

Year	Contractual Amounts Due Under Leases
Due within one year	\$97
Due within two years	73
Due within three years	62
Thereafter	1
Total	233
Less amounts representing interest	(5 )
Present value	228
Current portion (included in accounts and notes receivable)	94
Long-term portion (included in other assets, net)	\$134

Subsequent to December 31, 2014, we sold \$54 million of these notes to third parties without recourse.

We maintain an allowance for credit losses on our accounts and notes receivable. The allowance is based on the credit worthiness of our customers, including an assessment of the customer's financial position, operating performance and their ability to meet their contractual obligation. We assess the creditworthiness for our customers each quarter. In addition, we consider our historical experience, the age of the receivable and current market and economic conditions. Uncollectible amounts are charged against the allowance account.

In the event we determine that a lease may not be paid, we include in our allowance an amount for the outstanding balance related to the lease receivable. As of December 31, 2014, amounts from lease receivables past due for more than 90 days were not significant.

The following table presents the activity of our allowance for credit losses related to lease receivables for the years ended December 31, 2014 and 2013 (table in millions):

	December 31, 2014	December 31, 2013
Balance, beginning of the period	\$9	\$17
Recoveries	(7 )	(12 )
Provisions	4	4
Balance, end of the period	\$6	\$9

Gross lease receivables totaled \$233 million and \$252 million in 2014 and 2013, respectively, before the allowance. The components of these balances were individually evaluated for impairment and included in our allowance determination as necessary.

#### I. Property, Plant and Equipment

Property, plant and equipment consist of (table in millions):

	December 31, 2014	December 31, 2013
Furniture and fixtures	\$255	\$229
Equipment and software	6,684	5,973
Buildings and improvements	2,308	2,089
Land	162	132
Building construction in progress	134	215
	9,543	8,638
Accumulated depreciation	(5,777 )	(5,160 )
	\$3,766	\$3,478

Depreciation expense was \$998 million, \$867 million and \$780 million in 2014, 2013 and 2012, respectively. Building construction in progress at December 31, 2014 includes \$76 million for facilities not yet placed in service that we are holding for future use.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

## J. Joint Venture

We make investments in joint ventures. For each joint venture investment we consider the facts and circumstances in order to determine whether it qualifies for cost accounting, equity accounting, fair value method accounting or whether it should be consolidated.

In 2009, Cisco and EMC formed VCE Company LLC ("VCE"), with investments from VMware and Intel. VCE, through Vblock infrastructure platforms, delivers an integrated IT offering that combines network, computing, storage, management, security and virtualization technologies for converged infrastructures and cloud based computing models. As of December 31, 2014, we had contributed \$1,555 million in funding and \$17 million in stock-based compensation to VCE since inception.

In December 2014, EMC acquired the controlling interest in VCE. Prior to the acquisition of the controlling interest in VCE, we considered VCE a variable interest entity. Authoritative guidance related to variable interest entities states that the primary beneficiary of a variable interest entity must have both of the following characteristics: (a) the power to direct the activities of a variable interest entity that most significantly will impact the entity's economic performance; and (b) the obligation to absorb losses that could be potentially significant to the variable interest entity or the right to receive benefits from the entity that could potentially be significant to the variable interest entity. Since the power to direct the activities of VCE which most significantly impact its economic performance was determined by its board of directors, which was comprised of equal representation of EMC and Cisco, and all significant decisions required the approval of the minority shareholders, we determined that prior to acquiring the controlling interest, we were not the primary beneficiary, and as such we accounted for the investment under the equity method. Since the date of acquiring the controlling interest in VCE, we have consolidated VCE's financial results as part of EMC's consolidated financial statements.

Prior to the date of acquisition and the consolidation of VCE, our portion of VCE's gains and losses were recognized in other expense, net, in the consolidated income statements. Our consolidated share of VCE's losses, based upon our portion of the overall funding, was approximately 64% for the year ended December 31, 2014 and 63% for each of the years ended December 31, 2013 and 2012. As of December 31, 2014, we had recorded net accumulated losses from VCE of \$1,153 million since inception, of which \$357 million, \$298 million and \$245 million were recorded in 2014, 2013 and 2012, respectively.

We recognized \$803 million, \$439 million and \$286 million in revenue from sales of product and services to VCE during the years ended December 31, 2014, 2013 and 2012, respectively. In addition, we performed certain administrative services, pursuant to an administrative services agreement, on behalf of VCE and we paid certain operating expenses on behalf of VCE.

## K. Accrued Expenses

Accrued expenses consist of (table in millions):

	December 31, 2014	December 31, 2013
Salaries and benefits	\$1,260	\$1,078
Product warranties	210	289
Dividends payable (see Note O)	237	205
Partner rebates	235	214
Restructuring, current (See Note Q)	115	84
Derivatives	75	23
Other	1,009	890
	\$3,141	\$2,783





## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

## Product Warranties

Systems sales include a standard product warranty. At the time of the sale, we accrue for systems' warranty costs. The initial systems' warranty accrual is based upon our historical experience, expected future costs and specific identification of systems' requirements. Upon sale or expiration of the initial warranty, we may sell additional maintenance contracts to our customers. Revenue from these additional maintenance contracts is included in deferred revenue and recognized ratably over the service period. The following represents the activity in our warranty accrual for the years ended December 31, 2014, 2013 and 2012 (table in millions):

	Year Ended December 31,		
	2014	2013	2012
Balance, beginning of the period	\$289	\$278	\$255
Provision	150	198	182
Amounts charged to the accrual	(229 )	(187 )	(159 )
Balance, end of the period	\$210	\$289	\$278

The provision includes amounts accrued for systems at the time of shipment, adjustments for changes in estimated costs for warranties on systems shipped in the period and changes in estimated costs for warranties on systems shipped in prior periods. It is not practicable to determine the amounts applicable to each of the components.

## L. Income Taxes

Our provision (benefit) for income taxes consists of (table in millions):

	2014	2013	2012
Federal:			
Current	\$955	\$698	\$792
Deferred	(308 )	(163 )	(80 )
	647	535	712
State:			
Current	81	84	74
Deferred	(70 )	(23 )	(12 )
	11	61	62
Foreign:			
Current	228	192	169
Deferred	(18 )	(16 )	(25 )
	210	176	144
Total provision for income taxes	\$868	\$772	\$918

In 2014, 2013 and 2012, we were able to utilize net operating loss carryforwards and tax credit carryforwards to reduce the current portion of our tax provision by \$34 million, \$54 million and \$59 million, respectively.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The effective income tax rate is based upon income for the year, composition of the income in different countries, effect of tax law changes and adjustments, if any, for potential tax consequences, benefits and/or resolutions of tax audits or other tax contingencies. A reconciliation of our income tax provision to the statutory federal tax rate is as follows:

	2014		2013		2012	
Statutory federal tax rate	35.0		% 35.0		% 35.0	%
State taxes, net of federal taxes	2.6		0.7		0.5	
Resolution of uncertain tax positions	(0.9	)	(0.9	)	(0.5	)
Tax rate differential for international jurisdictions and other international related tax items	(11.3	)	(15.0	)	(13.6	)
U.S. tax credits	(1.9	)	(3.8	)	(0.2	)
Change in valuation allowance	(2.3	)	0.7		0.8	
U.S. domestic production activities deduction	(1.8	)	(1.5	)	(1.3	)
International reorganization of acquired companies	—		0.6		0.3	
Permanent items	3.9		3.8		2.8	
Other	(0.2	)	0.4		0.3	
	23.1		% 20.0		% 24.1	%

Substantially all the tax rate differential for international jurisdictions was driven by earnings of our Irish subsidiaries. Changes in valuation allowance are due to our assessment of the realizability of deferred tax assets related to certain state tax credit carryforwards. Based on our 2014 assessment, we released our partial valuation allowance provided in prior years.

On December 19, 2014, the Tax Increase Prevention Act was signed into law. Some of the provisions were retroactive to January 1, 2014 including an extension of the U.S. federal tax credit for increasing research activities through December 31, 2014. Our 2014 effective income tax rate reflects our estimated 2014 federal tax credit for increasing research activities.

On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law. Some of the provisions were retroactive to January 1, 2012 including an extension of the U.S. federal tax credit for increasing research activities through December 31, 2013. Because the extension was enacted after December 31, 2012, our 2012 effective income tax rate did not reflect our 2012 federal tax credit for increasing research activities even though it was reported on our 2012 federal income tax returns. Our 2013 income tax provision included the federal tax credit for increasing research activities for 2012 as well as for 2013, which reduced our 2013 effective income tax rate by 3.5%.

EMC CORPORATION  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

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

	December 31, 2014		December 31, 2013	
	Deferred Tax Asset	Deferred Tax Liability	Deferred Tax Asset	Deferred Tax Liability
Current:				
Accounts and notes receivable	\$59	\$—	\$96	\$—
Inventory	73	—	73	—
Accrued expenses	305	—	311	—
Deferred revenue	472	—	365	—
Equity	148	—	83	—
Credit carryforwards	21	—	4	—
Net operating losses	23	—	28	—
Total current	1,101	—	960	—
Property, plant and equipment, net	—	(323 )	—	(291 )
Intangible and other assets, net	—	(605 )	—	(680 )
Equity	106	—	139	—
Deferred revenue	346	—	253	—
Other non-current liabilities	23	—	—	(13 )
Credit carryforward	234	—	280	—
Net operating losses	93	—	78	—
Other comprehensive loss	103	—	109	—
Total non-current	905	(928 )	859	(984 )
Gross deferred tax assets and liabilities	2,006	(928 )	1,819	(984 )
Valuation allowance	(126 )	—	(211 )	—
Total deferred tax assets and liabilities	\$1,880	\$(928 )	\$1,608	\$(984 )

At December 31, 2014 and 2013, net non-current state and foreign deferred tax assets of \$157 million and \$133 million, respectively, were included in other assets, net on the consolidated balance sheets.

We have gross federal, state and foreign net operating loss carryforwards of \$264 million, \$298 million and \$24 million, respectively, at December 31, 2014. Portions of these carryforwards are subject to annual limitations, including Section 382 of the Internal Revenue Code of 1986 (“Code”), as amended, for U.S. tax purposes and similar provisions under other countries’ tax laws. Certain of these net operating loss carryforwards will begin to expire in 2015 if not utilized, while others have an unlimited carryforward period. We have provided a valuation allowance of \$4 million and \$1 million for deferred tax assets related to state and foreign net operating loss carryforwards, respectively, that are not expected to be realized.

