XEROX CORP
Form 10-K
February 25, 2019

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UNITED STATES SECURITIES AND EXCHAN Washington, D.C. 20549	NGE COM	MISSION				
FORM 10-K						
For the finest war and d. Dec	b 21	SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 2018 TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF				
For the transition period from: Commission File Number 001		0:				
XEROX CORPORATION (Exact Name of Registrant as	specified i					
New York		16-0468020				
(State of incorporation)		(IRS Employer Identification No.)				
P.O. Box 4505, 201 Merritt 7 Norwalk, Connecticut 06851-1056		(203) 968-3000				
(Address of principal executiv	e offices)	(Registrants telephone number, including area code)				
Securities registered pursuant	to Section	12(b) of the Act:				
Title of each class		each exchange on which registered				
Common Stock, \$1 par value						
1		Stock Exchange				
Securities registered pursuant None	to Section	12(g) of the Act:				
Indicate by check mark if the t	 egistrant i	s a well-known seasoned issuer, as defined in Rule 405 of the Securities Act				

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes x No o

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 o No x

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 x No o Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit). Yes x No o

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

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

Large accelerated filer

Accelerated ofiler

Non-accelerated ofiler

Smaller reporting ocmpany

ocmpany

ocmpany

ocmpany

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. o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

The aggregate market value of the voting stock of the registrant held by non-affiliates as of June 30, 2018 was \$6,122,441,592.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date:

Class Outstanding at January 31, 2019

Common Stock, \$1 par value 229,726,488

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the following document are incorporated herein by reference:

Document Part of Form 10-K in which Incorporated

Xerox Corporation Notice of 2019 Annual Meeting of Shareholders and Proxy Statement (to be filed no later than 120 days after the close of the fiscal year covered by this report on III Form 10-K)

Cautionary Statement Regarding Forward-Looking Statements

This document, and other written or oral statements made from time to time by management contain "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995. The words "anticipate", "believe", "estimate", "expect", "intend", "will", "should", "targeting", "projecting", "driving" and similar expressions, as they relate to us, our performance and/or our technology, are intended to identify forward-looking statements. These statements reflect management's current beliefs, assumptions and expectations and are subject to a number of factors that may cause actual results to differ materially. Such factors include but are not limited to: our ability to address our business challenges in order to reverse revenue declines, reduce costs and increase productivity so that we can invest in and grow our business; our ability to attract and retain key personnel; changes in economic and political conditions, trade protection measures, licensing requirements and tax laws in the United States and in the foreign countries in which we do business; the imposition of new or incremental trade protection measures such as tariffs and import or export restrictions; changes in foreign currency exchange rates; our ability to successfully develop new products, technologies and service offerings and to protect our intellectual property rights; the risk that multi-year contracts with governmental entities could be terminated prior to the end of the contract term and that civil or criminal penalties and administrative sanctions could be imposed on us if we fail to comply with the terms of such contracts and applicable law; the risk that partners, subcontractors and software vendors will not perform in a timely, quality manner; actions of competitors and our ability to promptly and effectively react to changing technologies and customer expectations; our ability to obtain adequate pricing for our products and services and to maintain and improve cost efficiency of operations, including savings from restructuring actions; the risk that confidential and/or individually identifiable information of ours, our customers, clients and employees could be inadvertently disclosed or disclosed as a result of a breach of our security systems due to cyber attacks or other intentional acts; reliance on third parties, including subcontractors, for manufacturing of products and provision of services; the exit of the United Kingdom from the European Union; our ability to manage changes in the printing environment and expand equipment placements; interest rates, cost of borrowing and access to credit markets; funding requirements associated with our employee pension and retiree health benefit plans; the risk that our operations and products may not comply with applicable worldwide regulatory requirements, particularly environmental regulations and directives and anti-corruption laws; the outcome of litigation and regulatory proceedings to which we may be a party; any potential termination or restructuring of our relationship with Fujifilm Holdings Corporation; and other factors that are set forth in the "Risk Factors" section, the "Legal Proceedings" section, the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section and other sections of this Annual Report on Form 10-K, as well as in our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K filed with the SEC. Xerox assumes no obligation to update any forward-looking statements as a result of new information or future events or developments, except as required by law.

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Part I Item 1. Business Our Business

Xerox is a print technology and intelligent work solutions leader. Our experience and broad customer base gives us a unique perspective and understanding of the inner-workings of business, and our technology allows us to add intelligence to the development of solutions to connect the physical and digital worlds of work. We apply our expertise in imaging and printing, data analytics, and the development of secure and automated solutions to help our customers improve productivity and increase client satisfaction. Every day, our innovative technologies and intelligent work solutions - Powered by Xerox ® - help people communicate and work better.

In our core market, we compete with our traditional print technology and related services. This core market is estimated at approximately \$67 billion⁽¹⁾. Our primary offerings in this core environment span three main areas: Intelligent Workplace Services (formerly Managed Document Services (MDS)), Workplace Solutions and Production Solutions (formerly Graphic Communications). Our Intelligent Workplace Services offerings help customers, ranging from small businesses to global enterprises, optimize their printing and related document workflow and business processes. Xerox led the establishment of this expanding market and continues as the industry leader. Our Workplace Solutions and Production Solutions offerings support the work processes of our customers by providing them with solutions built upon our broad portfolio of industry-leading printing and workflow offerings.

We also have digital solutions and software assets to compete in an approximately \$31 billion⁽¹⁾ adjacent Software and Services market. Our main offerings in this market are focused on industry-specific Digital Solutions, Personalization & Communication Software and Content Management Software. Our Industry Digital Solutions leverage our ConnectKey software platform to enable integration of technology, software and services to securely design and manage the digitization and workflow of content for our clients. Our main products in this area are Digital Patient, Digital Insurer, Digital Retailer and Digital Citizen. Our Personalization Software and Content Management Software are products designed for security, cloud and digital enablement. Our main products in these areas are XMPie and DocuShare. Our XMPie offering is a robust personalization and communication software that can support the needs of omni-channel communications customers, giving them the bridge between print and digital, which is a critical element for that market. Our DocuShare enterprise content management offering provides a better way to manage paper and digital content from creation to retention to transformation. Capture, store and share documents either on-premise or by cloud while automating time-consuming, document-heavy processes like accounts payable, HR onboarding, contract management and mortgage processing.

(1) Market estimates are derived from third-party forecasts produced by firms such as International Data Corporation (IDC).

Our Strategy and Business Model

Our strategy is to maintain overall leadership in our core market and increase our participation in growth areas, while expanding into adjacent markets and leveraging our innovation capabilities to enter new markets. We are simplifying our operations through Project Own It, an enterprise-wide transformation program, which we believe will create a more frictionless business for our clients and enable us to invest in our business while growing our profits. (Refer to the Optimize Operations and Establish a Culture of Continuous Improvement section below). We have a strong and sustainable cash flow business model that supports both investment in our business as well as direct return of capital to shareholders.

We have outlined the following strategic initiatives for our business:

Optimize Operations and Establish a Culture of Continuous Improvement

In 2018, we started the design and implementation of Project Own It, an enterprise-wide program aimed at re-engineering the organization to create a more frictionless and high velocity business for our customers and partners. Project Own It targets seven key areas for transformation - Shared Services, Procurement, IT, Delivery, Supply Chain, Real Estate and Organization Design. It seeks to deliver at least \$640 million of cost savings in 2019, or \$1.5 billion in the three-year-period between 2019 and 2021. We expect that the savings generated from Project Own It will allow us

to expand our margins while also allowing us to make investments in the business that will help us improve our revenue trajectory. This program is managed with strong discipline and accountability and is focused on changing our work processes and designing for end-to-end operational efficiency.

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Drive Revenue

We are a leader in our industry and have a strong and valuable global brand. We have a three-year revenue roadmap that includes five major strategies to drive revenue improvement, including:

Improve our core technology business by building on our leadership positions in our core technology and services markets. Within the workplace, we plan to leverage our ConnectKey software platform to redefine the multi-function device user experience. Within production printing environments, we plan to bring unique and higher value printing capabilities to our customers while also lowering the cost of entry into the growing inkjet printing category.

Expand our services and software business by building on our leadership in Managed Print Services to deliver more intelligent workplace solutions with targeted, industry specific offerings as well as achieve greater penetration of our personalization and content management software solutions.

Capitalize on the opportunity in SMB by increasing our investments in indirect channels to market as well as our Xerox Business Solutions (XBS) operations (formerly Global Imaging Services or GIS).

Transform our client's digital experience by building a world-class digital experience and enhancing our e-commerce sales platforms.

Drive innovation and new growth businesses by increasing focus and investment in our four innovation programs (Digital Packaging & Print, AI (Artificial Intelligence) Workflow Assistants for Knowledge Workers, 3D Printing / Digital Manufacturing, Sensors & Services for the Internet of Things).

Geographically, our footprint spans approximately 160 countries and allows us to deliver our technology and solutions to customers of all sizes, regardless of complexity or number of customer locations.

Re-energize Innovation

We believe that a critical role of our research is to identify new competency areas with attractive addressable markets for the future. Our expertise in technology and printing also uniquely positions us to discover those areas and leverage our innovation to move into adjacencies beyond our current core technology. Accordingly, we have prioritized investments in four key areas: Digital Packaging and Print, AI Workflow Assistants for Knowledge Workers, 3D Printing / Digital Manufacturing, and Sensors and Services for the Internet of Things. (Refer to the Innovation and Research Enabling Growth Beyond our Core Markets section below).

We also see opportunity in our core coming from our ability to deliver physical devices that connect with the digital world as well as purely digital offerings that improve our customers' outcomes. As a result, we direct our research and development (R&D) investments to areas such as workflow automation, color printing and customized communication, as well as to improving the quality and reducing the environmental impact of digital printing. We invest in bringing new capabilities to the market such as our ConnectKeyTM software to enable our devices to integrate into digital workflows, as well as in technologies to improve the security of our devices and offerings such as our recent market leading FedRamp authorization for MPS services. We will continue to invest in innovations to improve the reliability, IQ and cost of our printing devices, as well as in new services and software that improve our customers' ability to manage their document oriented workflows.

We expect that our investments in innovation for our core, adjacent and new markets will deliver incremental value for our customers and drive profitable revenue growth for our business.

Focus on Cash Flow

Our business is based on a model with a large portion of revenues under multi-year contractual arrangements with more than 75 percent of revenues coming from the most profitable post-sale revenue stream. Additionally, there is low annual Capital Expenditures (less than 2 percent of revenues) required to support our business. These factors result in stable gross margins and operating margins as well as strong and stable cash flow generation.

We will deploy our substantial cash flow to drive shareholder returns through:

A commitment to return over 50 percent of our free cash flow (Operating cash flows from continuing operations less capital expenditures) to shareholders through a combination of dividends and share repurchases; and Selective pursuit of acquisitions in targeted growth areas.

We target to manage our core debt (debt excluding financing related debt) to under two times expected free cash flow. Engage, Develop and Support Our People

Our offerings are supported by a global workforce focused on delivering value to our customers. We continue to develop our employees by investing in the processes and systems that enable them to perform their jobs more effectively. We had approximately 32,400 employees worldwide at December 31, 2018.

Innovation and Research Enabling Growth Beyond Our Core Markets

Xerox has a rich heritage of innovation, which continues to be a strength of the company as well as a competitive differentiator. As we invest in our core market technologies, we also aim to create value for our customers, our shareholders and our employees by driving innovation in new markets beyond our core, where we have differentiated capabilities.

Our research and innovation efforts to grow beyond our core markets can be categorized under four focus areas: Digital Packaging and Printing - Improve the cost and capability of digital printing for packaging

Advances in digital printing are enabling mass customization at a run cost approaching the cost of analog printing. We are continuously investing in research to reduce the cost of digital printing consumables while maintaining the high print quality that our customers expect. Our research is focused on developing new printing technologies to enable us to print digitally on a broader range of media and substrates such as foils, cartons, and directly on end-use products, which could enable us to compete in growth markets such as digital packaging.

AI Workflow Assistants - Create intelligent assistants that help knowledge workers in business workflows, resulting in lower cost, higher quality and increased agility

Enterprises of all sizes require agility in order to quickly respond to market changes and new requirements. Our goal is to deliver artificial intelligence that works collaboratively with knowledge workers to perform document-based and physical workflows with greater efficiency and quality. We continue to invest in new capabilities to help people in collaborative authoring workflows, such as writing proposals and other business documents. And we go beyond that to develop innovations to assist in physical workflows, such as machine-servicing, using augmented reality. These capabilities leverage our research in image, video and natural language processing, as well as machine learning. The application of these methods to business workflows could enable the automation of repetitive tasks, thus allowing workers to focus on higher value activities.

3D Printing and Digital Manufacturing - Enable additive manufacturing of high volume production parts through new print processes, materials and design software

The current 3D Printing and additive manufacturing offerings in the market have mostly been limited to low volume prototyping due to limitations in print process productivity, breadth of materials, and design software. We expect our research to lead to technologies that improve the manufacturing productivity, robustness, and designs of 3D-printed parts so they can be used in high-volume manufacturing. In addition, our research in 3D design software could enable the creation of "better than" parts that go beyond the limits of human design expertise, and are also optimized for specific production equipment to enable higher quality and lower cost production.

Sensors and Services for the Internet of Things - Democratize sensing technology by reducing the size and cost of sensors to enable new disruptive applications

The Internet of Things (IoT) is transforming the world, enabling real-time visibility and optimization of physical systems. Today, size and cost of sensors, has been a limitation of this technology. One of our key research areas is miniaturizing and reducing the cost of sensors through semiconductor and printing technologies. A second major research area focuses on video and image processing to make sense of the sensor data, leading to actionable insights. We see opportunities to apply these methods to potentially generate new disruptive applications and customer value in areas such as healthcare, packaging, logistics and supply chain.

Our innovation goals are supported by cross disciplinary research programs in our different research centers. PARC, the most prominent of these centers, is a wholly-owned subsidiary of Xerox located in Silicon Valley, California. It provides Xerox commercial and government clients with R&D and open innovation services. PARC scientists have deep technological expertise in areas that we consider fundamental to bring high-impact innovations to our customers and the world; such areas include big data analytics, intelligent sensing, computer vision, networking, printed electronics, energy, and digital design and manufacturing.

Investment in R&D is critical for competitiveness in our fast-paced markets. One of the ways that we maintain our market leadership is through coordination of our R&D with Fuji Xerox (an equity investment in which we maintain a 25% ownership interest).

Our total research, development and engineering expenses (RD&E), which include sustaining engineering expenses for hardware engineering and software development after we launch a product, totaled \$397 million in 2018, \$424 million in 2017 and \$463 million in 2016. Fuji Xerox R&D expenses were \$586 million in 2018, \$536 million in 2017 and \$628 million in 2016.

Acquisitions and Divestitures

We had no acquisitions or divestitures in 2018. Further details about our acquisitions and divestitures in prior periods can be found in Note 4 - Acquisitions and Note 5 - Divestitures, in the Consolidated Financial Statements. Segment Information

Our business is organized to ensure we focus on efficiently managing our operations and serving the customers and markets in which we operate. Since 2017, following the spin-off of Conduent Incorporated, our Business Processing Outsourcing business, we continue to maintain a geographic focus and are primarily organized from a sales perspective on the basis of "go-to-market" sales channels. These sales channels are structured to serve a range of customers for our products and services. As a result of this structure, we recognize that we have one operating and reportable segment - the design, development and sale of printing technology and related solutions.

As part of our strategy, we also aim to expand into adjacent markets leveraging our industry-specific Digital Solutions, Personalization & Communication Software and Content Management Software, however the revenues generated and expected from these areas at this point are not material. Accordingly, the section below primarily discusses the business based on our primary offerings (Intelligent Workplace Services, Workplace Solutions and

Revenues

We have a broad and diverse base of customers by both geography and industry, ranging from SMBs to printing production (including graphic communications) companies, governmental entities, educational institutions and Fortune 1000 corporations. Our business does not depend upon a single customer, or a few customers, the loss of which would have a material adverse effect on our business. Our business spans three primary offering areas: Intelligent Workplace Services, Workplace Solutions and Production Solutions. In addition, a smaller portion of our revenues comes from non-core streams including paper sales in our developing market countries, wide-format systems, licensing revenue and XBS network integration solutions.

