

NCR CORP  
Form 10-K  
February 26, 2018  
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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

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FORM 10-K

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

For the fiscal year ended December 31, 2017  
Commission File Number 001-00395

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

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Maryland 31-0387920  
(State or other jurisdiction of (I.R.S. Employer  
incorporation or organization) Identification No.)  
864 Spring Street NW  
Atlanta, GA 30308  
(Address of principal executive offices) (Zip Code)  
Registrant's telephone number, including area code: (937) 445-5000  
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 \$0.01 per share New York Stock Exchange  
Securities registered pursuant to Section 12(g) of the Act: None

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Indicate by check mark 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) is not contained herein, and will not be contained, to the best of the 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.

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

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

The aggregate market value of voting stock held by non-affiliates of the registrant as of June 30, 2017, was approximately \$5.0 billion. As of February 14, 2018, there were approximately 118.4 million shares of common stock issued and outstanding.

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## DOCUMENTS INCORPORATED BY REFERENCE

Part III: Portions of the Registrant's Definitive Proxy Statement for its Annual Meeting of Stockholders to be filed pursuant to Regulation 14A within 120 days after the Registrant's fiscal year end of December 31, 2017 are incorporated by reference into Part III of this Report.

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This Report contains trademarks, service marks and registered marks of NCR Corporation and its subsidiaries, and of other companies, as indicated. Unless otherwise indicated, the terms “NCR,” the “Company,” “we,” “us,” and “our” refer to NCR Corporation and its subsidiaries.

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**FORWARD-LOOKING STATEMENTS**

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements use words such as “expect,” “anticipate,” “outlook,” “intend,” “plan,” “believe,” “will,” “should,” “would,” “could,” “provisional” and words of similar meaning. Statements that describe our plans, goals, intentions, strategies or financial outlook, and statements that do not relate to historical or current fact, are examples of forward-looking statements. Forward-looking statements are based on our current beliefs, expectations and assumptions, which may not prove to be accurate, and involve a number of known and unknown risks and uncertainties, many of which are out of our control. Forward-looking statements are not guarantees of future performance, and there are a number of important factors that could cause actual outcomes and results to differ materially from the results contemplated by such forward-looking statements, including those factors listed in Item 1A “Risk Factors,” and Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” of this Annual Report on Form 10-K. Any forward-looking statement speaks only as of the date on which it is made. We do not undertake any obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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PART I

Item 1. BUSINESS

General

Businesses

NCR is a leading global provider of omni-channel technology solutions that enrich the interactions of businesses with their customers. Our solutions are designed to allow businesses in the financial services, retail, hospitality, travel and telecommunications and technology industries to deliver a rich, integrated and personalized experience to consumers across physical and digital commerce channels. Our offerings include a portfolio of omni-channel platform software and other software applications, industry-focused hardware and smart-edge devices including automated teller machines (ATMs), point of sale (POS) terminals and devices and self-service kiosks, and a complete suite of consulting, implementation, maintenance, support and managed services. We also resell third-party networking products and provide related service offerings in the telecommunications and technology sectors. Our solutions create value for our customers by increasing productivity and allowing them to address consumer demand for convenience, value and individual service across different commerce channels.

Industries Served

NCR provides specific solutions for customers of varying sizes in a range of industries such as financial services, retail, hospitality, travel and telecommunications and technology. NCR's solutions are built on a foundation of long-established industry knowledge and expertise, omni-channel platform and other software, industry-focused hardware and smart-edge devices, and global implementation, consulting, maintenance, support and managed services.

Company History

NCR was originally incorporated in 1884 and was a publicly traded company on the New York Stock Exchange prior to its merger with a wholly-owned subsidiary of AT&T Corp. (AT&T) on September 19, 1991. On December 31, 1996, AT&T distributed all of its interest in NCR to its stockholders. NCR common stock is listed on the New York Stock Exchange and trades under the symbol "NCR".

On September 30, 2007, NCR completed the spin-off of its Teradata Data Warehousing business through the distribution of a tax-free stock dividend to NCR stockholders. NCR distributed one share of common stock of Teradata Corporation for each share of NCR common stock to NCR stockholders of record as of the close of business on September 14, 2007.

On August 24, 2011, NCR completed the acquisition of Radiant Systems, Inc. (Radiant). The acquisition was completed through a tender offer and subsequent merger. Radiant was a leading provider of technology solutions for managing site operations in the hospitality and specialty retail industries.

On February 6, 2013, NCR completed the acquisition of Retailix Ltd. (Retailix). Retailix was a leading global provider of innovative retail software and was subsequently integrated into NCR's omni-channel solution offerings for the retail industry.

On January 10, 2014, NCR completed its acquisition of Digital Insight Corporation (Digital Insight). The Digital Insight acquisition and subsequent integration extended NCR's existing capabilities in the financial services industry to form a complete enterprise software platform across both physical and digital channels.

### Operating Segments

We categorize our operations into three reportable segments: Software, Services and Hardware.

The information required by Item 1 with respect to our reportable segments and financial information regarding our geographic areas and those reportable segments can be found in Item 7 of Part II of this Report under “Revenue and Operating Income by Segment” as well as in Item 8 of Part II of this Report as part of Note 12, “Segment Information and Concentrations” of the Notes to Consolidated Financial Statements and in Item 1A of this Report under "Multinational Operations," and is incorporated herein by reference.

### Products and Services

We sell a portfolio of software, services, and hardware that combine to provide businesses with solutions to connect, interact and transact with their customers. Our offerings fall into the following categories:

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### Software Solutions

Our software offerings include industry-based software platforms such as our Cx Banking self-service ATM software application suite (providing ATM management systems) for financial services, our Retail ONE and Aloha Enterprise software application suites for the retail and hospitality industries, and NCR Silver, a cloud-based POS system for small businesses. We also provide a portfolio of other industry-oriented software applications, which include cash management software, video banking software, fraud and loss prevention applications, check and document imaging, remote-deposit capture, and customer-facing mobile and digital banking applications, such as web-enablement and bill payment (including mobile bill payment), for the financial services industry; and secure electronic and mobile payment solutions, sector-specific point of sale software applications for quick-service restaurants, gas stations and other businesses, and back-office inventory and store and restaurant management applications, for the retail and hospitality industries. We also provide in-depth industry and solution based consulting and professional services focused on solution implementation, integration, customization and optimization, and cloud hosting services. Our software platforms and applications, which are delivered on software as a service (SaaS), enterprise license and other bases, are designed to work seamlessly together, with our hardware products, or as stand-alone solutions. Our software solutions deliver a consistent and rich consumer experience across channels, while enabling businesses to digitize and automate labor-intensive processes, reduce costs and increase productivity.

### Services

Services are an essential and integrated component of NCR's complete solution offerings to help companies increase availability and security of consumer touchpoints, improve operational efficiency and enhance the customer experience. We provide global end-to-end services from assessment and preparation, to staging, installation and implementation, and maintenance and support. We also provide systems management and complete managed services for our product offerings. We also provide Predictive Services, a managed services offering, which is designed to predict and address information technology issues quickly before they happen. In addition, we provide installation, maintenance and managed services for third party networking products to a broad base of customers in the telecommunications and technology sectors, and we service third party computer hardware from select manufacturers who value and leverage our global service capability.

### Hardware Products

We provide financial institutions, retailers and independent deployers with a suite of financial-oriented self-service hardware products. Our financial services hardware products include multi-function ATMs, interactive teller machines (ITMs), thin-client ATMs, cash dispensers, cash recycling ATMs and hardware for check and image processing. Our financial services hardware products are designed to quickly, reliably and securely process consumer banking transactions while providing low cost of ownership, efficiency and a modernized consumer experience. We also provide retail- and hospitality-oriented hardware products such as point of sale terminals, self-checkout kiosks, order and payment kiosks, bar code scanners, printers and peripherals, to retailers, restaurants, food service companies and entertainment and sports venues worldwide. Our retail and hospitality hardware products are designed to improve operational efficiency, increase customer satisfaction, streamline order and transaction processing and reduce operating costs. We also provide other self-service kiosks, such as self-check in/out kiosk solutions for airlines, hotels and casinos that allow guests to check in/out without assistance, wayfinding solutions (locating products or navigating through large, complex buildings and campuses), digital signage, bill payment kiosks and gift registries. These solutions create pleasant and convenient experiences for consumers and enable our customers to reduce costs. In addition, we resell third party networking products to a broad base of customers in the telecommunications and technology sectors.

### Target Markets and Distribution Channels



NCR provides its software, services and hardware solutions to customers of varying sizes in the financial services, retail, hospitality, travel and telecommunications and technology industries.

Our financial solutions primarily serve the financial services industry with particular focus on retail banking, which includes traditional providers of consumer banking and financial services. These solutions also serve the retail markets through convenience banking products for retailers designed to complement their core businesses. Our financial solutions customers are located throughout the world in both developed and emerging markets. We have historically sold most of our financial solutions through a direct sales channel, although a portion of revenue is derived through distributors and value-added resellers.

We provide POS and self-service kiosk solutions to the retail and hospitality industries. Retail customers include department stores, specialty retailers, mass merchandisers, catalog stores, supermarkets, hypermarkets, grocery stores, drug stores, wholesalers, convenience stores, petroleum outlets and small businesses. Hospitality customers include retailers, restaurants and food service providers, and sports and entertainment venues (including stadiums, arenas and cinemas) and small businesses. We also provide our self-service solutions to customers in the travel industry, including airlines, airports, car rental companies, and hotel/lodging operators. POS and self-service kiosk solutions are sold through a direct sales force and through relationships with value-added resellers, distributors, dealers and other indirect sales channels.

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We provide service and support for our products and solutions through services contracts with our customers. We have also established managed services contracts with key customers and continue to pursue additional managed services relationships. Longer term managed services arrangements can help improve the efficiency and performance of a customer's business, and also increase the strategic and financial importance of its relationship with NCR. We also service competing technologies—for example, ToshibaTec retail technologies and Diebold Nixdorf ATMs. The primary sales channel for our services is our direct sales teams, which exist across all geographies where we operate around the world. Our services professionals provide these services directly to end customers.

### Competition

We face a diverse group of competitors in the industries in which we sell our software, services, and hardware solutions. The primary factors of competition can vary by geographic area where we operate around the world, but typically include: value and quality of the solutions or products; total cost of ownership; industry knowledge of the vendor; the vendor's ability to provide and support a total end-to-end solution; the vendor's ability to integrate new and existing systems; fit of the vendor's strategic vision with the customer's strategic direction; and quality of the vendor's consulting, deployment and support services.

In the financial services industry, we face a variety of competitors, including ATM manufacturers such as Diebold Nixdorf Incorporated and Nautilus Hyosung, and ATM network operators such as Cardtronics plc, as well as many other regional firms, across all geographies where we operate around the world. Other competitors vary by product, service offering and geographic area, and include, among others, Fidelity National Information Services, First Data Corporation, Euronet Worldwide, Inc., Q2 Holdings and ACI Worldwide.

We also face a variety of competitors in the retail and hospitality industries across all geographies where we operate around the world. Our competitors vary by market segment, product, service offering and geographic area, and include ToshibaTec, Diebold Nixdorf, Fujitsu, Hewlett-Packard Inc., Honeywell, Oracle, Manhattan Associates and Datalogic, among others.

We face a diverse group of competitors in the travel industry. Competitors in the travel industry include Embross, SITA and IER, among others.

We face competition for services from other technology and service providers, as well as from independent service operators, in all geographies where we operate around the world. The primary services competitors are the companies identified above, as global technology providers continue to focus on services as a core business strategy. We also compete with a range of regional and local independent service operators across our various geographies.

### Research and Development

We remain focused on designing and developing solutions that anticipate our customers' changing technological needs as well as consumer preferences. Our expenses for research and development were \$256 million in 2017, \$242 million in 2016, and \$230 million in 2015. We anticipate that we will continue to have significant research and development expenditures in the future in order to provide a continuing flow of innovative, high-quality products and services and to help maintain and enhance our competitive position. Information regarding the accounting and costs included in research and development activities is included in Note 1, "Basis of Presentation and Significant Accounting Policies" of the Notes to Consolidated Financial Statements in Item 8 of Part II of this Report under "Research and Development Costs," and is incorporated herein by reference.

Patents and Trademarks

NCR seeks patent protection for its innovations, including improvements, associated with its software, hardware, services, solutions, and developments, where such protection is likely to provide value to NCR. NCR owns approximately 1,275 patents in the U.S. and numerous other patents in foreign countries. The foreign patents are generally counterparts of NCR's U.S. patents. Many of the patents owned by NCR are licensed to others, and NCR is licensed under certain patents owned by others. NCR looks to monetize its patents to drive additional value from its patent portfolio. NCR also has numerous patent applications pending in the U.S. and in foreign countries. NCR's portfolio of patents and patent applications is of significant value to NCR.

NCR has registered certain trademarks and service marks in the U.S. and in a number of foreign countries. NCR considers the "NCR" and NCR logo marks and many of its other trademarks and service marks to have significant value to NCR.

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### Seasonality

Our sales are historically seasonal, with lower revenue in the first quarter and higher revenue in the fourth quarter of each year. Such seasonality also causes our working capital cash flow requirements to vary from quarter to quarter depending on variability in the volume, timing and mix of sales. In addition, revenue in the third month of each quarter is typically higher than in the first and second months. Information regarding seasonality and its potential impact on our business is included in Item 1A of this Report under the caption, “Operating Results Fluctuations,” and is incorporated herein by reference.

### Manufacturing and Raw Materials

In most cases, there are a number of vendors providing the services and producing the parts and components that we utilize. However, there are some services and components that are purchased from single sources due to price, quality, technology or other reasons. For example, we depend on computer chips and microprocessors from Intel and operating systems from Microsoft. Certain parts and components used in the manufacturing of our ATMs and the delivery of many of our retail solutions are also supplied by single sources. In addition, there are a number of key suppliers for our businesses who provide us with critical products for our solutions.

At December 31, 2017, we manufactured our ATMs in facilities located in Columbus, Georgia, USA; Manaus, Brazil; Budapest, Hungary; Beijing, China; and Chengalpattu, India. Our self-checkout solutions are manufactured in facilities located in Columbus, Georgia, USA and Budapest, Hungary. Our financial kiosk solutions are manufactured in facilities located in Beijing, China; Budapest, Hungary; Manaus, Brazil; and Chengalpattu, India. Our POS/Display terminals are manufactured in facilities located in Columbus, Georgia, USA; and Budapest, Hungary, and certain hand-held solutions are manufactured in Salzburg, Austria. NCR outsources the manufacturing in all geographic regions of its payment solutions, some POS/Display terminals, printers, bar code scanners and various other kiosks.

Further information regarding the potential impact of these relationships on our business operations, and regarding sources and availability of raw materials, is also included in Item 1A of this Report under the caption “Reliance on Third Parties,” and is incorporated herein by reference.

### Product Backlog

Our backlog was approximately \$1.37 billion and \$1.38 billion at December 31, 2017 and 2016, respectively. The backlog includes orders confirmed for products scheduled to be shipped as well as certain professional and transaction services to be provided. Although we believe that the orders included in the backlog are firm, some orders may be canceled by the customer without penalty. Even when penalties for cancellation are provided for in a customer contract, we may elect to permit cancellation of orders without penalty where management believes it is in our best interests to do so. Further, we have a significant portion of revenue derived from our growing service-based business (including our cloud and hosted businesses), for which backlog information has not historically been measured. Therefore, we do not believe that our backlog, as of any particular date, is necessarily indicative of revenue for any future period.

### Employees

On December 31, 2017, NCR had approximately 34,000 employees and contractors worldwide.

### Environmental Matters

Compliance with federal, state, and local environmental regulations relating to the protection of the environment could have a material adverse impact on our capital expenditures, earnings or competitive position. While NCR does not currently expect to incur material capital expenditures related to compliance with such laws and regulations, and while we believe the amounts provided in our Consolidated Financial Statements are adequate in light of the probable and estimable liabilities in this area, there can be no assurances that environmental matters will not lead to a material adverse impact on our capital expenditures, earnings or competitive position. A detailed discussion of the current estimated impacts of compliance issues relating to environmental regulations, particularly the Fox River and Kalamazoo River matters, is reported in Item 8 of Part II of this Report as part of Note 9, "Commitments and Contingencies" of the Notes to Consolidated Financial Statements and is incorporated herein by reference. Further information regarding the potential impact of compliance with federal, state, and local environmental regulations is also included in Item 1A of this Report under the caption "Environmental," and is incorporated herein by reference.

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## Executive Officers of the Registrant

The Executive Officers of NCR (as of February 26, 2018) are as follows:

Name	Age	Position and Offices Held
William R. Nuti	54	Chairman of the Board and Chief Executive Officer
Mark D. Benjamin	47	President and Chief Operating Officer
Adrian Button	45	Senior Vice President, Global Hardware Product Operations
Daniel W. Campbell	57	Executive Vice President, Global Sales
J. Robert Ciminera	60	Executive Vice President, Global Customer Services
Robert P. Fishman	54	Executive Vice President and Chief Financial Officer
Edward R. Gallagher	64	Senior Vice President, General Counsel and Corporate Secretary
Paul Langenbahn	49	Executive Vice President, Global Software
Andrea L. Ledford	52	Executive Vice President, Chief Administration Office, and Chief Human Resources Officer

Set forth below is a description of the background of each of the Executive Officers.

William R. Nuti is NCR's Chairman of the Board and Chief Executive Officer, and prior to October 2016 Mr. Nuti also served as NCR's President. Mr. Nuti became a director of NCR on August 7, 2005 and became Chairman of the Board on October 1, 2007. Before joining NCR in August 2005, Mr. Nuti served as President and Chief Executive Officer of Symbol Technologies, Inc., an information technology company. Prior to that, he was Chief Operating Officer of Symbol Technologies. Mr. Nuti joined Symbol Technologies in 2002 following a 10 plus year career at Cisco Systems, Inc. where he advanced to the dual role of Senior Vice President of the company's Worldwide Service Provider Operations and U.S. Theater Operations. Prior to his Cisco experience, Mr. Nuti held sales and management positions at IBM, Netrix Corporation and Network Equipment Technologies. Mr. Nuti is also a director of Coach, Inc., where he is a member of its Human Resources Committee, and United Continental Holdings, Inc. where he is a member of its Finance, Compensation and Public Responsibility Committees. Mr. Nuti previously served as a director of Sprint Nextel Corporation. He is also a member of the Georgia Institute of Technology advisory board and a trustee of Long Island University.

Mark D. Benjamin joined NCR as its President and Chief Operating Officer in October 2016. Prior to joining NCR, Mr. Benjamin spent 24 years in a series of global assignments with Automatic Data Processing, Inc. (ADP), which he joined in 1992. At ADP, Mr. Benjamin served from July 2013 to September 2016 as President of ADP's Global Enterprise Solutions division, leading a team of 20,000 employees, and managing a multi-billion dollar portfolio of businesses serving clients in over 100 countries. Before that, Mr. Benjamin served as President, Employer Services International, from July 2011 to July 2013, as Senior Vice President, Services and Operations - Small Business Services and Total Source, from April 2008 to June 2011, and in various other operations-focused roles. Mr. Benjamin holds a bachelor's degree in international finance and marketing from the University of Miami.

Adrian Button became NCR's Senior Vice President, Global Hardware Product Operations, in February 2018, and from July 2017, when he joined NCR, to February 2018, Mr. Button acted as Senior Vice President Global Operations. Before he joined NCR, Mr. Button spent 19 years in various management roles with different divisions of the General Electric Company (GE). Most recently, Mr. Button served from January 2016 to July 2017 as Vice President, Supply Chain, for GE Industrial Solutions, with oversight of the division's supply chain and service operations across 41 global factories. Prior to that, Mr. Button served as Vice President, Turbomachinery, for GE's Oil & Gas division from January 2014 to December 2016, as General Manager of Global Operations Leader for GE's Oil & Gas division from March 2011 to December 2013, and in other operations and supply chain roles with GE Aviation. Mr. Button holds a bachelor's degree in engineering from the University of Glamorgan, Wales, United Kingdom.