We have federal and state credit carryforwards of \$4 million and \$468 million, respectively, at December 31, 2014. Portions of these carryforwards are subject to annual limitations, including Section 382 of the Code, as amended, for U.S. tax purposes and similar provisions under other countries’ tax laws. Certain of these credit carryforwards will begin to expire in 2019 if not utilized, while others have an unlimited carryforward period. We have provided a full valuation allowance of \$121 million for deferred tax assets related to Massachusetts tax credit carryforwards that are not expected to be realized.

Deferred income taxes have not been provided on basis differences related to investments in foreign subsidiaries. These basis differences were approximately \$11.8 billion and \$10.2 billion at December 31, 2014 and 2013,

respectively, and consisted primarily of undistributed earnings permanently invested in these entities. The change in the basis difference in 2014 was mainly attributable to income earned in the current year. At December 31, 2014, our total cash, cash equivalents, and short-term and long-term investments were \$14.7 billion. This balance includes approximately \$7.1 billion held by VMware, of which \$5.0 billion is held outside of the U.S., and \$5.3 billion held by EMC in entities outside of the U.S. If these overseas funds are needed for our operations in the U.S., we would be required to accrue and pay U.S. taxes to repatriate these funds. However, our intent is to permanently reinvest these funds outside of the U.S. and our current plans do not demonstrate a need to repatriate them to fund our U.S. operations. Determination of the amount of unrecognized deferred income tax liability related to these earnings is not practicable. Income before income taxes from foreign operations for 2014, 2013 and 2012 was \$1.8 billion, \$2.3 billion and \$1.9 billion,

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

respectively. Income before income taxes from domestic operations for 2014, 2013 and 2012 was \$2.0 billion, \$1.6 billion and \$1.9 billion, respectively.

The following is a rollforward of our gross consolidated liability for unrecognized income tax benefits for the three years ended December 31 (table in millions):

	2014	2013	2012
Unrecognized tax benefits, beginning of year	\$266	\$270	\$197
Tax positions related to current year:			
Additions	63	37	25
Reductions	—	—	(1
Tax positions related to prior years:			)
Additions	91	10	64
Reductions	(31	) (33	) (4
Settlements	(1	) (5	) —
Lapses in statutes of limitations	(5	) (13	) (11
Unrecognized tax benefits, end of year	\$383	\$266	\$270

As of December 31, 2014, 2013 and 2012, \$316 million, \$261 million and \$255 million, respectively, of the unrecognized tax benefits, if recognized, would have been recorded as a reduction to income tax expense. The remainder would be an adjustment to shareholders' equity.

We are routinely under audit by the Internal Revenue Service (the "IRS"). We have concluded all U.S. federal income tax matters for years through 2008. The IRS commenced a federal income tax audit for the tax years 2009 and 2010 in the third quarter of 2012. The current federal income tax audit is ongoing and is not expected to be completed until 2015. We also have income tax audits in process in numerous state, local and international jurisdictions. In our international jurisdictions that comprise a significant portion of our operations, the years that may be examined vary, with the earliest year being 2005. Based on the timing and outcome of examinations of EMC, the result of the expiration of statutes of limitations for specific jurisdictions or the timing and result of ruling requests from taxing authorities, it is reasonably possible that the related unrecognized tax benefits could change from those recorded in our statement of financial position. We anticipate that several of these audits may be finalized within the next twelve months. While we expect the amount of unrecognized tax benefits to change in the next twelve months, we do not expect the change to have a significant impact on our results of operations or financial position.

We recognize interest expense and penalties related to income tax matters in income tax expense. For 2014, 2013 and 2012, \$9 million, \$9 million and \$4 million, respectively, in interest expense was recognized. In addition to the unrecognized tax benefits noted above, the gross balance of the accrued interest and penalties were \$51 million, \$42 million and \$35 million as of December 31, 2014, 2013 and 2012, respectively.

#### M. Retirement Plan Benefits

##### 401(k) Plan

EMC's Information Infrastructure business has a defined contribution program for certain employees that is qualified under Section 401(k) of the Code. EMC will match pre-tax employee contributions up to 6% of eligible compensation during each pay period (subject to a \$750 maximum match each quarter). Matching contributions are subject to a 3 year vesting period. VMware also has a defined contribution program for certain employees that is qualified under Section 401(k) of the Code. Our combined contributions amounted to \$105 million, \$91 million and \$88 million in 2014, 2013 and 2012, respectively.

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

##### Defined Benefit Pension Plan

We have 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. In addition, certain of our foreign subsidiaries also have a defined benefit pension plan.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

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. The measurement date for the plans is December 31.

The Data General U.S. pension plan's (the "Pension Plan") 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, 2014, the Pension Plan held \$0.5 million of EMC common stock.

The Pension Plan is summarized in the following tables. The other pension plans are not presented because they do not have a material impact on our consolidated financial statements.

The components of the change in benefit obligation of the Pension Plan is as follows (table in millions):

	December 31, 2014	December 31, 2013
Benefit obligation, at beginning of year	\$495	\$539
Interest cost	22	20
Benefits paid	(19	) (18
Actuarial loss (gain)	56	(46
Benefit obligation, at end of year	\$554	\$495

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

	December 31, 2014	December 31, 2013
Fair value of plan assets, at beginning of year	\$449	\$431
Actual return on plan assets	56	35
Employer contributions to plan	—	1
Benefits paid	(19	) (18
Fair value of plan assets, at end of year	\$486	\$449

We did not make any significant contributions to the Pension Plan in 2014 or 2013 and we do not expect to make a contribution to the Pension Plan in 2015. The under-funded status of the Pension Plan at December 31, 2014 and 2013 was \$68 million and \$46 million, respectively. This amount is classified as a component of other long-term liabilities on the consolidated balance sheets.

In 2014, \$9 million of the accumulated actuarial loss and prior services cost associated with the Pension Plan was reclassified from accumulated comprehensive loss to a component of net periodic benefit cost. Additionally, the Pension Plan had net losses of \$30 million that are included in accumulated other comprehensive income (loss), which were primarily the result of a decrease in the discount rate at the end of 2014, changes to the mortality table and a lower rate of return on plan assets. We expect that \$12 million of the total balance included in accumulated other comprehensive income (loss) at December 31, 2014 will be recognized as a component of net periodic benefit costs in 2015.

The components of net periodic expense of the Pension Plan are as follows (table in millions):

	2014	2013
Interest cost	\$22	\$20
Expected return on plan assets	(29	) (28
Recognized actuarial loss	9	15
Net periodic expense	\$2	\$7

The weighted-average assumptions used in the Pension Plan to determine benefit obligations at December 31 are as follows:

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	December 31, 2014		December 31, 2013		December 31, 2012	
Discount rate	3.9	%	4.7	%	3.7	%
Rate of compensation increase	N/A		N/A		N/A	

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## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The weighted-average assumptions used in the Pension Plan to determine periodic benefit cost for the years ended December 31 are as follows:

	December 31, 2014	December 31, 2013	December 31, 2012	
Discount rate	4.7	% 3.7	% 4.6	%
Expected long-term rate of return on plan assets	6.75	% 6.75	% 6.75	%
Rate of compensation increase	N/A	N/A	N/A	

The benefit payments are expected to be paid in the following years (table in millions):

2015	\$21
2016	22
2017	23
2018	25
2019	27
2020-2024	159

## Fair Value of Plan Assets

Following is a description of the valuation methodologies used for assets measured at fair value at December 31, 2014:

Common Collective Trusts – valued at the net asset value calculated by the fund manager based on the underlying investments. These are all classified within Level 2 of the valuation hierarchy. These include: EB Daily Valued Large Cap Growth Stock Index Fund, EB Daily Valued Large Cap Value Stock Index Fund, EB Daily Valued Stock Index Fund, EB Daily Valued Small Cap Stock Index Fund, EB Daily Valued International Stock Index Fund, EB Daily Valued Emerging Markets Stock Index Fund, Custom Long Duration Fixed Income, Collective Trust High Yield Fund, EB Long Term Credit Bond Index, EB Long Term Government Bond Index Fund and EB Temporary Investment Fund.

Corporate Debt Securities – valued daily at the closing price reported in active U.S. financial markets and are classified within Level 2 of the valuation hierarchy.

The following table sets forth, by level within the fair value hierarchy, the Pension Plan's assets at fair value as of December 31, 2014 and 2013 (table in millions):

	December 31, 2014			
	Level 1	Level 2	Level 3	Total
Common collective trusts	\$—	\$350	\$—	\$350
U.S. Treasury securities	2	—	—	2
Corporate debt securities	—	132	—	132
Total	\$2	\$482	\$—	484
Plan payables, net of accrued interest and dividends				2
Total				\$486
	December 31, 2013			
	Level 1	Level 2	Level 3	Total
Common collective trusts	\$—	\$330	\$—	\$330
U.S. Treasury securities	2	—	—	2
Corporate debt securities	—	114	—	114
Total	\$2	\$444	\$—	446
Plan payables, net of accrued interest and dividends				3
Total				\$449

Dividends, accrued interest and net plan payables are not material to the plan assets. Accordingly, we have not classified these into the fair value hierarchy above at December 31, 2014 and 2013.



## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

## Concentration of Risks

Pension Plan investments at fair value as of December 31, 2014 and 2013 which represented 5% or more of the Pension Plan's net assets were as follows (table in millions):

	2014	2013
EB Daily Valued Small Cap Stock Index Fund	\$30	\$30
EB Daily Valued Stock Index Fund	103	104
EB Daily Valued International Stock Index Fund	27	30
EB Long Term Government Bond Index	50	40
EB Long Term Credit Bond Index	74	63
Corporate Debt Securities	—	118
Custom Long Duration Fixed Income	137	—
	\$421	\$385

## Investment Strategy

The Pension Plan's assets are managed by outside investment managers. Our investment strategy with respect to pension assets is to achieve a long-term growth of capital, consistent with an appropriate level of risk.

