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

FORM 10-K

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

For the fiscal year ended December 31, 2019 Commission file number: 1-3579

PITNEY BOWES INC.

State of incorporation:	**Delaware**				I.R.S. Employer Identification No.	**06-0495050**
Address:	**3001 Summer Street,**	**Stamford,**	**Connecticut**	**06926**		
Telephone Number:	**(203) 356-5000**					

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

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common Stock, $1 par value per share	PBI	New York Stock Exchange

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

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

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 þ No ¨

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 (section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files) Yes þ No ¨

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 definition of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	þ	Accelerated filer	o	Non-accelerated filer	o
Smaller reporting company	☐	Emerging growth company	☐		

If an emerging growth company, indicate by check mark whether the registrant has elected not to use the extended transition period for complying with new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ¨

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

As of June 30, 2019, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was $732 million based on the closing sale price as reported on the New York Stock Exchange.

Number of shares of common stock, $1 par value, outstanding as of close of business on January 31, 2020: 171,147,940 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement to be filed with the Securities and Exchange Commission (the Commission) no later than 120 days after our fiscal year end and to be delivered to stockholders in connection with the Annual Meeting of Stockholders to be held May 4, 2020, are incorporated by reference in Part III of this Form 10-K.

PITNEY BOWES INC.
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Forward-Looking Statements

This Annual Report on Form 10-K (Annual Report) contains statements that are forward-looking. We believe that these forward-looking statements are reasonable based on our current expectations and assumptions. However, we caution readers that any forward-looking statement within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 are subject to risks and uncertainties and actual results could differ materially. Words such as "estimate," "target," "project," "plan," "believe," "expect," "anticipate," "intend" and similar expressions may identify such forward-looking statements. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise, except as required by law. Forward-looking statements in this Annual Report speak only as of the date hereof, and forward-looking statements in documents attached that are incorporated by reference speak only as of the date of those documents.

Our future financial condition and results of operations are subject to inherent risks and uncertainties. Factors which could materially impact our financial condition and results of operations or cause future financial performance to differ materially from the expectations expressed in any forward-looking statement made by or on our behalf include, without limitation:

- declining physical mail volumes
- the loss of, or significant changes to, our contractual relationship with the United States Postal Service (USPS) or changes in postal regulations in the U.S. or other major markets
- our ability to continue to grow volumes, gain additional economies of scale and improve profitability within our Commerce Services group
- a breach of security, including a future cyber-attack or other comparable event
- our success in developing and marketing new products and services and obtaining regulatory approvals, if required
- competitive factors, including pricing pressures, technological developments and the introduction of new products and services by competitors
- the loss of some of our larger clients in our Commerce Services group
- changes in labor conditions and transportation costs
- expenses and potential impact on client relationships resulting from the October 2019 ransomware attack that affected the Company's operations
- the continued availability and security of key information technology systems and the cost to comply with information security requirements and privacy laws
- changes in global political conditions and international trade policies, including the imposition or expansion of trade tariffs
- our success at managing relationships and costs with outsource providers of certain functions and operations
- third-party suppliers' ability to provide products and services required by our clients
- acts of nature, including pandemics and their potential effects on demand and supply chain
- changes in banking regulations or the loss of our Industrial Bank charter
- macroeconomic factors, including global and regional business conditions that adversely impact customer demand, foreign currency exchange rates and interest rates
- the United Kingdom's (U.K.) recent exit from the European Union (Brexit)
- our success at managing customer credit risk
- capital market disruptions or credit rating downgrades that adversely impact our ability to access capital markets at reasonable costs
- intellectual property infringement claims
- the use of the postal system for transmitting harmful biological agents, illegal substances or other terrorist attacks

Further information about factors that could materially affect us, including our results of operations and financial condition, is contained in Item 1A. "Risk Factors" in this Annual Report.

ITEM 1. BUSINESS

General

Pitney Bowes Inc. (we, us, our, or the company) is a global technology company providing commerce solutions that power billions of transactions. Clients around the world rely on the accuracy and precision delivered by our solutions, analytics, and application programming interface (API) technology in the areas of ecommerce fulfillment, shipping and returns, cross-border ecommerce, office mailing and shipping, presort services and financing. Pitney Bowes Inc. was incorporated in the state of Delaware in 1920. For more information about us, our products, services and solutions, visit www.pitneybowes.com.

Business Segments

Commerce Services

The Commerce Services group includes domestic delivery, return and fulfillment services, cross-border solutions, shipping solutions and presort services. The Commerce Services group includes the Global Ecommerce and Presort Services segments.

Global Ecommerce

Domestic parcel services combine proprietary label technology for returns and a delivery network with cost-effective last-mile delivery to process over 125 million parcels annually. We operate 15 domestic parcel sortation centers connected by a nationwide transportation network, enabling us to pick up parcels from retailer distribution centers and move them through our physical network. We also operate four fulfillment centers, providing pick, pack and ship services for retailers. These centers are located within our parcel sortation centers to facilitate same-day entry into our parcel delivery network.

Cross-border solutions manages all aspects of the international shopping and shipping experience. Our proprietary technology enables global tracking and logistics services; calculates duty, tax and shipping costs at checkout; enables multi-currency pricing, payment processing and fraud management; ensures compliance with product restrictions and produces all documentation requirements to meet export complexities and customs clearance. Our proprietary technology is utilized by direct merchants and major online marketplaces facilitating millions of parcels to be shipped worldwide.

Shipping solutions enable clients to reduce transportation and logistics costs, select the best carrier based on need and cost, improve delivery times and track packages in real-time. Powered by our shipping APIs, an integral part of the Pitney Bowes Commerce Cloud, clients can purchase postage, print shipping labels and access shipping and tracking services that can be easily integrated into any web application such as online shopping carts or ecommerce sites and provide guaranteed delivery times and flexible payment options.

Presort Services

We are a workshare partner of the USPS and national outsource provider of mail sortation services that allow clients to qualify large volumes of First-Class Mail, Marketing Mail and Bound and Packet Mail (Standard Flats and Bound Printed Matter) for postal workshare discounts. In 2019, we processed a record 17 billion pieces of mail through our network of operating centers throughout the United States. Our Presort Services network and fully-customized proprietary technology provides clients with end-to-end solutions from pick up at their location to delivery into the postal system network, expedited mail delivery and optimal postage savings.

Sending Technology Solutions

We offer our clients sending technology solutions for physical and digital mailing, shipping, supplies and other applications to help simplify and save on the sending, tracking and receiving of letters and packages. Our cloud enabled infrastructure provides software-as-a-service (SaaS) offerings delivered online and via connected or mobile devices. Our latest offerings are designed on an open platform architecture that has the capabilities to leverage partnerships with other innovative companies and developers to deliver new value to our clients.

We offer a variety of solutions that enable clients to finance equipment and product purchases, make rental and lease payments, replenish postage and purchase supplies. Through our wholly owned subsidiary, The Pitney Bowes Bank (the Bank), we offer a revolving credit solution in the United States that enables clients to make meter rental payments and purchase postage, services and supplies. The Bank also provides an interest-bearing deposit solution to clients who prefer to prepay postage. We also provide similar revolving credit solutions to clients in Canada and the U.K. but not through the Bank. In the United States, we also offer a variety of financing alternatives that enable businesses and organizations to finance or lease other manufacturers' equipment to meet their needs.

We establish credit approval limits and procedures based on the credit quality of the client and the type of product or service provided to control risk in extending credit to clients. We closely monitor the portfolio by analyzing industry sectors and delinquency trends by product line, industry and client to ensure reserve levels and credit policies reflect current trends. Management continuously monitors credit lines and collection resources and revises credit policies as necessary to be more selective in managing the portfolio.

We provide call-center, online and on-site support services for our products and solutions. Support services are primarily provided under maintenance contracts.

Seasonality

As shipping continues to become a bigger part of our business, a larger percentage of our revenue and earnings are earned in the fourth quarter relative to the other quarters, driven primarily by the holiday season.

Sales and Marketing

We market our products, solutions and services through a direct and inside sales force, global and regional partner channels, direct mailings and web-based offerings.

Competition

Our businesses face competition from a number of companies. Our competitors range from large, multinational companies to smaller, more narrowly focused regional and local firms. We compete on the basis of technology and innovation, breadth of product offerings, our ability to design and tailor solutions to specific client needs, performance, client service and support, price, quality and brand.

We must continue to invest in our current technologies, products and solutions, and in the development of new technologies, products and solutions in order to maintain and improve our competitive position. We will encounter new competitors as we transition to higher value markets and offerings and enter new markets.

A summary of the competitive environment for each of our business segments is as follows:

Global Ecommerce

The domestic and cross-border parcel services and solutions market includes competitors of various sizes, including companies with greater financial resources than us. Some of these competitors specialize in point solutions or freight forwarding services, are full-service ecommerce business process outsourcers and online marketplaces with international logistic support, or major global delivery services companies. We also face competition from companies that can offer both domestic and cross-border solutions in a single package which creates pricing leverage. The principal competitive factors include speed of delivery, reliability, functionality, ease of integration and use, scalability, innovation, support services and price. We compete based on the accuracy, reliability and scalability of our platform and logistics services, our ability to provide clients and their customers a one-stop full-service ecommerce experience and the ability to provide a more customized shipping solution than some of the larger competitors in the industry.

Within shipping solutions, we compete with a wide range of technology providers who help make shipping easier and more cost-effective. These technology providers range from large, established companies to smaller companies offering negotiated carrier rates (primarily with the USPS). The principal competitive factors include technology stability and reliability, innovation, access to preferred shipping rates and ease of integration with existing systems.