Production Solutions) that are brought to market through our geographic-based sales channels.

Our Intelligent Workplace Services includes a continuum of solutions and services that helps our customers optimize their print and communications infrastructure, ensure the highest levels of security and productivity, and enable their digital business objectives. Our primary offerings in this area are Managed Print Services (MPS), a range of Industry Digital Solutions that leverage Workflow Automation, Personalization and Communication Software, Content Management Solutions, and Digitization Services.

In our MPS business, we help companies assess and optimize their print infrastructure, secure and integrate their environment and automate and simplify their business processes. We provide the most comprehensive portfolio of MPS services in the industry and are recognized as an industry leader by major analyst firms including Gartner, IDC, Quocirca, InfoTrends and Forrester. Our MPS offering targets clients ranging from large, global enterprises to governmental entities and to small and medium-sized businesses, including those served via our channel partners. Our Next Generation Xerox Partner Print Services is a comprehensive suite of services that allows channel partners to support their SMB customers with some of our best-in-class tools, processes, and workflow solutions developed by Xerox for large enterprises.

Our Industry Digital Solutions leverage our ConnectKey software platform to enable integration of technology, software and services to securely design and manage the digitization and workflow of content for our clients; our main products in this area are Digital Patient, Digital Insurer, Digital Retailer and Digital Citizen.

Our Personalization and Communications Software and our Content Management Solutions are products designed for security, cloud and digital enablement. Our main products in this area are XMPie and DocuShare. Our XMPie offering is a robust personalization and communication software for omni-channel communications customers, giving them the bridge between print and digital, which is a critical element for that market. XMPie offers a range of platform-enabled digital services that deliver relevant and timely communications focused on customer acquisition, onboarding or retention. Our DocuShare enterprise content management offering provides a better way to manage paper and digital content from creation to retention to transformation. Capture, store and share documents either on-premise or by cloud while automating time-consuming, document-heavy processes like accounts payable, HR onboarding, contract management and mortgage processing. In addition, we operate a network of centers that digitize

and automate paper & digital workflows, enabling our customers to operate cost-efficiently in a fully-digitized environment with speed, quality and 24x7 availability.

Our Workplace Solutions area is made up of two strategic product groups, Entry and Mid-Range, which share common technology, manufacturing and product platforms. Workplace Solutions revenues include the sale of products and supplies, as well as the associated technical service and financing of those products.

Entry comprises desktop monochrome and color printers and multifunction printers (MFPs) ranging from small personal devices to workgroup printers and MFPs that serve the needs of office workgroups. Entry products are sold to customers in all segments from SMB to enterprise, principally through a global network of reseller partners and service providers, as well as through our direct sales force.

Mid-Range are larger devices that have more features and can handle higher print volumes and larger paper sizes than Entry devices. These products are sold through dedicated partners, our direct sales force, multi-branded channel partners and resellers worldwide. We are a leader in this area of the market and offer a wide range of MFPs, copiers, digital printing presses and light production devices, and solutions that deliver flexibility and advanced features. Our Production Solutions are designed for customers in the graphic communications, in-plant and production print environments with high-volume printing requirements. These solutions enable full-color, on-demand printing of a wide range of applications, including variable data for personalized content and one-to-one marketing. Graphic Communications Solutions revenues include the sale of products, software and supplies, as well as the associated technical service and financing of those products.

Our cut-sheet presses provide graphic communications and commercial printers with high speed, high-volume printing. They are ideal for publishing, transaction printing, print on demand and one-to-one marketing, offering the best in high speed, productivity and resolution and color. We are the worldwide leader in the cut-sheet color and monochrome production industry.

Our inkjet presses offer a broad range of roll fed, continuous feed printing technologies, including waterless inkjet and aqueous inkjet for vivid color, and toner-based flash fusing for black and white. Our portfolio spans a variety of print speeds, image quality, feeding, finishing and media options. We continue to develop and integrate our production inkjet business to bring the high-end capabilities of toner-based presses such as speed and inline color correction to the more price sensitive market of inkjet.

Our FreeFlow portfolio of software offerings brings intelligent automation and integration to the processing of print jobs, from file preparation to final production, for a touchless workflow. It helps customers of all sizes address a wide range of business opportunities including automation, personalization and even electronic publishing. In 2017, we sold our FreeFlow Print Server (FFPS) DFE business to Electronics for Imaging (EFI). Under the terms of the sale, we established a strategic partnership that will bring to market a next generation digital front end (DFE) solution with more efficiencies, performance and quality to meet the most demanding production requirements. Additionally, EFI will continue to supply and support the current range of FFPS. It should be noted that the sale agreement comprises only the small FFPS business and does not impact our FreeFlow portfolio of software solutions which remains a key plank for our customers' workflow strategy.

Geographic Information

Overall, approximately 40% of our revenue is generated by customers outside the U.S. Additional details can be found in Note 3 - Segment and Geographic Area Reporting in the Consolidated Financial Statements.

Patents, Trademarks and Licenses

In 2018, Xerox and its subsidiaries were awarded 450 U.S. utility patents. Including our research partner Fuji Xerox, we were awarded 975 U.S. utility patents during the period. Our patent portfolio evolves as new patents are awarded to us and as older patents expire. As of December 31, 2018, Xerox held approximately 10,307 U.S. design and utility patents. These patents expire at various dates up to 20 years or more from their original filing dates. While we believe that our portfolio of patents and applications has value, in general no single patent is essential to our business. In addition, any of our proprietary rights could be challenged, invalidated or circumvented, or may not provide significant competitive advantages.

In 2018, we were party to numerous patent-licensing agreements and, in a majority of them, we licensed or assigned our patents to others in return for revenue and/or access to their patents or to further our business goals. Most patent licenses expire concurrently with the expiration of the last patent identified in the license. We were also party to a

number of cross-licensing agreements with companies that also hold substantial patent portfolios. These agreements vary in subject matter, scope, compensation, significance and duration.

In the U.S., we own about 191 U.S. trademarks, either registered or applied for. These trademarks have a perpetual life, subject to renewal every 10 years. We vigorously enforce and protect our trademarks.

Environmental Social Governance (ESG)

At our core is a deep and long-lasting commitment to ESG, a pledge to inspire and support our people, conduct business ethically across the value chain and preserve our planet. This commitment stems from the corporate values established over sixty years ago.

We continue this legacy by turning investments in innovation into products and services that help our customers be more productive, profitable and sustainable. Driving efficiency in our business operations, smart investments in technologies that afford our customers added agility-personalization, automation and better workflow-as part of our customer-centric approach, will underpin our corporate social responsibility efforts. We do this in our own operations, as well as in workplaces, communities and cities around the world. We recognize the world's challenges such as climate change and human rights and understand the role we play.

We are constantly thinking about how we can simplify work, deliver more personalized experiences and improve productivity through new technologies. We strive to connect the physical and digital worlds without adversely affecting the environment, human health and safety.

Our pledge to inspire and support our people, conduct business ethically and protect our planet remains at the core of everything we do.

The Xerox 2018 Corporate Social Responsibility (CSR) Report, available at www.xerox.com, provides an overview of our progress for the year 2018 including these achievements:

100 percent of supplies and consumables returned by customers at end-of-life were diverted from entering landfills. Instead, we remanufactured, reused, recycled, or provided the waste to suppliers who converted it into an energy source.

100 percent of newly-launched, eligible Xerox products satisfied the Electronic Product Environmental Assessment Tool (EPEAT®) and EPA ENERGY STAR® eco-labels.

Six percent of our U.S. employee population is military Veterans representation bringing us closer to our goal of 6.7%.

Worldwide Total Recordable Injuries (TRI) rate of our employees dropped by 5.3%.

Supplier spend with suppliers representing small Tier I, minority, woman or veteran-owned businesses accounted for 9% of our total spend.

Employees gave over 91,000 hours of their time for local community involvement.

Marketing and Distribution

We go to market with a services-led approach and sell our products and services directly to customers through our worldwide sales force and through independent agents, dealers, value-added resellers, systems integrators and the Web. In addition, our wholly-owned subsidiary, Xerox Business Solutions (XBS), formerly Global Imaging Systems (GIS), an office technology dealer comprised of regional core companies in the U.S., sells document management and network integration systems and services. We continued to broaden our distribution to small and mid-sized businesses in 2018 through expanding our network of resellers and partners (including multi-brand dealers) as well as through integrating a significant number of our small and mid-sized government, healthcare, education and graphic communication accounts into XBS. This realignment of our SMB business not only creates synergies that will simplify our business, but it also gives us the ability to leverage XBS's high-touch, locally accessible model to provide our customers with the best experience.

We restructured the way we serve our customers globally into two units: the Americas, with Mexico, Central and South America joining the U.S. and Canada; and EMEA, which includes Europe, the Middle East, Africa and India. We have also implemented a common global delivery model that aims to provide a consistent customer experience worldwide. We believe that these changes create a flatter and more effective go-to-market model that will streamline our supply chain and provide our customers with best-in-class services.

In Europe, Africa, the Middle East and parts of Asia, we distribute our products through Xerox Limited, a company established under the laws of England, as well as through related non-U.S. companies. Xerox Limited enters into distribution agreements with unaffiliated third parties to distribute our products in many of the countries located in these regions and previously entered into agreements with unaffiliated third parties who distribute our products in

Sudan. Sudan, among others, has been designated as a state sponsor of terrorism by the U.S. Department of State and is subject to U.S. economic sanctions. We maintain an export and sanctions compliance program, and believe that we have been, and are, in compliance with U.S. laws and government regulations for Sudan. We have no assets, liabilities or operations in Sudan other than liabilities under the distribution agreements. After observing required prior notice periods, Xerox Limited terminated its distribution agreements with distributors servicing Sudan in August

2006. Now, Xerox has only legacy obligations to third parties, such as providing spare parts and supplies to these third parties. In 2018, total Xerox revenues of \$9.8 billion included approximately \$8 thousand attributable to Sudan. Competition

Although we encounter competition in all areas of our business, we are the leader - or among the leaders - in each of our core offering areas. We compete on the basis of technology (including our technologies for security, automation, personalization and mobile-ready and cloud-capable devices and solutions), performance, price, quality, reliability, brand, distribution and customer service and support.

Our larger competitors include Canon, Hewlett-Packard Inc., Konica Minolta and Ricoh. Our brand recognition, reputation for document management expertise, innovative technology and service delivery excellence are our competitive advantages. These advantages, combined with our breadth of product offerings, global distribution channels and customer relationships, position us as a strong competitor going forward.

Customer Financing

We finance a large portion of our direct channel customer purchases of Xerox equipment through bundled lease agreements. We also provide lease financing to end-user customers who purchased Xerox equipment through our indirect channels. We compete with other third-party leasing companies with respect to the lease financing provided to these end-user customers. In both instances, financing facilitates customer acquisition of Xerox technology and enhances our value proposition, while providing Xerox a reasonable return on our investment in this business. Additionally, because we primarily finance our own products and have a long history of providing financing to our customers, we are able to minimize much of the risk normally associated with a finance business.

Because our lease contracts allow customers to pay for equipment over time rather than upfront upon installation, we maintain a certain level of debt to support our investment in these lease contracts. We fund our customer financing activity through a combination of cash generated from operations, cash on hand and proceeds from capital market offerings. At December 31, 2018, we had approximately \$3.5 billion of finance receivables and \$442 million of equipment on operating leases, or Total Finance assets of \$3.9 billion. We maintain an assumed 7:1 leverage ratio of debt to equity as compared to our Finance assets, which results in approximately \$3.4 billion of our \$5.2 billion of debt being allocated to our financing business.

Refer to "Debt and Customer Financing Activities" in the Capital Resources and Liquidity section of Management's Discussion and Analysis, included in Item 7 of this 2018 Form 10-K, for additional information.

Manufacturing and Supply

Our manufacturing and distribution facilities are located around the world. Our largest manufacturing site is in Webster, N.Y., where we produce the Xerox iGen, Nuvera, Brenva and Direct to Object Inkjet Printer systems, as well as key components and consumables for our products, such as toner. We also have manufacturing operations in Dundalk, Ireland, for components, consumables and printer systems sustainable manufacturing; in Wilsonville, OR, for solid ink consumables and components; and in Aubagne, France, for our Production aqueous ink-jet production systems (Rialto and Trivor). Other Xerox manufacturing plants are located in Venray, Netherlands; Ontario, Canada; and Oklahoma City, OK, where we manufacture materials and components.

Additionally, we work with various manufacturing and distribution partners, including a 15+ year relationship with FLEX LTD (Flex) (formerly Flextronics), a global contract manufacturer.

We have arrangements with Fuji Xerox Co., Ltd. (Fuji Xerox) under which we purchase and sell products, some of which are the result of mutual research and development agreements. Refer to Note 10 - Investments in Affiliates, at Equity in the Consolidated Financial Statements for additional information regarding our relationship with Fuji Xerox. We also acquire products from various third parties in order to increase the breadth of our product portfolio and meet channel requirements.

Fuji Xerox

Fuji Xerox is an unconsolidated entity in which we own a 25% interest and FUJIFILM Holdings Corporation (Fujifilm) owns a 75% interest. Fuji Xerox develops, manufactures and distributes document processing products in Japan, China, Hong Kong, other areas of the Pacific Rim, Australia and New Zealand. We retain significant rights as a minority shareholder. We maintain commercial relationships with Fuji Xerox, including our technology licensing

agreements which ensure that the two companies retain uninterrupted access to each other's portfolio of patents, technology and products. Refer to Note 10 - Investment in Affiliates, at Equity in the Consolidated Financial Statements for additional information regarding our investment in Fuji Xerox. Xerox's goals include sourcing products, parts and supplies from the most competitive suppliers to support the needs of its customers.

International Operations

The financial measures, by geographical area for 2018, 2017 and 2016, are included in Note 3 - Segment and Geographic Area Reporting in the Consolidated Financial Statements for additional information. See also the risk factor entitled "Our business, results of operations and financial condition may be negatively impacted by conditions abroad, including local economic and political environments, fluctuating foreign currencies and shifting regulatory schemes" in Part I, Item 1A included herein.

Backlog

Backlog, or the value of unfilled equipment orders, is not a meaningful indicator of future business prospects because a significant proportion of our revenue is fulfilled from existing inventories or within a short period of order signing. Seasonality

Our revenues are affected by such factors as the introduction of new products, the length of sales cycles and the seasonality of technology purchases and printing volumes. These factors have historically resulted in lower revenues, operating profits and operating cash flows in the first and third quarter.

Other Information

Xerox is a New York corporation, organized in 1906 and our principal executive offices are located at 201 Merritt 7, P.O. Box 4505, Norwalk, Connecticut 06851-1056. Our telephone number is (203) 968-3000.

In the Investor Information section of our Internet website, you will find our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to these reports. We make these documents available as soon as we can after we have filed them with, or furnished them to, the U.S. Securities and Exchange Commission (the "SEC"). The SEC's Internet address is www.sec.gov.

Our Internet address is www.xerox.com.

Item 1A. Risk Factors

You should carefully consider the following risk factors as well as the other information included, and risks described, in other sections of this Form 10-K, including under the headings "Cautionary Statement Regarding Forward-Looking Statements", "Legal Proceedings", "Selected Financial Data", and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and in our Consolidated Financial Statements and the related notes thereto. Any of the following risks could materially and adversely affect our business, financial condition, or results of operations. The selected risks described below, however, are not the only risks facing us. Additional risks and uncertainties not currently known to us or those we currently view to be immaterial may also materially and adversely affect our business, financial condition, or results of operations.

If we are unsuccessful at addressing our business challenges, our business and results of operations may be adversely affected and our ability to invest in and grow our business could be limited.