Daniel W. Campbell became NCR's Executive Vice President, Global Sales, in February 2018. Previously, from July 2015 to February 2018, Mr. Campbell served as a Senior Vice President and General Manager at Virtustream, Inc., which he joined after it was acquired by EMC Corporation (EMC) in July 2015. With Virtustream, Mr. Campbell led the global sales integration with EMC's sales organization, built a global strategic alliances and channels organization, and co-launched the Virtustream Storage Cloud, an enterprise-class cloud storage platform. Before joining Virtustream, from April 1998 through July 2015, Mr. Campbell served in a series of sales and management roles of increasing responsibility at EMC, including most recently as Senior Vice President, Global Specialty Sales from October 2013 to July 2015, and Chief Operating Officer and Senior Vice President, World Wide Sales, Backup Recovery Systems Division from January 2011 to December 2013. Before joining EMC, Mr. Campbell served in various sales and management roles with Sperry, Unisys, Motorola and Wang.

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J. Robert Ciminera became NCR's Executive Vice President, Global Customer Services in February 2018. Previously, Mr. Ciminera served as NCR's Executive Vice President, Hardware Product Operations, from January 2017 to February 2018, where he was responsible for NCR's hardware product portfolio. Before that, Mr. Ciminera served as NCR's Senior Vice President, Hardware Solutions and Global Operations from October 2015 to January 2017, as NCR's Senior Vice President, Integrated Supply Chain Operations from May 2014 to October 2015, and as NCR's Vice President, Strategic Sourcing and Chief Procurement Officer from February 2009, when he joined NCR, through May 2014. Before joining NCR, Mr. Ciminera served in various sourcing, supply chain and product management roles with Avaya, Motorola, Symbol Technologies and other technology companies.

Robert P. Fishman became Executive Vice President and Chief Financial Officer in April 2016, and served as Senior Vice President and Chief Financial Officer from March 2010 to April 2016. Prior to becoming Chief Financial Officer, he was Interim Chief Financial Officer from October 2009 to March 2010, and Vice President and Corporate Controller from January 2007 to October 2009. From September 2005 to January 2007, Mr. Fishman was Assistant Controller and from January 2005 to September 2005, he was Director, Corporate Planning. Mr. Fishman joined NCR in 1993.

Edward R. Gallagher was named Senior Vice President, General Counsel and Secretary of NCR in October 2015, having served as Acting General Counsel since October 2014. His prior position with NCR was Law Vice President, Litigation & Employment Law, commencing in 2003; he has also served in other positions within the NCR Law Department, including Chief Counsel of the former Systemedia Division. Mr. Gallagher joined NCR in 1992. Prior to that, Mr. Gallagher was an attorney in private practice in San Francisco and in Boston. Mr. Gallagher holds a law degree from Yale Law School, as well as a master's degree from Yale University in political science and international relations. He has an undergraduate degree from the University of South Dakota.

Paul Langenbahn became NCR's Executive Vice President, Global Software, in January 2017. From April 2014 to December 2016, Mr. Langenbahn served as Senior Vice President and President, Hospitality, and before that, following NCR's acquisition of Radiant Systems, Inc. in 2011, he served as Vice President, Global Sales, Marketing and Services for NCR's Hospitality division. Prior to joining NCR in 2011, Mr. Langenbahn was President of Radiant Systems' Hospitality division, and he held various other leadership roles in sales, professional services, solution management and general management at Radiant Systems, where he was instrumental in the company's development and growth.

Andrea L. Ledford became Executive Vice President, Chief Administration Office, and Chief Human Resources Officer in February 2016. Previously, Ms. Ledford was Senior Vice President, Corporate Services and Chief Human Resources Officer from November 2013 to January 2016, Senior Vice President and Chief Human Resources Officer, from June 2012 to November 2013, Senior Vice President, Human Resources, from June 2007 to June 2012, and Interim Senior Vice President, Human Resources from February 2007 to June 2007. Prior to assuming this position, she was Vice President, Human Resources, Asia/Pacific, and Europe, Middle East and Africa, from February 2006 to February 2007. Before joining NCR in February 2006, Ms. Ledford was EMEA Leader, Human Resources, at Symbol Technologies, Inc. from 2002 to February 2006 and held a variety of leadership roles at Cisco Systems, Inc. in EMEA, Asia/Pacific and Latin America.

Available Information

NCR makes available through its website at <http://investor.ncr.com>, free of charge, its Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, definitive proxy statements on Schedule 14A and Current Reports on Form 8-K, and all amendments to such reports and schedules, as soon as reasonably practicable after these reports are electronically filed or furnished to the U.S. Securities and Exchange Commission (SEC) pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (the Exchange Act). The SEC website ([www.sec.gov](http://www.sec.gov)) contains the reports, proxy



statements and information statements, and other information regarding issuers that file or furnish electronically with the SEC. Also, the public may read and copy any materials that NCR files or furnishes with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. NCR will furnish, without charge to a security holder upon written request, the Notice of Meeting and Proxy Statement for the 2018 Annual Meeting of Stockholders (the 2018 Proxy Statement), portions of which are incorporated herein by reference. NCR also will furnish its Code of Conduct at no cost and any other exhibit at cost. Document requests are available by calling or writing to:

NCR—Investor Relations  
864 Spring Street NW  
Atlanta, GA 30308  
Phone: 800-255-5627  
E-Mail: [investor.relations@ncr.com](mailto:investor.relations@ncr.com)  
Website: <http://investor.ncr.com>

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NCR's website, [www.ncr.com](http://www.ncr.com), contains a significant amount of information about NCR, including financial and other information for investors. NCR encourages investors to visit its website regularly, as information may be updated and new information may be posted at any time. The contents of NCR's website are not incorporated by reference into this Form 10-K and shall not be deemed "filed" under the Exchange Act.

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## Item 1A. RISK FACTORS

The risks and uncertainties described below could materially and adversely affect our business, financial condition, results of operations, could cause actual results to differ materially from our expectations and projections, and could cause the market value of our stock to decline. You should consider these risk factors when reading the rest of this Annual Report on Form 10-K, including “Management's Discussion and Analysis of Financial Condition and Results of Operations” and our financial statements and related notes included elsewhere in this document. These risk factors may not include all of the important factors that could affect our business or our industry or that could cause our future financial results to differ materially from historic or expected results or cause the market price of our common stock to fluctuate or decline.

**Economic Pressures.** Our business may be negatively affected by domestic and global economic and credit conditions. Our business is sensitive to the strength of domestic and global economic and credit conditions, particularly as they affect, either directly or indirectly, the financial services, retail and hospitality sectors of the economy. Economic and credit conditions are influenced by a number of factors, including political conditions, consumer confidence, unemployment levels, interest rates, tax rates, commodity prices and government actions to stimulate economic growth. The imposition or threat of protectionist trade policies or import or export tariffs, global and regional market conditions and spending trends in the financial services and retail industries, new comprehensive U.S. tax legislation, modified or new global or regional trade agreements, the determination by the United Kingdom to exit the European Union

(EU), uncertainty over further potential changes in Eurozone participation and fluctuations in oil and commodity prices, among other things, have created a challenging and unpredictable environment in which to market the products and services of our various businesses across our different geographies and industries. A negative or unpredictable economic climate could create uncertainty or financial pressures that impact the ability or willingness of our customers to make capital expenditures, thereby affecting their decision to purchase or roll out our products or services or, especially with respect to smaller customers, to pay accounts receivable owed to NCR. Additionally, if customers respond to a negative or unpredictable economic climate by consolidation, it could reduce our base of potential customers. Negative or unpredictable global economic conditions also may have a material effect on our customers' ability to obtain financing for the purchase of our products and services from third party financing companies, which could adversely affect our operating results.

**Business Model.** If we are unsuccessful in transforming our business model, our operating results could be negatively impacted. In recent years, we have shifted our business model to become a global technology solutions company that uses software and value-added endpoints, coupled with higher-margin services and a focus on cloud and mobile, to help our customers deliver a rich, integrated and personalized experience to consumers across commerce channels. Our success depends heavily on our ability to continue to grow our higher-margin software and services businesses. Our ability to grow these businesses depends on a number of different factors including, among others, developing, deploying and supporting the next generation of integrated, platform-based software solutions for the industries we serve; market acceptance of our new and existing software and cloud solutions; enabling our sales force to use a consultative selling model that better incorporates our comprehensive and new solutions; transforming our services performance, capabilities and coverage to improve efficiency, incorporate remote diagnostic and other technologies and align with and support our new solutions; managing professional services and other costs associated with large solution roll-outs; and integrating, developing and supporting software gained through acquisitions. In addition, development of these businesses may require increased capital and research and development expenses and resource allocation, and while we will seek to have the right level of investment and the right level of resources focused on these opportunities, these costs may reduce our gross margins and the return on these investments may be lower, or may develop more slowly, than we expect. In addition, we continue to pursue initiatives to expand our customer base by increasing our use of indirect sales channels, and by developing, marketing and selling solutions aimed at the

small- to medium-business market. It is not yet certain whether these initiatives will yield the anticipated benefits, or whether our solutions will be compelling and attractive to small- and medium-sized businesses. If we are not successful in growing our higher-margin software and services businesses and expanding our customer base at the rate that we anticipate, we may not meet our growth and gross margin projections or expectations, and operating results could be negatively impacted.

**Competition.** If we do not compete effectively within the technology industry, we will not be successful. We operate in the intensely competitive information technology industry. This industry is characterized by rapidly changing technology, disruptive technological innovation, evolving industry standards, frequent new product introductions, price and cost reductions, and increasingly greater commoditization of products making differentiation difficult. Our traditional competitors include other large companies in the information technology industry, such as: Hewlett-Packard Inc., Diebold Nixdorf, Nautilus Hyosung, ToshibaTec, Micros (Oracle), Fujitsu, Q2 Holdings and ACI Worldwide, some of which have more financial and technical resources, or more widespread distribution and market penetration for their platforms and service offerings, than we do. We also compete with companies in specific industry segments, such as entry-level ATMs, point-of-sale solutions and imaging solutions. In addition, as consumers and customers in the financial services, retail and hospitality industry adopt new alternative technologies such as cashless and other streamlined payment services and automated shopping solutions, we may face competition from other technology companies.

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Our future competitive performance and market position depend on a number of factors, including our ability to:

• react to competitive product and pricing pressures;

• penetrate and meet the changing competitive requirements and deliverables in developing and emerging markets;

• exploit opportunities in emerging vertical markets, such as travel and telecommunications and technology;

• cross-sell additional products and services to our existing customer base;

• rapidly and continually design, develop and market, or otherwise maintain and introduce innovative solutions and related products and services for our customers that are competitive in the marketplace;

• react on a timely basis to shifts in market demands and technological innovations, including shifts toward the desire of banks and retailers to provide an omni-channel experience to their customers and the use of mobile devices in transactions and payments;

• compete in reverse auctions for new and continuing business;

- reduce costs without creating operating inefficiencies or impairing product or service quality;

• maintain competitive operating margins;

• improve product and service delivery quality; and

• effectively market and sell all of our diverse solutions.

Our business and operating performance also could be impacted by external competitive pressures, such as consolidation, increasing price erosion and the entry of new competitors and technologies into our existing product and geographic markets. In addition, our customers sometimes finance our product sales through third party financing companies, and in the case of customer default, these financing companies may be forced to resell this equipment at discounted prices, competing with us and impacting our ability to sell incremental units. The impact of these product and pricing pressures could include lower customer satisfaction, decreased demand for our solutions, loss of market share and reduction of operating profits.

**Introduction of New Solutions.** If we do not swiftly and successfully develop and introduce new solutions in the competitive, rapidly changing environment in which we do business, our business results will be impacted. The development process for our solutions requires high levels of innovation from our product development teams and suppliers of the components embedded or incorporated in our solutions. In addition, certain of our solutions, including our cloud solutions, may require us to build, lease or expand, and maintain, infrastructure (such as hosting centers) to support them. The development process also can be lengthy and costly, and requires us to commit a significant amount of resources to bring our business solutions to market. We may not be able to anticipate our customers' needs and technological and industry trends accurately, or to complete development of new solutions efficiently. In addition, contract terms, market conditions or customer preferences may affect our ability to limit, sunset or end-of-life our older products in a timely or cost-effective fashion. If any of these risks materialize, we may be unable to introduce new solutions into the market on a timely basis, if at all, and our business and operating results could be impacted. Likewise, we sometimes make assurances to customers regarding the operability and specifications of new

technologies, and our results could be impacted if we are unable to deliver such technologies, or if such technologies do not perform as planned. Once we have developed new solutions, if we cannot successfully market and sell those solutions, our business and operating results could be impacted.

Data Privacy and Cybersecurity. Cybersecurity and data privacy issues could negatively impact our business. Our products and services, including our cloud and hosted solutions, facilitate financial and other transactions for the customers in the industries we serve. As a result, we collect, use, transmit and store certain of the transaction and personal information of our customers and the end-users of our solutions. We also may have access to transaction and personal information of our customers and their customers through or in the course of servicing our products or third party products. Additionally, we collect, use and store personal information of our employees and the personnel of our business partners, such as resellers, suppliers and contractors, in the ordinary course of business. While we have programs and measures in place designed to safeguard this data, and while we have implemented access controls designed to limit the risk of unauthorized use or disclosure by employees and contractors, the techniques used to obtain unauthorized access to this data are complex and changing, and may be difficult to detect for long periods of time. An attack, disruption, intrusion, denial of service, theft or other breach, or an inadvertent act by an employee or contractor, could result in unauthorized access to, or

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disclosure of, this data, resulting in claims, costs and reputational harm that could materially and adversely affect our operating results. We may also detect, or may receive notice from third parties (including governmental agencies) regarding potential vulnerabilities in our information technology systems, our products, or third party products used in conjunction with our products. Even if these potential vulnerabilities do not result in a data breach, their existence can adversely affect customer confidence and our reputation in the marketplace. To the extent such vulnerabilities require remediation, such remedial measures could require significant resources and may not be implemented before such vulnerabilities are exploited. As the cybersecurity landscape evolves, we may also find it necessary to make significant further investments to protect data and infrastructure.

The personal information and data that we process and store also is increasingly subject to the data security and data privacy laws of many jurisdictions, including the United States and the EU and its member states. These laws may conflict with one another, and many of them are subject to frequent modification and differing interpretations. The laws include the EU's General Data Protection Regulation (GDPR), which goes into effect in May 2018. The GDPR is expected to impose a significant compliance burden on many companies with operations in the EU, and it includes fines of up to 20 million Euros or up to 4% of the annual global revenues of the infringer for failures to comply. The laws also cover the transfer of personal information, including transfers of employee information between us and our subsidiaries, across international borders, including with respect to the EU, Australia and Japan. Complying with these evolving and varying requirements could require significant expense and effort, and could require us to change our business practices or the functionality of our products and services in a manner adverse to our customers and our business. In addition, violations of these laws can result in significant penalties, claims by regulators or other third parties, and damage to our brand and business.

**Defects, Errors and Disruptions.** Defects, errors, installation difficulties or development delays could expose us to potential liability, harm our reputation and negatively impact our business. Many of our products are sophisticated and complex, and may incorporate third-party hardware and software. Despite testing and quality control, we cannot be certain that defects or errors will not be found in our products. If our products contain undetected defects or errors, or otherwise fail to meet our customers' expectations, we could face the loss of customers, liability exposure and additional development costs. If defects or errors delay product installation or make it more difficult, we could experience delays in customer acceptance, or if our products require significant amounts of customer support, it could result in incremental costs to us. In addition, our customers who license and deploy our software may do so in both standard and non-standard configurations in different environments with different computer platforms, system management software and equipment and networking configurations, which may increase the likelihood of technical difficulties. Our products may be integrated with other components or software, and, in the event that there are defects or errors, it may be difficult to determine the origin of such defects or errors. Additionally, damage to, or failure or unavailability of, any significant aspect of our cloud hosting facilities could interrupt the availability of our cloud offerings, which could cause disruption for our customers, and, in turn, their customers, and expose us to liability. If any of these risks materialize, they could result in additional costs and expenses, exposure to liability claims, diversion of technical and other resources to engage in remediation efforts, loss of customers or negative publicity, each of which could impact our business and operating results.

Disruptions in our data center hosting facilities could adversely affect our business. Our software products are increasingly being offered and provided on a cloud or other hosted basis through data centers operated by the Company or third parties in the United States and other countries. In addition, certain of the applications and data that we use in our services offerings and our operations may be hosted or stored at such facilities. These facilities may be vulnerable to natural disasters, telecommunications failures and similar events, or to intentional acts of misconduct, such as security breaches or attacks. The occurrence of any of these events or acts, or any other unanticipated problems, at these facilities could result in damage to or the unavailability of these cloud hosting facilities. Such damage or unavailability could, despite existing disaster recovery and business continuity arrangements, interrupt the

availability of our cloud offerings for our customers. We have from time to time experienced such interruptions and they may occur in the future. In addition, any such damage or unavailability could interrupt the availability of applications or data necessary to provide services or conduct critical operations. Interruptions in the availability of our cloud offerings or our ability to service our customers could result in the failure to meet contracted up-time or service levels, which could cause us to issue credits or pay penalties, or cause customers to terminate or not renew subscriptions. Interruptions could also expose us to liability claims, negative publicity and the need to engage in costly remediation efforts, any of which could impact our business and reduce our revenue.

**Indebtedness and Repurchase Obligations.** Our level of indebtedness could limit our financial and operating activities and adversely affect our ability to incur additional debt to fund future needs. At December 31, 2017, we had approximately \$3.01 billion of total indebtedness outstanding. Additionally, at December 31, 2017, we had approximately \$1.10 billion of secured debt available for borrowing under our senior secured credit facility, and approximately \$200 million of secured debt available for borrowing under our trade receivables securitization facility. This level of indebtedness could:

require us to dedicate a substantial portion of our cash flow to the payment of principal and interest, thereby reducing the funds available for operations and future business opportunities;



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- make it more difficult for us to satisfy our obligations with respect to our outstanding senior unsecured notes, including our change in control repurchase obligations;
- limit our ability to borrow additional money if needed for other purposes, including working capital, capital expenditures, debt service requirements, acquisitions and general corporate or other purposes, on satisfactory terms or at all;
- limit our ability to adjust to changing economic, business and competitive conditions;
- place us at a competitive disadvantage with competitors who may have less indebtedness or greater access to financing;
- make us more vulnerable to an increase in interest rates, a downturn in our operating performance or a decline in general economic conditions; and
- make us more susceptible to adverse changes in credit ratings, which could impact our ability to obtain financing in the future and increase the cost of such financing.

If compliance with our debt obligations materially limits our financial or operating activities, or hinders our ability to adapt to changing industry conditions, we may lose market share, our revenue may decline and our operating results may be negatively affected.

The terms of the documents governing our indebtedness include financial and other covenants that could restrict or limit our financial and business operations. Our senior secured credit facility and the indentures for our senior unsecured notes include restrictive covenants that, subject to certain exceptions and qualifications, restrict or limit our ability and the ability of our subsidiaries to, among other things:

- incur additional indebtedness;
- create liens on, sell or otherwise dispose of, our assets;
- engage in certain fundamental corporate changes or changes to our business activities;
- make certain investments or material acquisitions;
- engage in sale-leaseback or hedging transactions;
- repurchase our common stock, pay dividends or make similar distributions on our capital stock;
- repay certain indebtedness;
- engage in certain affiliate transactions; and
- enter into agreements that restrict our ability to create liens, pay dividends or make loan repayments.

The senior secured credit facility and the indentures also contain certain affirmative covenants, and the senior secured credit facility requires us to comply with financial coverage ratios regarding both our interest expense and our debt relative to our Consolidated EBITDA (as defined in the senior secured credit facility).

These covenants and restrictions could affect our ability to operate our business, and may limit our ability to react to market conditions or take advantage of potential business opportunities as they arise. Additionally, our ability to comply with these covenants may be affected by events beyond our control, including general economic and credit conditions and industry downturns.