Presort Services

We face competition from regional and local presort providers, cooperatives of multiple local presort providers, consolidators and service bureaus that offer presort solutions as part of a larger bundle of outsourcing services. While not necessarily competitors in the traditional sense, large mail owners have the capability to presort their own mailings in-house. The principal competitive factors include innovative service, delivery speed, tracking and reporting, industry expertise and economies of scale. Our competitive advantages include our extensive network of presort facilities capable of processing significant volumes and our innovative proprietary technology that provides clients with reliable, secure and precise services and maximum postage discounts.

Sending Technology Solutions

We face competition from other mail equipment and solutions providers, companies that offer products and services as alternative means of message communications and those that offer on-line shipping and mailing products and services solutions. Additionally, as competitive alternative communication methods in comparison to mail grow, our operations could be affected. We differentiate ourselves from our competitors through our breadth of physical and digital offerings, including cloud enabled SaaS and open platform architecture offerings; pricing; available financing and payment offerings; product reliability; support services; and our extensive knowledge of the shipping and mailing industry.

Our financing operations face competition, in varying degrees, from large, diversified financial institutions, including leasing companies, commercial finance companies and commercial banks, as well as small, specialized firms. Not all our competitors are able to offer the same or similar financing and payment solutions that we offer and we believe this is a source of competitive advantage that differentiates

us from our competitors. The Bank is chartered as an Industrial Bank under the laws of the State of Utah, and is regulated by the Federal Deposit Insurance Corporation (FDIC) and the Utah Department of Financial Institutions.

Research, Development and Intellectual Property

We invest in research and development activities to develop new products and solutions, enhance the effectiveness and functionality of existing products and solutions and deliver high value technology and differentiated services in high value segments of the market.

Third-party Suppliers

We depend on third-party suppliers and outsource providers for a variety of services and product components, the hosting of our SaaS offerings, the logistics portion of our ecommerce business, and some non-core functions and operations. In certain instances, we rely on single-sourced or limited-sourced suppliers and outsourcing vendors around the world because doing so is advantageous due to quality, price or lack of alternative sources. We believe that our available sources for services, components, supplies and manufacturing are adequate.

Regulatory Matters

We are subject to the regulations of postal authorities worldwide related to product specifications of our postage meters. Our Presort Services business is also subject to regulations of the USPS. The Bank and certain company affiliates that provide services to the Bank are subject to the regulations of the Utah Department of Financial Institutions and the FDIC. We are also subject to transportation, customs and trade regulations worldwide related to our cross-border shipping services and regulations concerning data privacy and security for our businesses that use, process and store certain personal, confidential or proprietary data.

Employees and Employee Relations

At December 31, 2019, we have approximately 11,000 employees worldwide. We believe that we maintain strong relationships with our employees. Management keeps employees informed of decisions and encourages and implements employee suggestions whenever practicable.

Available Information

Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments thereto filed with, or furnished to, the Securities and Exchange Commission (the SEC), are available, free of charge, through the Investor Relations section of our website at www.investorrelations.pitneybowes.com or from the SEC's website at www.sec.gov, as soon as reasonably practicable after these reports are electronically filed with, or furnished to, the SEC. The other information found on our website is not part of this or any other report we file with or furnish to the SEC.

Information About Our Executive Officers

Name	Age	Title	Executive Officer Since
Marc B. Lautenbach	58	President and Chief Executive Officer	2012
Jason C. Dies	50	Executive Vice President and President, Sending Technology Solutions	2017
Daniel J. Goldstein	58	Executive Vice President and Chief Legal Officer and Corporate Secretary	2010
Lila Snyder	47	Executive Vice President and President, Commerce Services	2016
Christoph Stehmann	57	Executive Vice President, International Sending Technology Solutions	2016
Stanley J. Sutula III	54	Executive Vice President and Chief Financial Officer	2017
Johnna G. Torsone	69	Executive Vice President and Chief Human Resources Officer	1993

There are no family relationships among the above officers. All of the officers have served in various executive positions with the company for at least the past five years except as described below:

Mr. Dies was appointed to the office of Executive Vice President and President, Sending Technology Solutions in October 2017. He joined the company in 2015 as President, Document Messaging Technologies (DMT). Prior to joining the company, Mr. Dies was employed at IBM where he held several leadership positions in North America, Europe, and Asia across diverse business units.

Ms. Snyder was appointed to the office of Executive Vice President and President, Commerce Services in January 2016. She joined the company in November 2013 as President, DMT and became President, Global Ecommerce in June 2015. Prior to joining Pitney Bowes, Ms. Snyder was a Partner at McKinsey & Company, Inc. In her 15 years at McKinsey, she focused on serving clients in the technology, media and communications sectors and was the leader of McKinsey's Stamford office.

Mr. Sutula joined the company as Executive Vice President and Chief Financial Officer in February 2017. Prior to joining the company, Mr. Sutula was employed at IBM for 28 years where he held several leadership positions in the United States and Europe.

ITEM 1A. RISK FACTORS

Our operations face certain risks that should be considered in evaluating our business. We manage and mitigate these risks on a proactive basis, using an enterprise risk management program. Nevertheless, the following risk factors, some of which may be beyond our control, could materially affect our business, financial condition, results of operations, brand and reputation, and may cause future results to be materially different than our current expectations. These risk factors are not intended to be all inclusive.

Significant disruptions to postal operations or adverse changes to our relationships with posts in the United States or elsewhere could adversely affect our financial performance.

We are dependent on a healthy postal sector in the geographic markets where we operate, particularly in the United States. A significant portion of our revenue also depends on our contractual relationships with posts. Changes in the financial viability of the major posts, how they price their offerings, the statutes and regulations determining how they operate, or changes in our contractual relationships with these posts, could adversely affect our financial performance.

We are subject to postal regulations and processes, which could adversely affect our financial performance.

A significant portion of our business is subject to regulation and oversight by the USPS and posts in other major markets. These postal authorities have the power to regulate our current products and services. They also must approve many of our new or future product and service offerings before we can bring them to market. If our new or future product and service offerings are not approved, if there are significant conditions to approval, if regulations on our existing products or services are changed or, if we fall out of compliance with those regulations, our financial performance could be adversely affected.

If we are not able to respond to the continuing decline in the volume of physical mail delivered via traditional postal services, our financial performance could be adversely affected.

Traditional mail volumes continue to decline and impact our current and future financial results. However, we have employed, and will continue to employ, strategies to stabilize the mailing business, including introducing new digital product and service offerings and

providing clients broader access to products and services through online and direct sales channels, including products and services that make it easier for our mailing clients to also ship packages. There is no guarantee that these offerings will be widely accepted in the marketplace, and they will likely face competition from existing and emerging alternative products and services. Further, an accelerated or sudden decline in physical mail volumes could have an adverse effect on our Sending Technology Solutions (SendTech Solutions) and Presort Services segments. An accelerated or sudden decline could result from changes in communication behavior or available communication technologies, reductions to the Universal Service Obligation (USO) under which the USPS and other national posts are required to deliver to every address in a country with similar pricing and frequency, and legislation or regulations that mandate electronic substitution, prohibit certain types of mailings, increase the difficulty of using information or materials in the mail, or impose higher taxes or fees on postal services. If we are not successful at meeting the continuing challenges faced in our mailing business, or if physical mail volumes were to experience an accelerated or sudden decline, our financial performance could be adversely affected.

The transformation of our businesses to more digital and commerce services will result in a decline in our overall profit margins. If we cannot increase our volumes while at the same time reduce our costs, our financial performance could be adversely affected.

As we transform our business to more digital and commerce services, the revenue contribution from our Commerce Services group is greater than our SendTech Solutions segment and is expected to continue to increase in the future. The profit margins in Commerce Services are lower than the profit margins in SendTech Solutions and are more sensitive to rising labor and transportation costs. Margin improvement within Commerce Services is highly dependent on increasing volumes and lowering costs. Accordingly, if we cannot obtain sufficient scale by increasing volumes or are unable to reduce costs in Commerce Services significantly enough to improve profit margins, our financial performance could be adversely affected.

Our financial performance and our reputation could be adversely affected, and we could be subject to legal liability or regulatory enforcement actions, if we or our suppliers are unable to protect against, or effectively respond to, cyberattacks or other cyber incidents.

We depend on the security of our and our suppliers' information technology systems to support numerous business processes and activities, to service our clients and to enable consumer transactions and postal services. We have security systems, procedures and business continuity plans in place designed to ensure the continuous and uninterrupted performance of our information technology systems and to protect against unauthorized access to information or disruption to our services. We also require our suppliers who host our information technology systems or have access to sensitive data to have appropriate security and back-up measures in place. There are numerous cybersecurity risks to these systems, including individual and group criminal hackers, industrial espionage, denial of service attacks, malware attacks, computer viruses, vandalism and employee errors and/or malfeasance. These cyber threats are constantly evolving, thereby increasing the difficulty of preventing, detecting and successfully defending against them. Successful breaches could, among other things, result in the unauthorized disclosure, theft and misuse of company, client, consumer and employee sensitive and confidential information, disrupt the performance of our information technology systems, deny services to our clients and result in the loss of revenue, all of which could adversely affect our financial performance. Additionally, we could be exposed to potential liability, litigation, governmental inquiries, investigations or regulatory enforcement actions, our brand and reputation could be damaged, and we could be subject to the payment of fines or other penalties, legal claims by our clients and significant remediation costs. Although we maintain insurance coverage relating to cybersecurity incidents, we may incur costs or financial losses that are either not insured against or not fully covered through our insurance.

Despite the protections we had in place, on October 12, 2019, we were affected by a ransomware attack that temporarily disrupted customer access to some services. Our financial information was not affected and there is no evidence that any sensitive or confidential company, client, consumer or employee data was improperly accessed or extracted from our network. The backup data storage systems for virtually all our client, employee and other business data were also not affected, which accelerated our ability to bring affected systems back online. We estimate that the ransomware attack adversely impacted full year revenue by $18 million and EPS by approximately $0.08 per share, primarily as a result of the business interruption, incremental costs related to the attack and costs to enhance our cybersecurity protection. We have insurance related to this event and expect a portion of any profit impact, including the profit associated with any loss of revenue, to ultimately be covered by insurance.