We are in the process of addressing many challenges facing our business. One set of challenges relates to dynamic and accelerating market trends, such as the declines in installations and printed pages, fewer devices per location and an increase in electronic documentation. A second set of challenges relates to changes in the competitive landscape. Our primary competitors are exerting increased competitive pressure in targeted areas and are entering new markets; our emerging competitors are introducing new technologies and business models. These market and competitive trends make it difficult to reverse the current declines in revenue over the past several years. A third set of challenges relates to our continued efforts to reduce costs and increase productivity in light of declining revenues. In addition, we are vulnerable to increased risks associated with our efforts to address these challenges given the markets in which we compete, as well as, the broad range of geographic regions in which we and our customers and partners operate. If we do not succeed in these efforts, or if these efforts are more costly or time-consuming than expected, our business and results of operations may be adversely affected, which could limit our ability to invest in and grow our business. We may be unable to attract and retain key personnel while our business model undergoes significant changes. Xerox is undergoing significant changes in our business model and, accordingly, current and prospective employees may experience uncertainty about their future. Our success is dependent, among other things, on our ability to attract, develop and retain highly qualified senior management and other key employees. Competition for key personnel is intense, and our ability to attract and retain key personnel is dependent on a number of factors, including prevailing market conditions and compensation packages offered by companies competing for the same talent. The departure of existing key employees or the failure of potential key employees to accept employment with Xerox, despite our recruiting efforts, could have a material adverse impact on our business, financial condition and operating results. Our business, results of operations and financial condition may be negatively impacted by conditions abroad, including local economic and political environments, fluctuating foreign currencies and shifting regulatory schemes. A significant portion of our revenue is generated from operations, and we manufacture or acquire many of our products and/or their components, outside the United States. Our future revenues, costs and results of operations could be significantly affected by changes in foreign currency exchange rates - particularly the Japanese yen, the euro and the British pound - as well as by a number of other factors, including changes in local economic and political conditions, trade protection measures, licensing requirements, local tax regulations and other related legal matters. We use currency derivative contracts to hedge foreign currency denominated assets, liabilities and anticipated transactions. This practice is intended to mitigate or reduce volatility in the results of our foreign operations, but does not completely eliminate it. We do not hedge the translation effect of international revenues and expenses that are denominated in currencies other than the U.S. dollar. If our future revenues, costs and results of operations are significantly affected by economic or political conditions abroad and we are unable to effectively hedge these risks, they could materially adversely affect our results of operations and financial condition.

Tariffs or other restrictions on foreign imports could negatively impact our financial performance.

Our business, results of operations and financial condition may be negatively impacted by a potential increase in the cost of our products as a result of new or incremental trade protection measures such as, increased import tariffs, import or export restrictions and requirements and the revocation or material modification of trade agreements. Changes in U.S. and international trade policy and resultant retaliatory countermeasures, including

imposition of increased tariffs, quotas or duties by affected countries, and trading partners are difficult to predict and may adversely affect our business. The U.S. government has and could in the future impose trade barriers including tariffs, quotas, duties or other restrictions on foreign imports. The implementation of a border tax, tariff or higher customs duties on our products

manufactured abroad or components that we import into the U.S., or any potential corresponding actions by other countries in which we do business, could negatively impact our financial performance.

We operate globally and changes in tax laws could adversely affect our results.

We operate globally and changes in tax laws could adversely affect our results. We operate in approximately 160 countries and generate substantial revenues and profits in foreign jurisdictions. The international tax environment continues to change as a result of both coordinated actions by governments and unilateral measures designed by individual countries, both intended to tackle concerns over base erosion and profit shifting and perceived international tax avoidance techniques. The recommendations of the BEPS Project led by the Organization for Economic Cooperation and Development (OECD) are involved in much of the coordinated activity, although the timing and methods of implementation vary. Additionally, the U.S. government recently enacted comprehensive tax reform in December of 2017 through the passage and signing of the Tax Cuts and Jobs Act (the "Tax Act"). The Tax Act significantly revised the U.S. corporate income tax system. The exact ramifications of the legislation is subject to interpretation and could have a material impact on our financial position and/or results of operations. Although our 2018 and 2017 results of operations reflect our best estimate of the impact of the new tax law, future regulatory direction associated with the new tax law as well as new legislative developments could adversely affect our future effective tax rate and results.

If we fail to successfully develop new products, technologies and service offerings and protect our intellectual property rights, we may be unable to retain current customers and gain new customers and our revenues would decline.

The process of developing new products and solutions is inherently complex and uncertain. It requires accurate anticipation of customers' changing needs and emerging technological trends. We must work with our supply partners and commit resources before knowing whether these initiatives will result in products that are commercially successful and generate the revenues required to provide desired returns. In developing these new technologies and products, we rely upon patent, copyright, trademark and trade secret laws in the United States and similar laws in other countries, and agreements with our employees, customers, suppliers and other parties, to establish and maintain our intellectual property rights in technology and products used in our operations. It is possible that our intellectual property rights could be challenged, invalidated or circumvented, allowing others to use our intellectual property to our competitive detriment. Also, the laws of certain countries may not protect our proprietary rights to the same extent as the laws of the United States and we may be unable to protect our proprietary technology adequately against unauthorized third-party copying or use, which could adversely affect our competitive position. In addition, some of our products rely on technologies developed by third parties. We may not be able to obtain or to continue to obtain licenses and technologies from these third parties at all or on reasonable terms, or such third parties may demand cross-licenses to our intellectual property. If we fail to accurately anticipate and meet our customers' needs through the development of new products, technologies and service offerings or if we fail to adequately protect our intellectual property rights, we could lose market share and customers to our competitors and that could materially adversely affect our results of operations and financial condition.

Our government contracts are subject to termination rights, audits and investigations, which, if exercised, could negatively impact our reputation and reduce our ability to compete for new contracts.

A significant portion of our revenues is derived from contracts with U.S. federal, state and local governments and their agencies, as well as international governments and their agencies. Government entities typically finance projects through appropriated funds. While these projects are often planned and executed as multi-year projects, government entities usually reserve the right to change the scope of or terminate these projects for lack of approved funding and/or at their convenience. Changes in government or political developments, including budget deficits, shortfalls or uncertainties, government spending reductions (e.g., Congressional sequestration of funds under the Budget Control Act of 2011) or other debt or funding constraints, could result in lower governmental sales and in our projects being reduced in price or scope or terminated altogether, which also could limit our recovery of incurred costs, reimbursable expenses and profits on work completed prior to the termination.

Additionally, government agencies routinely audit government contracts. If the government finds that we inappropriately charged costs to a contract, the costs will be non-reimbursable or, to the extent reimbursed, refunded to the government. If the government discovers improper or illegal activities or contractual non-compliance in the course of audits or investigations, we may be subject to various civil and criminal penalties and administrative sanctions, including termination of contracts, forfeiture of profits, suspension of payments, fines and suspensions or debarment from doing business with the government. Any resulting penalties or sanctions could have a material adverse effect on our business, financial condition, results of operations and cash flows. Further, the negative publicity that arises from findings in such

audits or, investigations could have an adverse effect on our reputation and reduce our ability to compete for new contracts and could also have a material adverse effect on our business, financial condition, results of operations and cash flow.

We face significant competition and our failure to compete successfully could adversely affect our results of operations and financial condition.

We operate in an environment of significant competition, driven by rapid technological developments, changes in industry standards, and demands of customers to become more efficient. Our competitors include large international companies some of which have significant financial resources and compete with us globally to provide document processing products and services in each of the markets we serve. We compete primarily on the basis of technology, performance, price, quality, reliability, brand, distribution and customer service and support. Our future success is largely dependent upon our ability to compete in the markets we currently serve, to promptly and effectively react to changing technologies and customer expectations and to expand into additional market segments. To remain competitive, we must develop services, applications and new products; periodically enhance our existing offerings; remain cost efficient; and attract and retain key personnel and management. If we are unable to compete successfully, we could lose market share and important customers to our competitors and such loss could materially adversely affect our results of operations and financial condition.

Our profitability is dependent upon our ability to obtain adequate pricing for our products and services and to improve our cost structure.

Our success depends on our ability to obtain adequate pricing for our products and services that will provide a reasonable return to our shareholders. Depending on competitive market factors, future prices we obtain for our products and services may decline from current levels. In addition, pricing actions to offset the effect of currency devaluations may not prove sufficient to offset further devaluations or may not hold in the face of customer resistance and/or competition. If we are unable to obtain adequate pricing for our products and services, it could materially adversely affect our results of operations and financial condition.

We continually review our operations with a view towards reducing our cost structure, including reducing our employee base, exiting certain businesses, improving process and system efficiencies and outsourcing some internal functions. If we are unable to continue to maintain our cost base at or below the current level and maintain process and systems changes resulting from prior cost reduction actions, it could materially adversely affect our results of operations and financial condition.

Our ability to sustain and improve profit margins is dependent on a number of factors, including our ability to continue to improve the cost efficiency of our operations through such programs as Project Own It, the level of pricing pressures on our products and services, the proportion of high-end as opposed to low-end equipment sales (product mix), the trend in our post-sale revenue growth and our ability to successfully complete information technology initiatives. If any of these factors adversely materialize or if we are unable to achieve and maintain productivity improvements through design efficiency, supplier and manufacturing cost improvements and information technology initiatives, our ability to offset labor cost inflation, potential materials cost increases and competitive price pressures would be impaired, all of which could materially adversely affect our results of operations and financial condition. We may not achieve some or all of the expected benefits of our restructuring plans and our restructuring may adversely affect our business.

We engage in restructuring actions, including Project Own It, as well as other transformation efforts in order to reduce our cost structure, realign it to the changing nature of our business and achieve operating efficiencies. In addition, these actions are expected to simplify our organizational structure, upgrade our IT infrastructure and redesign business processes. We may not be able to obtain the cost savings and benefits that were initially anticipated in connection with our restructuring actions. Additionally, as a result of our restructuring initiatives, we may experience a loss of continuity, loss of accumulated knowledge and/or inefficiency during transitional periods. Transformation and restructuring may require a significant amount of time and focus from both management and other employees, which may divert attention from operating and growing our business. If we fail to achieve some or all of the expected benefits of restructuring, it could have a material adverse effect on our competitive position, business, financial

condition, results of operations and cash flows.

As part of our efforts to streamline operations and reduce costs, we have offshored and outsourced certain of our operations, services and other functions and we will continue to evaluate additional offshoring or outsourcing possibilities. If our outsourcing partners or operations fail to perform their obligations in a timely manner or at satisfactory quality levels or if we are unable to attract or retain sufficient personnel with the necessary skill sets to meet our

offshoring needs, the quality of our services, products and operations, as well as our reputation, could suffer. Our success depends, in part, on our ability to manage these potential issues which could be largely outside of our control. In addition, much of our offshoring takes place in developing countries and as a result may also be subject to geopolitical uncertainty. Diminished service quality from offshoring and outsourcing could have an adverse material impact to our operating results due to service interruptions and negative customer reactions.

We are subject to laws of the United States and foreign jurisdictions relating to individually identifiable information, and failure to comply with those laws could subject us to legal actions and negatively impact our operations. We receive, process, transmit and store information relating to identifiable individuals, both in our role as a technology provider and as an employer. As a result, we are subject to numerous United States (both federal and state) and foreign jurisdiction laws and regulations designed to protect individually identifiable information. These laws have been subject to frequent changes, and new legislation in this area may be enacted at any time. For example, the General Data Protection Regulation that came into force in the European Union in May 2018. Changes to existing laws, introduction of new laws in this area, or failure to comply with existing laws that are applicable to us may subject us to, among other things, additional costs or changes to our business practices, liability for monetary damages, fines and/or criminal prosecution, unfavorable publicity, restrictions on our ability to obtain and process information and allegations by our customers and clients that we have not performed our contractual obligations, any of which may have a material adverse effect on our profitability and cash flow.

We are subject to breaches of our security systems, cyber attacks and service interruptions which could expose us to liability, litigation, and regulatory action and damage our reputation.

We have implemented security systems with the intent of maintaining and protecting our own, and our customers', clients' and suppliers' confidential information, including information related to identifiable individuals, against unauthorized access or disclosure. Despite such efforts, we may be subject to breaches of our security systems resulting in unauthorized access to our facilities or information systems and the information we are trying to protect. Moreover, the risk of such attacks includes attempted breaches not only of our systems, but also those of our customers, clients and suppliers. The techniques used to obtain unauthorized access are constantly changing, are becoming increasingly more sophisticated and often are not recognized until after an exploitation of information has occurred. Therefore, we may be unable to anticipate these techniques or implement sufficient preventative measures. Unauthorized access to our facilities or information systems, or those of our suppliers, or accidental loss or disclosure of proprietary or confidential information about us, our clients or our customers could result in, among other things, a total shutdown of our systems that would disrupt our ability to conduct business or pay vendors and employees. In the event of such actions, we could be exposed to unfavorable publicity, governmental inquiry and oversight, litigation by affected parties and possible financial obligations for damages related to the theft or misuse of such information, any of which could have a material adverse effect on our profitability and cash flow. While from time to time attempts are made to access our systems, these attempts have not resulted in any material release of information, degradation or disruption to our systems. We may also find it necessary to make significant further investments to protect this information and our infrastructure.

We have outsourced a significant portion of our manufacturing operations and increasingly rely on third-party manufacturers, subcontractors and suppliers.

We have outsourced a significant portion of our manufacturing operations to third parties, such as Fuji Xerox Co., Ltd. We face the risk that those manufacturers may not be able to develop manufacturing methods appropriate for our products, quickly respond to changes in customer demand, and obtain supplies and materials necessary for the manufacturing process. In addition, they may experience labor shortages and/or disruptions, manufacturing costs could be higher than planned and lead to higher prices for our products and the reliability of our products could decline. If any of these risks were to be realized, and similar third-party manufacturing relationships could not be established, we could experience interruptions in supply or increases in costs that might result in our being unable to meet customer demand for our products, damage our relationships with our customers and reduce our market share, all of which could materially adversely affect our results of operations and financial condition.

In addition, in our services business we may partner with other parties, including software and hardware vendors, to provide the complex solutions required by our customers. Therefore, our ability to deliver the solutions and provide the services required by our customers is dependent on our and our partners' ability to meet our customers' requirements and schedules. If we or our partners fail to deliver services or products as required and on time, our ability to complete the contract may be adversely affected, which may have an adverse impact on our revenue and profits.

We need to successfully manage changes in the printing environment and market because our operating results may be negatively impacted by lower equipment placements and usage trends.

The printing market and environment is changing as a result of new technologies, shifts in customer preferences in printing and the expansion of new printing markets as well as ancillary markets. The process of developing new high-technology products, software, services and solutions and enhancing existing hardware and software products, services and solutions is complex, costly and uncertain, and any failure by us to anticipate customers' changing needs and emerging technological trends accurately could significantly harm our market share, results of operations and financial condition. Examples include mobile printing, color printing, packaging, print on objects, continuous feed inkjet printing and the expansion of the market for entry products (A4 printers) and high-end products as well as electronic delivery, and cloud-based computing and software. These changing market trends are also opening up new ancillary markets for our products, services and software.

A significant part of our strategy and ultimate success in this changing market is our ability to develop and market technology that produces products, services and software that meet these changes. We expect that revenue growth can be improved through improvements in the software features of our multifunction devices, increases in the color printer through expansion to metallic, fluorescent, and clear ink and digital packaging, and leveraging a strong base in managed print services with new digital, analytics, security features. Our software strategy involves software for integrated solutions and delivery of industry-focused services into an existing customer base. We also expect to extend our presence in the small and medium sized business market through organic and inorganic investments as well as further expansion into channels and eCommerce and invest in innovation including digital packaging, Artificial Intelligence, workflow, 3D Printing, and IoT sensors and Services. Our future success in executing on this strategy depends on our ability to make the investments and commit the necessary resources in this highly competitive market. Despite this investment, the process of developing new products or technologies is inherently complex and uncertain and there are a number of risks that we are subject to including the risk that our products or technologies will successfully satisfy our customers' needs or gain market acceptance. If we are unable to develop and market advanced and competitive technologies, it may negatively impact our future revenue growth and market share as well as our planned expansion into new or alternative markets. Additionally, it may negatively impact expansion of our worldwide equipment placements, as well as sales of services and supplies occurring after the initial equipment placement (post sale revenue) in the key growth markets of digital printing, color and multifunction system. If we are unable to maintain a consistent level of revenue, it could materially adversely affect our results of operations and financial condition.