In addition, under our trade receivables securitization facility, we are required, among other things, to maintain certain financial tests relating to the three month rolling average ratio of defaults, delinquencies, dilution and days sales outstanding of the receivables pool (as such ratios and tests are described in the agreement governing our trade receivables securitization facility).

If we fail to comply with these covenants and are unable to obtain a waiver or amendment from the applicable lenders, an event of default would result under these agreements and under other agreements containing related cross-default

provisions.

- Upon an event of default under the senior secured credit facility, the lenders could, among other things, declare outstanding amounts due and payable, refuse to lend additional amounts to us, or require us to deposit cash collateral in respect of outstanding letters of credit. If we were unable to repay or pay the amounts due, the lenders could, among other things, proceed against the collateral granted to them to secure such indebtedness, which includes certain of our domestic assets and the equity interests of certain of our domestic and foreign subsidiaries.

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Upon an event of default under the indentures, the trustee or holders of our senior unsecured notes could declare all outstanding amounts immediately due and payable.

Upon an event of default under our trade receivables securitization facility, the lenders could, among other things, terminate the facility, declare all capital and other obligations to be immediately due and payable, replace us as servicer, take over receivables lock-box accounts and redirect the collections of domestic accounts receivable from those accounts, and exercise available rights against the domestic accounts receivable pledged by NCR Receivables, LLC.

Despite our current levels of debt, we may still incur substantially more debt, including secured debt, and similar liabilities, which would increase the risks described in these risk factors relating to indebtedness and repurchase obligations. The agreements relating to our debt limit, but do not prohibit, our ability to incur additional debt, and the amount of debt that we could incur could be substantial. In addition, certain types of liabilities are not considered “Indebtedness” under our senior secured credit facility or the indentures governing our senior unsecured notes, and the senior secured credit facility and indentures do not impose any limitation on the amount of liabilities incurred by the subsidiaries, if any, that might be designated as “unrestricted subsidiaries” (as defined in the indentures). Accordingly, we could incur significant additional debt or similar liabilities in the future, including additional debt under our senior secured credit facility, some of which could constitute secured debt. In addition, if we form or acquire any subsidiaries in the future, those subsidiaries also could incur debt or similar liabilities. If new debt or similar liabilities are added to our current debt levels, the related risks that we now face could increase.

Our cash flows may not be sufficient to service our indebtedness, and if we are unable to satisfy our obligations under our indebtedness, we may be required to seek other financing alternatives, which may not be successful. Our ability to make timely payments of principal and interest on our debt obligations depends on our ability to generate positive cash flows from operations, which is subject to general economic conditions, competitive pressures and certain financial, business and other factors beyond our control. If our cash flows and capital resources are insufficient to make these payments, we may be required to seek additional financing sources, reduce or delay capital expenditures, sell assets or operations or refinance our indebtedness. These actions could have a material adverse effect on our business, financial condition and results of operations. In addition, we may not be able to take any of these actions, and, even if successful, these actions may not permit us to meet our scheduled debt service obligations. Our ability to restructure or refinance our outstanding indebtedness will depend on, among other things, the condition of the capital markets and our financial condition at such time. There can be no assurance that we will be able to restructure or refinance any of our indebtedness on commercially reasonable terms or at all. If we cannot make scheduled payments on our debt, we will be in default and the outstanding principal and interest on our debt could be declared to be due and payable, in which case we could be forced into bankruptcy or liquidation or required to substantially restructure or alter our business operations or debt obligations.

Borrowings under our senior secured credit facility and trade receivables securitization facility bear interest at a variable rate, which subjects us to interest rate risk, which could cause our debt service obligations to increase significantly. All of our borrowings under our senior secured credit facility and trade receivables securitization facility are at variable rates of interest and expose us to interest rate risk. If interest rates increase, our debt service obligations on this variable rate indebtedness would increase even though the amount borrowed remained the same. Although we may enter into interest rate swaps or similar instruments to reduce interest rate volatility in connection with our variable rate borrowings, we cannot provide assurances that we will be able to do so or that such swaps or instruments will be effective.

We may not be able to raise the funds necessary to finance a required repurchase of our senior unsecured notes or our Series A Convertible Preferred Stock. Upon the occurrence of a change in control under the applicable indenture governing the applicable senior unsecured notes, holders of those notes may require us to repurchase their notes. On

any date during the three months commencing on and immediately following March 16, 2024 and the three months commencing on and immediately following every third anniversary of such date, holders of our Series A Convertible Preferred Stock will have the right to require us to repurchase any or all of our outstanding Series A Convertible Preferred Stock. In addition, upon certain change of control events involving the Company, holders of Series A Convertible Preferred Stock can require us, subject to certain exceptions, to repurchase any or all of their Series A Convertible Preferred Stock.

It is possible that we would not have sufficient funds at the time that we are required to make any such purchase of notes or Series A Convertible Preferred Stock (or both). We cannot assure the holders of the senior unsecured notes and Series A Convertible Preferred Stock that we will have sufficient financial resources, or will be able to arrange financing, to pay the repurchase price in cash with respect to any such notes or Series A Convertible Preferred Stock that holders have requested to be repurchased upon a change in control or scheduled redemption. Our failure to repurchase the senior unsecured notes of a series when required would result in an event of default with respect to such notes which could, in turn, constitute a default under the terms of our other indebtedness, if any. If we are unable to repurchase all shares of Series A Convertible Preferred Stock that holders have requested to be purchased, then we are required to pay dividends on the shares not repurchased at a rate equal to 8.0% per annum, accruing daily from such date until the full purchase price, plus all accrued dividends, are paid in full in respect of such shares of Series A Convertible Preferred Stock.

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In addition, a change in control may constitute an event of default under our senior secured credit facility and our trade receivables securitization facility that would permit the lenders to accelerate the maturity of the borrowings thereunder and would require us to make a similar change in control offer to holders of our existing senior unsecured notes.

Certain important corporate events, such as leveraged recapitalizations that would increase the level of our indebtedness, may not constitute a change in control under the indentures governing our secured notes or the terms of our Series A Convertible Preferred Stock.

A lowering or withdrawal of the ratings assigned to our debt securities by rating agencies may increase our future borrowing costs and reduce our access to capital. Any rating assigned to our debt could be lowered or withdrawn entirely by a rating agency if, in that rating agency's judgment, future circumstances relating to the basis of the rating, such as adverse changes, so warrant. Any future lowering of our ratings likely would make it more difficult or more expensive for us to obtain additional debt financing.

**Operating Results Fluctuations.** Our revenue, operating results, and margins could fluctuate for a number of reasons, including those described below:

**Seasonality.** Our sales are historically seasonal, with lower revenue in the first quarter and higher revenue in the fourth quarter of each year. Such seasonality also causes our working capital cash flow requirements to vary from quarter to quarter depending on the variability in the volume, timing and mix of product sales. In addition, revenue in the third month of each quarter is typically higher than in the first and second months, particularly as our business model shifts to include more software and cloud solutions. These factors, among other things, may adversely affect our ability to manage working capital, make our forecasting process more difficult and impact our ability to predict financial results accurately.

**Income Taxes.** We are a United States based multinational company subject to income taxes in the United States and a number of foreign jurisdictions. Our domestic and international tax liabilities are dependent on the distribution of our earnings among these different jurisdictions, and our provision for income taxes and cash tax liability could be adversely affected if the distribution of earnings is higher than expected in jurisdictions with higher statutory tax rates.

On December 22, 2017, the U.S. President signed into law new legislation, referred to as the Tax Cuts and Jobs Act of 2017 ("U.S. Tax Reform"), that significantly revises the Internal Revenue Code of 1986, as amended. Among other things, the new legislation reduces the U.S. corporate income tax rate, subjects interest deductions to potential limitations, alters the expensing of capital expenditures, adopts elements of a territorial tax system, includes a one-time mandatory deemed repatriation tax on accumulated non-U.S. earnings of U.S. entities, and introduces certain anti-base erosion provisions. The legislation will affect our tax position and the cash taxes of our U.S. entities and will have a corresponding impact on our consolidated financial results starting in the fourth quarter of our fiscal year 2017. Notwithstanding the reduction in the corporate income tax rate, we continue to assess the overall impact of the legislation, and there can be no assurances that it will have an overall favorable impact on our business, financial condition or effective tax rate. In addition, the legislation requires interpretations and implementing regulations by the Internal Revenue Service (IRS), as well as state tax authorities, and could be subject to potential amendments and technical corrections, any of which could lessen or increase certain adverse impacts of the legislation. If we are unable to manage the adverse impacts of the legislation, they could have a material effect on our financial condition, results of operations and cash flows.

We recognize deferred tax assets and liabilities based on the differences between the financial statement carrying amounts and the tax basis of assets and liabilities. Our deferred tax assets, net of valuation allowances, totaled approximately \$608 million and \$840 million at December 31, 2017 and 2016, respectively, which, for 2017, reflects the remeasurement of our net U.S. deferred tax assets as a result of U.S. Tax Reform. We regularly review our deferred tax assets for recoverability and establish a valuation allowance if it is more likely than not that some portion or all of a deferred tax asset will not be realized. If we are unable to generate sufficient future taxable income, if there is a material change in the actual effective tax rates or if there is a change to the time period within which the underlying temporary differences become taxable or deductible, then we could be required to increase our valuation allowance against our deferred tax assets, which could result in a material increase in our effective tax rate.

In addition, changes in foreign tax laws or tax rulings could affect our financial position and results of operations. For example, in light of continuing global fiscal challenges, various levels of government and international organizations such as the Organization for Economic Co-operation and Development (OECD) and European Union (EU) are increasingly focused on tax reform and other legislative or regulatory action to increase tax revenue. These tax reform efforts, such as the OECD-led Based Erosion and Profit Sharing project (BEPS), are designed to ensure that corporate entities are taxed on a larger percentage of their earnings. Although some countries have passed tax laws based on findings from the BEPS project, the final nature, timing and extent of any such tax reforms

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or other legislative or regulatory actions is unpredictable, and it is difficult to assess their overall effect. But, these changes could increase our effective tax rate and adversely impact our financial results.

We are also subject to ongoing audits of our income tax returns in various jurisdictions both in the U.S. and internationally. While we believe that our tax positions will be sustained, the outcomes of such audits could result in the assessment of additional taxes, which could adversely impact our cash flows and financial results.

**Foreign Currency.** Our revenue and operating income are subject to variability due to the effects of foreign currency fluctuations against the U.S. Dollar. Overall, we have exposure to approximately 50 functional currencies. We pay the majority of expenses attributable to our foreign operations in the functional currency of the country in which such operations are conducted, and in 2017 a significant portion of our revenue was generated in currencies other than the U.S. Dollar. As a result, significant currency fluctuations could adversely affect our results of operations, including sales and gross margins. For example, an increase in the value of the U.S. Dollar relative to foreign currencies could result in lower revenue and increased losses from currency exchange rates. We endeavor to mitigate some of the effects of currency fluctuations with our hedging strategies; however, the volatility of foreign currency exchange rates is dependent on many factors that cannot be forecasted with reliable accuracy and our derivative instruments may not prove effective in reducing our exposures.

**Cost/Expense Reductions.** Our success in achieving targeted cost and expense reductions through formal restructuring programs, our continuous improvement programs, our performance improvement programs and other similar programs depends on a number of factors, including our ability to achieve infrastructure rationalizations, drive lower component and product development costs, improve supply chain efficiencies, utilize next-generation technologies, simplify and rationalize product portfolios, and optimize the efficiency of our customer services and professional services consulting resources. If we do not successfully execute on these initiatives or if we experience delays in completing the implementation of these initiatives, our results of operations or financial condition could be adversely affected.

**Manufacturing.** At December 31, 2017, we manufactured our ATMs in facilities located in Columbus, Georgia, USA; Manaus, Brazil; Budapest, Hungary; Beijing, China; and Chengalpattu, India. Our self-checkout solutions are manufactured in facilities located in Columbus, Georgia, USA and Budapest, Hungary. Our financial kiosk solutions are manufactured in facilities located in Beijing, China; Budapest, Hungary; Manaus, Brazil; and Chengalpattu, India. Our POS/Display terminals are manufactured in facilities located in Columbus, Georgia, USA; and Budapest, Hungary, and certain hand-held solutions are manufactured in Salzburg, Austria. NCR outsources the manufacturing in all geographic regions of its payment solutions, some POS terminals, printers, bar code scanners and various other kiosks. If we develop or experience problems relating to product quality or on-time delivery to customers that we are unable to quickly manage and resolve, whether due to the geographical diversity of our manufacturing base or otherwise, we could experience business interruption that could negatively impact our business and operating results.

**Contractual Obligations for Professional Services.** Our contracts for professional services consulting work may contemplate that services will be performed over multiple periods, especially in connection with large solution roll-outs. Our profitability under those contracts is largely a function of performing our contractual obligations within the estimated costs and time periods specified. If we exceed these estimated costs or cannot otherwise complete the contracted services within the specified periods, our profitability related to these contracts could be negatively impacted. In addition, if we are unable to maintain appropriate utilization rates for our consultants, we may not be able to sustain profitability on these contracts.

**Acquisitions, Divestitures and Alliances.** As we selectively acquire and divest technologies, products and businesses and we begin to include or exclude, as the case may be, the financial results related to these transactions, our operating

results could fluctuate materially, depending on the size, nature, structure and timing of the transactions.

**Underfunded Pension Obligation.** At December 31, 2017, our obligation for benefits under our pension plans was \$3,223 million and our pension plan assets totaled \$2,530 million, which resulted in an underfunded pension obligation of \$693 million. While we rebalanced our U.S. and international plan assets in order to reduce volatility and made several discretionary contributions to our pension plans, our remaining underfunded pension obligation continues to require ongoing cash contributions. Our underfunded pension obligation also may be affected by future transfers and settlements relating to our international pension plans. For example, in 2015 we completed the transfer of our U.K. London pension plan to an insurer. The pension plan was overfunded, and the transfer resulted in a settlement loss of \$427 million in the second quarter of 2015, and an offsetting decrease to prepaid pension costs in our consolidated balance sheet.

In addition, certain of the plan assets remain subject to financial market risk, and our actuarial and other assumptions underlying our expected future benefit payments, long-term expected rate of return and future funding expectations for our plans depend on, among other things, interest rate levels and trends and capital market expectations. Further volatility in the performance of financial markets,



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changes in any of these actuarial assumptions (including those described in our “Critical Accounting Policies and Estimates” section of the “Management's Discussion and Analysis of Financial Condition and Results of Operations” included in Item 7 of Part II of this Report) or changes in regulations regarding funding requirements could require material increases to our expected cash contributions to our pension plans in future years.

See the “Effects of Pension, Postemployment and Postretirement Benefit Plans” and “Financial Condition, Liquidity And Capital Resources” sections of the “Management's Discussion and Analysis of Financial Condition and Results of Operations” included in Item 7 of Part II of this Report and Note 8, “Employee Benefit Plans” in the Notes to the Consolidated Financial Statements included in Item 8 of Part II of this Report for further information regarding the funded status of our pension plans and potential future cash contributions.

Stock-based Compensation. Similar to other companies, we use stock awards as a form of compensation for certain employees and non-employee directors. All stock-based awards are required to be recognized in our financial statements based on their fair values. The amount recognized for stock compensation expense could vary depending on a number of assumptions or changes that may occur. For example, assumptions such as the risk-free rate, expected holding period and expected volatility that drive our valuation model could change. Other examples that could have an impact include changes in the mix and type of awards, changes in our compensation plans, changes in our tax rate, changes in our forfeiture rate, differences in actual results compared to management’s estimates for performance-based awards or an unusually high amount of expirations of stock awards.

Changes in Accounting Principles. We prepare our consolidated financial statements in accordance with accounting principles generally accepted in the United States. These principles are subject to interpretation by the SEC and various bodies formed to create and interpret appropriate accounting principles and guidance. Changes in accounting principles may have an adverse effect on our financial results, as well as our processes and related controls, and may retroactively affect previously reported results. For additional information regarding updated accounting principles and standards, including the new revenue recognition standard, see Item 7 of Part II of this Report and Note 1, “Basis of Presentation and Significant Accounting Policies” in the Notes to the Consolidated Financial Statements included in Item 8 of Part II of this Report.

Activist Stockholders. While we seek to actively engage with stockholders and consider their views on business and strategy, we could be subject to actions or proposals from stockholders or others that do not align with our business strategies or the interests of our other stockholders. Responding to these stockholders could be costly and time-consuming, disrupt our business and operations, and divert the attention of our Board of Directors and senior management. Uncertainties associated with such activities could interfere with our ability to effectively execute our strategic plan, impact customer retention and long-term growth, and limit our ability to hire and retain personnel. In addition, actions of these stockholders may cause periods of fluctuation in our stock price based on temporary or speculative market perceptions or other factors that do not necessarily reflect the underlying fundamentals and prospects of our business.

Series A Convertible Preferred Stock. The issuance of shares of our Series A Convertible Preferred Stock reduces the relative voting power of holders of our common stock, and the conversion and sale of those shares would dilute the ownership of such holders and may adversely affect the market price of our common stock. As of December 31, 2017, 0.8 million shares of our Series A Convertible Preferred Stock were outstanding, representing approximately 18% of our outstanding common stock, including the Series A Convertible Preferred Stock on an as-converted basis. Holders of Series A Convertible Preferred Stock are entitled to a cumulative dividend at the rate of 5.5% per annum, payable quarterly in arrears. The dividends are to be paid in-kind, through the issuance of additional shares of Series A Convertible Preferred Stock, for the first sixteen dividend payment dates, and thereafter in cash or in-kind at our option. If we fail to timely declare and pay a dividend, the dividend rate will increase to 8.0% per annum until such

time as all accrued but unpaid dividends have been paid in full.

As holders of our Series A Convertible Preferred Stock are entitled to vote, on an as-converted basis, together with holders of our common stock on all matters submitted to a vote of the holders of our common stock, the Series A Convertible Preferred Stock, and the subsequent issuance of additional shares of Series A Convertible Preferred Stock through the payment of in-kind dividends, effectively reduces the relative voting power of the holders of our common stock.

In addition, the conversion of the Series A Convertible Preferred Stock to common stock would dilute the ownership interest of existing holders of our common stock, and any sales in the public market of the common stock issuable upon conversion of the Series A Convertible Preferred Stock would increase the number of shares of our common stock available for public trading, and could adversely affect prevailing market prices of our common stock. Under a customary registration rights agreement, in March 2016 we registered for resale the shares of Series A Convertible Preferred Stock, and the shares of common stock issuable upon conversion of the Series A Convertible Preferred Stock, and in March 2017, entities affiliated with The Blackstone Group L.P. (which we refer to as the Blackstone Purchasers) offered for sale 342,000 shares of Series A Convertible Preferred Stock in an underwritten public offering. Further sales by Blackstone of shares of our Series A Convertible Preferred Stock, or common stock issuable upon conversion of the Series A

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Convertible Preferred Stock, in the public market, or the perception that such sales might occur, could have a material adverse effect on the price of our common stock.

The Blackstone Purchasers and the other holders of our Series A Convertible Preferred Stock may exercise influence over us. As of December 31, 2017, the outstanding shares of our Series A Convertible Preferred Stock represented approximately 18% of our outstanding common stock, including the Series A Convertible Preferred Stock on an as-converted basis. The terms of the Series A Convertible Preferred Stock require the approval of a majority of our Series A Convertible Preferred Stock by a separate class vote for us to:

• amend our organizational documents in a manner that would have an adverse effect on the Series A Convertible Preferred Stock; or

• issue securities that are senior to, or equal in priority with, the Series A Convertible Preferred Stock.