Following the attack, we implemented a variety of measures to further enhance our cybersecurity protections and minimize the impact of any future attack. Cyber threats are constantly evolving however, and although we continually assess and improve our protections, there can be no guarantee that a future cyber event will not occur.

Failure to comply with data privacy and protection laws and regulations could subject us to legal liability and adversely affect our reputation and our financial performance.

Our businesses use, process and store proprietary information and personal, sensitive or confidential data relating to consumers, our business, clients and employees. Privacy laws and similar regulations in many jurisdictions where we do business require that we take significant steps to safeguard that information, and these laws and regulations continue to evolve. The scope of the laws that may be

applicable to us is often uncertain and may be conflicting. In addition, new laws may add a broad array of requirements on how we handle or use information and increase our compliance obligations. For example, in May 2018, the European Union greatly increased the jurisdictional reach of European Law by enacting the General Data Protection Regulation (GDPR), which, among other things, enhanced an individual's rights with respect to their information. In the United States, several states have enacted different laws regarding personal information, including, in 2019, new legislation in both California and Nevada that imposed significant new requirements. Other countries or states may enact laws or regulations in the future that have similar or additional requirements. While we continually monitor and assess the impact of these laws and regulations, their interpretation and enforcement are uncertain, subject to change and may require substantial costs to monitor and implement. Failure to comply with data privacy and protection laws and regulations could also result in government enforcement actions (which could include substantial civil and/or criminal penalties), private litigation, and adversely affect our reputation and the results of our operations.

If we or our suppliers encounter unforeseen interruptions or difficulties in the operation of our cloud-based applications, our business could be disrupted, our reputation and relationships may be harmed and our financial performance could be adversely affected.

Our business relies upon the continuous and uninterrupted performance of our and our suppliers' cloud-based applications and systems to support numerous business processes, to service our clients and to support their transactions with their customers and postal services. Our applications and systems, and those of our partners, may be subject to interruptions due to technological errors, system capacity constraints, software errors or defects, human errors, computer or communications failures, power loss, adverse acts of nature and other unexpected events. We have business continuity and disaster recovery plans in place to protect our business operations in case of such events and we also require our suppliers to have the same. Nonetheless, there can be no guarantee that these plans will function as designed. If we are unable to limit interruptions or successfully correct them in a timely manner or at all, it could result in lost revenue, loss of critical data, significant expenditures of capital, a delay or loss in market acceptance of our services and damage to our reputation, brand and relationships, any of which could have an adverse effect on our business and our financial performance.

If we fail to effectively manage our third-party suppliers and outsource providers, our business, financial performance and reputation could be adversely affected.

We depend on third-party suppliers and outsource providers for a variety of services and product components, the hosting of our SaaS offerings, the logistics portion of our ecommerce business, and some non-core functions and operations. Some of our suppliers may also be our competitors in other contexts. In certain instances, we rely on single-sourced or limited-sourced suppliers and outsourcing vendors around the world because doing so is advantageous due to quality, price or lack of alternative sources. If production or services were interrupted, the quality of those offerings were to degrade as a result of poor performance from our suppliers, these suppliers chose to terminate their relationship with us, or if the costs of using these third parties were to increase and we were not able to find alternate suppliers, we could experience significant disruptions in manufacturing and operations (including product shortages, higher freight costs and re-engineering costs) as well as increased costs in the logistics portion of our ecommerce business. If outsourcing services were interrupted, not performed, or the performance was poor, our ability to process, record and report transactions with our clients, consumers and other constituents could be impacted. Such interruptions, including a cybersecurity event affecting one of our suppliers, could impact our ability to meet client demand, damage our reputation and client relationships and adversely affect our financial performance.

Future credit rating downgrades or capital market disruptions could adversely affect our ability to maintain adequate liquidity to provide competitive financing services to our clients and to fund various discretionary priorities.

We provide competitive finance offerings to our clients and fund discretionary priorities, such as business investments, strategic acquisitions, dividend payments and share repurchases through a combination of cash generated from operations, deposits held at the Bank and access to capital markets. Our ability to access U.S. capital markets and the associated cost of borrowing is dependent upon our credit ratings and is subject to capital market volatility. Given our current credit rating, we may experience reduced financial or strategic flexibility and higher costs when we do access the U.S. capital markets. We maintain a $500 million revolving credit facility that requires we maintain certain financial and nonfinancial covenants.

A significant decline in cash flows, noncompliance with any of the covenants under the revolving credit facility, further credit rating downgrades, material capital market disruptions, significant withdrawals by depositors at the Bank, adverse changes to our industrial loan charter or an increase in our credit default swap spread could impact our ability to maintain adequate liquidity to provide competitive finance offerings to our clients, refinance maturing debt and fund other financing activities, which in turn, could adversely affect our financial performance.

Our operations and financial performance may be negatively affected by changes in trade policies, tariffs and regulations.

Our Global Ecommerce segment is subject to significant trade regulations, taxes, and duties throughout the world. Any changes to these regulations could potentially impose increased documentation and delivery requirements, increase costs, delay delivery times, subject us to additional liabilities, and could adversely affect our financial performance. Over the past two years, the United States increased

tariffs for certain goods while also raising the possibility of additional tariffs. These actions triggered other nations to also increase tariffs on certain of their goods. For our Global Ecommerce segment, tariff increases, or even the political environment surrounding trade issues, could reduce demand and adversely affect our financial performance. For our SendTech Solutions segment, the increased tariffs resulted in additional costs on certain components used in some of our products. Although we have been taking actions to mitigate these costs by changing where we source certain parts, these added costs and the potential for further tariffs could affect demand for our products or the amount of profitability in some of our products and adversely affect our financial performance.

Our Global Ecommerce segment is exposed to increased foreign exchange rate fluctuations.

The sales generated from many of our clients' internationally focused websites running on our cross-border platform are exposed to foreign exchange rate fluctuations. Currently, our platforms are located in the U.S. and the U.K. and a majority of consumers making purchases through these platforms are in a limited number of foreign countries. A strengthening of the U.S. Dollar or British Pound relative to currencies in the countries where we do the most business impacts our ability to compete internationally as the cost of similar international products improves relative to the cost of U.S. and U.K. retailers' products. A strong U.S. Dollar or British Pound would likely result in a decrease in international sales volumes, which would adversely affect the segment's revenue and profitability.

The loss of any of our largest clients in our Global Ecommerce segment or a material change in consumer sentiment or spending habits, could have a material adverse effect on the segment.

The Global Ecommerce segment receives a large portion of its revenue from a relatively small number of clients and business partners. The loss of any of these larger clients or business partners, or a substantial reduction in their use of our products or services, could have a material adverse effect on the revenue and profitability of the segment. There can be no assurance that our larger clients and business partners will continue to utilize our products or services at current levels, or that we would be able to replace any of these clients or business partners with others who can generate revenue at current levels.

Our business is also subject to cyclical trends in consumer sentiment and spending habits that are affected by many factors, including prevailing economic conditions, recession or fears of recession and unemployment levels. Consumer sentiment and spending habits can deteriorate rapidly, and could potentially have an adverse impact on our financial performance.

Our international operations may be adversely impacted by the United Kingdom's recent exit from the European Union (EU).

On January 31, 2020, the U.K. formally exited the European Union (Brexit). The U.K. is currently in a transition period, during which it is expected that its trading relationship with the EU will remain the same while the two sides negotiate a free trade deal. The U.K. will also negotiate many other aspects of its relationship with the EU during this period. Approximately 10% of our consolidated revenue is generated from counties in the EU, including the U.K. Although the ultimate impact of Brexit is unknown, the effects may adversely impact global economic conditions, contribute to instability in global financial and foreign exchange markets, impact trade and commerce, including the imposition of additional tariffs and duties and require additional documentation and inspection checks of goods moving between the U.K. and EU countries, leading to delays at ports of entry and departure. In particular, Brexit may have an adverse effect on cross-border ecommerce both into and out of the U.K. Brexit may also affect our supply chain for our SendTech Solutions segment. Any of these and other changes, implications or consequences of Brexit could adversely affect our financial performance.

Our business depends on our ability to attract and retain employees at a reasonable cost to meet the needs of our business and to consistently deliver highly differentiated, competitive offerings.

Given the rapid growth of the ecommerce industry, there has been intense competition for employees in the shipping, transportation and logistics industry, including drivers and factory employees. There is also significant competition for the talent needed to develop our products. If we are unable to find and retain enough qualified employees at a reasonable cost, or if the compensation required grows too rapidly, it may adversely affect our financial performance.

Our inability to obtain and protect our intellectual property and defend against claims of infringement by others may negatively impact our financial performance.

Our businesses are not materially dependent on any one patent or license or group of related patents and licenses; however, our business success depends in part upon protecting our intellectual property rights, including proprietary technology developed or obtained through acquisitions. We rely on copyrights, patents, trademarks and trade secrets and other intellectual property laws to establish and protect our proprietary rights. As we transition our business to more software and service-based offerings, patent protection of these innovations is more difficult to obtain. If we are unable to protect our intellectual property rights, our competitive position may suffer, which could adversely affect our revenue and profitability. The continued evolution of patent law and the nature of our innovation work may affect the number of patents we are able to receive for our development efforts. In addition, from time to time, third-parties may claim that we, our clients, or our suppliers, have infringed their intellectual property rights. These claims, if successful, may require us to redesign affected products, enter into costly settlement or license agreements, pay damage awards, or face a temporary or permanent injunction

prohibiting us from marketing or selling certain products.