Our ability to fund our customer financing activities at economically competitive levels depends on our ability to borrow and the cost of borrowing in the credit markets.

The long-term viability and profitability of our customer financing activities is dependent, in part, on our ability to borrow and the cost of borrowing in the credit markets. This ability and cost, in turn, is dependent on our credit rating, which is currently non-investment grade, and is subject to credit market volatility. We primarily fund our customer financing activity through a combination of cash generated from operations, cash on hand, capital market offerings, sales and securitizations of finance receivables and commercial paper borrowings. Our ability to continue to offer customer financing and be successful in the placement of equipment with customers is largely dependent on our ability to obtain funding at a reasonable cost. If we are unable to continue to offer customer financing, or find an economic alternative, it could materially adversely affect our results of operations and financial condition. Our significant debt could adversely affect our financial health and pose challenges for conducting our business. Our ability to provide customer financing is a significant competitive advantage. We have and will continue to have a significant amount of debt and other obligations, the majority of which support our customer financing activities. Our substantial debt and other obligations could have important consequences. For example, it could (i) increase our vulnerability to general adverse economic and industry conditions; (ii) limit our ability to obtain additional financing for future working capital, capital expenditures, acquisitions and other general corporate requirements; (iii) increase our vulnerability to interest rate fluctuations because a portion of our debt has variable interest rates; (iv) require us to dedicate a substantial portion of our cash flows from operations to service debt and other obligations thereby reducing

the availability of our cash flows from operations for other purposes; (v) limit our flexibility in planning for, or reacting to, changes in our businesses and the industries in which we operate; (vi) place us at a competitive disadvantage compared to our competitors that have less debt; and (vii) become due and payable upon a change in control. If new debt is added to our current debt levels, these related risks could increase.

Our financial condition and results of operations could be adversely affected by employee benefit-related funding requirements.

We sponsor several defined benefit pension and retiree-health benefit plans throughout the world. We are required to make contributions to these plans to comply with minimum funding requirements imposed by laws governing these employee benefit plans. Although most of our major defined benefit plans have been amended to freeze current benefits and eliminate benefit accruals for future service, the projected benefit obligations under these benefit plans is measured annually and at December 31, 2018 exceeded the value of the assets of those plans by approximately \$1.2 billion. The current underfunded status of these plans is a significant factor in determining the ongoing future contributions we will be required to make to these plans. Accordingly, we expect to have additional funding requirements in future years and we may make additional, voluntary contributions to the plans. Depending on our cash position at the time, any such funding or contributions to our defined benefit plans could impact our operating flexibility and financial position, including adversely affecting our cash flow for the quarter in which such funding or contributions are made. Weak economic conditions and related under-performance of asset markets could also lead to increases in our funding requirements.

We need to maintain adequate liquidity in order to meet our operating cash flow requirements, repay maturing debt and meet other financial obligations, such as payment of dividends to the extent declared by our Board of Directors. If we fail to comply with the covenants contained in our various borrowing agreements, it may adversely affect our liquidity, results of operations and financial condition.

Our liquidity is a function of our ability to successfully generate cash flows from a combination of efficient operations and continuing operating improvements, access to capital markets and funding from third parties. We believe our liquidity (including operating and other cash flows that we expect to generate) will be sufficient to meet operating requirements as they occur; however, our ability to maintain sufficient liquidity going forward subject to the general liquidity of and on-going changes in the credit markets as well as general economic, financial, competitive, legislative, regulatory and other market factors that are beyond our control.

Our \$1.8 billion credit facility (the "Credit Facility") contains financial maintenance covenants, including maximum leverage (debt for borrowed money divided by consolidated EBITDA, as defined) and a minimum interest coverage ratio (consolidated EBITDA divided by consolidated interest expense, as defined). At December 31, 2018, we were in full compliance with the covenants and other provisions of the Credit Facility. Failure to comply with material provisions or covenants in the Credit Facility could have a material adverse effect on our liquidity, results of operations and financial condition.

Our business, results of operations and financial condition may be negatively impacted by legal and regulatory matters.

We have various contingent liabilities that are not reflected on our balance sheet, including those arising as a result of being involved in a variety of claims, lawsuits, investigations and proceedings concerning: securities law; governmental entity contracting, servicing and procurement laws; intellectual property law; environmental law; employment law; the Employee Retirement Income Security Act (ERISA); and other laws and regulations, as discussed in the "Contingencies" note in the Consolidated Financial Statements. Should developments in any of these matters cause a change in our determination as to an unfavorable outcome and result in the need to recognize a material accrual or materially increase an existing accrual, or should any of these matters result in a final adverse judgment or be settled for significant amounts above any existing accruals, it could have a material adverse effect on our results of operations, cash flows and financial position in the period or periods in which such change in determination, judgment or settlement occurs.

Due to the international scope of our operations, we are subject to a complex system of commercial and trade regulations around the world. Recent years have seen an increase in the development and enforcement of laws regarding trade compliance and anti-corruption, such as the U.S. Foreign Corrupt Practices Act and similar laws from other countries. Our numerous foreign subsidiaries, affiliates and joint venture partners are governed by laws, rules and business practices that differ from those of the U.S. The activities of these entities may not comply with U.S. laws or business practices or our Code of Business Conduct. Violations of these laws may result in severe criminal or civil

sanctions, could disrupt our business, and result in an adverse effect on our reputation, business and results of operations or financial condition. We cannot predict the nature, scope or effect of future regulatory requirements to which our operations might be subject or the manner in which existing laws might be administered or interpreted. Our operations and our products are subject to environmental regulations in each of the jurisdictions in which we conduct our business and sell our products. Xerox is party to, or otherwise involved in, proceedings brought by U.S. or state environmental agencies under the Comprehensive Environmental Response, Compensation and Liability Act

("CERCLA"), known as "Superfund," or state laws. Some of our manufacturing operations use, and some of our products contain, substances that are regulated in various jurisdictions. For example, various countries and jurisdictions have adopted, or are expected to adopt, restrictions on the types and amounts of chemicals that may be present in electronic equipment or other items that we use or sell. Recently, a number of studies have been published by third parties regarding chemicals utilized in our industry, as well as potential health/safety impacts of machine emissions. Additional studies are planned, and depending on the results of such studies, regulatory initiatives could follow. We are monitoring these developments. If we do not comply with applicable rules and regulations in connection with the use of such substances and the sale of products containing such substances, then we could be subject to liability and could be prohibited from selling our products in their existing forms, which could have a material adverse effect on our results of operations and financial condition. Further, various countries and jurisdictions have adopted or are expected to adopt, programs that make producers of electrical goods, including computers and printers, responsible for certain labeling, collection, recycling, treatment and disposal of these recovered products. If we are unable to collect, recycle, treat and dispose of our products in a cost-effective manner and in accordance with applicable requirements, it could materially adversely affect our results of operations and financial condition. Other potentially relevant initiatives throughout the world include proposals for more extensive chemical registration requirements and/or possible bans on the use of certain chemicals, various efforts to limit energy use in products and other environmentally related-programs impacting products and operations, such as those associated with climate change accords, agreements and regulations. For example, the European Union's Energy-Related Products Directive (ERP) has led to the adoption of "implementing measures" or "voluntary agreements" that require certain classes of products to achieve certain design and/or performance standards, in connection with energy use and potentially other environmental parameters and impacts. A number of our products are already required to comply with ERP requirements and further regulations are being developed by the EU authorities. Another example is the European Union "REACH" Regulation (Registration, Evaluation, Authorization and Restriction of Chemicals), a broad initiative that requires parties throughout the supply chain to register, assess and disclose information regarding many chemicals in their products. Depending on the types, applications, forms and uses of chemical substances in various products, REACH and similar regulatory programs in other jurisdictions could lead to restrictions and/or bans on certain chemical usage. In the United States, the Toxics Substances Control Act ("TSCA") is undergoing a major overhaul with similar potential for regulatory challenges. Xerox continues its efforts toward monitoring and evaluating the applicability of these and numerous other regulatory initiatives in an effort to develop compliance strategies. As these and similar initiatives and programs become regulatory requirements throughout the world and/or are adopted as public or private procurement requirements, we must comply or potentially face market access limitations that could have a material adverse effect on our operations and financial condition. Similarly, environmentally driven procurement requirements voluntarily adopted by customers in the marketplace (e.g., U.S. EPA EnergyStar, EPEAT) are constantly evolving and becoming more stringent, presenting further market access challenges if our products fail to comply. Concern over climate change, including global warming, has led to legislative and regulatory initiatives directed at limiting greenhouse gas emissions. For example, proposals that would impose mandatory requirements on greenhouse gas emissions continue to be considered by policy makers in the countries, states and territories in which we operate. Enacted laws and/or regulatory actions to address concerns about climate change and greenhouse gas emissions could negatively impact our business, including the availability of our products or the cost to obtain or sell those products.

The vote by the United Kingdom to leave the EU could adversely affect us.

The June 2016 United Kingdom referendum on its membership in the EU resulted in a majority of United Kingdom voters voting to exit the EU (Brexit). We have operations and customers in the United Kingdom and the EU, and as a result, we face risks associated with the potential uncertainty and disruptions that may follow Brexit, including with respect to volatility in exchange rates and interest rates and potential material changes to the regulatory regime applicable to our operations in the United Kingdom as well as potential for disruptions in our supply chain in the United Kingdom. Brexit could adversely affect European or worldwide political, regulatory, economic or market conditions and could contribute to instability in global political institutions, regulatory agencies and financial markets.

For example, depending on the terms of Brexit, the United Kingdom could also lose access to the single EU market and to the global trade deals negotiated by the EU on behalf of its members. Disruptions and uncertainty caused by Brexit may also cause our customers to closely monitor their costs and reduce their spending budget on our products and services. Any of these effects of Brexit, and others we cannot anticipate or that may evolve over time, could adversely affect our business, operating results and financial condition.

Item 1B. Unresolved Staff Comments

None

Item 2. Properties

We own several manufacturing, engineering and research facilities and lease other facilities. Our principal manufacturing and engineering facilities are located in New York, California, Oklahoma, Oregon, Canada, the U.K., Ireland, and a leased site in the Netherlands. Our principal research facilities are located in California, New York, and Canada. Our Corporate Headquarters is a leased facility located in Norwalk, Connecticut.

As a result of implementing our restructuring programs (refer to Note 12 - Restructuring and Asset Impairment Charges in the Consolidated Financial Statements) as well as various productivity initiatives, several leased and owned properties became surplus. We are obligated to maintain our leased surplus properties through required contractual periods. We have disposed or subleased certain of these properties and are actively pursuing the successful disposition of remaining surplus properties.

In 2018, we owned or leased numerous facilities globally, which house general offices, sales offices, service locations, data centers, call centers and distribution centers. The size of our property portfolio at December 31, 2018 was approximately 15 million square feet and comprised of 728 leased properties and 103 owned properties (of which 73 are located on our Webster, New York campus). It is our opinion that our properties have been well maintained, are in sound operating condition and contain all the necessary equipment and facilities to perform their functions. We believe that our current facilities are suitable and adequate for our current businesses.

Item 3. Legal Proceedings

Refer to the information set forth under Note 19 - Contingencies and Litigation in the Consolidated Financial Statements.

Item 4. Mine Safety Disclosures Not applicable.

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Part II

ITEM 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Corporate Information

Stock Exchange Information

Xerox common stock (XRX) is listed on the New York Stock Exchange and the Chicago Stock Exchange.

Xerox Common Stock Dividends

Refer to the Statement of Shareholders' Equity, in our Consolidated Financial Statements, which are incorporated by reference, for the quarterly and full-year dividend per share disclosures in each of the three years ended December 31, 2018.

Common Shareholders of Record

See Item 6 - Selected Financial Data, Five Years in Review, Common Shareholders of Record at Year-End, for additional information.

Performance Graph

Total Return to Shareholders

	Year Ended December 31,						
(Includes reinvestment of dividends)	2013	2014	2015	2016	2017	2018	
Xerox Corporation	\$100.00	\$117.40	\$93.61	\$80.64	\$105.62	\$74.58	
S&P 500 Index	100.00	113.69	115.26	129.05	157.22	150.33	
S&P 500 Information Technology Index	100.00	120.12	127.23	144.85	201.10	200.52	

Source: Standard & Poor's Investment Services

Notes: Graph assumes \$100 invested on December 31, 2013 in Xerox, the S&P 500 Index and the S&P 500

Information Technology

Index, respectively, and assumes dividends are reinvested.

Sales Of Unregistered Securities During The Quarter Ended December 31, 2018

During the quarter ended December 31, 2018, Registrant issued the following securities in transactions that were not registered under the Securities Act of 1933, as amended (the "Act").

Dividend Equivalent

- Securities issued on October 31, 2018: Registrant issued 3,231 deferred stock units (DSUs), representing the right to receive shares of Common stock, par value \$1 per share, at a future date.
 - No underwriters participated. The shares were issued to each of the non-employee Directors of Registrant: Gregory
- (b) Q. Brown, Jonathan Christodoro, Keith Cozza, Joseph J. Echevarria, Nicholas Graziano, William Curt Hunter, Robert J. Keegan, Cheryl Gordon Krongard, Scott Letier, Charles Prince, Ann N. Reese, Stephen H. Rusckowski and Sara Martinez Tucker.
- The DSUs were issued at a deemed purchase price of \$26.77 per DSU (aggregate price \$86,494), based upon the (c) market value on the date of record, in payment of the dividend equivalents due to DSU holders pursuant to Registrant's 2004 Equity Compensation Plan for Non-Employee Directors.

Maximum

(d) Exemption from registration under the Act was claimed based upon Section 4(2) as a sale by an issuer not involving a public offering.

Issuer Purchases of Equity Securities During the Quarter Ended December 31, 2018 Repurchases of Xerox Common Stock, par value \$1 per share include the following: Board Authorized Share Repurchase Program

			Total	Maximum
			Number of	Approximate
		Price	Shares	Dollar Value
	Total Number of Shares		Purchased	of Shares
			as Part of	That May Yet
	Purchased	Paid per Share ⁽¹⁾	Publicly	Be Purchased
		Share	Announced	Under the
			Plans or	Plans or
			Programs ⁽²⁾	Programs ⁽²⁾
October 1 through 31	6,894,690	\$ 26.47	6,894,690	\$534,153,636
November 1 through 30	6,628,782	26.99	6,628,782	355,209,731
December 1 through 31	2,067,050	26.71	2,067,050	300,000,002
Total	15,590,522		15,590,522	

⁽¹⁾ Exclusive of fees and costs.

Of the cumulative \$1.0 billion of share repurchase authority previously granted by our Board of Directors, exclusive of fees and expenses, approximately \$700 million has been used through December 31, 2018.

(2) Repurchases may be made on the open market, or through derivative or negotiated contracts. Open-market repurchases will be made in compliance with the Securities and Exchange Commission's Rule 10b-18, and are subject to market conditions, as well as applicable legal and other considerations.

In July 2018, Registrant's Board of Directors authorized a \$1.0 billion share repurchase program. This program replaced the \$245 million authority remaining under Registrant's previously authorized share repurchase program. In January 2019, Registrant's Board of Directors authorized an incremental \$1.0 billion share repurchase program (exclusive of any commissions and other transaction fees and costs).

Repurchases Related to Stock Compensation Programs⁽¹⁾:

Total Number	r Af verage Pri	Total Number of Shares Purchased as Part of	
Shares	Paid per	Purchased as Part of	Maximum That May Be
		Publicly Announced	Purchased under the Plans or Programs
Purchased	Share ⁽²⁾	Plans or Programs	C
9,640	\$ 26.66	n/a	n/a

October 1 throu	ıgh			
31				
November 1			n/o	n/o
through 30			n/a	n/a
December 1			nlo	n/o
through 31			n/a	n/a
Total	9.640			

These repurchases are made under a provision in our restricted stock compensation programs for the indirect

⁽¹⁾ repurchase of shares through a net-settlement feature upon the vesting of shares in order to satisfy minimum statutory tax-withholding requirements.