In addition, our November 2015 Investment Agreement with Blackstone (the Investment Agreement), and the terms of the Series A Convertible Preferred Stock, grant the Blackstone Purchasers certain rights to designate directors to serve on our Board, which directors are elected by a separate class vote of the holders of the Series A Convertible Preferred Stock. For so long as the Blackstone Purchasers beneficially own shares of Series A Convertible Preferred Stock (and/or shares of common stock issued upon conversion of Series A Convertible Preferred Stock) that represent, on an as-converted basis, at least 50% of the Blackstone Purchasers' initial shares of Series A Convertible Preferred Stock on an as-converted basis, the Blackstone Purchasers have the right to designate two directors for election to our Board. For so long as the Blackstone Purchasers beneficially own shares of Series A Convertible Preferred Stock (and/or shares of common stock issued upon conversion of Series A Convertible Preferred Stock) that represent, on an as-converted basis, at least 25% but less than 50% of Blackstone's initial shares of Series A Convertible Preferred Stock on an as-converted basis, the Blackstone Purchasers will have the right to designate one director for election to our Board.

The directors designated by the Blackstone Purchasers also are entitled to serve on committees of our Board, subject to applicable law and stock exchange rules. Notwithstanding the fact that all directors will be subject to fiduciary duties to us and to applicable law, the interests of the directors designated by the Blackstone Purchasers and elected by the holders of our Series A Convertible Preferred Stock may differ from the interests of our security holders as a whole or of our other directors.

The Investment Agreement also imposes a number of affirmative and negative covenants on us, and gives the Blackstone Purchasers a consent right with respect to certain actions taken by us, including:

• entering into material transactions with related parties, or repurchasing or redeeming shares of common stock from related parties, subject to certain exceptions; and

• increasing or decreasing the maximum number of directors on our Board to more than eleven persons or to such number as would require the resignation of one of the directors nominated by Blackstone.

As a result, the holders of our Series A Convertible Preferred Stock, and in particular, the Blackstone Purchasers, have the ability to influence the outcome of any matter submitted for the vote of the holders of our common stock. Blackstone and its affiliates are in the business of making or advising on investments in companies, including businesses that may directly or indirectly compete with certain portions of our business, and they may have interests that diverge from, or even conflict with, those of our other stockholders. They may also pursue acquisition opportunities that may be complementary to our business, and, as a result, those acquisition opportunities may not be

available to us.

Our Series A Convertible Preferred Stock has rights, preferences and privileges that are not held by, and are preferential to, the rights of our common stockholders, which could adversely affect our liquidity and financial condition, and may result in the interests of the holders of our Series A Convertible Preferred Stock, including the Blackstone Purchasers, differing from those of our common stockholders. The holders of our Series A Convertible Preferred Stock have the right to receive a liquidation preference entitling them to be paid out of our assets available for distribution to stockholders before any payment may be made to holders of any other class or series of capital stock, an amount equal to the greater of (a) 100% of the liquidation preference thereof plus all accrued dividends or (b) the amount that such holder would have been entitled to receive upon our liquidation, dissolution and winding up if all outstanding shares of Series A Convertible Preferred Stock had been converted into common stock immediately prior to such liquidation, dissolution or winding up.

In addition, dividends on the Series A Convertible Preferred Stock accrue and are cumulative at the rate of 5.5% per annum, payable quarterly in arrears. If we fail to timely declare and pay a dividend, the dividend rate will increase to 8.0% per annum until such time

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as all accrued but unpaid dividends have been paid in full. The dividends are to be paid in kind, through the issuance of additional shares of Series A Convertible Preferred Stock, for the first sixteen dividend payment dates, and thereafter in cash or in-kind at our option.

The holders of our Series A Convertible Preferred Stock also have certain redemption rights or put rights, including the right to require us to repurchase all or any portion of the Series A Convertible Preferred Stock on any date during the three months commencing on and immediately following March 16, 2024 and the three months commencing on and immediately following every third anniversary of such date, at 100% of the liquidation preference thereof plus all accrued but unpaid dividends, and the right, subject to certain exceptions, to require us to repurchase all or any portion of the Series A Convertible Preferred Stock upon certain change of control events at the greater of (a) 100% of the liquidation preference thereof plus all accrued but unpaid dividends and (b) the consideration the holders would have received if they had converted their shares of Series A Convertible Preferred Stock into common stock immediately prior to the change of control event.

These dividend and share repurchase obligations could impact our liquidity and reduce the amount of cash flows available for working capital, capital expenditures, growth opportunities, acquisitions, and other general corporate purposes. Our obligations to the holders of Series A Convertible Preferred Stock could also limit our ability to obtain additional financing or increase our borrowing costs, which could have an adverse effect on our financial condition. The preferential rights could also result in divergent interests between the holders of our Series A Convertible Preferred Stock and holders of our common stock.

Multinational Operations. Our multinational operations, including in new and emerging markets, expose us to business and legal risks. For the years ended December 31, 2017 and 2016, the percentage of our revenue from outside of the United States was 50% and 53%, respectively, and we expect our percentage of revenue generated outside the United States to continue to be significant. In addition, we continue to seek to further penetrate existing international markets, and to identify opportunities to enter into or expand our presence in developing and emerging markets. While we believe that our geographic diversity may help to mitigate some risks associated with geographic concentrations of operations, our ability to manufacture and sell our solutions internationally, including in new and emerging markets, is subject to risks, which include, among others:

- the impact of ongoing and future economic and credit conditions on the stability of national and regional economies and industries within those economies;
- political conditions and local regulations that could adversely affect demand for our solutions, our ability to access funds and resources, or our ability to sell products in these markets;
- the impact of a downturn in the global economy, or in regional economies, on demand for our products;
- currency exchange rate fluctuations that could result in lower demand for our products as well as generate currency translation losses;
- limited availability of local currencies to pay vendors, employees and third parties and to distribute funds outside of the country;
- changes to global or regional trade agreements that could limit our ability to sell products in these markets;
- the imposition of import or export tariffs, taxes, trade policies or import and export controls that could increase the expense of, or limit demand for our products;
- changes to and compliance with a variety of laws and regulations that may increase our cost of doing business or otherwise prevent us from effectively competing internationally;
- government uncertainty or limitations on the ability to enforce legal rights and remedies, including as a result of new, or changes to, laws and regulations;
- reduced protection for intellectual property rights in certain countries;
- implementing and managing systems, procedures and controls to monitor our operations in foreign markets;

- changing competitive requirements and deliverables in developing and emerging markets;
- longer collection cycles and the financial viability and reliability of contracting partners and customers;
- managing a geographically dispersed workforce, work stoppages and other labor conditions or issues;
- disruptions in transportation and shipping infrastructure; and
- the impact of civil unrest relating to war and terrorist activity on the economy or markets in general, or on our ability, or that of our suppliers, to meet commitments.

In addition, as a result of our revenue generated outside of the United States, the amount of cash and cash equivalents that is held by our foreign subsidiaries continues to be significant. U.S. Tax Reform includes a one-time mandatory deemed repatriation tax

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("repatriation tax") on accumulated earnings of our foreign subsidiaries. Also, under U.S. Tax Reform, the future earnings accumulated after December 31, 2017 held by our foreign subsidiaries will be currently taxed in the U.S., and as such, distributions of earnings to the U.S. no longer generates additional negative U.S. income tax consequences. However, any distributions of earnings from foreign subsidiaries may be subject to foreign withholding taxes, which would reduce the amount of cash and cash equivalents that are available for our use.

Environmental. Our historical and ongoing manufacturing activities subject us to environmental exposures. Our facilities and operations are subject to a wide range of environmental protection laws, and we have investigatory and remedial activities underway at a number of facilities that we currently own or operate, or formerly owned or operated, to comply, or to determine compliance, with such laws. In addition, our products are subject to environmental laws in a number of jurisdictions. Given the uncertainties inherent in such activities, there can be no assurances that the costs required to comply with applicable environmental laws will not impact future operating results. We have also been identified as a potentially responsible party in connection with certain environmental matters, including the Fox River and Kalamazoo River matters, as further described in Note 9, "Commitments and Contingencies" of the Notes to Consolidated Financial Statements included in Item 8 of Part II of this Report; in "Environmental Matters" within Item 1 of Part I of this Report; and in "Environmental and Legal Contingencies" within the "Critical Accounting Policies and Estimates" section of "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in Item 7 of Part II of this Report, and we incorporate such disclosures by reference and make them a part of this discussion of risk factors.

Acquisitions, Divestitures and Alliances. If we do not successfully integrate acquisitions or effectively manage alliance activities, we may not drive future growth. As part of our overall solutions strategy, we have made, and intend to continue to make, investments in companies, products, services and technologies, either through acquisitions, investments, joint ventures or strategic alliances. Acquisitions and alliance activities inherently involve risks. The risks we may encounter include those associated with:

- assimilating and integrating different business operations, corporate cultures, personnel, infrastructures (such as data centers) and technologies or products acquired or licensed;
- the potential for unknown liabilities within the acquired or combined business; and
- the possibility of conflict with joint venture or alliance partners regarding strategic direction, prioritization of objectives and goals, governance matters or operations.

Further, we may make acquisitions and investments in order to acquire or obtain access to new technology or products that expand our offerings. There is risk that the new technology or products may not perform as anticipated and may not meet estimated growth projections or expectations, or investment recipients may not successfully execute their business plans. There is also risk that key employees of an acquired business may not remain with us as long as expected. In the event that these risks materialize, we may not be able to fully realize the benefit of our investments, and our operating results could be adversely affected. An acquisition or alliance, and the integration of an acquired business, may also disrupt our ongoing business or we may not be able to successfully incorporate acquired products, services or technologies into our solutions and maintain quality. Further, we may not achieve the projected synergies once we have integrated the business into our operations, which may lead to additional costs not anticipated at the time of acquisition.

Circumstances associated with divestitures could adversely affect our results of operations and financial condition. In May 2016, we completed the sale of most of the assets of our Interactive Printer Solutions (IPS) business to Atlas Holdings, LLC, and in June 2012 we completed the divestiture of our entertainment business to Redbox Automated Retail, LLC. We continue to evaluate the strategic fit of our other businesses and products and may decide to sell a business or product based on such an evaluation. Despite a decision to divest a business or product, we may encounter

difficulty in finding buyers or executing alternative exit strategies at acceptable prices and terms and in a timely manner. In addition, prospective buyers may have difficulty obtaining financing. Divestitures, including the divestiture of the IPS business, could involve additional risks, including:

- difficulties in the separation of operations, services, products and personnel;
- the need to provide significant ongoing post-closing transition support to a buyer;
- the diversion of management's attention from other business concerns;
- the retention of certain current or future liabilities in order to induce a buyer to complete a divestiture;
- the obligation to indemnify or reimburse a buyer for certain past liabilities of a divested business;
- the disruption of our business; and
- the potential loss of key employees.



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We may not be successful in managing these or any other significant risks that we may encounter in divesting a business or product, which could have a material adverse effect on our business.

**Intellectual Property.** Our continuing ability to be a leading technology and services solutions provider could be negatively affected if we do not protect intellectual property that drives innovation. It is critical to our continued development of leading technologies that we are able to protect and enhance our proprietary rights in our intellectual property through patent, copyright, trademark and trade secret laws. These efforts include protection of the products and the application, diagnostic and other software we develop. To the extent we are not successful in protecting our proprietary rights, our business could be adversely impacted. Also, many of our offerings rely on technologies developed by others, and if we are unable to continue to obtain licenses for such technologies, our business could be adversely impacted. From time to time, we receive notices from third parties regarding patent and other intellectual property claims. Whether such claims have merit, they may require significant resources to defend. If an infringement claim is successful and we are required to pay damages, or we are unable to license the infringed technology or to substitute similar non-infringing technology, our business could be adversely affected.

**Work Environment.** Continuous improvement, customer experience, restructuring and cost reduction initiatives could negatively impact productivity and business results. In the past, we have undertaken restructuring plans, and, in addition, as part of our ongoing efforts to optimize our cost structure, from time to time, we shift and realign our internal organizational structure and resources. These activities could temporarily result in reduced productivity levels. If we are not able to timely execute on these initiatives, or if the costs to complete these initiatives is higher than anticipated, our results of operations or financial condition could be adversely affected. In addition to these initiatives, we have initiatives to grow and expand our software business, streamline our services business, enable our sales force to better sell our solutions, invest in our software and cloud solutions and improve the experience of our customers. We typically have many such initiatives underway. If we are not successful in implementing and managing these various initiatives and minimizing any resulting loss in productivity, we may not be able to achieve targeted cost savings or productivity gains, and our business and operating results could be negatively impacted.

On January 8, 2018, we opened our new world headquarters in Atlanta, Georgia, and are in the process of relocating our headquarters operations to this facility. From time to time we may undertake similar projects with respect to our office, manufacturing or other facilities. Implementation of relocation plans such as these could result in business disruption due to a lack of business continuity, which, among other things, could have a negative impact on our productivity and business and operating results.

If we do not retain key employees, or attract quality new and replacement employees, we may not be able to meet our business objectives. Our employees are vital to our success, including the successful transformation of the Company into a software and solutions driven business. Therefore, our ability to retain our key business leaders and our highly skilled software development, technical, sales, consulting and other key personnel, including key personnel of acquired businesses, is critical. These key employees may decide to leave NCR for other opportunities, or may be unavailable for health or other reasons. In addition, as our business model evolves, we may need to attract employees with different skill sets, experience and attributes to support that evolution. If we are unable to retain our key personnel, or we are unable to attract highly qualified new and replacement employees by offering competitive compensation, secure work environments and leadership opportunities now and in the future, our business and operating results could be negatively impacted.

Our ability to effectively manage our business could be negatively impacted if we do not invest in and maintain reliable technology infrastructure and information systems. It is periodically necessary to add to, replace, upgrade or modify our technology infrastructure and internal information systems. If we are unable to expand, replace, upgrade or modify such systems in a timely and cost-effective manner, especially in light of demands on our information

technology resources, our ability to capture and process financial transactions and, therefore, our financial condition, results of operations, or ability to comply with legal and regulatory reporting obligations, may be negatively impacted.

**Reliance on Third Parties.** If third party suppliers upon which we rely are not able to fulfill our needs, our ability to bring our products to market in a timely fashion could be affected. In most cases, there are a number of vendors providing the services and producing the parts and components that we utilize in or in connection with our products. However, there are some services and components that are licensed or purchased from single sources due to price, quality, technology, functionality or other reasons. For example, we depend on transaction processing services from Accenture, computer chips and microprocessors from Intel and operating systems from Microsoft. Certain parts and components used in the manufacturing of our ATMs and the delivery of many of our retail solutions are also supplied by single sources. In addition, there are a number of key suppliers for our businesses that provide us with critical products for our solutions. If we were unable to secure the necessary services, including contract manufacturing, parts, software, components or products from a particular vendor, and we had to find an alternative supplier, our new and existing product shipments and solution deliveries, or the provision of contracted services, could be delayed, impacting our business and operating results.

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We have, from time to time, formed alliances with third parties that have complementary products, software, services and skills. These alliances represent many different types of relationships, such as outsourcing arrangements to manufacture hardware and subcontract agreements with third parties to perform services and provide products and software to our customers in connection with our solutions. For example, we rely on third parties for cash replenishment services for our ATM products. These alliances introduce risks that we cannot control, such as nonperformance by third parties and difficulties with or delays in integrating elements provided by third parties into our solutions. Lack of information technology infrastructure, shortages in business capitalization, and manual processes and data integrity issues of smaller suppliers can also create product time delays, inventory and invoicing problems, staging delays, as well as other operating issues. The failure of third parties to provide high-quality products or services that conform to required specifications or contractual arrangements could impair the delivery of our solutions on a timely basis, create exposure for non-compliance with our contractual commitments to our customers and impact our business and operating results. Also, some of these third parties have access to confidential NCR and customer data, the integrity and security of which are of significant importance to the Company.

**Internal Controls.** If we do not maintain effective internal controls, accounting policies, practices, and information systems necessary to ensure reliable reporting of our results, our ability to comply with our legal obligations could be negatively affected. Our internal controls, accounting policies and practices, and internal information systems enable us to capture and process transactions in a timely and accurate manner in compliance with applicable accounting standards, laws and regulations, taxation requirements and federal securities laws and regulations. Our internal controls and policies are being closely monitored by management as we continue to implement a worldwide Enterprise Resource Planning (ERP) system. While we believe these controls, policies, practices and systems are adequate to ensure data integrity, unanticipated and unauthorized actions of employees or contractors (both domestic and international), temporary lapses in internal controls due to shortfalls in transition planning and oversight, or resource constraints, could lead to improprieties and undetected errors that could impact our financial condition, results of operations, or compliance with legal obligations. Moreover, while management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2017 (as set forth in "Management's Report on Internal Control over Financial Reporting" included in Item 9A of Part II of this Report), due to their inherent limitations, such controls may not prevent or detect misstatements in our reported financial statements. Such limitations include, among other things, the potential for human error or circumvention of controls. Further, the Company's internal control over financial reporting is subject to the risk that controls may become inadequate because of a failure to remediate control deficiencies, changes in conditions or a deterioration of the degree of compliance with established policies and procedures.

**Contingencies.** We face uncertainties with regard to regulations, lawsuits and other related matters. In the normal course of business, we are subject to proceedings, lawsuits, claims and other matters, including, for example, those that relate to the environment, health and safety, labor and employment, employee benefits, import/export compliance, intellectual property, data privacy and security, product liability, commercial disputes and regulatory compliance, among others. Because such matters are subject to many uncertainties, their outcomes are not predictable and we must make certain estimates and assumptions in our financial statements. While we believe that amounts provided in our Consolidated Financial Statements with respect to such matters are currently adequate in light of the probable and estimable liabilities, there can be no assurances that the amounts required to satisfy alleged liabilities from such matters will not impact future operating results. Additionally, we are subject to diverse and complex laws and regulations, including those relating to corporate governance, public disclosure and reporting, environmental safety and the discharge of materials into the environment, product safety, import and export compliance, data privacy and security, antitrust and competition, government contracting, anti-corruption, and labor and human resources, which are rapidly changing and subject to many possible changes in the future. Compliance with these laws and regulations, including changes in accounting standards, taxation requirements, and federal securities laws among others, may create a substantial burden on us, and substantially increase costs to our organization or could have an impact on our

future operating results.

Additionally, doing business on a worldwide basis requires us and our subsidiaries to comply with the laws and regulations of the U.S. government and various international jurisdictions. For example, our international operations are subject to U.S. and foreign anti-corruption laws and regulations, such as the Foreign Corrupt Practices Act (FCPA), which generally prohibits U.S. companies or agents acting on behalf of such companies from making improper payments to foreign officials for the purpose of obtaining or keeping business. Our international operations are also subject to economic sanction programs administered by the U.S. Treasury Department's Office of Foreign Assets Control (OFAC). If we are not in compliance with such laws and regulations, we may be subject to criminal and civil penalties, which may cause harm to our reputation and to our brand and could have an adverse effect on our business, financial condition and results of operations. See Note 9, "Commitments and Contingencies" of the Notes to Consolidated Financial Statements included in Item 8 of Part II of this Report for information regarding our prior FCPA and OFAC investigations, which disclosures are incorporated by reference and made a part of this discussion of risk factors.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

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Item 2. PROPERTIES

As of December 31, 2017, NCR operated 210 facilities consisting of approximately 5.5 million square feet in 61 countries throughout the world, which are generally used by all of NCR's operating segments. On a square footage basis, 20% of these facilities are owned and 80% are leased. Within the total facility portfolio, NCR operates 14 research and development and manufacturing facilities totaling 1.4 million square feet, 62% of which is leased. The remaining 4.1 million square feet of space includes office, repair, and warehousing space and other miscellaneous sites, and is 85% leased. NCR also owns 7 land parcels totaling 2.6 million square feet in 2 countries.

NCR is headquartered in Atlanta, Georgia, USA. Our address at our corporate headquarters is 864 Spring Street Northwest, Atlanta Georgia, 30308, USA.

Item 3. LEGAL PROCEEDINGS

Information regarding legal proceedings is included in Item 8 of Part II of this Report as part of Note 9, "Commitments and Contingencies" of the Notes to Consolidated Financial Statements and is incorporated herein by reference.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

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## PART II

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

## Market Information

NCR common stock is listed on the New York Stock Exchange (NYSE) and trades under the symbol "NCR". There were approximately 91,451 holders of NCR common stock as of February 14, 2018. The following table presents the high and low per share prices for NCR common stock for each quarter of 2017 and 2016 as reported on the NYSE.