If we fail to comply with government contracting regulations, our financial performance, brand name and reputation could suffer.

We have a significant number of contracts with governmental entities. Government contracts are subject to extensive and complex procurement laws and regulations, along with regular audits and investigations by government agencies. If one or more government agencies discovers contractual noncompliance in the course of an audit or investigation, we may be subject to various civil or criminal penalties and administrative sanctions, which could include the termination of the contract, reimbursement of payments received, fines and debarment from doing business with one or more governments. Any of these events could not only affect our financial performance, but also adversely affect our brand and reputation.

We may not fully realize the anticipated benefits of strategic acquisitions and divestitures which may harm our financial performance.

As we transition our business to sustainable long-term growth, we may make strategic acquisitions or divest certain businesses. These actions may involve significant risks and uncertainties, which could have an adverse effect on our financial performance, including:

- difficulties in achieving anticipated benefits or synergies;
- difficulties in integrating newly acquired businesses and operations, including combining product and service offerings and entering new markets, or reducing fixed costs previously associated with divested businesses;
- the loss of key employees or clients of businesses acquired or divested;
- significant charges for employee severance and other restructuring costs, legal, accounting and financial advisory fees; and
- possible goodwill and asset impairment charges as divestitures and changes in our business model may adversely affect the recoverability of certain long-lived assets and valuation of our operating segments.

Our capital investments to develop new products and offerings or expand our current operations may not yield the anticipated benefits.

We are making significant capital investments in new products, services, and facilities. If we are not successful in these new product or service introductions at the levels anticipated when making the investments, there may be an adverse effect on our financial performance.

Our operational costs could increase from changes in environmental regulations, or we could be subject to significant liabilities.

We are subject to various federal, state, local and foreign environmental protection laws and regulations around the world, including without limitation, those related to the manufacture, distribution, use, packaging, labeling, recycling or disposal of our products or the products of our clients for whom we perform services. Environmental rules concerning products and packaging can have a significant impact on the cost of operations or affect our ability to do business in certain countries. We are also subject to laws concerning use, discharge or disposal of materials. These laws are complex, change frequently and have tended to become more stringent over time. If we are found to have violated these laws, we could be fined, criminally charged, otherwise sanctioned by regulators, or we could be subject to liability and clean-up costs. These risks can apply to both current and legacy operations and sites. From time to time, we may be involved in litigation over these issues. The amount and timing of costs under environmental laws are difficult to predict and there can be no assurance that these costs will not have an adverse effect on our financial performance.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We lease numerous facilities worldwide, including our corporate headquarters located in Stamford, Connecticut, sales offices, service locations, data centers and call centers.

Our Global Ecommerce segment leases four fulfillment centers that comprise the majority of our fulfillment operations. An unforeseen loss of any of these fulfillment centers could materially impact our ability to conduct business and therefore materially impact our results of operations. Our Global Ecommerce business also conducts parcel operations and our Presort business conducts its mail sortation operations through a network of 15 and 42 operating centers throughout the United States, respectively. Should an operating center be unable to function as intended for an extended period of time, our ability to service our clients and operating results would be impacted; however, due to the extensive nature of our network, we would be able to divert affected parcel and mail volumes to other facilities and mitigate the impacts to our clients and our operating results.

Our SendTech Solutions segment leases a manufacturing and distribution facility in Indianapolis. This facility is significant as it stores a majority of the SendTech Solutions products, supplies and inventories.

We conduct most of our research and development activities in facilities located in Noida and Pune, India and Shelton, Connecticut. Management believes that our facilities are in good operating condition, materially utilized and adequate for our current business needs.

ITEM 3. LEGAL PROCEEDINGS

In the ordinary course of business, we are routinely defendants in, or party to, a number of pending and threatened legal actions. These may involve litigation by or against us relating to, among other things, contractual rights under vendor, insurance or other contracts; intellectual property or patent rights; equipment, service, payment or other disputes with clients; or disputes with employees. Some of these actions may be brought as a purported class action on behalf of a purported class of employees, clients or others.

In August 2018, the Company, certain of its directors, officers and several banks who served as underwriters, were named as defendants in City of Livonia Retiree Health and Disability Benefits Plan v. Pitney Bowes Inc. et al., a putative class action lawsuit filed in Connecticut state court. The complaint asserts claims under the Securities Act of 1933, as amended, on behalf of those who purchased notes issued by the Company in connection with a September 13, 2017 offering, alleging, among other things, that the Company failed to make certain disclosures relating to components of its third quarter 2017 performance at the time of the notes offering. The complaint seeks compensatory damages and other relief. On October 24, 2019, the court granted the defendants' motions to strike the complaint for failure to state a claim, and the time for plaintiff to appeal or amend the complaint has expired.

In addition, in December 2018 and then in February 2019, certain of the Company’s officers and directors were named as defendants in two virtually identical derivative actions purportedly brought on behalf of the Company, Clem v. Lautenbach et al. and Devolin v. Lautenbach et al. These two actions, both filed by the same counsel in Connecticut state court, allege, among other things, breaches of fiduciary duty relating to these same disclosures, and seek compensatory damages and other relief derivatively for the benefit of the Company. Defendants have moved to dismiss these actions; given that the defendants have prevailed in the Livonia action, plaintiffs in these cases have conceded that these cases should be dismissed.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

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

Our common stock is principally traded on the New York Stock Exchange (NYSE) under the symbol "PBI". At January 31, 2020, we had 14,057 common stockholders of record.

Share Repurchases

We periodically repurchase shares of our common stock to manage the dilution created by shares issued under employee stock plans and for other purposes. During 2018, we did not repurchase any shares of our common stock. In February 2019, our Board of Directors approved an incremental $100 million for share repurchases, raising our authorization level to $121 million. During 2019, we repurchased 18.6 million shares of our common stock at an aggregate price of $105 million. As a result, at December 31, 2019, we have remaining authorization of $16 million.

Stock Performance Graph

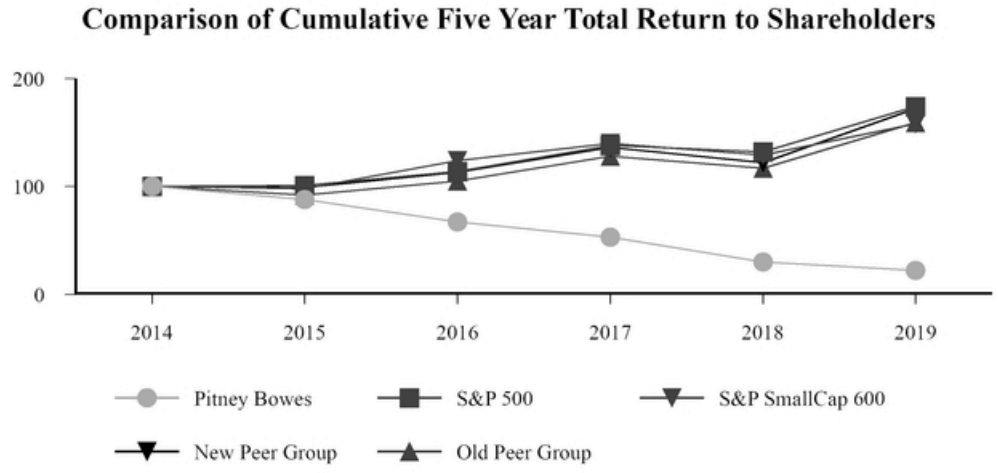
As a result of our ongoing transformation and the sale of the Software business, we revised our peer group from last year to exclude companies that were no longer a fit from a business perspective and include companies that are better aligned with our business models, revenue and market capitalization.

The new peer group is comprised of: ACCO Brands Corporation, Alliance Data Systems Corporation, Deluxe Corporation, Diebold Nixdorf, Incorporated, Echo Global Logistics, Inc., Fidelity National Information Services, Inc., Fiserv, Inc., Hub Group, Inc., NCR Corporation, R.R. Donnelley & Sons Company, Rockwell Automation, Inc., Stamps.com Inc., The Western Union Company and Xerox Holdings Corporation.

The old peer group was comprised of: Alliance Data Systems Corporation, Deluxe Corporation, Diebold Nixdorf, Incorporated, EchoStar Corp., Fidelity National Information Services, Inc., Fiserv, Inc., NCR Corp., NetApp Inc., Pitney Bowes Inc., R.R. Donnelley & Sons Company, Rockwell Automation Inc., Teradata Corp., Unisys Corporation, The Western Union Company and Xerox Holdings Corporation.

The accompanying graph shows the annual change in the value of a $100 investment in Pitney Bowes Inc., the Standard and Poor's (S&P) 500 Composite Index, the S&P SmallCap 600, the new peer group and the old peer group over a five-year period assuming the reinvestment of dividends. On a total return basis, a $100 investment on December 31, 2014 in Pitney Bowes Inc., the S&P 500 Composite Index, the S&P SmallCap 600, the new peer group and the old peer group would have been worth $22, $174, $158, $172, and $158 respectively, on December 31, 2019.

All information is based upon data independently provided to us by Standard & Poor's Corporation and is derived from their official total return calculation. Total return for the S&P 500 and S&P SmallCap 600 Composite Indexes and each peer group is based on market capitalization, weighted for each year. The stock price performance is not necessarily indicative of future stock price performance.



ITEM 6. SELECTED FINANCIAL DATA

The following selected financial data should be read in conjunction with the more detailed consolidated financial statements and related notes included in this Form 10-K. Effective January 1, 2019, we adopted Accounting Standards Codification (ASC) 842, *Leases* (ASC 842) using the modified retrospective transition approach of applying the standard at the beginning of the earliest comparative period presented in the financial statements and recorded a cumulative effect adjustment at the date of initial application. Accordingly, periods prior to January 1, 2017, have not been restated for this standard and are presented under the prior guidance. Effective January 1, 2018, we adopted ASU 2014-09, *Revenue from Contracts with Customers* on a modified retrospective basis with a cumulative effect adjustment at the date of initial application. Accordingly, periods prior to January 1, 2018, have not been restated for this standard and are presented under the prior guidance. Discontinued operations includes our Software Solutions business and Production Mail business (see Note 4 for further details).