⁽²⁾ Exclusive of fees and costs.

Item 6. Selected Financial Data					
Five Years in Review	2018	2017	2016	2015	2014
(in millions, except per-share data) Per-Share Data	2018	2017	2010	2013	2014
Income from continuing operations					
Basic	\$1.40	\$0.70	\$2.36	\$3.00	\$3.42
Diluted	1.38	0.70	2.33	2.97	3.37
Net Income (Loss) Attributable to Xerox	1.50	0.70	2.33	2.71	3.37
Basic	1.40	0.71	(1.95)	1.59	3.37
Diluted	1.38	0.71		1.58	3.32
Common stock dividends declared	1.00	1.00	1.24	1.12	1.00
Operations	1.00	1.00	1.2 .	1.12	1.00
Revenues	\$9,830	\$10.265	\$10,771	\$11,465	\$12,679
Sales	3,972	4,073	4,319	4,674	5,214
Services, maintenance and rentals	5,590	5,898	6,127	6,445	7,078
Financing	268	294	325	346	387
Income from continuing operations	374	204	633	840	1,034
Income from continuing operations - Xerox	361	192	622	822	1,011
Net income (loss)	374	207	(460)	466	1,018
Net income (loss) - Xerox	361	195	(471)	448	995
Financial Position ⁽¹⁾					
Working capital	\$1,444	\$2,489	\$2,338	\$1,431	\$2,798
Total Assets	14,874	15,946	18,051	25,442	27,576
Consolidated Capitalization ⁽¹⁾					
Short-term debt and current portion of long-term debt	\$961	\$282	\$1,011	\$985	\$1,427
Long-term debt	4,269	5,235	5,305	6,382	6,314
Total Debt ⁽²⁾	5,230	5,517	6,316	7,367	7,741
Convertible preferred stock	214	214	214	349	349
Xerox shareholders' equity	5,005	5,256	4,709	8,975	10,596
Noncontrolling interests	34	37	38	43	75
Total Consolidated Capitalization	\$10,483	\$11,024	\$11,277	\$16,734	\$18,761
Selected Data and Ratios					
Common shareholders of record at year-end	26,742	28,752	31,803	33,843	35,307
Book value per common share ⁽³⁾	\$21.80	\$20.64	\$18.57	\$35.45	\$37.95
Year-end common stock market price ⁽³⁾	\$19.76	\$29.15	\$23.00	\$42.52	\$55.44

Balance sheet amounts at December 31, 2016 exclude Conduent Incorporated (Conduent) balances as a result of (1)the Separation and Distribution while balance sheet amounts prior to December 31, 2016 include amounts for Conduent. Refer to Note 5 - Divestitures in our Consolidated Financial Statements for additional information. (2)Includes capital lease obligations.

⁽³⁾ Per share prices and computations for 2015 and 2014 are on a pre-separation basis. Refer to Note 5 - Divestitures in our Consolidated Financial Statements for further information.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations
The following Management's Discussion and Analysis (MD&A) is intended to help the reader understand the results
of operations and financial condition of Xerox Corporation. MD&A is provided as a supplement to, and should be
read in conjunction with, our Consolidated Financial Statements and the accompanying notes. Throughout the
MD&A, we refer to various notes to our Consolidated Financial Statements which appear in Item 8 of this 2018 Form

MD&A, we refer to various notes to our Consolidated Financial Statements which appear in Item 8 of this 2018 Forn 10-K, and the information contained in such notes is incorporated by reference into the MD&A in the places where such references are made.

Throughout this document, references to "we," "our," the "Company," and "Xerox" refer to Xerox Corporation and its subsidiaries. References to "Xerox Corporation" refer to the stand-alone parent company and do not include its subsidiaries.

Executive Overview

With annual revenues of \$9.8 billion we are a leading global provider of digital print technology and related solutions; we operate in a core market estimated at approximately \$67 billion. Our primary offerings span three main areas: Intelligent Workplace Services (formerly Managed Document Services (MDS)), Workplace Solutions and Production Solutions (formerly Graphic Communications). Our Intelligent Workplace Services offerings help customers, ranging from small businesses to global enterprises, optimize their printing and related document workflow and business processes. Xerox led the establishment of this expanding market and continues as the industry leader. Our Workplace Solutions and Production Solutions offerings support the work processes of our customers by providing them with solutions built upon our broad portfolio of industry-leading printing and workflow offerings. We also have digital solutions and software assets to compete in an approximately \$31 billion adjacent Software and Services market. Our main offerings for this market are focused on: industry-specific Digital Solutions, Personalization & Communication Software and Content Management Software.

Headquartered in Norwalk, Connecticut, with 32,400 employees, Xerox serves customers in approximately 160 countries providing advanced document technology, services, software and genuine Xerox supplies for a range of customers including small and mid-size businesses ("SMB"), large enterprises, governments and graphic communications providers, and for our partners who serve them. In 2018, approximately 40% of our revenue was generated outside the United States.

Market and Business Strategy

Our market and business strategy is to maintain overall leadership in our core market and increase our participation in the growth areas, while expanding into adjacent markets and leveraging our innovation capabilities to enter new markets. To accomplish this, we focus on the following strategic initiatives:

Optimize operations for simplicity - i) Simplify our operating model for greater accountability and efficiency; ii) Optimize supply chain and heighten supplier competitiveness; and iii) Make it easier for customers and partners to do business with Xerox.

Drive revenue - i) Service customers via channels that most effectively meet their needs; ii) Enhance capabilities to sell higher-value services and integrated solutions; and iii) Expand software and services offerings.

Re-energize innovation - i) Capitalize on growing industry trends in AI (Artificial Intelligence), Analytics and IoT (Internet of Things); ii) Leverage existing expertise to develop differentiated technology; and iii) Revamp innovation business model to focus on monetization.

Focus on cash flow and increasing capital returns - i) Maximize cash flow generation; ii) Return at least 50% of free eash flow (Operating cash flows from continuing operations less capital expenditures) to shareholders; and iii) Focus on Return on Investment (ROI) and Internal Rate of Return (IRR) to make capital allocation decisions.

Post-sale Based Business Model

In 2018, 78% of our total revenue was post-sale based, which includes managed print services, equipment maintenance services, consumable supplies and financing, among other elements. These revenue streams generally follow equipment placements and provide some stability to our revenue and cash flows. Some of the key indicators of future post sale revenue include:

Installations and removals of printers and multifunction devices as well as the number of machines in the field (MIF) and the page volume and mix of pages printed on color devices, where available.

Managed Document Services - i) signings, which reflects the estimated future revenues from contracts, mostly from Enterprise deals, signed during the period, and; ii) renewal rate, which is defined as the annual recurring revenue (ARR) on contracts that are renewed during the period, calculated as a percentage of ARR on all contracts where a renewal decision was made during the period.

Project Own It

During the second half of 2018, we initiated a transformation project - "Project Own It" - centered on creating a simpler, more agile and effective organization to enhance our focus on our customers and our partners, instill a culture of continuous improvement and improve our financial results. The primary goal of this project is to improve productivity by driving end-to-end transformation of our processes and systems to create greater focus, speed, accountability and effectiveness and to reduce costs. These efforts are considered critical to making us more competitive and giving us the capacity to invest in growth and maximize shareholder returns. Key opportunities under Project Own It include establishing more effective shared service centers, rationalizing our IT infrastructure, reducing our real estate footprint, creating greater velocity in our supply chain and unlocking greater productivity in our supplier base. This project is also evaluating the sourcing of all of our products in an effort to optimize our options. Our approach is to analyze our potential options both by product category and holistically to determine what sourcing makes the most strategic and economic sense.

We incurred restructuring and related costs of \$158 million for the year ended December 31, 2018 primarily related to costs incurred to implement initiatives under our business transformation projects including Project Own It.

Refer to Restructuring and Related Costs section of the MD&A and Note 12 - Restructuring and Asset Impairments in the Consolidated Financial Statements for additional information.

Fuji Xerox Transaction Overview and Termination of Agreement

On January 31, 2018, Xerox entered into (i) a Redemption Agreement with FUJIFILM Holdings Corporation, a Japanese company ("Fujifilm"), and Fuji Xerox Co., Ltd., a Japanese company, in which Xerox indirectly holds a 25% equity interest while Fujifilm holds the remaining 75% equity interest ("Fuji Xerox"), and (ii) a Subscription Agreement with Fujifilm (collectively, the "Transaction Agreements"). Under the terms of the Transaction Agreements, Fuji Xerox would have become a wholly-owned subsidiary of Xerox, Xerox shareholders would have received a \$2.5 billion special cash dividend and Xerox would have become owned 49.9% by Xerox's shareholders as of the closing date for the transaction and 50.1% by Fujifilm.

On May 13, 2018, the Company delivered written notice of termination of the Subscription Agreement to Fujifilm. By virtue of the termination of the Subscription Agreement, the Redemption Agreement terminated automatically. The Company's termination of the Transaction Agreements is the subject of pending litigation.

The Company continues to maintain existing commercial relationships with Fuji Xerox and Fujifilm, including, as part of the following agreements: (i) the Joint Enterprise Contract, between the Company and Fujifilm, dated March 30, 2001, (ii) the Technology Agreement, dated April 1, 2006, by and between the Company and Fuji Xerox and (iii) the Master Program Agreement made and entered into as of September 9, 2013 by and between the Company and Fuji Xerox. On June 25, 2018, the Company disclosed to Fujifilm that it does not currently plan to renew the Technology Agreement when it expires in 2021. Xerox's goals include sourcing products, parts and supplies from the most competitive suppliers to support the needs of its customers.

Refer to Note 19 - Contingencies and Litigation for additional information related to Xerox's pending litigation with Fujifilm. Refer to Note 25 - Fuji Xerox Transaction in the Consolidated Financial Statements for additional information regarding this transaction including recent developments.

Tax Cuts and Jobs Act (the "Tax Act")

On December 22, 2017, the Tax Cuts and Jobs Act (the "Tax Act") was enacted. The Tax Act significantly revises the U.S. corporate income tax system by, among other things, lowering the U.S. statutory corporate income tax rate from 35% to 21% and implementing a territorial tax system that includes a one-time transition tax on deemed repatriated earnings of foreign subsidiaries.

Refer to Income Taxes section of the MD&A and Note 18 - Income and Other Taxes in the Consolidated Financial Statements for additional information regarding the Tax Act.

Financial Overview

Total revenue of \$9.8 billion in 2018 decreased 4.2% from the prior year, including a 0.7-percentage point favorable impact from currency. The decrease in revenue reflected a 4.1% decrease in Equipment sales revenue, including a 0.4-percentage point favorable impact from currency and a 4.3% decrease in Post sale revenue including a 0.7-percentage point favorable impact from currency. The decline in Post sale revenue reflected the continuing lower page volumes, an ongoing competitive price environment, a lower population of devices and lower supplies revenues, partially offset by higher revenues from our Xerox Business Solutions (XBS - formerly GIS) business, our growing partner print services and paper sales. The decline in Equipment sales reflected the impact of lower revenue from High-end systems and the impact of lower OEM sales, which were partially offset by higher equipment sales in both Entry and Mid-Range driven by our ConnectKey products launched in 2017 as well as from our recently launched Iridesse production press.

Net income from continuing operations attributable to Xerox was as follows:

The increase in Net income from continuing operations for 2018 as compared to the prior year was primarily related to lower income taxes in the current year as compared to 2017. In 2017, the implementation of the Tax Act resulted in a charge of \$400 million as compared to an \$89 million additional charge in 2018. The increase also reflects lower non-service retirement-related costs and Restructuring and related costs. These increases were partially offset by lower revenues, which were only partially offset by cost savings and productivity improvements associated with our business transformation actions, higher Transaction and related costs, net and lower Equity in net income from unconsolidated affiliates that included our share of a significant restructuring charge recorded by Fuji Xerox during 2018.

The decrease in adjusted¹ net income from continuing operations attributable to Xerox for 2018 as compared to the prior year was primarily related to lower revenues, which were only partially offset by cost savings and productivity improvements associated with our business transformation actions. Adjustments in 2018 include Restructuring and related costs, Amortization of intangible assets, Transaction and related costs, net as well as non-service retirement-related costs and other discrete, unusual or infrequent items.

Operating cash flow provided by continuing operations was \$1,140 million in 2018 as compared to a use of \$179 million in 2017. The increase is primarily due to higher prior year pension contributions of \$658 million, which included an incremental \$500 million contribution to our U.S. defined benefit pension plans and an additional contribution of approximately \$105 million (GBP 80 million) to our U.K. Pension Plan for salaried employees, as well as the one-time impact of approximately \$350 million from the termination of certain accounts receivable sales programs in the fourth quarter of 2017. The increase also reflects the prior year reclassification of \$234 million of collections of deferred proceeds and beneficial interests from the sale of receivables to investing cash flows as a result of an accounting change (refer to Note 1 - Basis of Presentation and Summary of Significant Accounting Policies in the Consolidated Financial Statements for additional information), lower restructuring payments and improved working capital², all of which were partially offset by higher payments for Transaction and related costs, net. Cash used in investing activities of continuing operations was \$29 million in 2018 reflecting \$90 million of capital expenditures, which were partially offset by \$59 million from the sale of non-core business assets. Cash used in financing activities was \$1,301 million in 2018 reflecting \$700 million for share repurchases, payments of \$265 million on Senior Notes, \$25 million for a capital lease termination, \$19 million of bridge facility costs and dividend payments of \$269 million.

⁽¹⁾ Refer to the "Non-GAAP Financial Measures" section for an explanation of this non-GAAP financial measure. (2)

Working capital reflects Accounts receivable, net, Inventories, Accounts payable and Accrued compensation and benefits cost.

2019 Outlook

We project total revenues to decline in 2019 by approximately 5%, excluding the impact of currency. At January 2019 exchange rates, we expect translation currency to have an approximate 1.0-percentage point unfavorable impact on total revenues in 2019, reflecting the strengthening of the U.S. dollar against our major foreign currencies as compared to prior year. Both reported and adjusted earnings are expected to improve reflecting the continued benefits of cost reductions and productivity improvements, which are expected to offset the impact of projected decline in revenues.

We expect 2019 operating cash flows from continuing operations to be between \$1.15 and \$1.25 billion and capital expenditures to be approximately \$150 million.

Our capital allocation plan for 2019 includes the following:

Share repurchases – we expect to repurchase at least \$300 million.

Dividends - expect dividend payments to be approximately \$250 million, reflecting the current annualized common stock dividend of \$1.00 per share.

Economic and Market Factors

Our business, results of operations and financial condition may be negatively impacted by a potential increase in the cost of our products as a result of new or incremental trade protection measures such as, increased import tariffs, import or export restrictions and requirements and the revocation or material modification of trade agreements. At this stage, we do not anticipate a material impact from the additional China tariffs announced to date on the cost of our imported products. However, we are continuing to assess the impact of potentially new import tariffs on our products and we continue to monitor developments in this area and will make efforts to mitigate the impact to the extent possible.

In June 2016, the United Kingdom (U.K.) held a referendum in which voters approved an exit from the European Union (E.U.), commonly referred to as "Brexit", and in March 2017, the U.K. formally started the process to leave the E.U. Given the lack of comparable precedent, it is unclear what financial, trade, regulatory and legal implications the withdrawal of the U.K. from the E.U. will have. Brexit creates global political and economic uncertainty, which may cause, among other consequences, volatility in exchange rates and interest rates and changes in regulations. Additionally, there may be potential risks to our supply chain including additional administrative requirements, customs delays, and possibly tariffs. We currently do not believe that these and other related effects will have a material impact on the Company's consolidated financial position or operating results. However, we continue to assess the situation and expect to take any necessary steps to mitigate the potential volatility, increased costs or disruptions to our supply chain that may result from this matter. For the year ended December 31, 2018, revenues and assets in Europe, including the U.K., represented approximately 30% of our consolidated revenues and total assets, respectively.