	2017		2016	
	High	Low	High	Low
1st quarter	\$49.90	\$40.85	1st quarter	\$30.14 \$18.02
2nd quarter	\$45.64	\$38.07	2nd quarter	\$31.84 \$25.20
3rd quarter	\$43.24	\$34.17	3rd quarter	\$34.99 \$26.21
4th quarter	\$38.13	\$29.20	4th quarter	\$42.07 \$29.83

## Dividends

Historically NCR has not paid cash dividends and does not anticipate the payment of cash dividends on NCR common stock in the immediate future. The declaration of dividends is restricted under our senior secured credit facility and the terms of the indentures for our senior unsecured notes, and would be further subject to the discretion of NCR's Board of Directors.

## Stock Performance Graph

The following graph compares the relative investment performance of NCR stock, the Standard & Poor's MidCap 400 Stock Index, Standard & Poor's 500 Information Technology Sector and the Standard & Poor's 500 Stock Index. This graph covers the five-year period from December 31, 2012 through December 31, 2017.

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Company / Index	2013	2014	2015	2016	2017
NCR Corporation	\$134	\$114	\$96	\$159	\$133
S&P 500 Stock Index	\$132	\$151	\$153	\$171	\$208
S&P 500 Information Technology Sector	\$128	\$154	\$163	\$186	\$258
S&P MidCap 400 Stock Index	\$134	\$147	\$143	\$173	\$201

<sup>(1)</sup> In each case, assumes a \$100 investment on December 31, 2012, and reinvestment of all dividends, if any.

## Purchase of Company Common Stock

On October 19, 2016, the Board approved a share repurchase program, with no expiration from the date of authorization, for the systematic repurchase of the Company's common stock to offset the dilutive effects of the Company's employee stock purchase plan, equity awards and in-kind dividends on the Company's Series A Convertible Preferred Stock. Availability under this program accrues quarterly based on the average value of dilutive issuances during the quarter.

On March 12, 2017, the Board approved a second share repurchase program that provides for the repurchase of up to \$300 million of the Company's common stock.

No shares were repurchased under these programs during the three months ended December 31, 2017.

As of December 31, 2017, \$300 million was available for repurchases under the March 2017 program, and approximately \$189 million was available for repurchases under the October 2016 dilution offset program. The timing and amount of repurchases under these programs depend upon market conditions and may be made from time to time in open market purchases, privately negotiated transactions, accelerated stock repurchase programs, issuer self-tender offers or otherwise. The repurchases will be made in compliance with applicable securities laws and may be discontinued at any time.

The Company occasionally purchases vested restricted stock or exercised stock options at the current market price to cover withholding taxes. For the three months ended December 31, 2017, 209,353 shares of vested restricted stock were purchased at an average price of \$33.86 per share.

The Company's ability to repurchase its common stock is restricted under the Company's senior secured credit facility and terms of the indentures for the Company's senior unsecured notes, which prohibit certain share repurchases, including during the occurrence of an event of default, and establish limits on the amount that the Company is permitted to allocate to share repurchases and other restricted payments. The limitations are calculated using formulas based generally on 50% of the Company's consolidated net income for the period beginning in the third quarter of 2012 through the end of the most recently ended fiscal quarter, subject to certain other adjustments and deductions, with certain prescribed minimums. These formulas are described in greater detail in the Company's senior secured credit facility and the indentures for the Company's senior unsecured notes, each of which is filed with the SEC.

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## Item 6. SELECTED FINANCIAL DATA

In millions, except per share and employee and contractor amounts

For the years ended December 31	2017	2016	2015	2014	2013
Continuing Operations <sup>(a,d)</sup>					
Revenue	\$6,516	\$6,543	\$6,373	\$6,591	\$6,123
Income from operations	\$676	\$599	\$135	\$353	\$666
Interest expense	\$(163 )	\$(170 )	\$(173 )	\$(181 )	\$(103 )
Income tax expense (benefit) <sup>(b)</sup>	\$242	\$92	\$55	\$(48 )	\$98
Income (loss) from continuing operations attributable to NCR common stockholders	\$237	\$283	\$(154 )	\$181	\$452
(Loss) income from discontinued operations, net of tax	\$(5 )	\$(13 )	\$(24 )	\$10	\$(9 )
Basic earnings (loss) per common share attributable to NCR common stockholders:					
From continuing operations <sup>(a,d)</sup>	\$1.05	\$1.86	\$(0.94 )	\$1.08	\$2.73
From discontinued operations	\$(0.04 )	\$(0.10 )	\$(0.15 )	\$0.06	\$(0.05 )
Total basic earnings (loss) per common share	\$1.01	\$1.76	\$(1.09 )	\$1.14	\$2.68
Diluted earnings (loss) per common share attributable to NCR common stockholders: <sup>(c)</sup>					
From continuing operations <sup>(a,d)</sup>	\$1.01	\$1.80	\$(0.94 )	\$1.06	\$2.67
From discontinued operations	\$(0.04 )	\$(0.10 )	\$(0.15 )	\$0.06	\$(0.05 )
Total diluted earnings (loss) per common share	\$0.97	\$1.71	\$(1.09 )	\$1.12	\$2.62
Cash dividends per share	\$—	\$—	\$—	\$—	\$—
As of December 31					
Total assets	\$7,654	\$7,673	\$7,635	\$8,566	\$8,061
Total debt	\$2,991	\$3,051	\$3,252	\$3,618	\$3,307
Series A convertible preferred stock	\$810	\$847	\$798	\$—	\$—
Total NCR stockholders' equity	\$719	\$695	\$720	\$1,871	\$1,769
Number of employees and contractors	34,000	33,500	32,600	30,200	29,300

(a) Continuing operations excludes the costs and insurance recoveries relating to certain environmental obligations associated with discontinued operations, including those relating to the Fox River, and Kalamazoo River matters. Income tax expense in 2017 includes a provisional charge of \$130 million for the impact of U.S. Tax Reform. See

(b) Note 6, "Income Taxes" in the Notes to Consolidated Financial Statements in Item 8 of Part II of this Report for further discussion.

(c) See Note 1, "Basis of Presentation and Significant Accounting Policies" in the Notes to Consolidated Financial Statements in Item 8 of Part II of this Report for further discussion of the diluted earnings (loss) per common share attributable to NCR common stockholders from continuing operations, discontinued operations and total.

(d) The following income (expense) amounts, net of tax are included in income from continuing operations attributable to NCR for the years ended December 31:



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In millions	2017	2016	2015	2014	2013
Pension mark-to-market adjustments	\$(25 )	\$(78 )	\$(445)	\$(63 )	\$65
Restructuring/Transformation costs	(20 )	(21 )	(50 )	(116 )	—
Acquisition related amortization of intangibles	(79 )	(83 )	(85 )	(80 )	(48 )
Acquisition related costs	(3 )	(5 )	(8 )	(20 )	(36 )
Divestiture and liquidation losses	—	(5 )	(29 )	—	—
Reserve related to subcontract in MEA	—	—	(13 )	—	—
OFAC and FCPA investigations	—	—	—	(2 )	(2 )
Japan valuation reserve release	—	—	—	—	15
Tax reform	(130 )	—	—	—	—
Total	\$(257)	\$(192)	\$(630)	\$(281)	\$(6 )

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### Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (MD&A)

#### BUSINESS OVERVIEW

NCR is a leading global provider of omni-channel technology solutions that enrich the interactions of businesses with their customers. Our solutions are designed to allow businesses in the financial services, retail, hospitality, travel and telecommunications and technology industries to deliver a rich, integrated and personalized experience to consumers across physical and digital commerce channels. Our offerings include a portfolio of omni-channel platform software and other software applications, industry-focused smart-edge devices including automated teller machines (ATMs), point of sale (POS) terminals and devices and self-service kiosks, and a complete suite of consulting, implementation, maintenance and managed services. We also resell third-party networking products and provide related service offerings in the telecommunications and technology sectors. Our solutions create value for our customers by increasing productivity and allowing them to address consumer demand for convenience, value and individual service across different commerce channels.

We have three operating segments: Software, Services, and Hardware. Each of our operating segments derives its revenue in each of the sales theaters in which NCR operates.

Our solutions are based on a foundation of long-established industry knowledge and expertise, omni-channel platform and other software, industry-focused hardware and smart-edge devices, and global implementation, consulting, maintenance, support and managed services.

NCR's reputation is founded upon over 133 years of providing quality products, services and solutions to our customers. At the heart of our customer and other business relationships is a commitment to acting responsibly, ethically and with the highest level of integrity. This commitment is reflected in NCR's Code of Conduct, which is available on the Corporate Governance page of our website.

#### 2017 OVERVIEW

As more fully discussed in later sections of this MD&A, the following were significant themes and events for 2017:

• Revenue was flat year-over-year, and increased 1% after adjusting for the divestiture of our Interactive Printer Solutions (IPS) business;

• Software revenue increased 3% from the prior year, driven by cloud revenue growth of 6% and professional services revenue growth of 5%. Net annual contract value, which is a measure of our net bookings for cloud revenue and is an indicator of potential cloud revenue growth in future periods, grew 46% in 2017;

• Services revenue increased 3% and operating margin rate expanded 340 basis points from the prior year;

• Hardware revenue decreased 6% and operating margin rate declined 270 basis points from the prior year;

• We generated cash flows from operations and free cash flow of \$755 million and \$453 million, respectively, in 2017; and

• We repurchased approximately 7.4 million shares of our common stock for \$350 million in the first quarter of 2017 and subsequently announced a new \$300 million share repurchase program and a replacement for our dilution offset share repurchase program.

#### OVERVIEW OF STRATEGIC INITIATIVES AND TRENDS

The rise of digital commerce, mobile engagement and globalization have dramatically altered the relationship between business and consumer. Increasingly, mega-trends such as big data, the Internet of things and the cloud are driving the next generation of changes in consumer behavior. Consumers now expect businesses to provide a rich, integrated and personalized experience across all commerce channels, including in-store, online and mobile. NCR is at the forefront of this shift to an omni-channel experience, assisting businesses of every size in their omni-channel, digital enablement and channel transformation journeys. Our mission is to innovate and enable the next generation of consumer experiences and productivity gains to enrich the interactions of businesses with their customers. To fulfill this mission, we have developed a long-term strategy built on being a global technology solutions company that uses cloud-based and other software, coupled with end-to-end smart-edge hardware and services solutions, to help our customers deliver on the promise of an omni-channel experience. We believe that our mission and long-term strategy position NCR to continue to drive sustainable revenue, profit and cash flow, and to improve value for all of our stakeholders.

To deliver on our mission and strategy, we are focused on the following main initiatives in 2018:

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• Strategic and Recurring Revenue - Continuing our focus on cloud, software platform, smart-edge devices and professional and managed services to drive profitable revenue and operating income.

• Sales Effectiveness - Providing our sales force with the training, tools, support and coverage model necessary to optimize efficiency and achieve our sales plan.

• Services Transformation - Driving performance and sustainable margin improvement by focusing on productivity and efficiency improvements, expanding our remote diagnostics and repair capabilities, creating greater discipline in our product lifecycle management, and employing a higher mix of managed services.

• Evolving our Business Model - Continuing the shift in our business model to provide innovative end-to-end solutions for our customers, with best in class support while keeping an efficient cost structure to create competitive advantage.

• New Products - Launching new industry products, powered by our platform software with best in class product lifecycle management and go-to-market support, and migrating and releasing existing licensed software products as cloud-based products.

• Operating Model Innovation - Eliminating waste, utilizing effective product lifecycle management, increasing productivity, using technology as an enabler, and executing on business process improvements to reduce costs and use savings to invest in strategic initiatives, product innovation and people.

• Customer Experience - Improving the customer experience by improving solution quality, availability and security.

• Team and Talent - Developing and retaining top talent by deploying competitive recruiting and training programs, evolving our brand, and continuously engaging with employees.

Consistent with the foregoing, we are evaluating certain initiatives focused on realigning resources and optimizing our portfolio of software solutions, accelerating structural changes in our services business and streamlining our hardware operations, particularly in supply chain and manufacturing. In addition, we plan, in pursuing our strategy, to continue to manage our costs effectively, to selectively pursue acquisitions and divestitures that promote our strategy, and to selectively penetrate market adjacencies in single and emerging growth industry segments.

Potentially significant risks to the execution of our initiatives and achievement of our strategy include the strength of demand for automated teller machines and other financial services hardware and its effect on our businesses; domestic and global economic and credit conditions including, in particular, those resulting from the imposition or threat of protectionist trade policies or import or export tariffs, global and regional market conditions and spending trends in the financial services and retail industries, new comprehensive U.S. tax legislation, modified or new global or regional trade agreements, the determination by the United Kingdom to exit the European Union, uncertainty over further potential changes in Eurozone participation and fluctuations in oil and commodity prices; our ability to transform our business model and to sell higher-margin software and services, including our ability to successfully streamline our hardware operations; the success of our restructuring plans and cost reduction initiatives; our ability to improve execution in our sales and services organizations; market acceptance of new solutions and competition in the information technology industry; cybersecurity risks and compliance with data privacy and protection requirements; disruptions in or problems with our data center hosting facilities; defects or errors in our products; the historical seasonality of our sales; tax rates and new US tax legislation; and foreign currency fluctuations. For further information on potential risks and uncertainties see Item 1A "Risk Factors."



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## RESULTS OF OPERATIONS

The following table shows our results for the years ended December 31:

In millions	2017	2016	2015
Revenue	\$6,516	\$6,543	\$6,373
Gross margin	1,864	1,782	1,469
Gross margin as a percentage of revenue	28.6%	27.2%	23.1%
Operating expenses			
Selling, general and administrative expenses	\$932	\$926	\$1,042
Research and development expenses	256	242	230
Restructuring-related charges	—	15	62
Income from operations	\$676	\$599	\$135

The following tables show our revenue by geographic theater for the years ended December 31:

In millions	2017	% of Total	2016	% of Total	% Increase (Decrease)	% Increase (Decrease) Adjusted Constant Currency <sup>(1)</sup>
Americas	\$3,809	59%	\$3,743	57%	2%	4%
Europe, Middle East Africa (EMEA)	1,786	27%	1,896	29%	(6)%	(4)%
Asia Pacific (APJ)	921	14%	904	14%	2%	3%
Consolidated revenue	\$6,516	100%	\$6,543	100%	—%	1%

In millions	2016	% of Total	2015	% of Total	% Increase (Decrease)	% Increase (Decrease) Adjusted Constant Currency <sup>(1)</sup>
Americas	\$3,743	57%	\$3,499	55%	7%	11%
Europe, Middle East Africa (EMEA)	1,896	29%	1,964	31%	(3)%	2%
Asia Pacific (APJ)	904	14%	910	14%	(1)%	1%
Consolidated revenue	\$6,543	100%	\$6,373	100%	3%	7%

The following table shows our revenue by segment for the years ended December 31:

In millions	2017	% of Total	2016	% of Total	% Increase (Decrease)	% Increase (Decrease) Adjusted Constant Currency <sup>(1)</sup>
Software	\$1,900	29%	\$1,841	28%	3%	3%
Services	2,373	37%	2,306	35%	3%	3%
Hardware	2,243	34%	2,396	37%	(6)%	(2)%
Consolidated revenue	\$6,516	100%	\$6,543	100%	—%	1%

In millions	2016	% of Total	2015	% of Total	% Increase (Decrease)	% Increase (Decrease) Adjusted Constant Currency <sup>(1)</sup>
Software	\$1,841	28%	\$1,747	27%	5%	6%
Services	2,306	35%	2,218	35%	4%	6%
Hardware	2,396	37%	2,408	38%	—%	9%
Consolidated revenue	\$6,543	100%	\$6,373	100%	3%	7%





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(1) The tables above include presentations of period-over-period revenue growth or decline on an adjusted constant currency or constant currency basis. Revenue growth on a constant currency basis is a non-GAAP measure that excludes the effects of foreign currency fluctuations. We calculate this information by translating prior period revenue growth at current period monthly average exchange rates. Revenue growth on an adjusted constant currency basis excludes the effects of foreign currency fluctuations and the impact of the IPS divestiture, and is calculated by translating prior period revenue growth at current period monthly average exchange rates and, for the 2016 comparison, by excluding the prior period results of the divested IPS business for the comparable period after the completion of the sale in May 2016. We believe that examining period-over-period revenue growth or decline excluding foreign currency fluctuations and adjusting for the impact of the IPS divestiture is useful for assessing the underlying performance of our business and provides additional insight into historical and/or future performance, and our management uses revenue growth adjusted for constant currency and the impact of the IPS divestiture to evaluate period-over-period operating performance on a more consistent and comparable basis. These non-GAAP measures should not be considered substitutes for, or superior to, period-over-period revenue growth under GAAP.

The following table provides a reconciliation of region revenue % growth (GAAP) to revenue % growth adjusted constant currency (non-GAAP) for the years ended December 31:

	2017				2016			
	Revenue % Growth (GAAP)	Favorable (unfavorable) FX impact	Divestiture impact	Revenue % Growth Adjusted Constant Currency (non-GAAP)	Revenue % Growth (GAAP)	Favorable (unfavorable) FX impact	Divestiture Impact	Revenue % Growth Adjusted Constant Currency (non-GAAP)
Americas	2%	—%	(2)%	4%	7%	—%	(4)%	11%
EMEA	(6)%	(1)%	(1)%	(4)%	(3)%	(2)%	(3)%	2%
APJ	2%	1%	(2)%	3%	(1)%	—%	(2)%	1%
Consolidated revenue	—%	—%	(1)%	1%	3%	(1)%	(3)%	7%

The following table provides a reconciliation of segment revenue % growth (GAAP) to revenue % growth adjusted constant currency (non-GAAP) for the years ended December 31:

	2017				2016			
	Revenue % Growth (GAAP)	Favorable (unfavorable) FX impact	Divestiture impact	Revenue % Growth Adjusted Constant Currency (non-GAAP)	Revenue % Growth (GAAP)	Favorable (unfavorable) FX impact	Divestiture Impact	Revenue % Growth Adjusted Constant Currency (non-GAAP)
Software	3%	—%	—%	3%	5%	(1)%	—%	6%
Services	3%	—%	—%	3%	4%	(2)%	—%	6%
Hardware	(6)%	1%	(5)%	(2)%	—%	—%	(9)%	9%
Consolidated Revenue	—%	—%	(1)%	1%	3%	(1)%	(3)%	7%

2017 compared to 2016 results discussion

Revenue

Revenue was flat in 2017 from 2016 due to growth in Software and Services revenue offset by lower Hardware revenue. Foreign currency fluctuations did not have a significant impact on the revenue comparison and the IPS divestiture unfavorably impacted the revenue comparison by 1%.

Software revenue increased 3% driven by growth in cloud, software maintenance, and professional services. Services revenue increased 3% from 2016 driven by growth in both implementation services and hardware maintenance services. Hardware revenue was down 6% due to declines in Automated Teller Machine (ATM) revenue and consumables revenue as a result of the IPS divestiture, offset by increases in self-checkout (SCO) and point-of-sale (POS) revenue.

Gross Margin

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Gross margin as a percentage of revenue was 28.6% in 2017 compared to 27.2% in 2016. Gross margin for the year ended December 31, 2017 included \$1 million benefit from pension mark-to-market adjustments, \$11 million related to restructuring and transformation costs, and \$50 million related to amortization of acquisition related intangible assets. Gross margin for the year ended December 31, 2016 included \$38 million expense from pension mark-to-market adjustments, \$4 million related to restructuring and transformation costs, and \$58 million related to amortization of acquisition related intangible assets. Excluding these items, gross margin increased approximately 70 basis points driven by continued focus on productivity improvements in our Services segment.

## 2016 compared to 2015 results discussion

## Revenue

Revenue increased 3% in 2016 from 2015 due to growth in Software and Services. Foreign currency fluctuations and the IPS divestiture unfavorably impacted the revenue comparison by 1% and 3%, respectively.