	Years Ended December 31,				
	2019	2018	2017	2016	2015
Total revenue	**$ 3,205,125**	$ 3,211,522	$ 2,784,007	$ 2,656,172	$ 2,760,282
Amounts attributable to common stockholders:					
Income from continuing operations	**$ 40,149**	$ 181,705	$ 180,039	$ 210,861	$ 324,970
Income (loss) from discontinued operations	**154,460**	60,106	63,489	(118,056)	82,973
Net income	**$ 194,609**	$ 241,811	$ 243,528	$ 92,805	$ 407,943
Basic earnings (loss) per share attributable to common stockholders [1]:					
Continuing operations	**$ 0.23**	$ 0.97	$ 0.97	$ 1.12	$ 1.63
Discontinued operations	**0.88**	0.32	0.34	(0.63)	0.42
Net income	**$ 1.10**	$ 1.29	$ 1.31	$ 0.49	$ 2.04
Diluted earnings (loss) per share attributable to common stockholders [1]:					
Continuing operations	**$ 0.23**	$ 0.96	$ 0.96	$ 1.12	$ 1.62
Discontinued operations	**0.87**	0.32	0.34	(0.62)	0.41
Net income	**$ 1.10**	$ 1.28	$ 1.30	$ 0.49	$ 2.03
Cash dividends paid per share of common stock	**$ 0.20**	$ 0.75	$ 0.75	$ 0.75	$ 0.75
Balance sheet data:					
	December 31,				
	2019	2018	2017	2016	2015
Total assets	**$ 5,466,900**	$ 5,938,419	$ 6,634,606	$ 5,837,133	$ 6,123,132
Long-term debt	**$ 2,719,614**	$ 3,066,073	$ 3,559,278	$ 2,750,405	$ 2,489,583
Total debt	**$ 2,739,722**	$ 3,265,608	$ 3,830,335	$ 3,364,890	$ 2,950,668
Noncontrolling interests (Preferred stockholders' equity in subsidiaries)	**$ —**	$ —	$ —	$ —	$ 296,370

(1) The sum of earnings per share may not equal the totals due to rounding.

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

The following discussion and analysis should be read in conjunction with our risk factors, consolidated financial statements and related notes. This discussion and analysis contains forward-looking statements based on management's current expectations, estimates and projections and involves risks and uncertainties. Actual results may differ significantly from those currently expressed in our forward-looking statements as a result of various factors, including those factors described under "Forward-Looking Statements" and "Risk Factors" contained elsewhere in this Annual Report. All table amounts are presented in thousands of dollars, except per share data.

Overview

In 2019, we:

- Adopted ASC 842 using the modified retrospective transition approach of applying the standard at the beginning of the earliest comparative period presented in the financial statements. Accordingly, prior period financial results have been recast.
- Completed the sale of our Software Solutions business, with the exception of the software business in Australia, which closed in January 2020, for approximately $700 million. The Software Solutions business is reported as a discontinued operation in our consolidated financial statements.
- Recast our segment reporting to combine North America Mailing and International Mailing into the Sending Technology Solutions (SendTech Solutions) segment to reflect how we manage these operations and the products and services provided to our clients.
- Sold the direct operations and moved to a dealer model in six smaller international markets within SendTech Solutions (Market Exits).

On October 12, 2019, we were affected by a ransomware attack that temporarily disrupted customer access to some services. Our financial information was not affected and there is no evidence that any sensitive or confidential company, client, consumer or employee data was improperly accessed or extracted from our network. The backup data storage systems for virtually all our client, employee and other business data were also not affected, which accelerated our ability to bring affected systems back online. We have implemented enhanced security features and monitoring procedures to mitigate the likelihood of future events.

Financial Results Summary - Twelve Months Ended December 31:

	2019	2018	Change
Revenue	$ 3,205,125	$ 3,211,522	— %
Segment earnings before interest and taxes (EBIT)	$ 490,869	$ 600,348	(18)%
Income from continuing operations	$ 40,149	$ 181,705	(78)%
Net income	$ 194,609	$ 241,811	(20)%
Earnings per share from continuing operations - diluted	$ 0.23	$ 0.96	(76)%
Net cash provided by operations	$ 252,207	$ 342,879	(26)%

Revenue was flat compared to the prior year; however, currency and Market Exits unfavorably impacted revenue growth by 2%. Commerce Services revenue grew 9% but was offset by an overall decline in the SendTech Solutions shipping and mailing business. We estimate that the ransomware attack adversely impacted full year revenue by $18 million.

Segment EBIT declined 18% due to a decline in SendTech Solutions revenue, partially offset by cost savings initiatives and a shifting portfolio to faster growing, but lower margin services in Global Ecommerce. We estimate that the ransomware attack adversely impacted EBIT by $19 million, primarily as a result of the business interruption, incremental costs related to the attack and costs to enhance our cybersecurity protection.

Income from continuing operations declined 78% from the prior year driven primarily by the decline in segment EBIT, a $39 million pre-tax asset impairment charge related to the development of an enterprise resource planning (ERP) system in our international markets and an $18 million pre-tax loss from Market Exits. Income from continuing operations included a tax benefit of $23 million from the release of a foreign valuation allowance. We estimate that the ransomware attack adversely impacted earnings per share from continuing operations by $0.08.

During the year, we received proceeds of approximately $700 million from the sale of the Software Solutions business and $400 million from a new five-year term loan. Cash was used to repay $930 million of debt, invest $137 million in capital expenditures, repurchase $105 million of shares of our common stock, pay dividends of $35 million and fund acquisitions of $22 million. We estimate that the ransomware attack adversely impacted cash flows by $29 million.

Outlook

We continue to transform and position ourselves for long-term success as a streamlined global technology company focused on shipping, mailing and related financial services. We are investing in market opportunities and new solutions and services across all our businesses, optimizing our operations and implementing cost savings initiatives to drive long-term value. Our portfolio is shifting to higher growth markets and we expect margins to improve as we build scale and realize the full benefits of our investments and optimizations.

Within Global Ecommerce, we expect continued revenue growth from the expansion of our domestic parcel business and shipping solutions, slightly offset by lower cross-border solutions volumes and margin improvements from continued growth in volumes to get to scale, bundling of offerings, pricing actions and organizational and operational efficiencies within our network.

In Presort Services, we expect higher volumes of Bound and Packet Mail and Marketing Mail to drive revenue growth. We expect margin improvement in 2020 from pricing initiatives, labor, transportation and other cost optimization initiatives and process efficiencies implemented in 2019.

Within SendTech Solutions, we expect revenue from our mailing business to continue to decline; however, we believe this revenue decline will be mitigated by expanding shipping capabilities, an overall product refresh, third-party equipment financing alternatives and the shift in the mix of business from mailing to solutions-based offerings.

We continue to assess the financial impact of the ransomware attack on our operations and it is probable that additional costs and claims will be incurred in 2020. We have insurance related to this event and expect a portion of any profit impact, including the profit associated with any loss of revenue, to ultimately be covered by insurance. We are working closely with our carriers; however, we are currently not able to reasonably estimate the amount of proceeds we will receive.

RESULTS OF OPERATIONS

Revenue by source and the related cost of revenue are shown in the following tables:

	Revenue			% change			
	Years Ended December 31,			Actual		Constant Currency	
	2019	2018	2017	**2019**	2018	**2019**	2018
Business services	**$ 1,710,801**	$ 1,566,470	$ 1,071,021	**9 %**	46 %	**9 %**	46 %
Support services	**506,187**	552,472	581,474	**(8)%**	(5)%	**(8)%**	(6)%
Financing	**368,090**	394,557	406,395	**(7)%**	(3)%	**(6)%**	(3)%
Equipment sales	**352,104**	395,652	400,704	**(11)%**	(1)%	**(10)%**	(2)%
Supplies	**187,287**	218,304	231,412	**(14)%**	(6)%	**(13)%**	(7)%
Rentals	**80,656**	84,067	93,001	**(4)%**	(10)%	**(3)%**	(10)%
Total revenue	**$ 3,205,125**	$ 3,211,522	$ 2,784,007	**— %**	15 %	**— %**	15 %

	Cost of Revenue					
	Years Ended December 31,					
	2019		2018		2017	
	$	**% of revenue**	$	% of revenue	$	% of revenue
Cost of business services	**$ 1,389,569**	**81.2%**	$ 1,233,105	78.7%	$ 770,018	71.9%
Cost of support services	**162,300**	**32.1%**	178,495	32.3%	173,555	29.8%
Financing interest expense	**44,648**	**12.1%**	44,376	11.2%	46,178	11.4%
Cost of equipment sales	**244,210**	**69.4%**	236,160	59.7%	238,062	59.4%
Cost of supplies	**49,882**	**26.6%**	60,960	27.9%	66,302	28.7%
Cost of rentals	**31,530**	**39.1%**	37,178	44.2%	33,741	36.3%
Total cost of revenue	**$ 1,922,139**	**60.0%**	$ 1,790,274	55.7%	$ 1,327,856	47.7%

In this revenue discussion, we may refer to revenue growth on a constant currency basis. Constant currency measures exclude the impact of changes in currency exchange rates since the prior period under comparison. We believe that excluding the impacts of currency exchange rates provides a better understanding of the underlying revenue performance. Constant currency change is calculated by converting the current period non-U.S. dollar denominated revenue using the prior year's exchange rate. Where constant currency measures are not provided, the actual change and constant currency change are the same.