The expected long-term rate of return on the Pension Plan assets considers the current level of expected returns on risk free investments (primarily government bonds), the historical level of the risk premium associated with the other asset classes in which the portfolio is invested and the expectations for future returns of each asset class. The expected return for each asset class was weighted based on the target asset allocation to develop the expected long-term rate of return on assets. As market conditions permit, we expect to continue to shift the asset allocation to lower the percentage of investments in equities and increase the percentage of investments in long-duration fixed-income securities. The continued changes could result in a reduction in the long-term rate of return on the Pension Plan assets and increase future pension expense. The long-term weighted average target asset allocations are as follows:

	December 31, 2014	
U.S. large capitalization equities	17	%
U.S. small capitalization equities	4	
International equities	4	
U.S. long-duration fixed income	75	
Total	100	%

The actual allocation of the assets in the Pension Plan at December 31, 2014 and 2013 were as follows:

	December 31, 2014		December 31, 2013	
U.S. large capitalization equities	30	%	33	%
U.S. small capitalization equities	6		7	
International equities	7		8	
U.S. long-duration fixed income	54		49	
High yield fixed income	—		3	
Below Investment Grade Corporate Fixed Income	3		—	
Total	100	%	100	%

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

## N. Commitments and Contingencies

## Operating Lease Commitments

We lease office and warehouse facilities and equipment under various operating leases. Facility leases generally include renewal options. Rent expense was as follows (table in millions):

	2014	2013	2012
Rent expense	\$361	\$328	\$312
Sublease proceeds	(2	) (2	) (4
Net rent expense	\$359	\$326	\$308

Our future operating lease commitments as of December 31, 2014 are as follows (table in millions):

2015	\$328
2016	281
2017	224
2018	162
2019	117
Thereafter	826
Total minimum lease payments	\$1,938

We sublet certain of our office facilities. Expected future non-cancelable sublease proceeds range from approximately \$1 million to \$3 million per year for the next five years with total sublease proceeds of \$9 million as of December 31, 2014.

## Outstanding Purchase Orders

At December 31, 2014, we had outstanding purchase orders aggregating approximately \$2.9 billion. The purchase orders are for manufacturing and non-manufacturing related goods and services. While the 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.

## Guarantees and Indemnification Obligations

EMC's subsidiaries have entered into arrangements with financial institutions for such institutions to provide guarantees for rent, taxes, insurance, leases, performance bonds, bid bonds and customs duties aggregating \$125 million as of December 31, 2014. The guarantees vary in length of time. In connection with these arrangements, we have agreed to guarantee substantially all of the guarantees provided by these financial institutions. EMC and certain of its subsidiaries have also entered into arrangements with financial institutions in order to facilitate the management of currency risk. EMC has agreed to guarantee the obligations of its subsidiaries under these arrangements.

We enter into agreements in the ordinary course of business with, among others, customers, resellers, original equipment manufacturers ("OEMs"), systems integrators and distributors. Most of these agreements require us to indemnify the other party against third-party claims alleging that an EMC product infringes a patent and/or copyright. Certain agreements in which we grant limited licenses to specific EMC-trademarks require us to indemnify the other party against third-party claims alleging that the use of the licensed trademark infringes a third-party trademark. Certain of these agreements require us to indemnify the other party against certain claims relating to the loss or processing of data, to real or tangible personal property damage, personal injury or the acts or omissions of EMC, its employees, agents or representatives. In addition, from time to time, we have made certain guarantees regarding the performance of our systems to our customers. We have also made certain guarantees for obligations of affiliated third parties.

We have agreements with certain vendors, financial institutions, lessors and service providers pursuant to which we have agreed to indemnify the other party for specified matters, such as acts and omissions of EMC, its employees, agents or representatives.

We have procurement or license agreements with respect to technology that is used in our products and agreements in which we obtain rights to a product from an OEM. Under some of these agreements, we have agreed to indemnify the supplier for certain claims that may be brought against such party with respect to our acts or omissions relating to the

supplied products or technologies.

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## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

We have agreed to indemnify the directors, executive officers and certain other officers of EMC and our subsidiaries, to the extent legally permissible, against all liabilities reasonably incurred in connection with any action in which such individual may be involved by reason of such individual being or having been a director or officer.

In connection with certain acquisitions, we have agreed to indemnify the current and former directors, officers and employees of the acquired company in accordance with the acquired company's by-laws and charter in effect immediately prior to the acquisition or in accordance with indemnification or similar agreements entered into by the acquired company and such persons. In a substantial majority of instances, we have maintained the acquired company's directors' and officers' insurance, which should enable us to recover a portion of any future amounts paid. These indemnities vary in length of time.

Based upon our historical experience and information known as of December 31, 2014, we believe our liability on the above guarantees and indemnities at December 31, 2014 is not material.

## Litigation

We are involved in a variety of claims, demands, suits, investigations and proceedings that arise from time to time relating to matters incidental to the ordinary course of our business, including actions with respect to contracts, intellectual property, product liability, employment, benefits and securities matters. As required by authoritative guidance, we have estimated the amount of probable losses that may result from all currently pending matters, and such amounts are reflected in our consolidated financial statements. These recorded amounts are not material to our consolidated financial position or results of operations and no additional material losses related to these pending matters are reasonably possible. While it is not possible to predict the outcome of these matters with certainty, we do not expect the results of any of these actions to have a material adverse effect on our business, results of operations or financial condition. Because litigation is inherently unpredictable, however, the actual amounts of loss may prove to be larger or smaller than the amounts reflected in our consolidated financial statements, and we could incur judgments or enter into settlements of claims that could adversely affect our operating results or cash flows in a particular period.

## O. Shareholders' Equity

## Net Income Per Share

The reconciliation from basic to diluted earnings per share for both the numerators and denominators is as follows (table in millions):

	2014	2013	2012
Numerator:			
Net income attributable to EMC Corporation	\$2,714	\$2,889	\$2,733
Incremental dilution from VMware	(7	) (8	) (10
Net income – dilution attributable to EMC Corporation	\$2,707	\$2,881	\$2,723
Denominator:			
Weighted average shares, basic	2,028	2,074	2,093
Weighted average common stock equivalents	26	28	40
Assumed conversion of the 2013 Notes and associated warrants	5	58	73
Weighted average shares, diluted	2,059	2,160	2,206

Due to the cash settlement feature of the principal amount of the 2013 Notes, we only included the impact of the premium feature in our diluted earnings per share calculation when the 2013 Notes were convertible due to maturity or when the average stock price exceeded the conversion price of the 2013 Notes.

Concurrent with the issuance of the 2013 Notes, we also entered into separate transactions in which we sold warrants to acquire, subject to customary anti-dilution adjustments, approximately 215 million shares of our common stock at an exercise price of approximately \$19.55 per share of our common stock. Approximately half of the associated warrants were exercised during the year ended December 31, 2012. The remaining 109 million warrants were exercised between February 18, 2014 and March 17, 2014 and were settled with 29 million shares of our common stock. As such, we included the impact of the remaining outstanding sold warrants in our diluted earnings per share calculation during the year ended December 31, 2013.

Restricted stock awards, restricted stock units and options to acquire 2 million, 4 million and 4 million shares of our common stock for the years ended December 31, 2014, 2013 and 2012, respectively, were excluded from the calculation of diluted earnings per share because they were antidilutive. The incremental dilution from VMware represents the impact of VMware's dilutive

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

securities on EMC's consolidated diluted net income per share and is calculated by multiplying the difference between VMware's basic and diluted earnings per share by the number of VMware shares owned by EMC.

**EMC Repurchases of Common Stock**

We utilize both authorized and unissued shares (including repurchased shares) for all issuances under our equity plans. Our Board of Directors authorized the repurchase of 250 million shares of our common stock in February 2013 and an additional 250 million shares of our common stock in December 2014. For the year ended December 31, 2014, we spent \$3.0 billion to repurchase 107 million shares of our common stock. Of the 500 million shares authorized for repurchase, we have repurchased 201 million shares at a total cost of \$5.4 billion, leaving a remaining balance of 299 million shares authorized for future repurchases. We spent approximately \$3.0 billion in the year ended December 31, 2013 on the repurchase of stock.

**VMware Repurchase of Common Stock**

The following table summarizes stock repurchase authorizations in the years ended December 31, 2014, 2013 and 2012 (amounts in table in millions):

Month Authorized	Amount Authorized	Expiration Date	Status
August 2014	\$1,000	End of 2016	Open
August 2013	700	End of 2015	Completed in Q4' 14
November 2012	250	End of 2014	Completed in Q4' 13
February 2012	600	End of 2013	Completed in Q2' 13

From time to time, VMware repurchases stock pursuant to the August 2014 authorizations in open market transactions or privately negotiated transactions as permitted by securities laws and other legal requirements. All shares repurchased under VMware's stock repurchase programs are retired. On January 27, 2015, VMware's Board of Directors authorized the repurchase of up to an additional \$1.0 billion of its common stock through the end of 2017.

The following table summarizes stock repurchase activity in the years ended December 31, 2014, 2013 and 2012 (table in millions, except per share amounts):

	For the Year Ended December 31,		
	2014	2013	2012
Aggregate purchase price	\$700	\$508	\$468
Class A common shares repurchased	8	7	5
Weighted-average price per share	\$91.61	\$76.58	\$91.10

The amount of repurchased shares includes commissions and was classified as a reduction to additional paid-in capital. As of December 31, 2014, the cumulative authorized amount remaining for repurchase was \$960 million.

**Cash Dividend on Common Stock**

In May 2013, our Board of Directors approved the initiation of a quarterly cash dividend to EMC shareholders of \$0.10 per share of common stock. On April 17, 2014, our Board of Directors approved an increase in the quarterly cash dividend paid to EMC shareholders to \$0.115 per share of common stock.



## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Our Board of Directors declared the following dividends during the periods presented:

Declaration Date	Dividend Per Share	Record Date	Total Amount (in millions)	Payment Date
Fiscal Year 2014:				
February 6, 2014	\$0.10	April 1, 2014	\$209	April 23, 2014
April 17, 2014	\$0.115	July 1, 2014	\$237	July 23, 2014
July 30, 2014	\$0.115	October 1, 2014	\$239	October 23, 2014
December 9, 2014	\$0.115	January 2, 2015	\$234	January 23, 2015
Fiscal Year 2013:				
May 30, 2013	\$0.10	July 1, 2013	\$212	July 23, 2013
August 1, 2013	\$0.10	October 1, 2013	\$210	October 23, 2013
December 12, 2013	\$0.10	January 8, 2014	\$206	January 23, 2014

## Accumulated Other Comprehensive Income (Loss)

Changes in accumulated other comprehensive income (loss), which is presented net of tax, for the years ended December 31, 2014 and 2013 consist of the following (table in millions):

	Foreign Currency Translation Adjustments	Unrealized Net Gains on Investments	Unrealized Net Losses on Derivatives	Recognition of Actuarial Net Loss from Pension and Other Postretirement Plans	Accumulated Other Comprehensive Income Attributable to the Non-controlling Interest in VMware, Inc.	Total
Balance as of January 1, 2013 <sup>(a)</sup>	\$ (9 )	\$ 64	\$ (109 )	\$ (153 )	\$ (1 )	\$ (208 )
Other comprehensive income (loss) before reclassifications	(44 )	(22 )	13	34	—	(19 )
Net losses (gains) reclassified from accumulated other comprehensive income	—	(11 )	(10 )	9	—	(12 )
Net current period other comprehensive income (loss)	(44 )	(33 )	3	43	—	(31 )
Balance as of December 31, 2013 <sup>(b)</sup>	(53 )	31	(106 )	(110 )	(1 )	(239 )
Other comprehensive income (loss) before reclassifications	(135 )	57	24	(22 )	—	(76 )
Net losses (gains) reclassified from accumulated other comprehensive income	—	(39 )	(18 )	6	—	(51 )
Net current period other comprehensive income (loss)	(135 )	18	6	(16 )	—	(127 )
Balance as of December 31, 2014 <sup>(c)</sup>	\$ (188 )	\$ 49	\$ (100 )	\$ (126 )	\$ (1 )	\$ (366 )

<sup>(a)</sup> Net of taxes (benefits) of \$37 million for unrealized net gains on investments, \$(67) million for unrealized net losses on derivatives and \$(87) million for actuarial net loss on pension plans.