Software revenue increased 5% driven by growth in all of our software revenue streams, which include software license, software maintenance, cloud, and professional services. Services revenue increased 4% from 2015 driven by growth in both implementation services and hardware maintenance services as a result of our focus on improving the customer experience. Hardware revenue was flat due to growth in ATM revenue and self-checkout revenue offset by declines in point-of-sale revenue and consumables revenue as a result of the IPS divestiture.

## Gross Margin

Gross margin as a percentage of revenue was 27.2% in 2016 compared to 23.1% in 2015. Gross margin for the year ended December 31, 2016 included \$38 million in pension mark-to-market adjustments, \$4 million related to restructuring and transformation costs, and \$58 million related to amortization of acquisition related intangible assets. Gross margin for the year ended December 31, 2015 included \$313 million in pension mark-to-market adjustments which primarily included the settlement of the UK London pension plan, \$12 million related to restructuring and \$63 million related to amortization of acquisition related intangible assets. Excluding these items, gross margin was slightly down, due to investment associated with new hardware product introductions offset by growth in our Software segment.

## Effects of Pension, Postemployment, and Postretirement Benefit Plans

NCR's income from continuing operations for the years ended December 31 was impacted by certain employee benefit plans as reflected in the table below:

In millions	2017	2016	2015
Pension expense	\$36	\$103	\$464
Postemployment expense	24	10	17
Postretirement (benefit)	(3)	(11)	(15)
Total expense	\$57	\$102	\$466

In 2017, pension expense was \$36 million compared to \$103 million in 2016 and \$464 million in 2015. In 2017, pension expense included actuarial losses of \$28 million compared to \$85 million in 2016. Discount rates in 2017 remained consistent with 2016 and actuarial losses in 2017 were primarily due to a mortality update in the United States. Actuarial losses in 2016 were due to a decrease in the discount rate from the prior year, offset by a higher than expected return on global pension assets. In 2017, approximately 82% of the pension expense was included in operating expenses, with the remaining 18% included in cost of products and services. In 2015, pension expense

included a settlement loss of \$427 million related to the completion of the transfer of NCR's UK London pension plan to an insurer, in addition to actuarial losses of \$29 million. The actuarial losses were primarily attributable to lower than expected return on U.S. pension assets, partially offset by an increase in the discount rate.

Postemployment expense (severance and disability medical) was \$24 million in 2017 compared to \$10 million in 2016 and \$17 million in 2015. In July 2014, the Company announced a restructuring plan to strategically reallocate resources and position the Company to focus on higher growth, higher margin opportunities and recorded a related charge of zero, \$4 million, and \$1 million in the years ended December 31, 2017, 2016, and 2015 respectively.

Selling, General and Administrative Expenses

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Selling, general and administrative expenses increased \$6 million to \$932 million in 2017 from \$926 million in 2016. As a percentage of revenue, these expenses were 14.3% in 2017 and 14.2% in 2016. In 2017, selling, general and administrative expenses included \$12 million of pension mark-to-market adjustments, \$65 million of acquisition-related amortization of intangibles, \$5 million of acquisition-related costs, and \$14 million of transformation costs. In 2016, selling, general and administrative expenses included \$24 million of pension mark-to-market adjustments, \$7 million of acquisition-related costs, \$65 million of acquisition-related amortization of intangibles and \$7 million of restructuring and transformation costs. Excluding these items, selling, general and administrative expenses increased as a percentage of revenue from 12.6% in 2016 to 12.8% in 2017 due to increased sales investment as we expand our strategic offers and go to market strategy.

Selling, general, and administrative expenses decreased \$116 million to \$926 million in 2016 from \$1,042 million in 2015. As a percentage of revenue, these expenses were 14.2% in 2016 and 16.4% in 2015. In 2016, selling, general, and administrative expenses included \$24 million of pension mark-to-market adjustments, \$7 million of acquisition-related costs, \$65 million of acquisition-related amortization of intangibles and \$7 million of restructuring and transformation costs. In 2015, selling, general, and administrative expenses included \$123 million of pension mark-to-market adjustments, \$11 million of acquisition-related costs, \$62 million of amortization of acquisition-related intangible assets, a \$20 million reserve on a subcontracting arrangement in emerging industries in Middle East Africa and \$1 million of OFAC and FCPA related legal costs. Excluding these items, selling, general and administrative expenses decreased as a percentage of revenue from 12.9% in 2015 to 12.6% in 2016 due to the continued cost reduction actions focused on limiting discretionary spending and the benefit of cost savings from the restructuring program initiated in 2014.

### Research and Development Expenses

Research and development expenses increased \$14 million to \$256 million in 2017 from \$242 million in 2016. As a percentage of revenue, these costs were 3.9% in 2017 and 3.7% in 2016. In 2017, research and development expenses included \$17 million of pension mark-to-market adjustments and \$4 million of transformation costs. In 2016, research and development expenses included \$23 million of pension mark-to-market adjustments and zero of transformation costs. After considering this item, research and development expenses increased from 3.3% in 2016 to 3.6% in 2017 driven by planned incremental investments to further advance our software and hardware solutions.

Research and development expenses increased \$12 million to \$242 million in 2016 from \$230 million in 2015. As a percentage of revenue, these costs were 3.7% in 2016 and 3.6% in 2015. Research and development expenses included pension mark-to-market adjustments of \$23 million in 2016 and \$18 million in 2015. After considering this item, research and development expenses remained consistent as a percentage of revenue at 3.3%.

### Restructuring-Related Charges

In 2016, the Company recorded restructuring-related charges of \$15 million related to the restructuring program announced in 2014. The charges consist of severance and other employee related costs of \$4 million, other exit costs of \$9 million and asset-related charges of \$2 million.

In 2015, the Company recorded restructuring-related charges of \$62 million related to the restructuring program announced in July 2014. The charges consist of severance and other employee related costs of \$20 million, other exit costs of \$13 million and asset-related charges of \$29 million.

### Interest Expense

Interest expense was \$163 million in 2017 compared to \$170 million in 2016 and \$173 million in 2015. Interest expense in all years was primarily related to the Company's senior unsecured notes and borrowings under the Company's senior secured credit facility.

#### Other Expense

Other (expense), net was \$31 million in 2017 compared to \$50 million in 2016 and \$57 million in 2015. Interest income was \$3 million in 2017, \$4 million in 2016 and \$5 million in 2015. In 2017, other (expense), net included \$26 million related to losses from foreign currency fluctuations and foreign exchange contracts and \$8 million in bank-related fees. In 2016, other (expense), net included \$40 million related to losses from foreign currency fluctuations and foreign exchange contracts, \$8 million in bank-related fees, \$6 million related to the loss on sale of the IPS business and entity liquidations. In 2015, other (expense), net included \$21 million related to losses from foreign currency fluctuations and foreign exchange contracts, \$9 million in bank-related fees, and \$34 million related to the loss on the then pending sale of the IPS business.

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### Income Taxes

Our effective tax rate was 50% in 2017, 24% in 2016, and (58)% in 2015. During 2017, our tax rate includes a provisional charge of approximately \$130 million as a result of the impact of U.S. Tax Reform enacted in December 2017. The provisional charge primarily relates to the application of the newly enacted 21% corporate income tax rate to our net U.S. deferred income tax assets in addition to the repatriation tax. The \$130 million provisional charge represents NCR's current best estimate, which may be refined and adjusted over the course of 2018. During 2016, our tax rate was impacted by a less favorable mix of earnings, primarily driven by actuarial pension losses in foreign jurisdictions with a valuation allowance against deferred tax assets. During 2015, there was no tax benefit recorded on the \$427 million charge related to the settlement of the UK London pension plan due to a valuation allowance against deferred tax assets in the United Kingdom. Refer to Note 8, "Employee Benefit Plans" of the Notes to Consolidated Financial Statements included in Item 8 of Part II of this Report for additional discussion on the settlement of the UK London pension plan. Additionally, we favorably settled examinations with Canada for tax years 2002 through 2006 that resulted in a tax benefit of \$10 million in 2015.

During 2014, the Internal Revenue Service (IRS) finalized an examination of our 2009 and 2010 income tax returns and commenced an examination of our 2011, 2012 and 2013 income tax returns, which is ongoing. While we are subject to numerous federal, state and foreign tax audits, we believe that appropriate reserves exist for issues that might arise from these audits. Should these audits be settled, the resulting tax effect could impact the tax provision and cash flows in future periods. During 2018, the Company expects to resolve certain tax matters related to U.S. and foreign jurisdictions. These resolutions could have a material impact on the effective tax rate in 2018.

We regularly review our deferred tax assets for recoverability and establish a valuation allowance if it is more likely than not that some portion or all of a deferred tax asset will not be realized. The determination as to whether a deferred tax asset will be realized is made on a jurisdictional basis and is based on the evaluation of positive and negative evidence. This evidence includes historical taxable income/loss, projected future taxable income, the expected timing of the reversal of existing temporary differences and the implementation of tax planning strategies. Given current earnings and anticipated future earnings at certain subsidiaries, the Company believes that there is a reasonable possibility sufficient positive evidence may become available that would allow the release of a valuation allowance within the next twelve months.

### Loss from Discontinued Operations

In 2017, loss from discontinued operations was \$5 million, net of tax, primarily related to updates in estimates and assumptions for the Fox River reserve partially offset by insurance recoveries received during the year.

In 2016, loss from discontinued operations was \$13 million, net of tax, primarily related to updates in estimates and accruals for litigation expenses related to the Fox River reserve.

In 2015, loss from discontinued operations was \$24 million, net of tax, primarily related to updates in estimates and accruals for litigation expenses related to the Fox River reserve in addition to accruals for litigation expenses related to the Kalamazoo River environmental matter.

### Revenue and Operating Income by Segment

As described in Note 12, "Segment Information and Concentrations" of the Notes to Consolidated Financial Statements, the Company manages and reports its businesses in the following segments:

Software - Our software offerings include industry-based software platforms, applications and application suites for the financial services, retail, hospitality and small business industries. We also offer a portfolio of other industry-oriented software applications including cash management software, video banking software, fraud and loss prevention applications, check and document imaging, remote-deposit capture and customer-facing mobile and digital banking applications for the financial services industry; and secure electronic and mobile payment solutions, sector-specific point of sale software applications, and back-office inventory and store and restaurant management applications for the retail and hospitality industries. Additionally, we provide ongoing software support and maintenance services, as well as consulting and implementation services for our software solutions.

Services - Our global end-to-end services solutions include assessment and preparation, staging, installation, implementation, and maintenance and support for our solutions. We also provide systems management and complete managed services for our product offerings. In addition, we provide installation, maintenance and servicing for third party networking products and computer hardware from select manufacturers.



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Hardware - Our hardware solutions include our suite of financial-oriented self-service ATM-related hardware, and our retail- and hospitality-oriented point of sale terminal, self-checkout kiosk and related hardware. We also offer other self-service kiosks, such as self-check in/out kiosks for airlines, and wayfinding solutions for buildings and campuses.

Each of these segments derives its revenue by selling in the sales theaters in which NCR operates. Segments are measured for profitability by the Company's chief operating decision maker based on revenue and segment operating income. For purposes of discussing our operating results by segment, we exclude the impact of certain non-operational items from segment operating income, consistent with the manner by which management reviews each segment, evaluates performance, and reports our segment results under GAAP. This format is useful to investors because it allows analysis and comparability of operating trends. It also includes the same information that is used by NCR management to make decisions regarding the segments and to assess our financial performance. Our segment results are reconciled to total Company results reported under GAAP in Note 12, "Segment Information and Concentrations" of the Notes to Consolidated Financial Statements included in Item 8 of Part II of this Report.

In the segment discussions below, we have disclosed the impact of foreign currency fluctuations and the IPS divestiture as it relates to our segment revenue due to their significance.

## Software Segment

The following table presents the Software revenue and segment operating income for the years ended December 31:

In millions	2017	2016	2015
Revenue	\$1,900	\$1,841	\$1,747
Operating income	\$567	\$577	\$539
Operating income as a percentage of revenue	29.8%	31.3%	30.9%

Software revenue increased 3% in 2017 compared to 2016 driven by growth in cloud revenue of 6%, software maintenance revenue of 1%, professional services revenue of 5%, offset by a decline in software license revenue of 1%. Cloud revenue increased due to prior period bookings. Software maintenance revenue grew due to software license growth in prior periods. Professional services revenue grew due to demand for the Company's channel transformation and digital enablement solutions. Software license revenue declined due to lower software license revenue attached to hardware. Foreign currency fluctuations had no impact on the revenue comparison.

Software revenue increased 5% in 2016 compared to 2015 driven by growth in software license revenue of 13%, software maintenance revenue of 7%, cloud revenue of 4% and professional services revenue of 2%. Growth in software license revenue was driven primarily by store transformation and attached software revenue driven by the increase in hardware sales. Software maintenance revenue grew due to the growth in software licenses in prior periods and cloud revenue growth was due to growth in the financial services and hospitality industries. Foreign currency fluctuations negatively impacted the year-over-year revenue comparison of 1%.

Operating income decreased in 2017 compared to 2016 driven by the decrease in software license revenue but partially offset by improved efficiency in cloud and software maintenance. Operating income increased in 2016 compared to 2015 driven by higher revenue.

## Services Segment

The following table presents the Services revenue and segment operating income for the years ended December 31:

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In millions	2017	2016	2015
Revenue	\$2,373	\$2,306	\$2,218
Operating income	\$288	\$201	\$194
Operating income as a percentage of revenue	12.1%	8.7%	8.7%

Services revenue increased 3% in 2017 compared to 2016 primarily driven by growth in implementation services as well as hardware maintenance as a result of our focus on improving the customer experience. Foreign currency fluctuations had no impact on the year-over-year revenue comparison.

Services revenue increased 4% in 2016 compared to 2015 primarily driven by growth in implementation, hardware maintenance and managed services as a result of our focus on improving the customer experience. Foreign currency fluctuations negatively impacted the year-over-year revenue comparison by 2%.

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Operating income increased in 2017 compared to 2016 primarily driven by continued focus on productivity and efficiency improvements. Operating income increased in 2016 compared to 2015 primarily driven by higher revenue.

## Hardware Segment

The following table presents the Hardware revenue and segment operating income for the years ended December 31:

In millions	2017	2016	2015
Revenue	\$2,243	\$2,396	\$2,408
Operating (loss) income	\$(2)	\$62	\$87
Operating (loss) income as a percentage of revenue	(0.1)%	2.6%	3.6%

On May 27, 2016, NCR completed the sale of substantially all of the IPS business to Atlas Holdings LLC, which excluded the IPS operations in the Middle East and Africa (MEA). Accordingly, the Hardware segment revenue and operating income results exclude the results of the IPS operations, except for the IPS MEA operations, from May 27, 2016 through the end of 2017.

Hardware revenue decreased 6% in 2017 compared to 2016 driven by the impact of the IPS divestiture in the prior year and declines in ATM revenue of 17% partially offset by growth in self-checkout revenue of 16% and point-of-sale revenue of 20%. Self-checkout revenue increased due to store transformation. Point-of-sale revenue increased due to growth from a new solution in the petroleum and convenience sector. ATM revenue decreased mainly due to delays in customer spending in North America as well as declines in the Middle East and Africa. Foreign currency fluctuations positively impacted the year-over-year comparison by 1% and the IPS divestiture negatively impacted the year-over-year revenue comparison by 5%.

Hardware revenue was relatively flat in 2016 compared to 2015 with growth in ATM revenue of 3% and self-checkout revenue of 88% offset by declines in point-of-sale revenue of 3% and IPS revenue as a result of the divestiture. ATM revenue increased mainly due to new product introductions and branch transformation, and self-checkout revenue increased due to store transformation. Point-of-sale revenue was down mainly in the retail industry. Foreign currency fluctuations and the IPS divestiture negatively impacted the year-over-year revenue comparison by 0% and 9%, respectively.

Operating income decreased in 2017 compared to 2016 driven by lower volume and the impact on new product introductions. Operating income decreased in 2016 compared to 2015 due to a decline in gross margins attributable to expenses associated with new product launches. The gross margin rate in 2016 was negatively impacted by higher initial expenses from the roll-out of a new ATM product family and macroeconomic challenges.

## FINANCIAL CONDITION, LIQUIDITY AND CAPITAL RESOURCES

In the year ended December 31, 2017, cash provided by operating activities was \$755 million and in the year ended December 31, 2016 cash provided by operating activities was \$894 million. The decrease was due to lower working capital, partially offset by higher operating income.

NCR's management uses a non-GAAP measure called "free cash flow" to assess the financial performance of the Company. We define free cash flow as net cash provided by (used in) operating activities and cash provided by (used in) discontinued operations, less capital expenditures for property, plant and equipment, less additions to capitalized software plus discretionary pension contributions and settlements. Free cash flow does not have a uniform definition

under GAAP, and therefore NCR's definition of this measure may differ from that of other companies. We believe free cash flow information is useful for investors because it relates the operating cash flows from the Company's continuing and discontinued operations to the capital that is spent to continue and improve business operations. In particular, free cash flow indicates the amount of cash available after capital expenditures for, among other things, investments in the Company's existing businesses, strategic acquisitions and investments, repurchase of NCR stock and repayment of debt obligations. Free cash flow does not represent the residual cash flow available for discretionary expenditures, since there may be other non-discretionary expenditures that are not deducted from the measure. This non-GAAP measure should not be considered a substitute for, or superior to, cash flows from operating activities under GAAP. The table below reconciles net cash provided by (used in) operating activities, the most directly comparable GAAP measure, to NCR's non-GAAP measure of free cash flow for the years ended December 31:

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In millions	2017	2016	2015
Net cash provided by operating activities	\$755	\$894	\$681
Capital expenditures for property, plant and equipment	(128)	(73)	(79)
Additions to capitalized software	(166)	(154)	(150)
Net cash used in discontinued operations	(8)	(39)	(43)
Pension discretionary contributions and settlements	—	—	—
Free cash flow (non-GAAP)	\$453	\$628	\$409

In 2017, net cash provided by operating activities decreased \$139 million, and net cash used in discontinued operations decreased \$31 million, which contributed to a net decrease in free cash flow of \$175 million in comparison to 2016. Additionally, capital expenditures for property, plant and equipment increased \$55 million primarily due to expenditures related to the new global headquarters in Atlanta Georgia. Expenditures related to the new global headquarters were approximately \$60 million offset by approximately \$44 million of reimbursements by the lessor which was included in net cash provided by operating activities. Additions to capitalized software increased \$12 million due to continued investment in software solution enhancements. The net cash used in discontinued operations in 2017 was lower than 2016 primarily due to decreased litigation payments associated with the Fox River and Kalamazoo environmental matters as well as insurance settlements received in 2017.

In 2016, net cash provided by operating activities increased \$213 million, and net cash used in discontinued operations decreased \$4 million, which contributed to a net increase in free cash flow of \$219 million in comparison to 2015. Additionally, capital expenditures decreased \$6 million and capitalized software additions increased \$4 million due to continued investment in software solution enhancements. The net cash used in discontinued operations in 2016 was lower than 2015 primarily due to lower remediation payments associated with the Fox River environmental matter.

Financing activities and certain other investing activities are not included in our calculation of free cash flow. Our other investing activities primarily include business acquisitions, divestitures and investments as well as proceeds from the sales of property, plant and equipment. During the year ended December 31, 2016, we completed the sale of our IPS business, excluding its MEA operations, to Atlas Holdings LLC for cash consideration of \$47 million.

Our financing activities primarily include proceeds from the issuance of preferred stock, employee stock plans, borrowings on term credit facilities and the issuance of unsecured notes, as well as payments made for share repurchases, repayments of term credit facilities and tax withholding on behalf of employees. During the years ended December 31, 2017 and 2016, we repurchased a total of \$350 million and \$250 million, respectively, of our common stock. During the year ended December 31, 2015, we issued and sold shares of our Series A Convertible Preferred Stock for \$820 million, less \$26 million of issuance costs, and completed a share repurchase by modified "Dutch auction" tender offer for \$1 billion, plus \$5 million of issuance costs. During the years ended December 31, 2017, 2016 and 2015, proceeds from employee stock plans were \$15 million in all periods. During the years ended December 31, 2017, 2016 and 2015, payments made for tax withholding on behalf of employees totaled \$31 million, \$16 million and \$16 million, respectively.