Business services

Business services revenue increased 9% in 2019 compared to 2018. Growth in domestic parcel and shipping solutions volumes contributed 8% of revenue growth and higher volumes at Presort Services contributed 1% of revenue growth.

Cost of business services as a percentage of business services revenue increased to 81.2% in 2019 primarily due to higher incremental fulfillment costs, investments for growth including new facilities, engineering, and marketing programs and a shift in the mix of business to fast growing, but lower margin services, partially offset by lower labor costs resulting from productivity actions.

Business services revenue increased 46% in 2018 compared to 2017 primarily due to:

- 39% from the acquisition of Newgistics;
- 5% from growth in Global Ecommerce driven by higher revenue from shipping solutions, partially offset by lower cross-border revenue due to lower volumes; and
- 2% from higher volumes of mail processed in Presort Services.

Cost of business services as a percentage of business services revenue increased to 78.7% in 2018 primarily due to continued investment in Global Ecommerce, higher labor and transportation costs in Commerce Services of $40 million driven by increased competition for labor and transportation resources due to the rapid growth in Ecommerce and $8 million from the launch of a marketing mail pilot program in Presort Services.

Support services

Support services revenue decreased 8% in 2019 compared to 2018 and 5% as reported and 6% at constant currency in 2018 compared to 2017 primarily due to a worldwide decline in our meter population. Cost of support services as a percentage of support services revenue of 32.1% in 2019 was flat compared to the prior year period. Cost of support services as a percentage of support services revenue increased

to 32.3% in 2018 primarily due to the decline in support services revenue.

Financing

Financing revenue decreased 7% as reported and 6% at constant currency in 2019 compared to 2018 and 3% in 2018 compared to 2017 primarily due to a declining portfolio and lower fees.

We allocate a portion of our total cost of borrowing to financing interest expense based on an 8:1 debt to equity leverage ratio, our overall effective interest rate and the average outstanding finance receivables. Financing interest expense as a percentage of financing revenue increased to 12.1% in 2019 compared to 11.2% in 2018 due to a higher effective interest rate. Financing interest expense as a percentage of financing revenue in 2018 of 11.2% was consistent with the prior year period.

Equipment sales

Equipment sales decreased 11% as reported and 10% at constant currency in 2019 compared to 2018, primarily due to lower sales in mailing finishing products and a longer installation period due to a higher mix of solutions sold with our equipment relative to the prior year. Market Exits accounted for 2% of the decline.

Cost of equipment sales as a percentage of equipment sales revenue increased to 69.4% from 59.7% in the prior year period. A charge related to a SendPro C tablet replacement program, trade tariffs and engineering costs adversely impacted equipment sales margins by 2 percentage points, 2 percentage points and 1 percentage point, respectively.

Equipment sales in 2018 were down slightly compared to 2017. Lower sales in the U.S. and U.K. each contributed a 1% decline in revenue. Cost of equipment sales as a percentage of equipment sales revenue of 59.7% was consistent with the prior year.

Supplies

Supplies revenue decreased 14% as reported and 13% at constant currency in 2019 compared to 2018, primarily due to a declining meter population. Market Exits accounted for 4% of the decline. Cost of supplies as a percentage of supplies revenue of 26.6% in 2019 was consistent with the prior year.

Supplies revenue decreased 6% as reported and 7% at constant currency in 2018 compared to 2017, driven by a global decline in installed mailing equipment and postage volumes. Cost of supplies as a percentage of supplies revenue improved to 27.9% in 2018 compared to 28.7% due to a favorable mix of sales.

Rentals

Rentals revenue decreased 4% as reported and 3% at constant currency in 2019 compared to 2018 and 10% in 2018 compared to 2017 primarily due to a declining meter population.

Cost of rentals as a percentage of rentals revenue decreased to 39.1% in 2019 compared to 2018 primarily due to a favorable adjustment to cost of rentals recorded in the third quarter. Cost of rentals as a percentage of rentals revenue increased to 44.2% in 2018 compared to 2017 primarily due to higher scrapping costs associated with retiring aging meters.

Selling, general and administrative (SG&A)

SG&A expense was flat in 2019 compared to 2018. SG&A expense decreased 3%, or $27 million, in 2018 compared to 2017, despite $51 million of incremental expenses from the acquisition of Newgistics. The underlying decrease in SG&A was primarily due to lower employee related expenses of $36 million, lower marketing and advertising spend of $34 million, and other operating expense cost reductions as a result of our cost savings initiatives.

Restructuring charges and asset impairments, net

In 2019, restructuring charges and asset impairments, net of $70 million consisted of $24 million of restructuring related charges and $46 million of asset impairment charges. Asset impairment charges primarily includes the write-off of capitalized software costs related to the development of an ERP system in our international markets resulting from changes in our international footprint.

In 2018, restructuring charges and asset impairments, net of $26 million consisted of $25 million of restructuring related charges and $1 million of asset impairment charges. In 2017, restructuring charges and asset impairments, net of $45 million consisted of $41 million of restructuring related charges and $4 million of asset impairment charges.

Other components of net pension and postretirement cost

As a result of the funded status of our pension plans and the fact that most plans have been frozen, we recognized income in 2019. The 2018 amount includes a $32 million charge in connection with the disposition of the Production Mail Business and certain other actions. The amount of other components of net pension and postretirement cost recognized each year will vary based on actuarial assumptions and actual results of our pension plans.

Other expense

Other expense for 2019 includes a loss of $18 million from Market Exits, primarily from the write-off of cumulative translation adjustments and a $6 million loss on the early extinguishment of debt. Other expense for 2018 and 2017 represents a loss on the early extinguishment of debt.

Income taxes

The effective tax rate for 2019 includes benefits of $23 million from the release of a foreign valuation allowance and $9 million from the resolution of certain tax examinations. The effective tax rate for 2019 also includes a tax of $3 million on the $18 million book loss from Market Exits, primarily due to nondeductible basis differences. The effective tax rate for 2018 includes tax benefits of $37 million related to true-ups from the Tax Cuts and Jobs Act of 2017 and $17 million from the resolution of certain tax examinations. The effective tax rate for 2017 includes provisional tax benefits of $39 million from the Tax Cuts and Jobs Act of 2017 and $30 million from the resolution of tax examinations.

See Note 15 to the Consolidated Financial Statements for further information.

Income from discontinued operations

Discontinued operations includes the Software Solutions business, sold in December 2019 and the Production Mail Business, sold in July 2018. See Note 4 to the Consolidated Financial Statements for further information.

Business Segments

Our reportable segments are Global Ecommerce, Presort Services and SendTech Solutions. The Commerce Services reporting group comprises Global Ecommerce and Presort Services. The principal products and services of each reportable segment are as follows:

Global Ecommerce: Includes the revenue and related expenses from products and services that facilitate domestic retail and ecommerce shipping solutions, including fulfillment and returns, and global cross-border ecommerce transactions.

Presort Services: Includes revenue and related expenses from sortation services to qualify large volumes of First Class Mail, Marketing Mail and Bound and Packet Mail (Marketing Mail Flats and Bound Printed Matter) for postal worksharing discounts.

SendTech Solutions: Includes the revenue and related expenses from physical and digital mailing and shipping solutions, financing, services, supplies and other applications to help simplify and save on the sending, tracking and receiving of letters and packages.

Management measures segment profitability and performance using segment earnings before interest and taxes (EBIT). Segment EBIT is calculated by deducting from segment revenue the related costs and expenses attributable to the segment. Segment EBIT excludes interest, taxes, general corporate expenses, restructuring charges, asset impairment charges and other items not allocated to a particular business segment. Management believes that it provides investors a useful measure of operating performance and underlying trends of the business. Segment EBIT may not be indicative of our overall consolidated performance and therefore, should be read in conjunction with our consolidated results of operations.

Revenue and EBIT by business segment are presented in the tables below.

	Revenue			% change			
	Years Ended December 31,			Actual		Constant Currency	
	2019	2018	2017	**2019**	2018	**2019**	2018
Global Ecommerce	**$ 1,151,510**	$ 1,022,862	$ 552,242	**13 %**	85 %	**13 %**	85 %
Presort Services	**529,588**	515,795	497,901	**3 %**	4 %	**3 %**	4 %
Commerce Services	**1,681,098**	1,538,657	1,050,143	**9 %**	47 %	**10 %**	46 %
SendTech Solutions	**1,524,027**	1,672,865	1,733,864	**(9)%**	(4)%	**(8)%**	(4)%
Total revenue	**$ 3,205,125**	$ 3,211,522	$ 2,784,007	**— %**	15 %	**— %**	15 %

	EBIT				
	Years Ended December 31,			% change	
	2019	2018	2017	**2019**	2018
Global Ecommerce	**$ (70,146)**	$ (32,379)	$ (17,899)	**>(100)%**	(81)%
Presort Services	**70,693**	73,768	97,506	**(4)%**	(24)%
Commerce Services	**547**	41,389	79,607	**(99)%**	(48)%
SendTech Solutions	**490,322**	558,959	553,266	**(12)%**	1 %
Total segment EBIT	**$ 490,869**	$ 600,348	$ 632,873	**(18)%**	(5)%

Global Ecommerce

Global Ecommerce revenue increased 13% in 2019 compared to 2018. Growth in domestic parcel volumes and shipping solutions volumes contributed 9 points and 5 points, respectively; partially offset by a 1 point decline due to lower cross border volumes. EBIT loss in 2019 increased to $70 million from a loss of $32 million in 2018 primarily driven by higher incremental fulfillment costs, investments for growth including new facilities, engineering, and marketing programs and a shift in the mix of business to fast growing, but lower margin services. We also estimate that EBIT was adversely impacted by $6 million as a result of the ransomware attack.