Currency Impact

To understand the trends in the business, we believe that it is helpful to analyze the impact of changes in the translation of foreign currencies into U.S. Dollars on revenue and expenses. We refer to this analysis as "constant currency", "currency impact" or "the impact from currency." This impact is calculated by translating current period activity in local currency using the comparable prior year period's currency translation rate. This impact is calculated for all countries where the functional currency is the local country currency. We do not hedge the translation effect of revenues or expenses denominated in currencies where the local currency is the functional currency. Management believes the constant currency measure provides investors an additional perspective on revenue trends. Currency impact can be determined as the difference between actual growth rates and constant currency growth rates. Approximately 40% of our consolidated revenues are derived from operations outside of the United States where the U.S. Dollar is normally not the functional currency. As a result, foreign currency translation had a 0.7-percentage point favorable impact on revenue in 2018 and no impact on revenue in 2017.

Application of Critical Accounting Policies

In preparing our Consolidated Financial Statements and accounting for the underlying transactions and balances, we apply various accounting policies. Senior management has discussed the development and selection of the critical accounting policies, estimates and related disclosures included herein with the Audit Committee of the Board of Directors. We consider the policies discussed below as critical to understanding our Consolidated Financial Statements, as their application places the most significant demands on management's judgment, since financial reporting results rely on estimates of the effects of matters that are inherently uncertain. In instances where different estimates could have reasonably been used, we disclosed the impact of these different estimates on our operations. In certain instances, such as revenue recognition for leases, the accounting rules are prescriptive; therefore, it would not have been possible to reasonably use different estimates. Changes in assumptions and estimates are reflected in the period in which they occur. The impact of such changes could be material to our results of operations and financial condition in any quarterly or annual period.

Specific risks associated with these critical accounting policies are discussed throughout the MD&A, where such policies affect our reported and expected financial results. For a detailed discussion of the application of these and other accounting policies, refer to Note 1 - Basis of Presentation and Summary of Significant Accounting Policies in the Consolidated Financial Statements.

Revenue Recognition

Application of the various accounting principles in GAAP related to the measurement and recognition of revenue requires us to make judgments and estimates. Complex arrangements with nonstandard terms and conditions may require significant contract interpretation to determine the appropriate accounting. On January 1, 2018, we adopted ASU 2014-09, Revenue from Contracts with Customers (ASC Topic 606), which superseded nearly all existing revenue recognition guidance under U.S. GAAP. Refer to Note 2 - Revenue, in the Consolidated Financial Statements as well as Note 1 - Basis of Presentation and Summary of Significant Accounting Policies - Revenue Recognition - for additional information regarding our revenue recognition policies. Specifically, the revenue related to the following areas involves significant judgments and estimates:

Bundled Lease Arrangements: We sell our equipment direct to end customers under bundled lease arrangements, which typically include the equipment, service, supplies and a financing component for which the customer pays a single negotiated monthly fixed price for all elements over the contractual lease term. Sales made under bundled lease arrangements directly to end customers comprise approximately 35% of our equipment sales revenue. Revenues under bundled arrangements are allocated considering the relative standalone selling prices of the lease and non-lease deliverables included in the bundled arrangement. Lease deliverables include the equipment, financing, maintenance and other executory costs, while non-lease deliverables generally consist of the supplies and non-maintenance services.

Sales to Distributors and Resellers: We utilize distributors and resellers to sell many of our technology products, supplies and services to end-user customers. Sales to distributors and resellers are generally recognized as revenue when products are sold to such distributors and resellers. Distributors and resellers participate in various discount, rebate, price-support, cooperative marketing and other programs, and we record provisions and allowances for these programs as a reduction to revenue when the sales occur. Similarly, we also record estimates for sales returns and other discounts and allowances when the sales occur. We consider various factors, including a review of specific transactions and programs, historical experience and market and economic conditions when calculating these provisions and allowances. Approximately 35% of our total sale revenues are sales of equipment and supplies to distributors and resellers, and provisions and allowances recorded on these sales are approximately 22% of the associated gross revenues.

Allowance for Doubtful Accounts and Credit Losses

We continuously monitor collections and payments from our customers and maintain a provision for estimated credit losses based upon our historical experience adjusted for current conditions. We recorded bad debt provisions of \$36 million, \$33 million and \$37 million in Selling, administrative and general (SAG) expenses in our Consolidated Statements of Income (Loss) for the years ended December 31, 2018, 2017 and 2016, respectively.

Although bad debt provisions increased in 2018, the provision was less than the prior three-year average and continues to reflect the maintenance of a prudent credit policy. Reserves, as a percentage of trade and finance receivables, were 3.0% at December 31, 2018, as compared to 3.2% and 3.6% at December 31, 2017 and 2016, respectively. We continue to assess our receivable portfolio in light of the current economic environment and its impact on our estimation of the adequacy of the allowance for doubtful accounts.

As discussed above, we estimated our provision for doubtful accounts based on historical experience and customer-specific collection issues. This methodology was consistently applied for all periods presented. During the three year period ended December 31, 2018, our reserve for doubtful accounts ranged from 3.0% to 3.6% of gross receivables. Holding all assumptions constant, a 0.5-percentage point increase or decrease in the reserve from the December 31, 2018 rate of 3.0% would change the 2018 provision by approximately \$24 million.

Refer to Note 6 - Accounts Receivable, Net and Note 7 - Finance Receivables, Net in the Consolidated Financial Statements for additional information regarding our allowance for doubtful accounts. Pension Plan Assumptions

We sponsor defined benefit pension plans in various forms in several countries covering employees who meet eligibility requirements. Over the past several years, where legally possible, we have amended our major defined benefit pension plans to freeze current benefits and eliminate benefit accruals for future service, including our primary U.S. defined benefit plan for salaried employees, the Canadian Salary Pension Plan and the U.K. Final Salary Pension Plan. The freeze of current benefits is the primary driver of the reduction in pension service costs since 2012. In certain Non-U.S. plans, we are required to continue to consider salary increases and inflation in determining the benefit obligation related to prior service. The Netherlands defined benefit pension plan has also been amended to reflect the Company's ability to reduce the indexation of future pension benefits within the plan in scenarios when the returns on plan assets are insufficient to cover that indexation.

Several statistical and other factors that attempt to anticipate future events are used in calculating the expense, liability and asset values related to our defined benefit pension plans. These factors include assumptions we make about the expected return on plan assets, discount rate, lump-sum settlement rates, the rate of future compensation increases and mortality. Differences between these assumptions and actual experiences are reported as net actuarial gains and losses and are subject to amortization to net periodic benefit cost over future periods.

Cumulative net actuarial losses for our defined benefit pension plans of \$2.4 billion as of December 31, 2018 decreased by \$350 million from December 31, 2017, primarily due to the recognition of actuarial losses through amortization and U.S. settlement losses, currency and higher discount rates at December 31, 2018 as compared to the prior year. The total actuarial loss at December 31, 2018 is subject to offsetting gains or losses in the future due to changes in actuarial assumptions and will be recognized in future periods through amortization or settlement losses. We used a consolidated weighted average expected rate of return on plan assets of 4.5% for 2018, 5.0% for 2017 and 5.8% for 2016, on a worldwide basis. During 2018, the actual return on plan assets was a \$255 million loss as compared to an expected return of \$311 million, with the difference largely due to negative equity market returns and the negative impact of increasing interest rates on our fixed income investments. When estimating the 2019 expected rate of return, in addition to assessing recent performance, we considered the historical returns earned on plan assets, the rates of return expected in the future, particularly in light of current economic conditions, and our investment strategy and asset mix with respect to the plans' funds. The weighted average expected rate of return on plan assets we will use in 2019 is 4.6%.

Another significant assumption affecting our defined benefit pension obligations and the net periodic benefit cost is the rate that we use to discount our future anticipated benefit obligations. In the U.S. and the U.K., which comprise approximately 75% of our projected benefit obligation, we consider the Moody's Aa Corporate Bond Index and the International Index Company's iBoxx Sterling Corporate AA Cash Bond Index, respectively, in the determination of the appropriate discount rate assumptions. The consolidated weighted average discount rate we used to measure our pension obligations as of December 31, 2018 and to calculate our 2019 expense was 3.2%; the rate used to calculate our obligations as of December 31, 2017 and our 2018 expense was 2.8%.

Holding all other assumptions constant, the following table summarizes the estimated impacts of a 0.25% change in the discount rate and a 0.25% change in the expected return on plan assets:

Discount Rate Expected Return 0.25% 0.25% 0.25% 0.25% IncreasDecrease IncreasDecrease

(in millions)

Increase/(Decrease)

2019 Projected net periodic pension cost \$(20) \$ 25 \$(20) \$ 20 Projected benefit obligation as of December 31, 2018 (355) 385 N/A N/A

One of the most significant and volatile elements of our net periodic defined benefit pension plan expense is settlement losses. Our primary domestic plans allow participants the option of settling their vested benefits through the receipt of a lump-sum payment. We recognize the losses associated with these settlements immediately upon the settlement of the vested benefits. Settlement accounting requires us to recognize a pro rata portion of the aggregate unamortized net actuarial losses upon settlement. As noted above, cumulative unamortized net actuarial losses were \$2.4 billion at December 31, 2018, of which the U.S. primary domestic plans, with a lump-sum feature, represented approximately \$810 million. The pro rata factor is computed as the percentage reduction in the projected benefit obligation due to the settlement of a participant's vested benefit. Settlement accounting is only applied when the event of settlement occurs - i.e. the lump-sum payment is made. Since settlement is dependent on an employee's decision and election, the level of settlements and the associated losses can fluctuate significantly from period to period. During the three years ended December 31, 2018, U.S. plan settlements were \$660 million, \$550 million and \$229 million, respectively, and the associated settlement losses on those plan settlements were \$173 million, \$133 million and \$65 million, respectively. In 2019, on average, we estimate that approximately \$100 million of plan settlements will result in settlement losses of approximately \$25 million.

The following is a summary of our benefit plan costs for the three years ended December 31, 2018 as well as estimated amounts for 2019:

	Estimated	Actua		
(in millions)	2019	2018	2017	2016
Defined benefit pension plans ⁽¹⁾	\$ 20	\$2	\$61	\$62
U.S. settlement losses	90	173	133	65
Defined contribution plans ⁽²⁾	65	66	67	74
Retiree health benefit plans	(60)	8	30	35
Total Benefit Plan Expense	\$ 115	\$249	\$291	\$236

Our estimated 2019 defined benefit pension plan cost is expected to be approximately \$134 million lower than 2018, primarily driven by lower projected U.S. settlement losses and the amortization of prior service credits resulting from the 2018 amendments to our Retiree Health plans in the U.S. and Canada.

The following is a summary of our benefit plan funding for the three years ended December 31, 2018 as well as estimated amounts for 2019:

	Estimated	Actua	ıl	
(in millions)	2019	2018	2017	2016
U.S. Defined benefit pension plans	\$ 25	\$27	\$675	\$24
Non-U.S. Defined benefit pension plans	110	117	161	154
Defined contribution plans ⁽²⁾	65	66	67	74
Retiree health benefit plans	35	57	64	61
Total Benefit Plan Funding	\$ 235	\$267	\$967	\$313

⁽¹⁾ Excludes U.S. settlement losses.

Refer to Note 17 - Employee Benefit Plans in the Consolidated Financial Statements for additional information regarding defined benefit pension plan assumptions, expense and funding.

Income Taxes

⁽²⁾ Prior year amounts have been revised to reflect additional cost for previously excluded plans.

The decrease in contributions to our U.S. defined benefit plans from 2017 was largely due to 2017 including \$650 million of contributions to our domestic tax-qualified defined benefit plans, comprised of \$15 million required to meet minimum funding requirements and \$635 million of voluntary contributions. Contributions to our U.S. defined benefit plans in 2018 and estimated for 2019 are primarily for payments associated with our non-qualified plan in the U.S. and do not include any contributions for our tax-qualified defined benefit plans because none were required to meet the minimum funding requirements.

We are subject to income taxes in the U.S. and numerous foreign jurisdictions. Significant judgments are required in determining the consolidated provision for income taxes. Our provision is based on nonrecurring events as well as recurring factors, including the taxation of foreign income. In addition, our provision will change based on discrete or other nonrecurring events such as audit settlements, tax law changes, changes in valuation allowances, etc., that may not be predictable.

We record the estimated future tax effects of temporary differences between the tax bases of assets and liabilities and amounts reported in our Consolidated Balance Sheets, as well as operating loss and tax credit carryforwards. We follow very specific and detailed guidelines in each tax jurisdiction regarding the recoverability of any tax assets recorded in our Consolidated Balance Sheets and provide valuation allowances as required. We regularly review our deferred tax assets for recoverability considering historical profitability, projected future taxable income, the expected timing of the reversals of existing temporary differences and tax planning strategies. Increases (decreases) to our valuation allowance, through income tax expense, were \$3 million, \$6 million and \$(8) million for the years ended December 31, 2018, 2017 and 2016, respectively. There were other (decreases) increases to our valuation allowance, including the effects of currency, of \$(41) million, \$13 million and \$41 million for the years ended December 31, 2018, 2017 and 2016, respectively. These did not affect income tax expense in total as there was a corresponding adjustment to Deferred tax assets or Other comprehensive income (loss).

The following is a summary of gross deferred tax assets and the related valuation allowances for the three years ended December 31, 2018:

Year Ended December 31, (in millions) 2018 2017 2016 Gross deferred tax assets \$1,566 \$2,051 \$2,730 Valuation allowance (397) (435) (416) Net deferred tax assets \$1,169 \$1,616 \$2,314

We are subject to ongoing tax examinations and assessments in various jurisdictions. Accordingly, we may incur additional tax expense based upon our assessment of the more-likely-than-not outcomes of such matters. In addition, when applicable, we adjust the previously recorded tax expense to reflect examination results. Our ongoing assessments of the more-likely-than-not outcomes of the examinations and related tax positions require judgment and can materially increase or decrease our effective tax rate, as well as impact our operating results. Unrecognized tax benefits were \$108 million, \$125 million and \$165 million at December 31, 2018, 2017 and 2016, respectively. On December 22, 2017, the Tax Cuts and Jobs Act (the "Tax Act") was enacted in the U.S. The Tax Act significantly revises the U.S. corporate income tax system by, among other things, lowering the U.S. statutory corporate income tax rate from 35% to 21% and implementing a territorial tax system that includes a one-time transition tax on deemed repatriated earnings of foreign subsidiaries.

Refer to Note 18 - Income and Other Taxes in the Consolidated Financial Statements for additional information regarding deferred income taxes, unrecognized tax benefits and the estimated impacts of the Tax Act. Business Combinations and Goodwill

We allocate the fair value of purchase consideration to tangible assets, liabilities assumed, and intangible assets acquired based on their estimated fair values. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is allocated to Goodwill. The allocation of the purchase consideration requires management to make significant estimates and assumptions, especially with respect to intangible assets. These estimates can include, but are not limited to, future expected cash flows of acquired customers, acquired technology and trade names from a market participant perspective, as well as estimates of useful lives and discount rates. Management's estimates of fair value are based upon assumptions believed to be reasonable and when appropriate, include assistance from independent third-party valuation firms. During the measurement period, which is up to one year from the acquisition date, we may record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to Goodwill. Upon the conclusion of the measurement period, any subsequent adjustments are recorded to earnings. Refer to Note 4 - Acquisitions in the Consolidated Financial Statements for additional information regarding the allocation of the purchase price consideration for our acquisitions. Our Goodwill balance was \$3.9 billion at December 31, 2018. We assess Goodwill for impairment at least annually during the fourth quarter based on balances as of October 1st and whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Events or circumstances that might indicate an interim evaluation is warranted include, among other things, unexpected adverse business conditions, macro and company specific economic factors, supply costs, unanticipated competitive activities and acts by governments and courts.

Application of the annual Goodwill impairment test requires judgment regarding the identification of reporting units. Consistent with the determination that we had one operating segment, we determined that there is one reporting unit and tested Goodwill for impairment at the entity level.

In performing our annual Goodwill impairment test as of October 1st, we qualitatively assessed our Goodwill balance for impairment and concluded that Goodwill was not impaired. In performing the qualitative assessment, we considered the prior year excess of fair value over carrying value as well as relevant events and conditions, including but not limited to, macroeconomic trends, industry and market conditions, overall financial performance, cost factors, company-specific events, and legal and regulatory factors. Our assessment indicated that consistent with prior year projections, we retained our market share and offset revenue declines with cost reductions and productivity improvements. Accordingly, expected net cash flows were consistent with prior period projections. In addition, we also considered the impact of a higher discount rate than the prior year based on current market and industry conditions but concluded that the impact would not have had a material adverse impact.