- (b) Net of taxes (benefits) of \$18 million for unrealized net gains on investments, \$(66) million for unrealized net losses on derivatives and \$(61) million for actuarial net loss on pension plans.
- (c) Net of taxes (benefits) of \$31 million for unrealized net gains on investments, \$(64) million for unrealized net losses on derivatives and \$(70) million for actuarial net loss on pension plans.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The amounts reclassified out of accumulated other comprehensive income (loss) for the years ended December 31, 2014 and 2013 is as follows (table in millions):

Accumulated Other Comprehensive Income Components	For the Year Ended		Impacted Line Item on Consolidated Income Statements
	December 31, 2014	December 31, 2013	
Net gain on investments:	\$62	\$17	Investment income
	(23 )	(6 )	Provision for income tax
Net of tax	\$39	\$11	
Net gain on derivatives:			
Foreign exchange contracts	\$39	\$12	Product sales revenue
Foreign exchange contracts	(10 )	—	Cost of product sales
Interest rate swap	(11 )	—	Other interest expense
Total net gain on derivatives before tax	18	12	
	—	(2 )	Provision for income tax
Net of tax	\$18	\$10	
Net loss from pension and other postretirement plans	\$(9 )	\$(15 )	Selling, general and administrative expense
	3	6	Benefit for income tax
Net of tax	\$(6 )	\$(9 )	

## EMC Preferred Stock

Our preferred stock may be issued from time to time in one or more series, with such terms as our Board of Directors may determine, without further action by our shareholders.

## P. Stock-Based Compensation

## EMC Equity Plans

The EMC Corporation Amended and Restated 2003 Stock Plan (the “2003 Plan”) provides for the grant of stock options, stock appreciation rights, restricted stock and restricted stock units. The exercise price for a stock option shall not be less than 100% of the fair market value of our common stock on the date of grant. Options generally become exercisable in annual installments over a period of five years after the date of grant and expire ten years after the date of grant. Incentive stock options will expire no later than ten years after the date of grant. Restricted stock is common stock that is subject to a risk of forfeiture or other restrictions that will lapse upon satisfaction of specified conditions. Restricted stock units represent the right to receive shares of common stock in the future, with the right to future delivery of the shares subject to a risk of forfeiture or other restrictions that will lapse upon satisfaction of specified conditions. Grants of restricted stock awards or restricted stock units that vest only by the passage of time will not vest fully in less than two years after the date of grant, except for grants to non-employee Directors that are not subject to this minimum two-year vesting requirement. The 2003 Plan allows us to grant up to 420 million shares of common stock. We recognize restricted stock awards and restricted stock units against the 2003 Plan share reserve as two shares for every one share issued in connection with such awards.

In addition to the 2003 Plan, we have four other stock option plans (the “1985 Plan,” the “1993 Plan,” the “2001 Plan” and the “1992 Directors Plan”). In May 2007, these four plans were consolidated into the 2003 Plan such that all future grants will be granted under the 2003 Plan and shares that are not issued as a result of cancellations, expirations or forfeitures, will become available for grant under the 2003 Plan.

A total of 982 million shares of common stock have been reserved for issuance under the above five plans. At December 31, 2014, there were an aggregate of 41 million shares of common stock available for issuance pursuant to

future grants under the 2003 Plan.

We have, in connection with the acquisition of various companies, assumed the stock option plans of these companies. We do not intend to make future grants under any of such plans.

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## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

## EMC Employee Stock Purchase Plan

Under our Amended and Restated 1989 Employee Stock Purchase Plan (the "1989 Plan"), eligible employees may purchase shares of common stock through payroll deductions at 85% of the fair market value at the time of exercise. During the year ended December 31, 2013, we amended the Plan to adjust the grant and exercise dates. Options to purchase shares are granted twice yearly, on February 1 and August 1, and are exercisable on the succeeding July 31 and January 31, respectively, each year. A total of 183 million shares of common stock have been reserved for issuance under the 1989 Plan. The following table summarizes the 1989 Plan activity in the years ended December 31, 2014, 2013 and 2012 (table in millions, except per share amounts):

	For the Year Ended		
	December 31, 2014	December 31, 2013	December 31, 2012
Cash proceeds	\$186	\$82	\$154
Common shares purchased	8	4	7
Weighted-average price per share	\$22.44	\$20.08	\$21.65

As of December 31, 2014, \$84 million of ESPP withholdings were recorded as a liability on the consolidated balance sheet for the next purchase that occurred in January 2015.

## EMC Stock Options

The following table summarizes our option activity under all equity plans since January 1, 2012 (shares in millions):

	Number of Shares	Weighted Average Exercise Price (per share)
Outstanding, January 1, 2012	112	\$13.69
Options granted relating to business acquisitions	2	1.54
Granted	1	26.80
Forfeited	(2	) 13.75
Expired	(1	) 14.19
Exercised	(35	) 11.65
Outstanding, December 31, 2012	77	14.39
Options granted relating to business acquisitions	1	3.29
Granted	—	—
Forfeited	(1	) 13.36
Expired	—	—
Exercised	(20	) 13.10
Outstanding, December 31, 2013	57	14.56
Options granted relating to business acquisitions	8	0.62
Granted	—	—
Forfeited	(1	) 13.55
Expired	—	—
Exercised	(24	) 13.19
Outstanding, December 31, 2014	40	12.68
Exercisable, December 31, 2014	31	15.27
Vested and expected to vest, December 31, 2014	39	\$13.06

At December 31, 2014, the weighted-average remaining contractual term was 3.0 years and the aggregate intrinsic value was \$447 million for the 31 million exercisable shares. For the 39 million shares vested and expected to vest at December 31, 2014, the weighted-average remaining contractual term was 2.9 years and the aggregate intrinsic value was \$651 million. The intrinsic value is based on our closing stock price of \$29.74 as of December 31, 2014, which would have been received by the option holders had all in-the-money options been exercised as of that date. The total

pre-tax intrinsic values of options exercised in 2014, 2013 and 2012 were \$353 million, \$240 million and \$518 million, respectively. Cash proceeds from the exercise of stock options were \$317 million, \$260 million and \$407 million in 2014, 2013 and 2012, respectively. Income tax benefits realized from the exercise of stock options in 2014, 2013 and 2012 were \$61 million, \$45 million and \$97 million, respectively.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

## EMC Restricted Stock and Restricted Stock Units

Our restricted stock awards and units are valued based on our stock price on the grant date. Our restricted stock awards and units have various vesting terms from the date of grant, including pro rated vesting over three or four years, cliff vesting at the end of three or five years with acceleration for achieving specified performance criteria and vesting on various dates contingent on achieving specified performance criteria. For awards with performance conditions, management evaluates the criteria in each grant to determine the probability that the performance condition will be achieved.

The following table summarizes our restricted stock and restricted stock unit activity since January 1, 2012 (shares in millions):

	Number of Shares	Weighted Average Grant Date Fair Value
Restricted stock and restricted stock units at January 1, 2012	46	\$21.10
Granted	21	26.57
Vested	(16	) 18.92
Forfeited	(4	) 23.09
Outstanding, December 31, 2012	47	24.39
Granted	20	25.55
Vested	(15	) 22.61
Forfeited	(4	) 24.80
Outstanding, December 31, 2013	48	25.43
Granted	23	27.65
Vested	(14	) 24.89
Forfeited	(4	) 25.63
Restricted stock and restricted stock units at December 31, 2014	53	\$26.50

The total intrinsic values of restricted stock and restricted stock units that vested in 2014, 2013 and 2012 were \$388 million, \$404 million and \$421 million, respectively. As of December 31, 2014, restricted stock and restricted stock units representing 53 million shares were outstanding and unvested, with an aggregate intrinsic value of \$1,570 million. These shares and units are scheduled to vest through 2019. Of the total shares of restricted stock and restricted stock units outstanding, 45 million shares and units will vest upon fulfilling service conditions, of which vesting for 9 million shares and units will accelerate upon achieving performance conditions. The remaining 8 million shares and units will vest only if certain performance conditions are achieved.

## VMware Equity Plans

In June 2007, VMware adopted its 2007 Equity and Incentive Plan (the "2007 Plan"). In May 2009, VMware amended its 2007 Plan to increase the number of shares available for issuance by 20 million shares for total shares available for issuance of 100 million. In May 2013, VMware further amended the 2007 Plan to increase the number of shares available for issuance by 13 million shares. The number of shares underlying outstanding equity awards that VMware assumes in the course of business acquisitions are also added to the 2007 Plan reserve on an as-converted basis. VMware has assumed 4 million shares, which accordingly have been added to the 2007 Plan reserve.

Awards under the 2007 Plan may be in the form of stock options or other stock-based awards, including awards of restricted stock units. The exercise price for a stock option awarded under the 2007 Plan shall not be less than 100% of the fair market value of VMware Class A common stock on the date of grant. Most options granted under the 2007 Plan vest 25% after the first year and then monthly thereafter over the following three years and expire between six and seven years from the date of grant. Most restricted stock grants made under the 2007 Plan have a three-year to four-year period over which they vest and vest 25% the first year and semi-annually thereafter. VMware's Compensation and Corporate Governance Committee determines the vesting schedule for all equity awards. VMware utilizes both authorized and unissued shares to satisfy all shares issued under the 2007 Plan. At December 31, 2014,

there were an aggregate of 18 million shares of common stock available for issuance pursuant to future grants under the 2007 Plan.

**VMware Employee Stock Purchase Plan**

In June 2007, VMware adopted its 2007 Employee Stock Purchase Plan (the “ESPP”), which is intended to be qualified under Section 423 of the Internal Revenue Code. In May 2013, VMware amended its ESPP to increase the number of shares available for issuance by 8 million shares. Under the ESPP, eligible VMware employees are granted options to purchase shares at the lower



## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

of 85% of the fair market value of the stock at the time of grant or 85% of the fair market value at the time of exercise. Options to purchase shares are generally granted twice yearly on February 1 and August 1 and exercisable on the succeeding July 31 and January 31, respectively, of each year. As of December 31, 2014, 6 million shares of VMware Class A common stock were available for issuance pursuant to future grants under the ESPP.