Global Ecommerce revenue increased 85% in 2018 compared to 2017. Excluding Newgistics, Global Ecommerce revenue increased 13% driven by higher revenue from shipping solutions, partially offset by lower cross-border revenue due to lower volumes. EBIT loss in 2018 increased to $32 million compared to a loss of $18 million in 2017 primarily due to higher amortization expense of $12 million due to a full year of amortization related to Newgistics and higher transportation and labor costs of $6 million due to increased competition for labor and transportation resources as a result of the rapid growth in Ecommerce, partially offset by higher revenue.

Presort Services

Presort Services revenue increased 3% in 2019 compared to 2018, driven primarily from acquisitions as well as growth in existing clients' volumes. EBIT decreased 4%, or $3 million, in 2019 compared to the prior year primarily due to investments of $10 million to improve profitability and higher bad debt expense of $2 million, partially offset by lower labor costs of $13 million resulting from productivity actions. We also estimate that EBIT was adversely impacted by $4 million as a result of the ransomware attack.

Presort Services revenue increased 4% in 2018 compared to 2017 primarily due to higher volumes of First Class, Standard Class and Bound and Packet Mail processed. EBIT decreased 24% in 2018 compared to 2017 primarily due to higher labor and transportation costs of $34 million due to increased competition for labor and transportation resources and $8 million from the launch of a marketing mail pilot program.

SendTech Solutions

SendTech Solutions revenue decreased 9% as reported and 8% at constant currency in 2019 compared to 2018, primarily due to:

- 2% from Market Exits;
- 2% from lower equipment sales primarily due to lower sales in mailing finishing products and a longer installation period due to a higher mix of solutions sold with our equipment relative to the prior year;
- 2% from lower support services and 1% from lower supplies due to a declining meter population; and
- 1% from lower financing fees.

EBIT decreased 12% in 2019 compared to 2018, primarily due to the decline in revenue and gross profit margins. The decline in margins was primarily due to a charge of $9 million related to a SendPro C tablet replacement program and higher costs of $8 million from trade tariffs. We also estimate that EBIT was adversely impacted by $8 million as a result of the ransomware attack. The EBIT decrease was partially offset by lower operating expenses of $55 million from cost savings initiatives.

SendTech Solutions revenue decreased 4% in 2018 compared to 2017 primarily due to:

- 2% from a decline in support services revenue related to a worldwide decline in our meter population;
- 1% from lower supplies; and
- 1% from lower financing revenue.

EBIT increased 1% primarily due to lower expenses from cost savings initiatives, partially offset by the decline in revenue.

LIQUIDITY AND CAPITAL RESOURCES

We are a "Well-Known Seasoned Issuer" within the meaning of Rule 405 under the Securities Act, which allows us to issue debt securities, preferred stock, preference stock, common stock, purchase contracts, depositary shares, warrants and units in an expedited fashion.

At December 31, 2019 we had cash and cash equivalents and short-term investments of $1 billion, of which $168 million was held by our foreign subsidiaries. Cash held by our foreign subsidiaries are generally used to support the liquidity needs of those subsidiaries. We believe that existing cash, short-term investments and cash generated from operations will be sufficient to support our current cash needs for at least the next 12 months.

Cash Flow Summary

The change in cash and cash equivalents is as follows:

	Years Ended December 31,		
	2019	2018	2017
Net cash provided by operating activities	**$ 252,207**	$ 342,879	$ 454,158
Net cash provided by (used in) investing activities	**489,567**	309,127	(621,365)
Net cash (used in) provided by financing activities	**(686,640)**	(766,419)	367,747
Effect of exchange rate changes on cash and cash equivalents	**2,046**	(25,381)	43,959
Change in cash and cash equivalents	**$ 57,180**	$ (139,794)	$ 244,499

Operating activities

Cash flows from operations decreased $91 million in 2019 compared to 2018, primarily due to lower income of $142 million offset by cash from working capital changes of $24 million and higher cash from discontinued operations of $17 million. We estimate that the ransomware attack adversely impacted cash flows from operations by $27 million.

Cash flows from operations decreased $111 million in 2018 compared to 2017, due to lower cash from continuing operations of $51 million primarily related to changes in working capital and lower cash from discontinued operations of $61 million.

Investing activities

Cash provided by investing activities in 2019 of $490 million primarily included proceeds of approximately $700 from the sale of our Software Solutions business, offset by cash used to fund capital expenditures of $137 million and acquisitions of $22 million. We estimate that the ransomware attack resulted in additional capital expenditures of $2 million.

Cash provided by investing activities in 2018 was $309 million. Sources of cash included gross proceeds of $340 million from the sale of the Production Mail Business and $106 million from investment activities as we liquidated a portion of our investment portfolio to raise cash to support the launch of our enhanced third-party financing offerings. Cash was used to fund capital expenditures of $138 million, which included investments in Commerce Services to build new fulfillment and returns distribution facilities and increase automation at our Presort facilities.

In 2017, we used $621 million of cash in investing activities primarily for the acquisition of Newgistics for $471 million and capital expenditures of $118 million.

Financing activities

In 2019, cash used in financing activities of $687 million included the net repayment of debt of $540 million, the repurchase of 18.6 million shares of our common stock for $105 million and common stock dividend payments of $35 million.

In 2018, cash used in financing activities of $766 million included the repayment of $570 million of debt, common stock dividend payments of $140 million and the settlement of a $46 million timing difference between our investing excess cash at the subsidiary level and the funding of an intercompany cash transfer at December 31, 2017.

In 2017, cash provided by financing activities of $368 million included the net issuance of debt of $472 million and common stock dividend payments of $139 million.

Debt and Capitalization

During 2019, we completed a series of transactions to refinance our debt portfolio, including the following:

- Repaid the $150 million term loan due November 2019, the remaining balance of the $200 million term loan due September 2020 and the $300 million term loan due December 2020;
- Redeemed the $300 million September 2020 Notes;
- Secured a new five-year $400 million secured term loan due November 2024 (the 2024 Term Loan); and
- Replaced our $1 billion revolving credit facility scheduled to mature in January 2021 with a $500 million secured revolving credit facility that expires in November 2024 (the Credit Facility). As of December 31, 2019, we have not drawn upon the Credit Facility.

In December 2019, we obtained commitments for a five-year $650 million term loan, and in February 2020, we obtained lender commitments for an additional $200 million. The combined commitment amount of $850 million is scheduled to mature January 2025 (the 2025 Term Loan). On February 10, 2020, we announced a cash tender offer to purchase up to $950 million aggregate principal amount of the October 2021 Notes, the May 2022 Notes, the April 2023 Notes and the March 2024 Notes (collectively, the Notes). On February 19, 2020, we funded the 2025 Term Loan and will use the net proceeds and the remaining proceeds from the sale of the Software Solutions business to redeem the Notes on or around February 24, 2020. The 2025 Term Loan bears interest at LIBOR plus 5.5% and resets monthly.

The Credit Facility requires that we maintain a Consolidated Adjusted Total Leverage Ratio (as defined in the Credit Facility agreement) and a Consolidated Adjusted Interest Coverage Ratio (as defined in the Credit Facility agreement), and comply with certain other nonfinancial covenants. Compliance with covenants is determined at the end of each fiscal quarter. In the event of noncompliance with any of the covenants, borrowings under the Credit Facility, the 2024 Term Loan and the 2025 Term Loan (collectively, the Facilities) may be accelerated (subject to grace periods, as appropriate). At December 31, 2019, we were in compliance with all covenants. For more information on our financial covenants refer to our exhibits.

Borrowings under the Facilities are secured by substantially all company assets and the assets of certain of our domestic subsidiaries, subject to customary exclusions and limitations set forth in the Credit Facility agreement and other executed loan documents. The Credit Facility agreement contains representations and warranties and affirmative and negative covenants that are usual and customary, including negative covenants that, among other things, limit our ability to incur additional debt, incur or permit liens on assets, make investments and acquisitions, consolidate or merge with any other company, engage in asset sales and make dividends and distributions.

The 2024 Term Loan bears interest at LIBOR plus 1.75% and resets monthly. The interest rate at December 31, 2019 was 3.55%.

Interest rates on certain notes are subject to adjustment based on changes in our credit ratings. In April 2019, Moody's lowered our corporate credit rating from Ba1 to Ba2 resulting in a 25 basis point increase in the interest rates of the May 2022 notes, September 2020 notes, October 2021 notes and April 2023 notes. In connection with the issuance of the secured 2024 Term Loan in November 2019, Moody's and Standard and Poor's (S&P) lowered the credit rating of our unsecured notes to Ba3/BB, rated our secured debt at Ba1/BBB- and reaffirmed our corporate rating of Ba2/BB+. As a result of the change in the credit rating of our unsecured notes, the interest rates on the October 2021 notes, May 2022 notes and April 2023 notes will increase an additional 50 basis points in the second quarter of 2020.

Interest rates on secured borrowings under the Facilities, and any additional term loans we may secure under the Credit Facility are determined based on LIBOR, which is expected to be phased out after 2021. At this time, no consensus exists as to what rate or rates will become accepted alternatives to LIBOR. We have included language in our credit documents to address the transition from LIBOR to an alternative rate; however, there are many uncertainties about this transition at this time and no assurances can be given that the transition to an alternate rate will not increase our cost of debt that could adversely affect our financial performance.

We have a total of $2.3 billion of debt maturing within the next five years. We fully expect to be able to fund these maturities with cash or by refinancing through the U.S. capital markets. However, our ability to access the U.S. capital markets is dependent upon our credit ratings and is subject to capital market volatility. Given our current credit rating, we may experience reduced flexibility and higher costs when we access the U.S. capital markets.