Subsequent to our annual test, as a result of certain business factors including a debt rating downgrade and a significant decrease in our market capitalization, we performed an interim impairment test of our Goodwill balance as of December 31, 2018. We elected to utilize a quantitative assessment of the recoverability of our Goodwill balance for this interim impairment assessment.

In our quantitative test, we estimate the fair value of the entity by weighting the results from the income approach (discounted cash flow methodology) and market approach. These valuation approaches require significant judgment and consider a number of factors that include, but are not limited to, expected future cash flows, growth rates and discount rates, and comparable multiples from publicly traded companies in our industry. In addition, these approaches require us to make certain assumptions and estimates regarding the current economic environment, industry factors and the future profitability of our businesses. Our assessment also includes the use of outside valuation experts and incorporates factors and assumptions related to third-party market participants.

When performing our discounted cash flow analysis, we incorporate the use of projected financial information and a discount rate that is developed using market participant-based assumptions. The cash flow projections are based on three-year financial forecasts developed by management that include revenue and expense projections, capital spending trends and investment in working capital to support anticipated revenue growth or other changes in the business and which are consistent with expected guidance for the Company. The selected discount rate considers the risk and nature of the entity's cash flows and an appropriate capital structure and rates of return that market participants would require to invest their capital.

We believe these assumptions are appropriate and reflect our current expectations as well as our forecasted long-term business model, giving appropriate consideration to our historical results as well as the current economic environment and markets that we serve. The discount rate applied to our projected cash flows was approximately 10%, which we considered reasonable based on the estimated capital costs of applicable market participants and an appropriate company-specific risk premium that reflects current market and industry conditions.

When performing our market approach, we rely specifically on the guideline public company method. Our guideline public company method incorporates revenues and earnings multiples from publicly traded companies with operations and other characteristics similar to our entity. The selected multiples consider entity's relative growth, profitability, size and risk relative to the selected publicly traded companies.

After completing our interim impairment review as of December 31, 2018, we concluded that Goodwill was not impaired and we had an excess of fair value over carrying value of more than 20%. Although our estimate of the fair value of the entity was in excess of our market capitalization, we believe the difference is reasonable when a market-based control premium is taken into consideration.

Refer to Note 11 - Goodwill and Intangible Assets, Net in the Consolidated Financial Statements for additional information regarding Goodwill.

Revenue Results Summary

Total Revenue

Revenue for the three years ended December 31, 2018 was as follows:

	Revenue	•		% Chan	ge	CC % Ch	nange	% of Total Revenue
(in millions)	2018	2017	2016	2018	2017	2018	2017	2018 2017 2016
Equipment sales	\$2,200	\$2,295	\$2,471	(4.1)%	(7.1)%	(4.5)%	(7.3)%	22 % 22 % 23 %
Post sale revenue	7,630	7,970	8,300	(4.3)%	(4.0)%	(5.0)%	(3.9)%	78 % 78 % 77 %
Total Revenue	\$9,830	\$10,265	\$10,771	(4.2)%	(4.7)%	(4.9)%	(4.7)%	100% 100% 100%
Reconciliation to Consolidate	ed Statem	ents of Inc	ome					
(Loss):								
Sales	\$3,972	\$4,073	\$4,319	(2.5)%	(5.7)%	(2.7)%	(5.7)%	
Less: Supplies, paper and other sales	(1,772)	(1,822)	(1,900)	(2.7)%	(4.1)%	(2.6)%	(3.8)%	
Add: Equipment-related training ⁽¹⁾	_	44	52	NM	NM	NM	NM	
Equipment sales ⁽²⁾	\$2,200	\$2,295	\$2,471	(4.1)%	(7.1)%	(4.5)%	(7.3)%	
Services, maintenance and rentals	\$5,590	\$5,898	\$6,127	(5.2)%	(3.7)%	(5.4)%	(3.7)%	
Add: Supplies, paper and other sales	1,772	1,822	1,900	(2.7)%	(4.1)%	(2.6)%	(3.8)%	
Add: Financing	268	294	325	(8.8)%	(9.5)%	(10.0)%	(9.5)%	
Less: Equipment-related training ⁽¹⁾	_	(44)	(52)	NM	NM	NM	NM	
Post sale revenue ⁽²⁾	\$7,630	\$7,970	\$8,300	(4.3)%	(4.0)%	(5.0)%	(3.9)%	
North America	\$5,913	\$6,122	\$6,420	,			` ,	60 % 60 % 60 %
International	3,532	3,601	3,736				` '	36 % 35 % 34 %
Other	385	542	615					4 % 5 % 6 %
Total Revenue ⁽³⁾	\$9,830	\$10,265	\$10,771	(4.2)%	(4.7)%	(4.9)%	(4.7)%	100% 100% 100%
Memo:								
Managed Document Services ⁽⁴⁾	\$3,457	\$3,419	\$3,441	1.1 %	(0.6)%	0.5 %	(0.4)%	35 % 33 % 32 %

CC - See "Currency Impact" section for description of Constant Currency.

Revenue

In 2018, upon adoption of ASU 2014-09 Revenue Recognition, revenue from training related to equipment

⁽¹⁾ installation is now included in Equipment Sales. In prior periods, this revenue was reported as Services, maintenance and rentals.

⁽²⁾ Equipment sales revenue in 2016 has been revised to reclassify certain XBS IT-related equipment sales to other sales, which are included in Post sale revenue.

⁽³⁾ Refer to the "Geographic Sales Channels and Product and Offerings Definitions" section. Excluding equipment revenue, Managed Document Services (MDS) was \$2,974 million, \$2,962 million and \$2,942 million for the three years ended December 31, 2018, respectively. For the year ended December 31, 2018,

⁽⁴⁾ the change represented an increase of 0.4%, including a 0.6-percentage point favorable impact from currency. For the year ended December 31, 2017, the change represented an increase of 0.7%, including a 0.2-percentage point unfavorable impact from currency.

Total revenue decreased 4.2% for the year ended December 31, 2018 including a 0.7-percentage point favorable impact from currency. Total revenue decreased 4.7% for the year ended December 31, 2017 compared to the prior year, with no impact from currency. Total revenues included the following:

Post sale revenue

Post sale revenue primarily reflects contracted services, equipment maintenance, supplies and financing. These revenues are associated not only with the population of devices in the field, which is affected by installs and removals, but also by page volumes generated by the usage of such devices, and the revenue per printed page. For the year ended December 31, 2018, Post sale revenue decreased 4.3% compared to the prior year including a 0.7-percentage point favorable impact from currency. For the year ended December 31, 2017, Post sale revenue decreased 4.0% compared to the prior year including a 0.1-percentage point unfavorable impact from currency. Post sale revenue is comprised of the following:

Services, maintenance and rentals revenue includes rental and maintenance revenue (including bundled supplies) as well as the post sale component of the document services revenue from our Managed Document Services (MDS) offerings, and revenues from our Communication and Marketing Solutions (CMS).

For the year ended December 31, 2018, these revenues declined 5.2%, including a 0.2-percentage point favorable impact from currency. The decline at constant currency¹ reflected the continuing trends of lower page volumes (including a higher mix of lower usage products), an ongoing competitive price environment and a lower population of devices, which are partially associated with continued lower signings and installs from prior periods. The lower population of devices is partially due to the loss of market share for multiple quarters leading up to the ConnectKey launch in mid-2017. Additionally, the prior year included \$20 million of higher revenues associated with a licensing agreement. These impacts were partially offset by higher revenues from MDS and our Xerox Business Solutions (XBS) business, formerly known as Global Imaging Systems, inclusive of acquisitions.

For the year ended December 31, 2017, these revenues declined 3.7%, including no impact from currency. The decline at constant currency¹ reflected lower signings and installs from prior periods and the continuing decline in page volumes. These declines were partially mitigated by \$20 million of higher revenues associated with a licensing agreement as well as growth in MDS, developing markets and acquisitions within our XBS business.

• Supplies, paper and other sales includes unbundled supplies and other sales.

For the year ended December 31, 2018, these revenues declined 2.7%, including a 0.1-percentage point unfavorable impact from currency. The decline at constant currency¹ reflected the impact from lower supplies sales (both in U.S. and European channels). These declines were partially offset by higher paper sales and higher IT network integration solutions sales from our XBS business. The decline also reflected an approximate 1.5-percentage point unfavorable impact from lower original equipment manufacturer (OEM) sales.

For the year ended December 31, 2017, these revenues declined 4.1%, including a 0.3-percentage point unfavorable impact from currency. The decline was driven by lower network integration solutions sales from our XBS business, reduced OEM supplies and lower supplies demand (both in U.S. and European channels) consistent with declining equipment sales in prior periods. The decline was partially offset by higher supplies sales from our XBS business and our developing markets.

Financing revenue is generated from financed equipment sale transactions. For the year ended December 31, 2018, Financing revenue decreased 8.8%, including a 1.2-percentage point favorable impact from currency, while Financing revenue for the year ended December 31, 2017 decreased 9.5% including no impact from currency. The decline in both periods reflected a continued decline in finance receivables balance due to lower equipment sales in prior periods and a greater mix of sales to channels where our financing penetration rate is lower. Equipment sales revenue

Equipment revenue for the three years ended December 31, 2018 was as follows:

	Revenue		% Chang	ne .	CC % C	hange	% of Equipment			
	IXC VCIIC	iC	% Change			CC 70 C	nange	Reven		
(in millions)	2018	2017	2016	2018	2017	2018	2017	2018	2017	2016
Entry ⁽¹⁾	\$237	\$231	\$231	2.6%	<u></u> %	2.0%	<u></u> %	11%	10%	9%
Mid-range	1,493	1,468	1,596	1.7%	(8.0)%	1.1%	(8.3)%	68%	64%	65%
High-end	424	473	502	(10.4)%	(5.8)%	(10.5)%	(5.7)%	19%	21%	20%
Other ⁽¹⁾	46	123	142	(62.6)%	(13.4)%	(62.6)%	(12.4)%	2%	5%	6%
Equipment sales ⁽²⁾⁽³⁾	\$2,200	\$2,295	\$2,471	(4.1)%	(7.1)%	(4.5)%	(7.3)%	100%	100%	100%

CC - See "Currency Impact" section for description of Constant Currency.

(3)

In 2018, revenues from our OEM business are included in Other, which had historically been reported in Entry.

⁽¹⁾ This reclassification was made to provide better transparency to our business results. Prior year amounts have been adjusted to conform to this change.

In 2018, upon adoption of ASU 2014-09 Revenue Recognition, revenue from training related to equipment

⁽²⁾ installation is now included in Equipment Sales (previously included in Post sale revenue). Prior year amounts have been adjusted to conform to this change.

Equipment sales revenue in 2016 has been revised to reclassify certain XBS IT-related equipment sales to other sales, which are included in Post sale revenue.

Equipment sales revenue

Equipment sales revenue decreased 4.1% for the year ended December 31, 2018 including a 0.4-percentage point favorable impact from currency. For the year ended December 31, 2017, Equipment sales decreased 7.1% including a 0.2-percentage point favorable impact from currency. Equipment sales revenue in both years was impacted by price declines of approximately 5% (which were in-line with our historic declines). For the year ended December 31, 2018, the decline at constant currency¹ included a 3.3-percentage point unfavorable impact from lower OEM Equipment sales. Equipment sales revenue is comprised of the following:

Entry

For the year ended December 31, 2018, the increase reflected higher sales of our ConnectKey devices through our channels in the U.S. and developing markets.

For the year ended December 31, 2017, entry sales were flat and reflected lower OEM activity and an unfavorable mix caused by higher install activity from lower-end and monochrome devices in our developing markets as well as the timing of our new ConnectKey products.

Mid-range

For the year ended December 31, 2018, the increase reflected higher sales of our ConnectKey devices through our Enterprise channel in the U.S., higher sales of lower-end devices in developing markets and higher sales from our XBS business.

For the year ended December 31, 2017, the decrease reflected, in part, the mid-year transition to our new product portfolio and was further impacted by the longer sales cycles in certain areas of the business, as well as lower revenue from color devices and black-and-white systems reflecting market trends. These declines were partially offset by higher revenues from our developing markets.

High-end

For the year ended December 31, 2018, the decrease primarily reflected lower sales from iGen, along with lower revenues from black-and-white systems consistent with market decline trends. These declines were only partially mitigated by demand for the Iridesse production press, as well as higher sales from our recently upgraded Brenva cut-sheet inkjet press.

For the year ended December 31, 2017, the decrease in high-end sales primarily reflected lower revenues from our black-and-white systems, consistent with market trends, along with the impact of higher sales of iGen and Color Press in the prior year associated with the drupa trade show; these declines were only partially mitigated by higher sales of our continuous feed inkjet color systems and the recently launched Versant products. High-end color sales also included lower digital front-end (DFE) sales to Fuji Xerox.

Revenue Metrics

Installs reflect new placement of devices only. Revenue associated with equipment installations (discussed below) may be reflected up-front Equipment sales or over time through rental income or as part of our Managed Document Services revenues (which are both reported within our Post sale revenues), depending on the terms and conditions of our agreements with our customers. Install activity includes Managed Document Services and Xerox-branded products shipped to our XBS business. Detail by product group (see Geographic Sales Channels and Product and Offerings Definitions) is shown below:

Installs for the year ended December 31, 2018 were:

Entry⁽¹⁾

12% increase in color multifunction devices, reflecting higher installs of our ConnectKey products through our indirect channels in the U.S. and Europe, as well as through our XBS business.

17% increase in black-and-white multifunction devices, driven largely by higher activity from low-end devices in developing markets as well as higher installs of our ConnectKey devices through our indirect channels in the U.S. and Europe.

Mid-Range⁽²⁾

10% increase in mid-range color installs, reflecting higher demand from our ConnectKey devices through our large enterprise channel and our XBS business, as well as lower-end A3 devices in developing markets.

8% increase in mid-range black-and-white, reflecting higher demand for our ConnectKey devices in our XBS business and developing markets.

High-End(2)

9% decrease in high-end color systems, as demand for our new Iridesse production press and cut-sheet inkjet products was offset by lower installs of iGen and lower-end production systems including Versant systems.

18% decrease in high-end black-and-white systems reflecting market trends, partially offset by increased demand in our indirect U.S. channels and our developing markets.

Installs for the year ended December 31, 2017 were:

Entry(1)

24% increase in color multifunction devices, reflecting demand for recently launched products as well as the migration from printers to multifunction devices, consistent with market trends.

18% increase in black-and-white multifunction devices, driven largely by higher activity for low-end printers in developing markets.

Mid-Range⁽²⁾

Mid-range color installs were flat, reflecting demand for recently launched products including strong activity in developing markets and U.S. Channels, offset by longer large account sales cycles that were affected by the timing of our product roll out.

12% decrease in mid-range black-and-white, reflecting overall market decline as well as the impact of transitioning to the new product portfolio, partly offset by growth in developing markets. High-End⁽²⁾

8% decrease in high-end color systems, as growth from continuous feed color and the recently launched Versant products was more than offset by higher iGen and Color Press installs in the prior year, following the drupa trade show.

25% decrease in high-end black-and-white systems reflects overall market decline and trends.

Entry installations exclude OEM sales; including OEM sales, Entry color multifunction devices decreased 16% and (1)2% for the years ended December 31, 2018 and 2017, respectively. Entry black-and-white multifunction devices increased 3% and 10% for the years ended December 31, 2018 and 2017, respectively.

Mid-range and High-end color installations exclude Fuji Xerox digital front-end sales; including Fuji Xerox digital front-end sales, Mid-range color devices increased 9% and were flat for the years ended December 31, 2018 and 2017, respectively, while High-end color systems decreased 9% and 14% for the years ended December 31, 2018 and 2017, respectively.