The following table summarizes ESPP activity in the years ended December 31, 2014, 2013 and 2012 (table in millions, except per share amounts):

	For the Year Ended		
	December 31, 2014	December 31, 2013	December 31, 2012
Cash proceeds	\$80	\$76	\$69
Class A common shares purchased	1	1	1
Weighted-average price per share	\$73.21	\$65.97	\$77.34

As of December 31, 2014, \$46 million of ESPP withholdings were recorded as a liability on the consolidated balance sheet for the next purchase that occurred in January 2015.

## VMware Stock Options

The following table summarizes activity since January 1, 2012 for VMware employees in VMware stock options (shares in millions):

	Number of Shares	Weighted Average Exercise Price (per share)
Outstanding, January 1, 2012	16	\$35.27
Granted	1	4.67
Forfeited	(1	) 42.07
Exercised	(6	) 30.44
Outstanding, December 31, 2012	10	34.36
Granted	1	71.53
Exercised	(5	) 28.12
Outstanding, December 31, 2013	6	44.12
Granted	2	50.91
Exercised	(2	) 35.58
Outstanding, December 31, 2014	6	50.54
Exercisable, December 31, 2014	3	37.40
Vested and expected to vest	6	\$48.57

The above table includes stock options granted in conjunction with unvested stock options assumed in business combinations. As a result, the weighted-average exercise price per share may vary from the VMware stock price at time of grant.

As of December 31, 2014, for the VMware stock options, the weighted-average remaining contractual term was 2.1 years and the aggregate intrinsic value was \$128 million for the 3 million exercisable shares. For the 6 million options vested and expected to vest at December 31, 2014, the weighted-average remaining contractual term was 4.3 years and the aggregate intrinsic value was \$204 million. These aggregate intrinsic values represent the total pre-tax intrinsic values based on VMware's closing stock price of \$82.52 as of December 31, 2014, which would have been received by the option holders had all in-the-money options been exercised as of that date. The options exercised in 2014, 2013 and 2012 had a pre-tax intrinsic value of \$147 million, \$256 million and \$443 million, respectively. The total fair value of VMware stock options that vested during the years ended December 31, 2014, 2013 and 2012 was \$64 million, \$60 million and \$72 million, respectively.



EMC CORPORATION  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

VMware Restricted Stock

The following table summarizes restricted stock activity since January 1, 2012 (units in millions):

	Number of Units	Weighted Average Grant Date Fair Value (per unit)
Restricted stock at January 1, 2012	10	\$72.74
Granted	8	101.73
Vested	(4	) 69.01
Forfeited	(2	) 81.53
Outstanding, December 31, 2012	12	91.93
Granted	7	76.20
Vested	(4	) 83.21
Forfeited	(2	) 90.55
Outstanding, December 31, 2013	13	85.85
Granted	6	92.82
Vested	(5	) 86.27
Forfeited	(1	) 88.03
Outstanding, December 31, 2014	13	\$88.88

As of December 31, 2014, restricted stock representing 13 million shares of VMware's Class A common stock were outstanding, with an aggregate intrinsic value of \$1,039 million based on VMware's closing price as of December 31, 2014. The total fair value of VMware restricted stock awards that vested during the years ended December 31, 2014, 2013 and 2012 was \$480 million, \$340 million and \$347 million, respectively.

## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

## Stock-Based Compensation Expense

The following tables summarize the components of total stock-based compensation expense included in our consolidated income statements in 2014, 2013 and 2012 (in millions):

	Year Ended December 31, 2014		
	Stock Options	Restricted Stock	Total Stock-Based Compensation
Cost of product sales	\$ 16	\$ 38	\$ 54
Cost of services	20	72	92
Research and development	79	303	382
Selling, general and administrative	78	415	493
Stock-based compensation expense before income taxes	193	828	1,021
Income tax benefit	45	179	224
Total stock-based compensation, net of tax	\$ 148	\$ 649	\$ 797
	Year Ended December 31, 2013		
	Stock Options	Restricted Stock	Total Stock-Based Compensation
Cost of product sales	\$ 19	\$ 29	\$ 48
Cost of services	15	61	76
Research and development	75	282	357
Selling, general and administrative	82	372	454
Stock-based compensation expense before income taxes	191	744	935
Income tax benefit	56	170	226
Total stock-based compensation, net of tax	\$ 135	\$ 574	\$ 709
	Year Ended December 31, 2012		
	Stock Options	Restricted Stock	Total Stock-Based Compensation
Cost of product sales	\$ 22	\$ 30	\$ 52
Cost of services	21	53	74
Research and development	88	236	324
Selling, general and administrative	131	339	470
Stock-based compensation expense before income taxes	262	658	920
Income tax benefit	68	162	230
Total stock-based compensation, net of tax	\$ 194	\$ 496	\$ 690

Stock-based compensation expense includes \$57 million, \$54 million and \$52 million of expense associated with our employee stock purchase plans for 2014, 2013 and 2012, respectively.

The table below presents the net change in amounts capitalized or accrued in 2014 and 2013 for the following items (in millions):

	Increased (decreased) during the year ended December 31, 2014	Increased (decreased) during the year ended December 31, 2013
Accrued expenses (accrued warranty expenses)	\$—	\$(1 )
Other assets	(19 )	2 )

As of December 31, 2014, the total unrecognized after-tax compensation cost for stock options, restricted stock and restricted stock units was \$1,515 million. This non-cash expense will be recognized through 2019 with a weighted-average remaining period of 1.5 years.



## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

## Fair Value of EMC Stock Options

Apart from options issued through business acquisitions which are discussed in Note C, there were no stock options granted during the years ended December 31, 2014 and 2013. The fair value of each option granted during the year ended December 31, 2012 was estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions:

EMC Stock Options	For the Year Ended December 31, 2012	
Dividend yield	None	
Expected volatility	34.3	%
Risk-free interest rate	0.8	%
Expected term (in years)	5.2	
Weighted-average fair value at grant date	\$8.56	

For all stock options granted in 2012, volatility was based on an analysis of historical stock prices and implied volatilities from traded options in our stock. We use EMC historical data to estimate the expected term of options granted within the valuation model. EMC's expected dividend yield input was zero as it had not historically paid cash dividends on its common stock. The risk-free interest rate was based on a U.S. Treasury instrument whose term is consistent with the expected term of the stock options.

## Fair Value of VMware Options

The fair value of each option to acquire VMware Class A common stock granted during the years ended December 31, 2014, 2013 and 2012 was estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions:

VMware Stock Options	For the Year Ended December 31,			
	2014	2013	2012	
Dividend yield	None	None	None	
Expected volatility	36.2	% 38.5	% 35.8	%
Risk-free interest rate	0.9	% 0.9	% 0.3	%
Expected term (in years)	3.2	3.6	2.6	
Weighted-average fair value at grant date	\$48.47	\$29.47	\$80.45	

  

VMware Employee Stock Purchase Plan	For the Year Ended December 31,			
	2014	2013	2012	
Dividend yield	None	None	None	
Expected volatility	32.3	% 32.9	% 37.8	%
Risk-free interest rate	0.1	% 0.1	% 0.1	%
Expected term (in years)	0.5	0.5	0.5	
Weighted-average fair value at grant date	\$20.71	\$20.45	\$23.36	

The weighted-average grant date fair value of VMware stock options can fluctuate from period to period primarily due to higher valued options assumed through business combinations with exercise prices lower than the fair market value of VMware's stock on the date of grant.

For all equity awards granted during the years ended 2014, 2013 and 2012, volatility was based on an analysis of historical stock prices and implied volatilities of VMware's Class A common stock or those of publicly-traded companies with similar characteristics, as applicable. The expected term is based on historical exercise patterns and post-vesting termination behavior, the term of the purchase period for grants made under the ESPP, or the weighted-average remaining term for options assumed in acquisitions. VMware's expected dividend yield input was zero as it has not historically paid, nor expects in the future to pay, cash dividends on its common stock. The risk-free

interest rate was based on a U.S. Treasury instrument whose term is consistent with the expected term of the stock options.

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## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

## Q. Restructuring and Acquisition-Related Charges

In 2014, 2013 and 2012, we incurred restructuring and acquisition-related charges of \$239 million, \$224 million and \$110 million, respectively. In 2014, EMC incurred \$210 million of restructuring charges, primarily related to our current year restructuring programs, and \$6 million of charges in connection with acquisitions for financial, advisory, legal and accounting services. In 2013, EMC incurred \$139 million of restructuring charges, primarily related to our 2013 restructuring programs, and \$8 million of charges in connection with acquisitions for financial, advisory, legal and accounting services. In 2012, EMC incurred \$101 million of restructuring charges, primarily related to our 2012 restructuring program, and \$9 million of charges in connection with acquisitions for financial, advisory, legal and accounting services. In 2014, VMware incurred \$18 million of restructuring charges related to workforce reductions as part of its current year restructuring program and \$7 million of charges in connection with acquisitions for financial, advisory, legal and accounting services. In 2013, VMware incurred \$54 million of restructuring charges related to workforce reductions as part of its 2013 restructuring program and \$5 million of charges in connection with acquisitions for financial, advisory, legal and accounting services. In addition, VMware incurred a benefit of \$2 million and a charge of \$18 million primarily related to impairment charges related to its business realignments in 2014 and 2013, respectively. VMware had no restructuring charges in 2012.

During 2014, 2013 and 2012, EMC implemented restructuring programs to re-balance the business and streamline its operations which will result or have resulted in workforce reductions of approximately 2,100, 1,900 and 1,100 positions, respectively. The actions impact positions around the globe covering our Information Storage, RSA Information Security, Enterprise Content Division and Pivotal segments. All of these actions are expected to be completed or were completed within a year of the start of each program.

During 2014, VMware eliminated approximately 180 positions across all major functional groups and geographies to streamline its operations. During 2013, VMware approved and initiated a business realignment plan to streamline its operations. The plan included the elimination of approximately 710 positions across all major functional groups and geographies. All of these actions are expected to be completed or were completed within a year of the program. During 2014, 2013 and 2012, we recognized \$18 million, \$18 million and \$21 million, respectively, of lease termination costs for facilities vacated in the period in accordance with our plan as part of all of our restructuring programs and for costs associated with terminating other contractual obligations. These costs are expected to be utilized by the end of 2016. The remaining cash portion owed for these programs in 2015 is approximately \$5 million, plus an additional \$2 million over the period from 2016 and beyond.