**Long Term Borrowings** As of December 31, 2017, our senior secured credit facility consisted of a term loan facility with an aggregate principal amount outstanding of \$810 million, and a revolving credit facility in an aggregate principal amount of \$1.10 billion, of which none was outstanding. Additionally, the revolving credit facility has up to \$400 million available to certain foreign subsidiaries. Loans under the revolving credit facility are available in U.S. Dollars, Euros and Pound Sterling. The revolving credit facility also allows a portion of the availability to be used for outstanding letters of credit, and as of December 31, 2017, there were no letters of credit outstanding. As of December 31, 2016, the outstanding principal balance of the term loan facility was \$866 million and no amounts were outstanding under the revolving credit facility.

As of December 31, 2017 and 2016, we had outstanding \$700 million in aggregate principal balance of 6.375% senior unsecured notes due 2023, \$600 million in aggregate principal balance of 5.00% senior unsecured notes due 2022, \$500 million in aggregate principal balance of 4.625% senior unsecured notes due 2021 and \$400 million in aggregate principal balance of 5.875% senior unsecured notes due 2021.

Our revolving trade receivables securitization facility provides the Company with up to \$200 million in funding based on the availability of eligible receivables and other customary factors and conditions. As of December 31, 2017 and December 31, 2016, the Company had no amounts outstanding under the facility.

See Note 5, "Debt Obligations" of the Notes to Consolidated Financial Statements included in Item 8 of Part II of this Report for further information on the senior secured credit facility, the senior unsecured notes and the trade receivables securitization facility.

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**Employee Benefit Plans** We expect to make pension, postemployment and postretirement plan contributions of approximately \$92 million in 2018. See Note 8, "Employee Benefit Plans" of the Notes to the Consolidated Financial Statements included in Item 8 of Part II of this Report for additional discussion on our pension, postemployment and postretirement plans.

**Restructuring Program** In 2014, we announced a restructuring plan to strategically reallocate resources so that we can focus on higher-growth, higher-margin opportunities in the software-driven omni-channel industry and as of March 31, 2017, this plan was complete. Refer to Note 14, "Restructuring Plan" of the Notes to the Consolidated Financial Statements included in Item 8 of Part II of this Report for additional discussion on our restructuring plan.

In addition to the above, we remain focused on continuing our transformation to build share in the most promising growth areas while driving further operating efficiencies. To accelerate our transformation journey, we are evaluating programs to prioritize driving sustainable margin improvement, higher productivity and process efficiencies focusing on investing in software products that accelerate growth, driving growth in services through structural improvements and optimizing its hardware production, sourcing and supply chain strategy. As we finalize these programs, NCR expects to incur a related pre-tax charge over the next two years in the range of approximately \$200 million to \$250 million, with \$100 million to \$150 million in 2018, that will be included in income from operations. The cash impact of the restructuring plan is expected to be approximately \$150 million to \$200 million over the next two years, with \$100 million in 2018. We plan to achieve run-rate savings of approximately \$150 million per year by 2020.

**Series A Convertible Preferred Stock** On December 4, 2015, NCR issued 820,000 shares of Series A Convertible Preferred Stock to certain entities affiliated with the Blackstone Group L.P. (collectively, Blackstone) for an aggregate purchase price of \$820 million, or \$1,000 per share, pursuant to an Investment Agreement between the Company and Blackstone, dated November 11, 2015. In connection with the issuance of the Series A Convertible Preferred Stock, the Company incurred direct and incremental expenses of \$26 million. These direct and incremental expenses reduced the Series A Convertible Preferred Stock, and will be accreted through retained earnings as a deemed dividend from the date of issuance through the first possible known redemption date, March 16, 2024. Holders of Series A Convertible Preferred Stock are entitled to a cumulative dividend at the rate of 5.5% per annum, payable quarterly in arrears and payable in-kind for the first sixteen dividend payments, after which, dividends will be payable in cash or in-kind at the option of the Company. During the twelve months ended December 31, 2017 and 2016, the Company paid dividends-in-kind of \$45 million and \$47 million, respectively, associated with the Series A Convertible Preferred Stock. As of December 31, 2017 and 2016, the Company had accrued dividends of \$3 million and \$3 million, respectively. There were no cash dividends declared in the years ended December 31, 2017 and 2016.

The Series A Convertible Preferred Stock is convertible at the option of the holders at any time into shares of common stock at a conversion price of \$30.00 per share and a conversion rate of 33.333 shares of common stock per share of Series A Convertible Preferred Stock. As of December 31, 2017 and 2016, the maximum number of common shares that could be required to be issued if converted was 27.5 million and 29.0 million shares, respectively, which would represent approximately 18% and 19% of our outstanding common stock as of December 31, 2017 and 2016 including the preferred shares on an as-converted basis.

Under the Investment Agreement, Blackstone agreed not to sell or otherwise transfer its shares of Series A Convertible Preferred Stock (or any shares of common stock issued upon conversion thereof) without the Company's consent until June 4, 2017. In March 2017, we provided Blackstone with an early release from this lock-up, allowing Blackstone to sell approximately 49% of its shares of Series A Convertible Preferred Stock, and in return, Blackstone agreed to amend the Investment Agreement to extend the lock-up on the remaining 51% of its shares of Series A Convertible Preferred Stock for six months until December 1, 2017.

In connection with the early release of the lock-up, Blackstone offered for sale 342,000 shares of Series A Convertible Preferred Stock in an underwritten public offering. In addition, Blackstone converted 90,000 shares of Series A Convertible Preferred Stock into shares of our common stock and we repurchased those shares of common stock for \$48.47 per share. The underwritten offering and the stock repurchase were consummated on March 17, 2017.

**Cash and Cash Equivalents Held by Foreign Subsidiaries** Cash and cash equivalents held by the Company's foreign subsidiaries were \$442 million and \$428 million at December 31, 2017 and 2016, respectively. As a result of U.S. Tax Reform, including the repatriation tax, in general we will not be subject to additional U.S. taxes if cash and cash equivalents and short-term investments held outside the U.S. are distributed to the U.S. in the form of dividends or otherwise. However, we may be subject to foreign withholding taxes, which could be significant.

**Summary** As of December 31, 2017, our cash and cash equivalents totaled \$537 million and our total debt was \$3.01 billion. Our borrowing capacity under our senior secured credit facility was \$1.10 billion and under our trade receivables securitization facility was \$200 million at December 31, 2017. Our ability to generate positive cash flows from operations is dependent on general economic conditions, and the competitive environment in our industry, and is subject to the business and other risk factors described in Item 1A



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of Part I of this Report. If we are unable to generate sufficient cash flows from operations, or otherwise comply with the terms of our credit facilities, we may be required to seek additional financing alternatives.

We believe that we have sufficient liquidity based on our current cash position, cash flows from operations and existing financing to meet our expected pension, postemployment, and postretirement plan contributions, remediation payments related to the Fox River environmental matter, debt servicing obligations, payments related to transformation initiatives, and our operating requirements for the next twelve months.

**Contractual Obligations** In the normal course of business, we enter into various contractual obligations that impact, or could impact, the liquidity of our operations. The following table and discussion outlines our material obligations as of December 31, 2017 on an undiscounted basis, with projected cash payments in the years shown:

In millions	Total Amounts	2018	2019 -	2020	2021 - 2023 & 2022	Thereafter	All Other
Debt obligations	\$ 3,014	\$52	\$174	\$2,085	\$ 703	\$ —	
Interest on debt obligations	679	150	290	192	47	—	
Estimated environmental liability payments	35	22	12	1	—	—	
Lease obligations	729	135	161	90	343	—	
Purchase obligations	735	679	29	27	—	—	
Uncertain tax positions	148	—	—	—	—	148	
Total obligations	\$ 5,340	\$1,038	\$666	\$2,395	\$ 1,093	\$ 148	

As of December 31, 2017, we had short and long-term debt totaling \$2.99 billion, which includes debt issuance costs as a direct reduction from the carrying amount of debt.

For purposes of this table, we used interest rates as of December 31, 2017 to estimate the future interest on debt obligations outstanding as of December 31, 2017 and have assumed no voluntary prepayments of existing debt. See Note 5, "Debt Obligations" of the Notes to Consolidated Financial Statements included in Item 8 of Part II of this Report for additional disclosure related to our debt obligations and the related interest rate terms.

The estimated environmental liability payments included in the table of contractual obligations shown above are related to the Fox River environmental matter. The amounts shown are our expected payments, net of the payment obligations of co-obligors; the amounts do not include an estimate for payments to be received from insurers or indemnification parties. For additional information, refer to Note 9, "Commitments and Contingencies" included in Item 8 of Part II of this Report.

Our lease obligations are primarily for certain sales and manufacturing facilities in various domestic and international locations as well as leases related to equipment and vehicles. Our lease obligations also include future rental amounts owed for our world headquarters in Atlanta commencing after construction completion. Due to ongoing construction, we have included assumptions regarding the total project cost and lease commencement.

Purchase obligations represent committed purchase orders and other contractual commitments for goods or services. The purchase obligation amounts were determined through information in our procurement systems and payment schedules for significant contracts. Included in the amounts are committed payments in relation to the long-term service agreement with Accenture under which NCR's transaction processing activities and functions are performed.

We have a \$148 million liability related to our uncertain tax positions. Due to the nature of the underlying liabilities and the extended time often needed to resolve income tax uncertainties, we cannot make reliable estimates of the

amount or timing of cash payments that may be required to settle these liabilities. For additional information, refer to Note 6, "Income Taxes" of the Notes to Consolidated Financial Statements included in Item 8 of Part II of this Report.

Our U.S. and international employee benefit plans, which are described in Note 8, "Employee Benefit Plans" of the Notes to Consolidated Financial Statements included in Item 8 of Part II of this Report, could require significant future cash payments. The funded status of NCR's U.S. pension plan is an underfunded position of \$506 million as of December 31, 2017 compared to an underfunded position of \$463 million as of December 31, 2016. The increase in our underfunded position is primarily attributable to a change in mortality assumptions in 2017. Our international retirement plans were in an underfunded status of \$187 million as of December 31, 2017, as compared to an underfunded status of \$194 million as of December 31, 2016. Contributions to international pension plans are expected to be approximately \$30 million in 2018.

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We also have product warranties that may affect future cash flows. These items are not included in the table of obligations shown above, but are described in detail in Note 9, "Commitments and Contingencies" of the Notes to Consolidated Financial Statements included in Item 8 of Part II of this Report.

Our senior secured credit facility and the indentures for our senior unsecured notes include affirmative and negative covenants that restrict or limit our ability to, among other things, incur indebtedness; create liens on assets; engage in certain fundamental corporate changes or changes to our business activities; make investments; sell or otherwise dispose of assets; engage in sale-leaseback or hedging transactions; pay dividends or make similar distributions; repay other indebtedness; engage in certain affiliate transactions; or enter into agreements that restrict our ability to create liens, pay dividends or make loan repayments. Our senior secured credit facility also includes financial covenants that require us to maintain:

- a consolidated leverage ratio on the last day of any fiscal quarter, not to exceed (i) in the case of any fiscal quarter ending on or prior to December 31, 2017, (a) the sum of 4.25 and an amount (not to exceed 0.50) to reflect debt used to reduce NCR's unfunded pension liabilities to (b) 1.00, (ii) in the case of any fiscal quarter ending after December 31, 2017 and on or prior to December 31, 2019, (a) the sum of 4.00 and an amount (not to exceed 0.50) to reflect debt used to reduce NCR's unfunded pension liabilities to (b) 1.00, and (iii) in the case of any fiscal quarter ending after December 31, 2019, the sum of (a) 3.75 and an amount (not to exceed 0.50) to reflect debt used to reduce NCR's unfunded pension liabilities to (b) 1.00; and
- an interest coverage ratio on the last day of any fiscal quarter greater than or equal to 3.50 to 1.00.

At December 31, 2017, the maximum consolidated leverage ratio under the senior secured credit facility was 4.35 to 1.00.

**Off-Balance Sheet Arrangements** We have no significant contractual obligations not fully recorded on our Consolidated Balance Sheets or fully disclosed in the notes to our consolidated financial statements. We have no material off-balance sheet arrangements as defined by SEC Regulation S-K Item 303 (a) (4) (ii).

See Note 9, "Commitments and Contingencies" in the Notes to Consolidated Financial Statements in Item 8 of Part II of this Report for additional information on guarantees associated with our business activities.

**CRITICAL ACCOUNTING POLICIES AND ESTIMATES**

Our consolidated financial statements are prepared in accordance with GAAP. In connection with the preparation of these financial statements, we are required to make assumptions, estimates and judgments that affect the reported amounts of assets, liabilities, revenue, expenses and the related disclosure of contingent liabilities. These assumptions, estimates and judgments are based on historical experience and are believed to be reasonable at the time. However, because future events and their effects cannot be determined with certainty, the determination of estimates requires the exercise of judgment. Our critical accounting policies are those that require assumptions to be made about matters that are highly uncertain. Different estimates could have a material impact on our financial results. Judgments and uncertainties affecting the application of these policies and estimates may result in materially different amounts being reported under different conditions or circumstances. Our management continually reviews these assumptions, estimates and judgments to ensure that our financial statements are presented fairly and are materially correct.

In many cases, the accounting treatment of a particular transaction is specifically dictated by GAAP and does not require significant management judgment in its application. There are also areas in which management's judgment in selecting among available alternatives would not produce a materially different result. The significant accounting policies and estimates that we believe are the most critical to aid in fully understanding and evaluating our reported

financial results are discussed in the paragraphs below. Our senior management has reviewed these critical accounting policies and related disclosures with our independent registered public accounting firm and the Audit Committee of our Board of Directors. See Note 1, "Description of Business and Significant Accounting Policies" of the Notes to Consolidated Financial Statements in Item 8 of Part II of this Report, which contains additional information regarding our accounting policies and other disclosures required by GAAP.

Revenue Recognition NCR frequently enters into multiple-element arrangements with its customers including hardware, software, professional consulting services and maintenance support services. For arrangements involving multiple deliverables, when deliverables include software and non-software products and services, NCR evaluates and separates each deliverable to determine whether it represents a separate unit of accounting based on the following criteria: (a) the delivered item has value to the customer on a stand-alone basis; and (b) if the contract includes a general right of return relative to the delivered item, delivery or performance of the undelivered items is considered probable and substantially in the control of NCR.

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Consideration is allocated to each unit of accounting based on the unit's relative selling prices. In such circumstances, the Company uses a hierarchy to determine the selling price to be used for allocating revenue to each deliverable: (i) vendor-specific objective evidence of selling price (VSOE), (ii) third-party evidence of selling price (TPE), and (iii) best estimate of selling price (BESP). VSOE generally exists only when the Company sells the deliverable separately and is the price actually charged by the Company for that deliverable. VSOE is established for our software maintenance and software-related professional services. We use TPE to establish selling prices for our installation and transaction services. The Company uses BESP to allocate revenue when we are unable to establish VSOE or TPE of selling price. BESP is used for hardware maintenance and elements such as products that are not consistently priced within a narrow range. The Company determines BESP for a deliverable by considering multiple factors including product class, geography, average discount, and management's historical pricing practices. Amounts allocated to the delivered hardware and software elements are recognized at the time of sale provided the other conditions for revenue recognition have been met. Amounts allocated to the undelivered maintenance and other services elements are recognized as the services are provided or on a straight-line basis over the service period. In certain instances, customer acceptance is required prior to the passage of title and risk of loss of the delivered products. In such cases, revenue is not recognized until the customer acceptance is obtained. Delivery and acceptance generally occur in the same reporting period.

In situations where NCR's solutions contain software that is more than incidental, revenue related to the software and software-related elements is recognized in accordance with authoritative guidance on software revenue recognition. For the software and software-related elements of such transactions, revenue is allocated based on the relative fair value of each element, and fair value is determined by VSOE. If the Company cannot objectively determine the fair value of any undelivered element included in such multiple-element arrangements, the Company defers revenue until all elements are delivered and services have been performed, or until fair value can objectively be determined for any remaining undelivered elements. When the fair value of a delivered element has not been established, but fair value exists for the undelivered elements, the Company uses the residual method to recognize revenue. Under the residual method, the fair value of the undelivered elements is deferred and the remaining portion of the arrangement fee is allocated to the delivered elements and is recognized as revenue. If an arrangement includes software and services that involve significant production, modification or customization of the software, the services cannot be separated from the software. The Company accounts for these arrangements as a long-term contract.

For certain of NCR's long-term contracts, the Company utilizes a percentage-of-completion accounting method, which requires estimates of future revenue and costs over the full term of product and/or service delivery. Estimated losses, if any, on long-term projects are recognized as soon as such losses become known.

Revenue recognition for complex contractual arrangements, especially those with multiple elements, requires a significant level of judgment and is based upon a review of specific contracts, past experience, the selling price of undelivered elements when sold separately, creditworthiness of customers, international laws and other factors. Changes in judgments about these factors could impact the timing and amount of revenue recognized between periods.

**Allowance for Doubtful Accounts** We evaluate the collectability of our accounts receivable based on a number of factors. We establish provisions for doubtful accounts using percentages of our accounts receivable balance as an overall proxy to reflect historical average credit losses and also use management judgment that may include elements that are uncertain, including specific provisions for known issues. The percentages are applied to aged accounts receivable balances. Aged accounts are determined based on the number of days the receivable is outstanding, measured from the date of the invoice, or from the date of revenue recognition. As the age of the receivable increases, the provision percentage also increases. This policy is applied consistently among all of our operating segments.

Based on the factors below, we periodically review customer account activity in order to assess the adequacy of the allowances provided for potential losses. Factors include economic conditions and judgments regarding collectability of account balances, each customer's payment history and creditworthiness.

The allowance for doubtful accounts was \$37 million as of December 31, 2017, \$41 million as of December 31, 2016, and \$47 million as of December 31, 2015. These allowances represent, as a percentage of gross receivables, 2.8% in 2017, 3.1% in 2016, and 3.6% in 2015.

Given our experience, the reserves for potential losses are considered adequate, but if one or more of our larger customers were to default on its obligations, we could be exposed to potentially significant losses in excess of the provisions established. We continually evaluate our reserves for doubtful accounts and economic deterioration could lead to the need to increase our allowances.

**Inventory Valuation** Inventories are stated at the lower of cost or net realizable value, using the average cost method. Each quarter, we reassess raw materials, work-in-process, parts and finished equipment inventory costs to identify purchase or usage variances from standards, and valuation adjustments are made. Additionally, to properly provide for potential exposure due to slow-moving, excess,

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obsolete or unusable inventory, inventory values are reduced based on forecasted usage, orders, technological obsolescence and inventory aging. These factors are impacted by market conditions, technology changes and changes in strategic direction, and require estimates and management judgment that may include elements that are uncertain. On a quarterly basis, we review the current net realizable value of inventory and adjust for any inventory exposure due to age or excess of cost over net realizable value.

We have inventory in more than 40 countries around the world. We purchase inventory from third party suppliers and manufacture inventory at our plants. This inventory is transferred to our distribution and sales organizations at cost plus a mark-up. This mark-up is referred to as inter-company profit. Each quarter, we review our inventory levels and analyze our inter-company profit to determine the correct amount of inter-company profit to eliminate. Key assumptions are made to estimate product gross margins, the product mix of existing inventory balances and current period shipments. Over time, we refine these estimates as facts and circumstances change. If our estimates require refinement, our results could be impacted. The policies described are applied consistently across all of our operating segments.

**Warranty Reserves** One of our key objectives is to provide superior quality products and services. To that end, we provide a standard manufacturer's warranty typically extending up to 12 months, allowing our customers to seek repair of products under warranty at no additional cost. A corresponding estimated liability for potential warranty costs is recorded at the time of the sale. We sometimes offer extended warranties in the form of product maintenance services to our customers for purchase. We defer the fair value of this revenue and recognize revenue over the life of the extended warranty period. Refer to Note 1, "Description of Business and Significant Accounting Policies" in the Notes to Consolidated Financial Statements in Item 8 of Part II of this Report for further information regarding our accounting for extended warranties.