Signings

Signings are defined as estimated future revenues from contracts signed during the period, including renewals of existing contracts. Renewal rate is defined as the annual recurring revenue (ARR) on contracts that are renewed during the period as a percentage of ARR on all contracts for which a renewal decision was made during the period. Our reported signings primarily represent those from our Enterprise deals, as we do not currently include signings from our growing partner print services offerings or those from our XBS business. Total Contract Value (TCV) is the estimated contractual revenue related to signed contracts. Signings expressed in TCV were as follows:

	Year En	nded De	cember	% Chang	ge	CC % Change		
(in millions)	2018	2017	2016	2018	2017	2018	2017	
Signings	\$2,366	\$2,714	\$2,734	(12.8)%	(0.7)%	(13.9)%	1.0%	

CC - See "Currency Impact" section for description of Constant Currency.

Signings for the year ended December 31, 2018 decreased 12.8% compared to the prior year, including a 1.1-percentage point favorable impact from currency primarily reflecting lower new business and fewer renewal opportunities as a result of ongoing competitive pressure in the market and longer decision cycles. Signings for the year ended December 31, 2017 decreased 0.7% compared to the prior year, with a 1.7-percentage point unfavorable impact from currency primarily reflecting a lower contribution from new business, partially offset by higher contributions from renewals.

New business TCV for the year ended December 31, 2018, decreased 5.0%, including a 1.0-percentage point favorable impact from currency.

Renewal Rate

Contract renewal rate for the year ended December 31, 2018 was 82%, as compared to the renewal rate of 84% for the year ended December 31, 2017. The decrease in the renewal rate since 2017 is a result of the inherent volatility in the timing of signings as well as the recently instituted enhanced discipline, ensuring that we are not diminishing our return on investment by renewing too early.

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Geographic Sales Channels and Product and Offerings Definitions

Our business is aligned to a geographic focus and is primarily organized on the basis of go-to-market sales channels, which are structured to serve a range of customers for our products and services:

North America, which includes our sales channels in the U.S. and Canada.

International, which includes our sales channels in Europe, Eurasia, Latin America, Middle East, Africa and India. Other, primarily includes our OEM business, as well as sales to and royalties from Fuji Xerox, and our licensing revenue.

Our products and offerings include:

"Entry", which includes A4 devices and desktop printers. Prices in this product group can range from approximately \$150 to \$3,000.

"Mid-Range", which includes A3 Office and Light Production devices that generally serve workgroup environments in mid to large enterprises. Prices in this product group can range from approximately \$2,000 to \$75,000+.

"High-End", which includes production printing and publishing systems that generally serve the graphic communications marketplace and large enterprises. Prices for these systems can range from approximately \$30,000 to \$1,000,000+.

Managed Document Services (MDS) revenue, which includes solutions and services that span from managing print to automating processes to managing content. Our primary offerings within MDS are Managed Print Services (including from XBS), as well as workflow automation services, and Centralized Print Services and Solutions (CPS). MDS excludes Communications and Marketing Solutions (CMS).

Costs, Expenses and Other Income Summary of Key Financial Ratios

The following is a summary of our key financial ratios used to assess our performance:

Year Ended December 31,										
(in millions)	2018		2017		2016		2018 B/(W		2017 B/(W)
Gross Profit	\$3,927	7	\$4,127	7	\$4,305	5	\$(200))	\$(178	3)
RD&E	397		424		463		27		39	
SAG	2,390		2,526		2,636		136		110	
Equipment Gross Margin	32.9	%	29.1	%	31.2	%	3.8	pts.	(2.1)pts.
Post sale Gross Margin	42.0	%	43.4	%	42.1	%	(1.4)pts.	1.3	pts.
Total Gross Margin	39.9	%	40.2	%	40.0	%	(0.3))pts.	0.2	pts.
RD&E as a % of Revenue	4.0	%	4.1	%	4.3	%	0.1	pts.	0.2	pts.
SAG as a % of Revenue	24.3	%	24.6	%	24.5	%	0.3	pts.	(0.1))pts.
Pre-tax Income	\$598		\$570		\$568		\$28		\$2	
Pre-tax Income Margin	6.1	%	5.6	%	5.3	%	0.5	pts.	0.3	pts.
Adjusted ⁽¹⁾ Operating Profit	\$1,268	3	\$1,302	2	\$1,336)	\$(34)	\$(34)
Adjusted ⁽¹⁾ Operating Margin	12.9	%	12.7	%	12.4	%	0.2	pts.	0.3	pts.

⁽¹⁾ Refer to the "Non-GAAP Financial Measures" section for an explanation of the non-GAAP financial measure. Pre-tax Income Margin

Pre-tax income margin for the year ended December 31, 2018 of 6.1% increased 0.5-percentage points compared to 2017. This increase was primarily driven by lower Restructuring and related costs and lower Other expenses, net, including lower non-service retirement-related costs. These improvements were partially offset by lower revenues, which were only partially offset by cost savings and productivity from our business transformation actions and higher Transaction and related costs, net. Transaction currency had a 0.5-percentage point favorable impact.

Pre-tax income margin for the year ended December 31, 2017 of 5.6% increased 0.3-percentage points compared to 2016. This increase was primarily driven by cost productivity and savings from strategic transformation, lower Restructuring and related costs and lower Other expenses, net, largely reflecting lower interest expense. These improvements more than offset the pace of revenue declines, higher non-service retirement-related costs and adverse transaction currency of 0.7-percentage points.

Pre-tax income margin includes the Amortization of intangible assets, Restructuring and related costs, Transaction and other related costs and Other expenses, net, all of which are separately discussed in subsequent sections. Adjusted Operating margin, discussed below, excludes all of these items and includes Equity in net income of unconsolidated affiliates before restructuring.

Adjusted¹ Operating Margin

Adjusted¹ operating margin for the year ended December 31, 2018 of 12.9% increased 0.2-percentage points compared to 2017, including a 0.5-percentage point favorable impact from transaction currency, primarily reflecting cost productivity and savings from our business transformation actions and lower compensation expense. Partially offsetting these improvements was lower revenues and a 0.4-percentage point unfavorable impact within SAG expenses primarily related to the exit of a real estate facility (0.2-percentage point) and the cancellation of certain IT projects (0.2-percentage point). Adjusted¹ operating margin was also unfavorably impacted by lower equity income from our Fuji Xerox joint venture.

Adjusted¹ operating margin for the year ended December 31, 2017 of 12.7% increased 0.3-percentage points compared to 2016, reflecting productivity and savings from strategic transformation as well as higher licensing revenue, which more than offset the pace of revenue declines and the impact of revenue generating and SAG

investments along with adverse transaction currency of 0.7-percentage points. Adjusted¹ operating margin was also unfavorably impacted by higher compensation and benefit expense as well as lower equity income from our Fuji Xerox joint venture.

(1) Refer to Operating Income and Margin reconciliation table in the "Non-GAAP Financial Measures" section.

Gross Margin

Total gross margin for the year ended December 31, 2018 of 39.9% decreased 0.3-percentage points compared to 2017, primarily reflecting a less profitable mix of revenues and the impact of pricing, as well as lower post sale margin, partially offset by higher equipment margin and cost productivity and savings associated with our business transformation actions. Gross margin includes the favorable impact from transaction currency of 0.4-percentage points.

Total gross margin for year ended December 31, 2017 of 40.2% increased 0.2-percentage points compared to 2016. The increase reflects cost productivity and savings from strategic transformation, as well as improvement in the rate of revenue decline that more than offset adverse transaction currency of 0.7-percentage points.

Equipment gross margin for the year ended December 31, 2018 of 32.9% increased 3.8-percentage points compared to 2017, reflecting the mix benefit from lower OEM sales (which carry a negative upfront margin), favorable transaction currency as well as savings from cost productivity initiatives, partially offset by the impact of pricing and a less profitable mix of revenues.

Equipment gross margin for the year ended December 31, 2017 of 29.1% decreased 2.1-percentage points compared to 2016, as product cost productivity was more than offset by adverse transaction currency and price declines. Post sale gross margin for the year ended December 31, 2018 of 42.0% decreased 1.4-percentage points compared to 2017, reflecting lower revenues, including an unfavorable mix of lower maintenance revenues and licensing revenues as well as the impact of pricing, partially offset by productivity and restructuring savings.

Post sale gross margin for the year ended December 31, 2017 of 43.4% increased 1.3-percentage points compared to 2016, reflecting cost savings and productivity improvements from strategic transformation and higher licensing revenue, which more than offset the pace of revenue declines.

Research, Development and Engineering Expenses (RD&E)

	Year	Ended	Chana		
	Decei	mber 3	Change		
(in millions)	2018	2017	2016	2018	2017
R&D	\$325	\$334	\$368	\$(9)	\$(34)
Sustaining engineering	72	90	95	(18)	(5)
Total RD&E Expenses	\$397	\$424	\$463	\$(27)	\$(39)
R&D Investment by Fuji Xerox ⁽¹⁾	\$586	\$536	\$628	\$50	\$(92)

⁽¹⁾ The fluctuation in Fuji Xerox R&D was primarily due to changes in foreign exchange rates.

RD&E as a percentage of revenue for the year ended December 31, 2018 of 4.0% was 0.1-percentage points lower compared to 2017.

RD&E of \$397 million for the year ended December 31, 2018, decreased \$27 million from 2017 and reflected lower sustaining engineering expenses as well as restructuring and cost productivity savings and lower expenses from the sale of a business and associated transfers of resources to third parties during the prior year. These impacts were partially offset by modest investments in innovation in complementary market areas.

RD&E as a percentage of revenue for the year ended December 31, 2017 of 4.1% was 0.2-percentage points lower compared to 2016.

RD&E of \$424 million for the year ended December 31, 2017 decreased \$39 million from 2016 and reflected savings from strategic transformation including restructuring savings and lower expenses as a result of the transfer of resources to Electronics for Imaging (EFI), a third party high-end print server supplier, and the sale of our Xerox Research Centre Europe in Grenoble, France, which was mainly dedicated to supporting the discontinued BPO business.

We coordinate our R&D investments with Fuji Xerox. Selling, Administrative and General Expenses (SAG)

SAG as a percentage of revenue of 24.3% decreased 0.3-percentage points for the year ended December 31, 2018 compared to 2017 primarily reflecting the savings from productivity and restructuring associated with our business transformation actions. SAG as a percentage of revenue includes a 0.4-percentage point unfavorable impact from the exit of a real estate facility and the cancellation of certain IT projects in 2018.

SAG expenses of \$2,390 million for the year ended December 31, 2018 were \$136 million lower than 2017, including an approximate \$14 million unfavorable impact from currency. The reduction primarily reflected productivity and restructuring savings associated with our business transformation actions along with lower annual performance

incentive compensation expense. These improvements were partially offset by \$44 million of charges related to the accelerated depreciation from the early termination of a capital lease associated with a surplus facility (\$22 million) and the cancellation of certain IT projects (\$22 million) as we continue to evaluate the returns on our IT investments. Bad debt expense for the year ended December 31, 2018 was \$36 million and was \$3 million higher than the prior year and on a trailing twelve month basis (TTM) remained at less than one percent of receivables.

SAG as a percentage of revenue of 24.6% increased 0.1-percentage points for the year ended December 31, 2017 compared to 2016 primarily reflecting the impact of lower revenues that were partly mitigated by productivity and cost savings from strategic transformation, which include restructuring savings.

SAG expenses of \$2,526 million for the year ended December 31, 2017 were \$110 million lower than 2016, including an approximate \$9 million favorable impact from currency. The reduction primarily reflected costs savings, including savings from restructuring, as well as a decrease in selling expenses related to lower incentives and marketing expenses consistent with lower revenues. These savings were partly offset by higher compensation and benefit expenses, as well as expenses from our XBS acquisitions. Bad debt expense for the year ended December 31, 2017 was \$33 million and was \$4 million lower than the prior year and on a trailing twelve month basis (TTM) remained at less than one percent of receivables.

Restructuring and Related Costs

Restructuring and related costs of \$158 million for the year ended December 31, 2018 include net restructuring and asset impairment charges of \$157 million and \$1 million of additional costs, primarily related to professional support services associated with the business transformation initiatives. Net restructuring and asset impairment charges included the following:

\$176 million of severance costs related to headcount of approximately 2,700 employees globally. The average restructuring cost per employee was lower in 2018 as compared to 2017 due to the geographic mix of actions as well as reductions in our employee severance programs particularly with respect to actions in the U.S. The actions impacted multiple functional areas, with approximately 25% of the costs focused on gross margin improvements, 70% focused on SAG reductions and the remainder focused on RD&E optimization.

\$14 million for lease termination costs primarily reflecting continued optimization of our worldwide operating locations.

The above charges were partially offset by \$33 million of net reversals for changes in estimated reserves from prior period initiatives, primarily reflecting unanticipated attrition and other job changes prior to completion of the restructuring initiatives.

We expect 2019 pre-tax savings of approximately \$140 million from our 2018 restructuring actions.

Restructuring and related costs of \$216 million for the year ended December 31, 2017 included net restructuring and asset impairment charges of \$197 million and \$19 million of additional costs, primarily related to professional support services associated with strategic transformation. Net restructuring and asset impairment charges included the following:

\$221 million of severance costs related to headcount reductions of approximately 2,600 employees globally. The actions impacted multiple functional areas, with approximately 30% of the costs focused on gross margin improvements and 70% on SAG improvements.

\$4 million for lease termination costs primarily reflecting continued optimization of our worldwide operating locations.

\$7 million of asset impairment losses related to the closure of a manufacturing site in Latin America.

The above charges were partially offset by \$35 million of net reversals for changes in estimated reserves from prior period initiatives, primarily reflecting unanticipated attrition and other job changes prior to completion of the restructuring initiatives, which included a \$5 million favorable adjustment on the early termination of the lease for our corporate airplane.

Restructuring Summary

The restructuring reserve balance as of December 31, 2018 for all programs was \$95 million, of which \$93 million is expected to be spent over the next twelve months. During 2019, we expect to incur additional restructuring and related

charges of approximately \$225 million for actions and initiatives that have not yet been finalized. Approximately \$75 million of the full year charges are expected to be recognized in the first quarter of the year.

Refer to Note 12 - Restructuring and Asset Impairment Charges in the Consolidated Financial Statements for additional information regarding our restructuring programs.

Transaction and Related Costs, Net

For the year ended December 31, 2018, we recorded \$68 million of Transaction and related costs, net, which increased \$59 million from the prior year and included the following:

Costs related to the proposed combination transaction with Fuji Xerox, which was terminated in May 2018, primarily for third-party accounting, legal, consulting and other similar types of services.

Costs related to the settlement agreement reached with certain shareholders in the second quarter of 2018 as well as third-party legal and other related costs associated with on-going litigation resulting from the terminated combination transaction and other related shareholder actions.

\$19 million of costs related to the commitment for a \$2.5 billion unsecured bridge loan facility, which was terminated concurrent with the termination of the Fuji Xerox combination transaction.

Recoveries of approximately \$45 million, which included insurance recoveries for litigation and related settlement costs of approximately \$30 million and a settlement refund from a financial adviser, associated with the terminated combination transaction, for approximately \$13 million. We continue to pursue additional recoveries from insurance carriers and other parties for costs and expenses related to the terminated transaction and related shareholder litigation and therefore additional recoveries and adjustments may be recorded in future periods, when finalized.

Amortization of Intangible Assets

Amortization of intangible assets for the three years ended December 31, 2018 was \$48 million, \$53 million, and \$58 million, respectively. The decrease of \$5 million in both 2018 and 2017, as compared to the respective prior year periods, reflected a lower level of acquisitions.

Refer to Note 11 - Goodwill and Intangible Assets, Net in the Consolidated Financial Statements for additional information regarding our intangible assets.

Worldwide Employment

Worldwide employment was approximately 32,400 as of December 31, 2018 and decreased by approximately 2,900 from December 31, 2017 largely driven by our business transformation. Approximately half of the reduction was associated with restructuring actions, while the remainder resulted from net attrition (attrition net of gross hires), of which a large portion is not expected to be backfilled.

Other Expenses, Net

Year Ended December 31.

(in millions) 2018 2017 2016

Non-financing interest expense \$ 112