On January 28, 2015, EMC management approved a restructuring plan. The plan consists of a reduction in force which will be substantially completed by the end of the first quarter of 2015 and fully completed by the end of 2015. The total charge resulting from this plan is expected to be approximately \$130 million to \$150 million, with total cash payments associated with the plan expected to be in the range of \$120 million to \$140 million.

The activity for the restructuring programs is presented below (tables in millions):

Year Ended, December 31, 2014:

## 2014 EMC Program

Category	Balance as of December 31, 2013	2014 Charges	Utilization	Balance as of December 31, 2014
Workforce reductions	\$—	\$212	\$(115)	\$97
Consolidation of excess facilities and other contractual obligations	—	18	(12)	6
Total	\$—	\$230	\$(127)	\$103

## 2014 VMware Program

Category	2014 Charges	Utilization
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	Balance as of December 31, 2013				Balance as of December 31, 2014
Workforce reductions	\$—	\$18	\$(10	)	\$8
Consolidation of excess facilities and other contractual obligations	—	—	—	—	—
Total	\$—	\$18	\$(10	)	\$8

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EMC CORPORATION  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

## Other EMC Programs

Category	Balance as of December 31, 2013	Adjustments to the Provision	Utilization	Balance as of December 31, 2014
Workforce reductions	\$66	\$(20 )	\$(41 )	\$5
Consolidation of excess facilities and other contractual obligations	24	—	(11 )	13
Total	\$90	\$(20 )	\$(52 )	\$18

## Year Ended, December 31, 2013:

## EMC Programs

Category	Balance as of December 31, 2012	2013 Charges	Utilization	Balance as of December 31, 2013
Workforce reductions	\$63	\$121	\$(118 )	\$66
Consolidation of excess facilities and other contractual obligations	28	18	(22 )	24
Total	\$91	\$139	\$(140 )	\$90

## VMware Programs

Category	Balance as of December 31, 2012	2013 Charges	Utilization	Balance as of December 31, 2013
Workforce reductions	\$—	\$54	\$(54 )	\$—
Consolidation of excess facilities and other contractual obligations	—	—	—	—
Total	\$—	\$54	\$(54 )	\$—

## Year Ended, December 31, 2012:

## EMC Programs

Category	Balance as of December 31, 2011	2012 Charges	Utilization	Balance as of December 31, 2012
Workforce reductions	\$50	\$80	\$(67 )	\$63
Consolidation of excess facilities and other contractual obligations	30	21	(23 )	28
Total	\$80	\$101	\$(90 )	\$91

During the year ended December 31, 2013, in connection with VMware's business realignment plan, VMware recognized cumulative pre-tax gains of \$44 million relating to the disposition of certain lines of business that were no longer aligned with VMware's core business priorities. The gains recognized in connection with this disposition was recorded to other expense, net on the consolidated income statements for the year ended December 31, 2013.

## R. Related Party Transactions

In 2014, 2013 and 2012, we leased certain real estate from a company owned by a member of our Board of Directors and such Director's siblings, for which payments aggregated approximately \$3 million, \$5 million and \$5 million, respectively. Such lease was initially assumed by us as a result of our acquisition of Data General in 1999 and renewed in 2003 for a ten-year term. The lease expired in September 2014 and EMC has vacated the facility.

In accordance with its written policy and procedures relating to related person transactions, EMC's Audit Committee approved the above transaction.

EMC is a large global organization which engages in thousands of purchase, sales and other transactions annually. We enter into purchase and sales transactions with other publicly-traded and privately-held companies, universities, hospitals and not-for-profit organizations with which members of our Board of Directors or executive officers are affiliated. We enter into these arrangements in the ordinary course of our business.

EMC CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

From time to time, we make strategic investments in publicly-traded and privately-held companies that develop software, hardware and other technologies or provide services supporting our technologies. We may purchase from or make sales to these organizations.

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

S. Segment Information

We manage the Company as a federation of businesses: EMC Information Infrastructure, VMware Virtual Infrastructure and Pivotal. EMC Information Infrastructure operates in three segments: Information Storage, Enterprise Content Division, formerly known as Information Intelligence Group, and RSA Information Security while VMware Virtual Infrastructure and Pivotal each operate as single segments.

During the first quarter of 2014, the Information Storage segment acquired the Data Computing Appliance and implementation services businesses from the Pivotal segment. The acquisition of these businesses was accounted for as a business combination between entities under common control. We reflected the impact of the transaction on our segments for 2014 and included the financial results of the acquired businesses in the Information Storage segment and excluded these from the Pivotal segment. We recast the segment and goodwill disclosures for the prior financial reporting periods to present the impact of the transaction. None of the segment reclassifications impact EMC's previously reported consolidated financial statements.

Our management measures are designed to assess performance of these reporting segments excluding certain items. As a result, the corporate reconciling items are used to capture the items excluded from the segment operating performance measures, including stock-based compensation expense and acquisition-related intangible asset amortization expense. Additionally, in certain instances, infrequently occurring gains or losses are also excluded from the measures used by management in assessing segment performance. Research and development expenses, selling, general and administrative expenses and restructuring and acquisition -related charges associated with the EMC Information Infrastructure business are not allocated to the segments within the EMC Information Infrastructure business, as they are managed centrally at the EMC Information Infrastructure business level. EMC Information Infrastructure and Pivotal have not been allocated non-operating income (expense), net and income tax provision as these costs are managed centrally at the EMC corporate level. Accordingly, for the three segments within the EMC Information Infrastructure business, gross profit is the segment operating performance measure, while for Pivotal, operating income is the operating performance measure. The VMware Virtual Infrastructure within EMC amounts represent the revenues and expenses of VMware as reflected within EMC's consolidated financial statements.

EMC CORPORATION  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Our segment information for the years ended 2014, 2013 and 2012 are as follows (tables in millions, except percentages):

	EMC Information Infrastructure						
	Information Storage	Enterprise Content Division	RSA Information Security	EMC Information Infrastructure	Pivotal	EMC Information Infrastructure plus Pivotal	
2014							
Revenues:							
Product revenues	\$10,785	\$164	\$462	\$11,411	\$65	\$11,476	
Services revenues	5,757	476	573	6,806	162	6,968	
Total consolidated revenues	16,542	640	1,035	18,217	227	18,444	
Gross profit	\$9,180	\$417	\$698	\$10,295	\$106	\$10,401	
Gross profit percentage	55.5	% 65.2	% 67.4	% 56.5	% 46.5	% 56.4	
Research and development				1,489	128	1,617	
Selling, general and administrative				4,583	183	4,766	
Restructuring and acquisition-related charges				—	—	—	
Total costs and expenses				6,072	311	6,383	
Operating income (loss)				\$4,223	\$(205)	\$4,018	
				EMC Information Infrastructure plus Pivotal	VMware Virtual Infrastructure within EMC	Corp Reconciling Items	Consolidated
2014							
Revenues:							
Product revenues			\$11,476	\$2,575	\$—	\$14,051	
Services revenues			6,968	3,421	—	10,389	
Total consolidated revenues			18,444	5,996	—	24,440	
Gross profit			\$10,401	\$5,241	\$(393)	\$15,249	
Gross profit percentage			56.4	% 87.4	% —	62.4	
Research and development			1,617	987	387	2,991	
Selling, general and administrative			4,766	2,390	826	7,982	
Restructuring and acquisition-related charges			—	—	239	239	
Total costs and expenses			6,383	3,377	1,452	11,212	
Operating income			4,018	1,864	(1,845)	4,037	
Non-operating income (expense)			(362)	34	53	(275)	
Income tax provision			942	385	(459)	868	
Net income			2,714	1,513	(1,333)	2,894	

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Net income attributable to the non-controlling interest in VMware, Inc.	—	(308	)	128	(180	)
Net income attributable to EMC Corporation	\$2,714	\$1,205		\$ (1,205	)	\$2,714

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## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

	EMC Information Infrastructure					EMC Information Infrastructure plus Pivotal
	Information Storage	Enterprise Content Division	RSA Information Security	EMC Information Infrastructure	Pivotal	
2013						
Revenues:						
Product revenues	\$10,738	\$180	\$453	\$11,371	\$66	\$11,437
Services revenues	5,524	467	534	6,525	113	6,638
Total consolidated revenues	16,262	647	987	17,896	179	18,075
Gross profit	\$9,109	\$419	\$655	\$10,183	\$91	\$10,274
Gross profit percentage	56.0	% 64.8	% 66.4	% 56.9	% 50.7	% 56.8
Research and development				1,461	109	1,570
Selling, general and administrative				4,571	161	4,732
Restructuring and acquisition-related charges				—	—	—
Total costs and expenses				6,032	270	6,302
Operating income (loss)				\$4,151	\$(179)	\$3,972
				EMC Information Infrastructure plus Pivotal	VMware Virtual Infrastructure within EMC	Corp Reconciling Items
2013						
Revenues:						
Product revenues			\$11,437	\$2,253	\$—	\$13,690
Services revenues			6,638	2,894	—	9,532
Total consolidated revenues			18,075	5,147	—	23,222
Gross profit			\$10,274	\$4,589	\$(390)	\$14,473
Gross profit percentage			56.8	% 89.2	% —	62.3
Research and development			1,570	826	365	2,761
Selling, general and administrative			4,732	2,003	603	7,338
Restructuring and acquisition-related charges			—	—	224	224
Total costs and expenses			6,302	2,829	1,192	10,323
Operating income			3,972	1,760	(1,582)	4,150
Non-operating income (expense)			(337)	) 22	30	(285)
Income tax provision			911	317	(456)	772
Net income			2,724	1,465	(1,096)	3,093
Net income attributable to the non-controlling interest in VMware, Inc.			—	(295)	) 91	(204)

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Net income attributable to EMC Corporation	\$2,724	\$1,170	\$ (1,005 )	\$2,889
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## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