Future warranty obligation costs are based upon historical factors such as labor rates, average repair time, travel time, number of service calls per machine and cost of replacement parts. When a sale is consummated, the total customer revenue is recognized and the associated warranty liability is recorded based upon the estimated cost to provide the service over the warranty period.

Total warranty costs were \$43 million in 2017, \$42 million in 2016, and \$41 million in 2015. Warranty costs as a percentage of total product revenue was 1.7% in 2017, 1.5% in 2016, and 1.5% in 2015. Historically, the principal factor used to estimate our warranty costs has been service calls per machine. Significant changes in this factor could result in actual warranty costs differing from accrued estimates. Although no near-term changes in our estimated warranty reserves are currently anticipated, in the unlikely event of a significant increase in warranty claims by one or more of our larger customers, costs to fulfill warranty obligations would be higher than provisioned, thereby impacting results.

**Goodwill** Goodwill is tested at the reporting unit level for impairment on an annual basis during the fourth quarter or more frequently if certain events occur indicating that the carrying value of goodwill may be impaired. A significant amount of judgment is involved in determining if an indicator of impairment has occurred. Such indicators may include a decline in expected cash flows, a significant adverse change in legal factors or in the business climate, a decision to sell a business, unanticipated competition, or slower growth rates, among others.

In the evaluation of goodwill for impairment, we have the option to perform a qualitative assessment to determine whether further impairment testing is necessary or to perform a quantitative assessment by comparing the fair value of a reporting unit to its carrying amount, including goodwill. Under the qualitative assessment, an entity is not required to calculate the fair value of a reporting unit unless the entity determines that it is more likely than not that its fair value is less than its carrying amount. If under the quantitative assessment the fair value of a reporting unit is less than

its carrying amount, then the amount of the impairment loss, if any, must be measured under step two of the impairment analysis. In step two of the analysis, we will record an impairment loss equal to the excess of the carrying value of the reporting unit's goodwill over its implied fair value. Fair values of the reporting units are estimated using a weighted methodology considering the output from both the income and market approaches. The income approach incorporates the use of a discounted cash flow (DCF) analysis. A number of significant assumptions and estimates are involved in the application of the DCF model to forecast operating cash flows, including markets and market shares, sales volumes and prices, costs to produce, tax rates, capital spending, discount rate and working capital changes. Several of these assumptions vary among reporting units. The cash flow forecasts are generally based on approved strategic operating plans. The market approach is performed using the Guideline Public Companies (GPC) method which is based on earnings multiple data. We perform a reconciliation between our market capitalization and our estimate of the aggregate fair value of the reporting units, including consideration of a control premium.

We performed our annual impairment assessment of goodwill during the fourth quarter of 2017, which did not indicate an impairment existed. The reporting unit with the lowest percentage by which the fair value exceeded the carrying value was the Hardware reporting unit, where the excess of fair value over carrying value was approximately 20%. We are in the process of identifying initiatives to accelerate our transformation to improve profitability in our Hardware segment through optimizing our production, sourcing and supply chain strategy.



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**Valuation of Long-lived Assets and Amortizable Other Intangible Assets** We perform impairment tests for our long-lived assets if an event or circumstance indicates that the carrying amount of our long-lived assets may not be recoverable. In response to changes in industry and market conditions, we may also strategically realign our resources and consider restructuring, disposing of, or otherwise exiting businesses. Such activities could result in impairment of our long-lived assets or other intangible assets. We also are subject to the possibility of impairment of long-lived assets arising in the ordinary course of business. We consider the likelihood of impairment if certain events occur indicating that the carrying value of the long-lived assets may be impaired and we may recognize impairment if the carrying amount of a long-lived asset or intangible asset is not recoverable from its undiscounted cash flows. Impairment is measured as the difference between the carrying amount and the fair value of the asset. We use both the income approach and market approach to estimate fair value. Our estimates of fair value are subject to a high degree of judgment since they include a long-term forecast of future operations. Accordingly, any value ultimately derived from our long-lived assets may differ from our estimate of fair value.

**Pension, Postretirement and Postemployment Benefits** We sponsor domestic and foreign defined benefit pension and postemployment plans as well as domestic postretirement plans. As a result, we have significant pension, postretirement and postemployment benefit costs, which are developed from actuarial valuations. Actuarial assumptions attempt to anticipate future events and are used in calculating the expense and liability relating to these plans. These factors include assumptions we make about interest rates, expected investment return on plan assets, rate of increase in healthcare costs, total and involuntary turnover rates, and rates of future compensation increases. In addition, our actuarial consultants advise us about subjective factors such as withdrawal rates and mortality rates to use in our valuations. We generally review and update these assumptions on an annual basis at the beginning of each fiscal year. We are required to consider current market conditions, including changes in interest rates, in making these assumptions. The actuarial assumptions that we use may differ materially from actual results due to changing market and economic conditions, higher or lower withdrawal rates, or longer or shorter life spans of participants. These differences may result in a significant impact to the amount of pension, postretirement or postemployment benefits expense we have recorded or may record. Ongoing pension, postemployment and postretirement expense impacts all of our segments. Pension mark-to-market adjustments, settlements, curtailments and special termination benefits are excluded from our segment results as those items are not included in the evaluation of segment performance. See Note 12, "Segment Information and Concentrations," in the Notes to Consolidated Financial Statements in Item 8 of Part II of this Report for a reconciliation of our segment results to income from operations.

The key assumptions used in developing our 2017 expense were discount rates of 3.4% for our U.S. pension plan and 3.2% for our postretirement plan, and an expected return on assets assumption of 3.5% for our U.S. pension plan in 2017. The U.S. plan represented 60% of the pension obligation and 100% of the postretirement medical plan obligation as of December 31, 2017. Holding all other assumptions constant, a 0.25% change in the discount rate used for the U.S. plan would have increased or decreased 2017 ongoing pension expense by approximately \$3 million and would have had an immaterial impact on 2017 postretirement income. A 0.25% change in the expected rate of return on plan assets assumption for the U.S. pension plan would have increased or decreased 2017 ongoing pension expense by approximately \$4 million. Our expected return on plan assets has historically been and will likely continue to be material to net income. For 2018, we intend to use discount rates of 3.2% and 3.1% in determining the 2018 U.S. pension and postretirement expense, respectively. We intend to use an expected rate of return on assets assumption of 3.1% for the U.S. pension plan.

Effective January 1, 2017, we changed the method used to estimate the service and interest components of net periodic benefit cost for our significant pension plans where yield curves are available. Previously, we estimated such cost components utilizing a single weighted-average discount rate derived from the yield curve used to measure the pension benefit obligation. The new methodology utilizes a full yield curve approach by applying the specific spot

rates along the yield curve used in the determination of the pension benefit obligation to their underlying projected cash flows and provides a more precise measurement of service and interest costs by improving the correlation between projected cash flows and their corresponding spot rates. This change does not affect the measurement of our total benefit obligation and is applied prospectively as a change in estimate.

We recognize additional changes in the fair value of plan assets and net actuarial gains or losses of our pension plans upon remeasurement, which occurs at least annually in the fourth quarter of each year. The remaining components of pension expense, primarily net service cost, interest cost, and the expected return on plan assets, are recorded on a quarterly basis as ongoing pension expense. While it is required that we review our actuarial assumptions each year at the measurement date, we generally do not change them between measurement dates. We use a measurement date of December 31 for all of our plans. Changes in assumptions or asset values may have a significant effect on the annual measurement of expense or income in the fourth quarter.

The most significant assumption used in developing our 2018 postemployment plan expense is the assumed rate of involuntary turnover of 4.8%. The involuntary turnover rate is based on historical trends and projections of involuntary turnover in the future. A 0.25% change in the rate of involuntary turnover would have increased or decreased 2017 expense by approximately \$2 million. The sensitivity

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of the assumptions described above is specific to each individual plan and not to our pension, postretirement and postemployment plans in the aggregate.

**Environmental and Legal Contingencies** Each quarter, we review the status of each claim and legal proceeding and assess our potential financial exposure. If the potential loss from any claim or legal proceeding would be material and is considered probable and the amount can be reasonably estimated, we accrue a liability for the estimated loss. To the extent that the amount of such a probable loss is estimable only by reference to a range of equally likely outcomes, and no amount within the range appears to be a better estimate than any other amount, we accrue the amount at the low end of the range. Because of uncertainties related to these matters, the use of estimates, assumptions and judgments, and external factors beyond our control, accruals are based on the best information available at the time. As additional information becomes available, we reassess the potential liability related to our pending claims and litigation and may revise our estimates. Such revisions in the estimates of the potential liabilities could have a material impact on our results of operations and financial position. When insurance carriers or third parties have agreed to pay any amounts related to costs, and we believe that it is probable that we can collect such amounts, those amounts are reflected as receivables in our Consolidated Balance Sheet.

The most significant legal contingencies impacting our Company relates to the Fox River and Kalamazoo River matters, which are further described in detail in Note 9, "Commitments and Contingencies" in the Notes to Consolidated Financial Statements in Item 8 of Part II of this Report. NCR has been identified as a potentially responsible party (PRP) at both sites.

As described below and in Note 9, "Commitments and Contingencies" in the Notes to Consolidated Financial Statements in Item 8 of Part II of this Report, while substantial progress has been made in the Fox River clean-up including a consent decree that establishes the general limits on NCR's liability therefor (it is subject to appeal), and while significant litigation activities have taken place with respect to the Kalamazoo River, the extent of our potential liabilities continues to be subject to significant uncertainties described below.

Our net reserve for the Fox River matter as of December 31, 2017 was approximately \$35 million as further discussed in Note 9, "Commitments and Contingencies" in the Notes to Consolidated Financial Statements in Item 8 of Part II of this Report. The Company regularly re-evaluates the assumptions used in determining the appropriate reserve for the Fox River matter as additional information becomes available and, when warranted, makes appropriate adjustments.

**Income Taxes** We recognize deferred tax assets and liabilities based on the differences between the financial statement carrying amounts and the tax basis of assets and liabilities. The deferred tax assets and liabilities are determined based on the enacted tax rates expected to apply in the periods in which the deferred tax assets or liabilities are anticipated to be settled or realized.

We regularly review our deferred tax assets for recoverability and establish a valuation allowance if it is more likely than not that some portion or all of a deferred tax asset will not be realized. The determination as to whether a deferred tax asset will be realized is made on a jurisdictional basis and is based on the evaluation of positive and negative evidence. This evidence includes historical taxable income, projected future taxable income, the expected timing of the reversal of existing temporary differences and the implementation of tax planning strategies. Projected future taxable income is based on our expected results and assumptions as to the jurisdiction in which the income will be earned. The expected timing of the reversals of existing temporary differences is based on current tax law and our tax methods of accounting. As a result of this determination, we had valuation allowances of \$415 million as of December 31, 2017 and \$445 million as of December 31, 2016, related to certain deferred income tax assets, primarily tax loss carryforwards, in jurisdictions where there is uncertainty as to the ultimate realization of a benefit from those tax assets.

If we are unable to generate sufficient future taxable income, or if there is a material change in the actual effective tax rates or the time period within which the underlying temporary differences become taxable or deductible, or if the tax laws change unfavorably, then we could be required to increase our valuation allowance against our deferred tax assets, resulting in an increase in our effective tax rate.

The Tax Cuts and Jobs Act of 2017 ("U.S. Tax Reform") was enacted in December 2017. The legislation significantly changes U.S. tax law by, among other things, lowering U.S. corporate income tax rates, implementing a territorial tax system and imposing a one-time tax on deemed repatriated earnings of foreign subsidiaries. The legislation reduces the U.S. corporate income tax rate from 35% to 21%, effective January 1, 2018. The SEC staff issued guidance to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of U.S. Tax Reform and allows the registrant to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. We have recognized the provisional impacts related to the one-time repatriation tax and remeasurement of deferred tax balances and included these estimates in our consolidated financial statements for the year ended December 31, 2017. The ultimate impact may materially differ from these provisional amounts, due to, among other things, additional analysis, changes in interpretations and assumptions we have made, additional regulatory guidance that may be issued, and actions we may take as a result of U.S. Tax Reform. In addition, foreign governments may enact tax laws in response

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to the U.S. legislation that could result in further changes to global taxation and materially affect our financial position and results of operations.

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the consolidated financial statements from such a position are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon settlement. Interest and penalties related to uncertain tax positions are recognized as part of the provision for income taxes and are accrued beginning in the period that such interest and penalties would be applicable under relevant tax law until such time that the related tax benefits are recognized.

The provision for income taxes may change period-to-period based on non-recurring events, such as the settlement of income tax audits and changes in tax laws, as well as recurring factors including the geographic mix of income before taxes, state and local taxes and the effects of various global income tax strategies. We maintain certain strategic management and operational activities in overseas subsidiaries and our foreign earnings are taxed at rates that are generally lower than in the United States. As of December 31, 2017, we did not provide for U.S. federal income taxes or foreign withholding taxes on approximately \$2.5 billion of undistributed earnings of our foreign subsidiaries as such earnings are expected to be reinvested indefinitely unless it is determined that future repatriation would give rise to little or no net tax costs.

Refer to Note 6, "Income Taxes" in the Notes to Consolidated Financial Statements in Item 8 of Part II of this Report for disclosures related to foreign and domestic pretax income, foreign and domestic income tax (benefit) expense and the effect foreign taxes have on our overall effective tax rate.

**Stock-based Compensation** We measure compensation cost for stock awards at fair value and recognize compensation expense over the service period for which awards are expected to vest. We utilize the Black-Scholes option pricing model to estimate the fair value of options at the date of grant, which requires the input of highly subjective assumptions, including expected volatility and expected holding period. We estimate forfeitures for awards granted which are not expected to vest. The estimation of stock awards that will ultimately vest requires judgment, and to the extent that actual results or updated estimates differ from our current estimates, such amounts will be recorded as a cumulative adjustment in the period in which estimates are revised. We consider many factors when estimating expected forfeitures, including types of awards and historical experience. Actual results and future changes in estimates may differ from our current estimates.

We have performance-based awards that vest only if specific performance conditions are satisfied, typically at the end of a multi-year performance period, and the service requirement is fulfilled. The number of shares that will be earned can vary based on actual performance. No shares will vest if the objectives are not met, and in the event the objectives are exceeded, additional shares will vest up to a maximum amount. The cost of these awards is expensed over the service period based upon management's estimates of achievement against the performance criteria. Because the actual number of shares to be awarded is not known until the end of the performance period, the actual compensation expense related to these awards could differ from our current expectations.

We also have market-based awards and the cost of the awards is recognized as the requisite service is rendered by the employees, regardless of when, if ever, the market-based performance conditions are satisfied. The fair value of market-based awards is based on the Monte Carlo simulation model. Assumptions and estimates utilized in the calculation of the fair value of the market-based awards include the risk-free interest rate, dividend yield, expected volatility based on the historical volatility of publicly traded peer companies and remaining performance period of the award. The market-based awards vest and result in the issuance of common stock based upon the recipient's continuing employment and the achievement of targeted stock prices for a specified period of time noted in the award agreement.

## RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

A discussion of recently issued accounting pronouncements is described in Note 1, “Basis of Presentation and Significant Accounting Policies” of the Notes to Consolidated Financial Statements in Item 8 of Part II of this Report, and we incorporate by reference such discussion in this MD&A.

## Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

### Market Risk

We are exposed to market risks primarily from changes in foreign currency exchange rates and interest rates. It is our policy to manage our foreign exchange exposure and debt structure in order to manage capital costs, control financial risks and maintain financial

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flexibility over the long term. In managing market risks, we employ derivatives according to documented policies and procedures, including foreign currency contracts and interest rate swaps. We do not use derivatives for trading or speculative purposes.

### Foreign Exchange Risk

Since a substantial portion of our operations and revenue occur outside the U.S., and in currencies other than the U.S. Dollar, our results can be significantly impacted by changes in foreign currency exchange rates. We have exposure to approximately 50 functional currencies and are exposed to foreign currency exchange risk with respect to our sales, profits and assets and liabilities denominated in currencies other than the U.S. Dollar. Although we use financial instruments to hedge certain foreign currency risks, we are not fully protected against foreign currency fluctuations and our reported results of operations could be affected by changes in foreign currency exchange rates. To manage our exposures and mitigate the impact of currency fluctuations on the operations of our foreign subsidiaries, we hedge our main transactional exposures through the use of foreign exchange forward and option contracts. These foreign exchange contracts are designated as highly effective cash flow hedges. This is primarily done through the hedging of foreign currency denominated inter-company inventory purchases by the marketing units. All of these transactions are forecasted. We also use derivatives not designated as hedging instruments consisting primarily of forward contracts to hedge foreign currency denominated balance sheet exposures. For these derivatives we recognize gains and losses in the same period as the remeasurement losses and gains of the related foreign currency-denominated exposures.

We utilize non-exchange traded financial instruments, such as foreign exchange forward and option contracts, that we purchase exclusively from highly rated financial institutions. We record these contracts on our balance sheet at fair market value based upon market price quotations from the financial institutions. We do not enter into non-exchange traded contracts that require the use of fair value estimation techniques, but if we did, they could have a material impact on our financial results.

For purposes of analyzing potential risk, we use sensitivity analysis to quantify potential impacts that market rate changes may have on the fair values of our hedge portfolio related to firmly committed or forecasted transactions. The sensitivity analysis represents the hypothetical changes in value of the hedge position and does not reflect the related gain or loss on the forecasted underlying transaction. A 10% appreciation or depreciation in the value of the U.S. Dollar against foreign currencies from the prevailing market rates would have resulted in a corresponding increase or decrease of \$23 million as of December 31, 2017 in the fair value of the hedge portfolio. The Company expects that any increase or decrease in the fair value of the portfolio would be substantially offset by increases or decreases in the underlying exposures being hedged.

The U.S. Dollar was slightly weaker in 2017 compared to 2016 based on comparable weighted averages for our functional currencies. This had no impact on 2017 revenue versus 2016 revenue. This excludes the effects of our hedging activities and, therefore, does not reflect the actual impact of fluctuations in exchange rates on our operating income.

### Interest Rate Risk

We are subject to interest rate risk principally in relation to variable-rate debt. Approximately 73% of our borrowings were on a fixed rate basis as of December 31, 2017. The increase in pre-tax interest expense for the twelve months ended December 31, 2017 from a hypothetical 100 basis point increase in variable interest rates would be approximately \$11 million.

### Concentrations of Credit Risk

We are potentially subject to concentrations of credit risk on accounts receivable and financial instruments, such as hedging instruments and cash and cash equivalents. Credit risk includes the risk of nonperformance by counterparties. The maximum potential loss may exceed the amount recognized on the balance sheet. Exposure to credit risk is managed through credit approvals, credit limits, selecting major international financial institutions as counterparties to hedging transactions and monitoring procedures. Our business often involves large transactions with customers for which we do not require collateral. If one or more of those customers were to default in its obligations under applicable contractual arrangements, we could be exposed to potentially significant losses. Moreover, a prolonged downturn in the global economy could have an adverse impact on the ability of our customers to pay their obligations on a timely basis. We believe that the reserves for potential losses are adequate. As of December 31, 2017, we did not have any significant concentration of credit risk related to financial instruments.



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Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTAL DATA

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of NCR Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the consolidated financial statements, including the related notes, as listed in the index appearing under Item 15(a)(1), and the financial statement schedule listed in the index appearing under Item 15(a)(2), of NCR Corporation and its subsidiaries (the "Company") (collectively referred to as the "consolidated financial statements").

We also have audited the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and December 31, 2016, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2017 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company changed the manner in which it accounts for employee share-based payments in 2017.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated

financial statements. 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.

#### Definition and Limitations of Internal Control over Financial Reporting

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

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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

Atlanta, Georgia

February 26, 2018

We have served as the Company's auditor since 1993.

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NCR Corporation  
Consolidated Statements of Operations

For the years ended December 31, (in millions, except per share amounts)	2017	2016	2015
Product revenue	\$2,579	\$2,737	\$2,711
Service revenue	3,937	3,806	3,662
Total revenue	6,516	6,543	