	EMC Information Infrastructure					EMC Information Infrastructure plus Pivotal
	Information Storage	Enterprise Content Division	RSA Information Security	EMC Information Infrastructure	Pivotal	
2012						
Revenues:						
Product revenues	\$ 10,316	\$ 200	\$ 414	\$ 10,930	\$ 73	\$ 11,003
Services revenues	5,257	440	475	6,172	64	6,236
Total consolidated revenues	15,573	640	889	17,102	137	17,239
Gross profit	\$ 8,911	\$ 432	\$ 604	\$ 9,947	\$ 102	\$ 10,049
Gross profit percentage	57.2	% 67.5	% 68.0	% 58.2	% 74.4	% 58.3
Research and development				1,410	116	1,526
Selling, general and administrative				4,488	151	4,639
Restructuring and acquisition-related charges				—	—	—
Total costs and expenses				5,898	267	6,165
Operating income (loss)				\$ 4,049	\$ (165)	) \$ 3,884
				EMC Information Infrastructure plus Pivotal	VMware Virtual Infrastructure within EMC	Corp Reconciling Items
2012						
Revenues:						
Product revenues			\$ 11,003	\$ 2,058	\$ —	\$ 13,061
Services revenues			6,236	2,417	—	8,653
Total consolidated revenues			17,239	4,475	—	21,714
Gross profit			\$ 10,049	\$ 3,976	\$ (387)	) \$ 13,638
Gross profit percentage			58.3	% 88.9	% —	62.8
Research and development			1,526	700	334	2,560
Selling, general and administrative			4,639	1,739	626	7,004
Restructuring and acquisition-related charges			—	—	110	110
Total costs and expenses			6,165	2,439	1,070	9,674
Operating income			3,884	1,537	(1,457)	) 3,964
Non-operating income (expense)			(177)	) 27	(10)	) (160)
Income tax provision			968	271	(321)	) 918
Net income			2,739	1,293	(1,146)	) 2,886
Net income attributable to the non-controlling interest in VMware, Inc.			—	(255)	) 102	(153)

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Net income attributable to EMC Corporation	\$2,739	\$1,038	\$ (1,044 )	\$2,733
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## EMC CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Our 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 millions):

	2014	2013	2012
United States	\$12,835	\$12,230	\$11,510
Europe, Middle East and Africa	6,981	6,355	5,908
Asia Pacific and Japan	3,191	3,193	3,017
Latin America, Mexico and Canada	1,433	1,444	1,279
Total	\$24,440	\$23,222	\$21,714

No country other than the United States accounted for 10% or more of revenues in 2014, 2013 or 2012.

Long-lived assets, excluding financial instruments, deferred tax assets, goodwill and intangible assets, in the United States were \$4,380 million at December 31, 2014 and \$4,433 million at December 31, 2013. Internationally, long-lived assets, excluding financial instruments, deferred tax assets, goodwill and intangible assets, were \$1,021 million at December 31, 2014 and \$877 million at December 31, 2013. No country other than the United States accounted for 10% or more of total long-lived assets, excluding financial instruments and deferred tax assets, at December 31, 2014 or 2013.

## T. Selected Quarterly Financial Data (unaudited)

Quarterly financial data for 2014 and 2013 is as follows (tables in millions, except per share amounts):

2014	Q1 2014	Q2 2014	Q3 2014	Q4 2014
Revenues	\$5,479	\$5,880	\$6,032	\$7,048
Gross profit	3,347	3,654	3,743	4,505
Net income attributable to EMC Corporation	392	589	587	1,147
Net income per weighted average share, diluted: common shareholders	\$0.19	\$0.28	\$0.28	\$0.56

2013	Q1 2013	Q2 2013	Q3 2013	Q4 2013
Revenues	\$5,387	\$5,614	\$5,539	\$6,682
Gross profit	3,298	3,509	3,442	4,224
Net income attributable to EMC Corporation	580	701	586	1,022
Net income per weighted average share, diluted: common shareholders	\$0.26	\$0.32	\$0.27	\$0.48

The second and fourth quarters of 2014 includes a gain on previously held interests in strategic investments and joint venture of \$45 million, or \$0.02 per diluted share and \$33 million, or \$0.02 per diluted share, respectively. The second quarter of 2014 also includes an impairment of strategic investment of \$24 million, or \$0.01 per diluted share. The fourth quarter of 2014 includes a tax benefit related to the expected R&D tax credit for 2014 of \$62 million, or \$0.03 per diluted share.

The first quarter of 2013 includes the benefit of the R&D tax credit for 2012 of \$60 million, or \$0.03 per diluted share. The second and third quarters of 2013 each include net gains on VMware's disposition of certain lines of business and other of \$10 million and \$11 million or \$0.01 and \$0.01 per diluted share, respectively. The third and fourth quarters of 2013 also include special tax items related to our tax-related reorganizations of \$23 million, or \$0.01 per diluted share and a tax benefit of \$4 million, or \$0.00 per diluted share, respectively.

## U. Subsequent Events

On January 28, 2015, EMC management approved a restructuring plan. The plan consists of a reduction in force which will be substantially completed by the end of the first quarter of 2015 and fully completed by the end of 2015. The total charge resulting from this plan is expected to be approximately \$130 million to \$150 million, with total cash payments associated with the plan expected to be in the range of \$120 million to \$140 million.

On February 27, 2015, we entered into a credit agreement with the lenders named therein, Citibank, N.A., as Administrative Agent, Bank of America, N.A. and JPMorgan Chase Bank, N.A., as Syndication Agents, and

Citigroup Global Markets, Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated and J.P. Morgan Securities LLC, as Joint Lead Arrangers and Joint Bookrunners (the "Credit Agreement"). The Credit Agreement provides for a \$2.5 billion unsecured revolving credit facility to be used for

EMC CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

general corporate purposes that is scheduled to mature on February 27, 2020. At our option, subject to certain conditions, any loan under the Credit Agreement will bear interest at a rate equal to, either (i) the LIBOR Rate or (ii) the Base Rate (defined as the highest of (a) the Federal Funds rate plus 0.50%, (b) Citibank, N.A.'s "prime rate" as announced from time to time, or (c) one-month LIBOR plus 1.00%), plus, in each case the Applicable Margin, as defined in the Credit Agreement. The Credit Agreement contains customary representations and warranties, covenants and events of default. We may also, upon the agreement of the existing lenders and/or additional lenders not currently parties to the agreement, increase the commitments under the credit facility by up to an additional \$1.0 billion. In addition, we may request to extend the maturity date of the credit facility, subject to certain conditions, for additional one-year periods.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures. Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our internal control over financial reporting based on the framework in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act). Based on this evaluation, our management has concluded that the Company's internal control over financial reporting was effective as of the end of the period covered by this Annual Report on Form 10-K.

Management's Annual Report on Internal Control Over Financial Reporting. Management's Report on Internal Control Over Financial Reporting on page 53 is incorporated herein by reference.

Report of the Independent Registered Public Accounting Firm. The Report of Independent Registered Public Accounting Firm on page 54 is incorporated herein by reference.

Changes in Internal Control Over Financial Reporting. There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended December 31, 2014 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

On February 27, 2015, we entered into a credit agreement with the lenders named therein, Citibank, N.A., as Administrative Agent, Bank of America, N.A. and JPMorgan Chase Bank, N.A., as Syndication Agents, and Citigroup Global Markets, Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated and J.P. Morgan Securities LLC, as Joint Lead Arrangers and Joint Bookrunners (the "Credit Agreement"). The Credit Agreement provides for a \$2.5 billion unsecured revolving credit facility to be used for general corporate purposes that is scheduled to mature on February 27, 2020. At our option, subject to certain conditions, any loan under the Credit Agreement will bear interest at a rate equal to, either (i) the LIBOR Rate or (ii) the Base Rate (defined as the highest of (a) the Federal Funds rate plus 0.50%, (b) Citibank, N.A.'s "prime rate" as announced from time to time, or (c) one-month LIBOR plus 1.00%), plus, in each case the Applicable Margin, as defined in the Credit Agreement. The Credit Agreement contains customary representations and warranties, covenants and events of default. We may also, upon the agreement of the existing lenders and/or additional lenders not currently parties to the agreement, increase the commitments under the credit facility by up to an additional \$1.0 billion. In addition, we may request to extend the maturity date of the credit facility, subject to certain conditions, for additional one-year periods.

Many of the lenders under the Credit Agreement have in the past performed, and may in the future from time to time perform, investment banking, financial advisory, lending and/or commercial banking services or other services for the Company and/or its affiliates, and certain of these lenders have served in the past as underwriters in public offerings of securities by the Company, for which they have received, and may in the future receive, customary compensation and expense reimbursement.



## PART III

## STOCK PRICE PERFORMANCE GRAPH

	2009	2010	2011	2012	2013	2014
EMC	\$100.00	\$131.08	\$123.30	\$144.82	\$143.96	\$170.23
S&P 500 Index	\$100.00	\$112.78	\$112.78	\$127.90	\$165.76	\$184.64
S&P 500 Information Technology Sector Index	\$100.00	\$109.13	\$110.58	\$125.12	\$157.93	\$186.66

Source: Returns were generated from Thomson ONE

Note: The stock price performance shown on the graph above is not necessarily indicative of future price performance. This graph shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934 (the “Exchange Act”) or otherwise subject to the liabilities of that section nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, regardless of any general incorporation language in such filing.

#### ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

We will file with the SEC a definitive Proxy Statement not later than 120 days after the close of the fiscal year ended December 31, 2014. Certain information required by this item is incorporated herein by reference to the Proxy Statement under the headings “Proposal 1 Election of Directors,” “Board Committees,” “Certain Transactions” and “Section 16(a) Beneficial Ownership Reporting Compliance.” Also see “Executive Officers of the Registrant” in Part I of this Annual Report on Form 10-K.

We have Business Conduct Guidelines that apply to all of our employees and non-employee directors. Our Business Conduct Guidelines (available on our website) satisfy the requirements set forth in Item 406 of Regulation S-K and apply to all relevant persons set forth therein. We intend to disclose on our website at [www.emc.com](http://www.emc.com) amendments to, and, if applicable, waivers of, our Business Conduct Guidelines.



ITEM 11. EXECUTIVE  
COMPENSATION

Certain information required by this item is incorporated herein by reference to the Proxy Statement under the headings “Compensation Committee Interlocks and Insider Participation,” “Leadership and Compensation Committee Report,” “Compensation Discussion and Analysis,” “Compensation of Executive Officers” and “Director Compensation.”

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

The information required by this item is incorporated herein by reference to the Proxy Statement under the headings “Security Ownership of Certain Beneficial Owners and Management” and “Equity Compensation Plan Information.”

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item is incorporated herein by reference to the Proxy Statement under the headings “Board Committees,” “Review and Approval of Transactions with Related Persons” and “Certain Transactions” and included in Note R to the consolidated financial statements.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item is incorporated herein by reference to the Proxy Statement under the heading “Pre-Approval of Audit and Non-Audit Services.”

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(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 116 of this report.

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

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 February 27, 2015.

EMC CORPORATION

By: /s/ Joseph M. Tucci  
Joseph M. Tucci  
Chairman and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of EMC Corporation and in the capacities indicated as of February 27, 2015.

Signatures	Title
/s/ Joseph M. Tucci Joseph M. Tucci	Chairman and Chief Executive Officer (Principal Executive Officer)
/s/ Zane C. Rowe Zane C. Rowe	Executive Vice President and Chief Financial Officer (Principal Financial Officer)
/s/ Denis Cashman Denis Cashman	Chief Financial Officer, EMC Information Infrastructure and Chief Accounting Officer (Principal Accounting Officer)
/s/ José E. Almeida José E. Almeida	Director
/s/ Michael W. Brown Michael W. Brown	Director
/s/ Donald J. Carty Donald J. Carty	Director
/s/ Randolph L. Cowen Randolph L. Cowen	Director
/s/ Gail Deegan Gail Deegan	Director
/s/ James S. DiStasio James S. DiStasio	Director
/s/ John R. Egan John R. Egan	Director
/s/ William D. Green William D. Green	Director
/s/ Edmund F. Kelly Edmund F. Kelly	Director

/s/ Judith A. Miscik  
Judith A. Miscik

Director

/s/ Paul Sagan  
Paul Sagan

Director

/s/ David N. Strohm  
David N. Strohm

Director

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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.<sup>(1)</sup>
- 3.2 Amended and Restated Bylaws of EMC Corporation.<sup>(1)</sup>
- 4.1 Form of Stock Certificate.<sup>(3)</sup>
- 4.2 Underwriting Agreement, dated as of June 3, 2013, by and among the Company, Citigroup Global Markets Inc., J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated, as representatives of the several underwriters named therein.<sup>(13)</sup>
- 4.3 Indenture, dated as of June 6, 2013, by and between the Company and Wells Fargo Bank, National Association, as Trustee.<sup>(13)</sup>
- 10.1\* EMC Corporation 1985 Stock Option Plan, as amended.<sup>(4)</sup>
- 10.2\* EMC Corporation 1992 Stock Option Plan for Directors, as amended.<sup>(5)</sup>
- 10.3\* EMC Corporation 1993 Stock Option Plan, as amended.<sup>(4)</sup>
- 10.4\* EMC Corporation 2001 Stock Option Plan, as amended April 29, 2010.<sup>(12)</sup>
- 10.5\* EMC Corporation Amended and Restated 2003 Stock Plan, as amended and restated as of May 1, 2013.<sup>(11)</sup>
- 10.6\* EMC Corporation Deferred Compensation Retirement Plan, as amended and restated as of January 1, 2011.<sup>(18)</sup>
- 10.7\* EMC Corporation Executive Incentive Bonus Plan.<sup>(6)</sup>
- 10.8\* Form of Change in Control Severance Agreement for Executive Officers.<sup>(19)</sup>
- 10.9\* Form of EMC Corporation Amended and Restated 2003 Stock Plan Stock Option Agreement.<sup>(3)</sup>
- 10.10\* Change in Control Severance Agreement between EMC and Zane C. Rowe dated October 1, 2014.<sup>(14)</sup>
- 10.11\* Form of EMC Corporation Amended and Restated 2003 Stock Plan Performance Stock Option Agreement.<sup>(3)</sup>
- 10.12\* Form of EMC Corporation Performance Restricted Stock Unit Agreement. (filed herewith)
- 10.13\* Form of EMC Corporation Amended and Restated 2003 Stock Plan Restricted Stock Unit Agreement. (filed herewith)
- 10.14\* Form of Indemnification Agreement.<sup>(7)</sup>
- 10.15 EMC Corporation Amended and Restated 1989 Employee Stock Purchase Plan, as amended and restated effective July 1, 2013.<sup>(11)</sup>
- 10.16\* Employment Arrangement with Joseph M. Tucci dated November 28, 2007.<sup>(8)</sup>
- 10.17\* Amendment to Employment Arrangement with Joseph M. Tucci dated December 4, 2008.<sup>(2)</sup>
- 10.18\* Amendment No. 2 to Employment Arrangement with Joseph M. Tucci dated May 7, 2009.<sup>(9)</sup>
- 10.19\* Amendment No. 3 to Employment Arrangement with Joseph M. Tucci dated October 30, 2009.<sup>(10)</sup>
- 10.20\* Amendment No. 4 to Employment Arrangement with Joseph M. Tucci dated January 20, 2012.<sup>(15)</sup>
- 10.21\* Amendment No. 5 to Employment Arrangement with Joseph M. Tucci dated September 5, 2012.<sup>(16)</sup>
- 10.22\* Letter Agreement with William F. Scannell dated July 16, 2012.<sup>(17)</sup>
- 10.23 Maginatics, Inc. 2010 Stock Incentive Plan. (filed herewith)
- 10.24 Spanning Cloud Apps, Inc. Amended and Restated 2011 Stock Plan. (filed herewith)
- 10.25 Credit Agreement, dated as of February 27, 2015, among the Company, as Borrower, the Lenders party thereto, as Lenders, Citibank, N.A., as Administrative Agent, Bank of America, N.A. and JPMorgan Chase Bank, N.A., as Syndication Agents, and Citigroup Global Markets Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated and J.P. Morgan Securities LLC, as Joint Lead Arrangers and Joint Bookrunners. (filed herewith)
- 12.1 Statement regarding Computation of Ratio of Earnings to Fixed Charges. (filed herewith)
- 21.1 Subsidiaries of Registrant. (filed herewith)
- 23.1 Consent of Independent Registered Public Accounting Firm. (filed herewith)

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- 31.1 Certification of Principal Executive Officer required by Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (filed herewith)
- 31.2 Certification of Principal Financial Officer required by Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (filed herewith)
- 32.1 Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. (filed herewith)
- 32.2 Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. (filed herewith)

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- 101.INS\*\* XBRL Instance Document. (filed herewith)
- 101.SCH\*\* XBRL Taxonomy Extension Schema. (filed herewith)
- 101.CAL\*\* XBRL Taxonomy Extension Calculation Linkbase. (filed herewith)
- 101.DEF\*\* XBRL Taxonomy Extension Definition Linkbase. (filed herewith)
- 101.LAB\*\* XBRL Taxonomy Extension Label Linkbase. (filed herewith)
- 101.PRE\*\* XBRL Taxonomy Extension Presentation Linkbase. (filed herewith)

\* This exhibit is a management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(a) of Form 10-K.  
Pursuant to Rule 406T of Regulation S-T, these interactive data files shall not be deemed to be “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to liability under that section, and shall not be incorporated by reference into any registration statement or other document filed under the Securities Act of 1933, as amended, except as expressly set forth by specific reference in such filing.

- (1) Incorporated by reference to EMC Corporation’s Quarterly Report on Form 10-Q filed May 3, 2013 (No. 1-9853).
- (2) Incorporated by reference to EMC Corporation’s Annual Report on Form 10-K filed February 27, 2009 (No. 1-9853).
- (3) Incorporated by reference to EMC Corporation’s Annual Report on Form 10-K filed February 29, 2008 (No. 1-9853).
- (4) Incorporated by reference to EMC Corporation’s Quarterly Report on Form 10-Q filed July 30, 2002 (No. 1-9853).
- (5) Incorporated by reference to EMC Corporation’s Quarterly Report on Form 10-Q filed April 27, 2005 (No. 1-9853).
- (6) Incorporated by reference to EMC Corporation’s Current Report on Form 8-K filed February 2, 2005 (No. 1-9853).
- (7) Incorporated by reference to EMC Corporation’s Annual Report on Form 10-K filed February 25, 2014 (No. 1-9853).
- (8) Incorporated by reference to EMC Corporation’s Current Report on Form 8-K filed November 30, 2007 (No. 1-9853).
- (9) Incorporated by reference to EMC Corporation’s Quarterly Report on Form 10-Q filed May 8, 2009 (No. 1-9853).
- (10) Incorporated by reference to EMC Corporation’s Quarterly Report on Form 10-Q filed November 6, 2009 (No. 1-9853).
- (11) Incorporated by reference to EMC Corporation’s Definitive Proxy Statement on Schedule 14A filed March 21, 2013 (No. 1-9853).
- (12) Incorporated by reference to EMC Corporation’s Quarterly Report on Form 10-Q filed May 7, 2010 (No. 1-9853).
- (13) Incorporated by reference to EMC Corporation’s Current Report on Form 8-K filed June 6, 2013 (No. 1-9853).
- (14) Incorporated by reference to EMC Corporation’s Current Report on Form 8-K filed October 1, 2014 (No. 1-9853).
- (15) Incorporated by reference to EMC Corporation’s Current Report on Form 8-K filed January 24, 2012 (No. 1-9853).
- (16) Incorporated by reference to EMC Corporation’s Current Report on Form 8-K filed September 6, 2012 (No. 1-9853).
- (17) Incorporated by reference to EMC Corporation’s Quarterly Report on Form 10-Q filed August 2, 2012 (No. 1-9853).
- (18) Incorporated by reference to EMC Corporation’s Annual Report on Form 10-K filed February 24, 2012 (No. 1-9853).
- (19) Incorporated by reference to EMC Corporation’s Annual Report on Form 10-K filed February 27, 2013 (No. 1-9853).





EMC CORPORATION AND SUBSIDIARIES  
SCHEDULE II-VALUATION AND QUALIFYING ACCOUNTS  
(in millions)

Allowance for Bad Debts		Allowance for Bad Debts		
Description	Balance at Beginning of Period	Charged to Selling, General and Administrative Expenses	Bad Debts Write-Offs	Balance at End of Period
Year ended December 31, 2014 allowance for doubtful accounts	\$65	\$10	\$(1	) \$74
Year ended December 31, 2013 allowance for doubtful accounts	72	(1	) (6	) 65
Year ended December 31, 2012 allowance for doubtful accounts	65	39	(32	) 72
Note: The allowance for doubtful accounts includes both current and non-current portions.				
Allowance for Sales Returns		Allowance for Sales Returns		
Description	Balance at Beginning of Period	Accounted for as a Reduction in Revenue	Sales Returns	Balance at End of Period
Year ended December 31, 2014 allowance for sales returns	\$76	\$89	\$(95	) \$70
Year ended December 31, 2013 allowance for sales returns	86	55	(65	) 76
Year ended December 31, 2012 allowance for sales returns	133	17	(64	) 86
Tax Valuation Allowance		Tax Valuation Allowance		
Description	Balance at Beginning of Period	Charged to Income Tax Provision	Allowance Credited to Income Tax Provision	Balance at End of Period
Year ended December 31, 2014 income tax valuation allowance	\$211	\$1	\$(86	) \$126
Year ended December 31, 2013 income tax valuation allowance	183	32	(4	) 211
Year ended December 31, 2012 income tax valuation allowance	151	33	(1	) 183