In June 2019, we redeemed all outstanding shares of the 4% Convertible Cumulative Preferred Stock and the $2.12 Convertible Preference Stock**.**

During 2019, we returned a total of $140 million to our shareholders through the repurchase of 18.6 million shares of our common stock for $105 million and the payment of common stock dividends of $35 million. At December 31, 2019, we have remaining authorization to repurchase up to $16 million of our common stock; however, do not expect to utilize this authorization within the next 12 months. Each quarter, our Board of Directors considers our recent and projected earnings and other capital needs and priorities in deciding whether to approve a dividend.

For discussion of our 2018 Debt and Capitalization, refer to our Annual Report on Form 10-K filed with the SEC on February 20, 2019.

Contractual Obligations

The following table summarizes our known contractual obligations at December 31, 2019 and the effect that such obligations are expected to have on our liquidity and cash flow in future periods (in millions):

		Payments due in			
	Total	**2020**	**2021-2022**	**2023-2024**	**After 2024**
Debt maturities	**$ 2,766**	$ 20	$ 1,050	$ 1,235	$ 461
Interest payments on debt (1)	**1,029**	137	230	121	541
Noncancelable operating lease obligations	**272**	48	76	50	98
Purchase obligations (2)	**163**	160	3	—	—
Pension plan contributions (3)	**19**	19	—	—	—
Retiree medical payments (4)	**126**	16	30	26	54
Total	**$ 4,375**	$ 400	$ 1,389	$ 1,432	$ 1,154

(1) Assumes all debt is held to maturity.

(2) Includes unrecorded agreements to purchase goods and services that are enforceable and legally binding upon us and that specify all significant terms, including fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. Purchase obligations exclude agreements that are cancelable without penalty.

(3) Represents the contributions we anticipate making to our pension plans during 2020. We will assess our funding alternatives as the year progresses and this amount is subject to change.

(4) Our retiree health benefit plans are unfunded plans and cash contributions are made to cover medical claims. The amounts reported in the above table represent our estimate of future payments.

The amount and period of future payments related to our income tax uncertainties cannot be reliably estimated and are not included in the above table. See Note 15 to the Consolidated Financial Statements for further details.

Off-Balance Sheet Arrangements

At December 31, 2019, we had no off-balance sheet arrangements that have, or are reasonably likely to have, a material current or future effect on our financial condition, results of operations or liquidity.

Critical Accounting Estimates

The preparation of our financial statements in conformity with GAAP requires management to make estimates and assumptions about certain items that affect the reported amounts of assets, liabilities, revenues, expenses and accompanying disclosures, including the disclosure of contingent assets and liabilities. The accounting policies below have been identified by management as those policies that are most critical to our financial statements due to the estimates and assumptions required. Management believes that the estimates and assumptions used are reasonable and appropriate based on the information available at the time the financial statements were prepared; however, actual results could differ from those estimates and assumptions. See Note 1 to the Consolidated Financial Statements for a summary of our accounting policies.

Revenue recognition

We derive revenue from multiple sources including the sale and lease of equipment, equipment rentals, financing, support services and business services. Certain transactions are consummated at the same time and can therefore generate revenue from multiple sources. The most common form of these arrangements involve a sale or noncancelable lease of equipment, meter services and an equipment maintenance agreement. We are required to determine whether each product and service within the contract should be treated as a separate performance obligation (unit of accounting) for revenue recognition purposes. We recognize revenue for performance obligations when control is transferred to the customer. Transfer of control may occur at a point in time or over time, depending on the nature of the contract and the performance obligation.

Revenue is allocated among performance obligations based on relative standalone selling prices (SSP), which are a range of selling prices that we would sell the good or service to a customer on a separate basis. SSP are established for each performance obligation at the inception of the contract and can be observable prices or estimated. Revenue is allocated to the meter service and equipment maintenance agreement elements using their respective observable selling prices charged in standalone and renewal transactions. For sale and lease transactions, the SSP of the equipment is based on a range of observable selling prices in standalone transactions. We recognize revenue on non-lease transactions when control of the equipment transfers to the customer, which is upon delivery for customer installable models and upon installation or customer acceptance for other models. We recognize revenue on equipment for lease transactions upon shipment for customer installable models and upon installation or customer acceptance for other models.

Pension benefits

The calculation of net periodic pension expense and determination of net pension obligations are dependent on assumptions and estimates relating to, among other things, the discount rate (interest rate used to discount the future estimated liability) and the expected rate of return on plan assets. These assumptions are evaluated and updated annually.

The discount rate for our largest plan, the U.S. Qualified Pension Plan (the U.S. Plan) and our largest foreign plan, the U.K. Qualified Pension Plan (the U.K. Plan) used in the determination of net periodic pension expense for 2019 was 4.35% and 2.65%, respectively. For 2020, the discount rate used in the determination of net periodic pension expense for the U.S. Plan and the U.K. Plan will be 3.35% and 1.9%, respectively. A 0.25% change in the discount rate would impact annual pension expense by less than $1 million for both the U.S. Plan and the U.K. Plan, and the projected benefit obligation of the U.S. Plan and U.K. Plan by $42 million and $25 million, respectively.

The expected rate of return on plan assets used in the determination of net periodic pension expense for 2019 was 6.75% for the U.S. Plan and 6.25% for the U.K. Plan. For 2020, the expected rate of return on plan assets used in the determination of net periodic pension expense for the U.S. Plan will be 6.25% and the U.K. Plan will be 5.75%. A 0.25% change in the expected rate of return on plan assets would impact annual pension expense for the U.S. Plan by $3 million and the U.K. Plan by $1 million.

Actual pension plan results that differ from our assumptions and estimates are accumulated and amortized primarily over the life expectancy of plan participants and affect future pension expense. Net pension expense is also based on a market-related valuation of plan assets where differences between the actual and expected return on plan assets are recognized over a five-year period. Plan benefits for participants in a majority of our U.S. and foreign pension plans are frozen.

See Note 14 to the Consolidated Financial Statements for further information about our pension plans.

Residual value of leased assets

Equipment residual values are determined at the inception of the lease using estimates of fair value at the end of the lease term. Residual value estimates impact the determination of whether a lease is classified as an operating lease or a sales-type lease. Fair value estimates of equipment at the end of the lease term are based on historical renewal experience, used equipment markets, competition and technological changes.

We evaluate residual values on an annual basis or sooner if circumstances warrant. Declines in estimated residual values considered "other-than-temporary" are recognized immediately. Increases in estimated future residual values are not recognized until the equipment

is remarketed. If the actual residual value of leased assets were 10% lower than management's current estimates, pre-tax income would be $5 million lower.

Allowances for credit losses and doubtful accounts

Finance receivables are comprised of sales-type lease receivables and unsecured revolving loan receivables. We provide an allowance for probable credit losses based on historical loss experience, the nature and volume of our portfolios, adverse situations that may affect a client's ability to pay, prevailing economic conditions and our ability to manage the collateral.

Total allowance for credit losses as a percentage of finance receivables was 2% at both December 31, 2019 and 2018. Holding all other assumptions constant, a 0.25% change in the allowance rate at December 31, 2019 would have reduced pre-tax income by $3 million.

Trade accounts receivable are generally due within 30 days after the invoice date. Accounts deemed uncollectible are written off against the allowance after all collection efforts have been exhausted and management deems the account to be uncollectible. We believe that our accounts receivable credit risk is low because of the geographic and industry diversification of our clients and small account balances for most of our clients.

The allowance for doubtful accounts as a percentage of trade accounts receivables was 5% at December 31, 2019 and 4% at December 31, 2018. Holding all other assumptions constant, a 0.25% change in the allowance rate at December 31, 2019 would have reduced pre-tax income by $1 million.

Income taxes and valuation allowance

We are subject to income taxes in the U.S. and numerous foreign jurisdictions. Our annual tax rate is based on income, statutory tax rates, tax reserve changes and tax planning opportunities available to us in the various jurisdictions in which we operate. Significant judgment is required in determining the annual tax rate and in evaluating our tax positions. We regularly assess the likelihood of tax adjustments in each of the tax jurisdictions in which we have operations and account for the related financial statement implications. We have established tax reserves that we believe are appropriate given the possibility of tax adjustments. Determining the appropriate level of tax reserves requires judgment regarding the uncertain application of tax laws. Reserves are adjusted when information becomes available or when an event occurs indicating a change in the reserve is appropriate. Changes in tax reserves could have a material impact on our financial condition or results of operations.

Significant judgment is also required in determining the amount of deferred tax assets that will ultimately be realized and corresponding deferred tax asset valuation allowance. When estimating the necessary valuation allowance, we consider all available evidence for each jurisdiction including historical operating results, estimates of future taxable income and the feasibility of ongoing tax planning strategies. If new information becomes available that would alter our estimate of the amount of deferred tax assets that will ultimately be realized, we adjust the valuation allowance through income tax expense. Changes in the deferred tax asset valuation allowance could have a material impact on our financial condition or results of operations.

Impairment review

Long-lived and finite-lived intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be fully recoverable. The estimated future undiscounted cash flows expected to result from the use and eventual disposition of the assets is compared to the carrying value. If the sum of the undiscounted cash flows is less than the asset's carrying value, an impairment charge is recorded for an amount by which the carrying value exceeds its fair value. The fair value of the impaired asset is determined using probability weighted expected cash flow estimates, quoted market prices when available and appraisals, as appropriate. We derive the cash flow estimates from our long-term business plans and historical experience. Changes in the estimates and assumptions incorporated in our impairment assessment could materially affect the determination of fair value and the associated impairment charge.

Goodwill is tested annually for impairment at the reporting unit level during the fourth quarter or sooner when circumstances indicate an impairment may exist. The impairment test for goodwill determines the fair value of each reporting unit and compares it to the reporting unit's carrying value, including goodwill. If the fair value of a reporting unit is less than its carrying value, an impairment loss is recognized for the difference, not to exceed the carrying amount of goodwill.

Testing goodwill for impairment requires us to identify our reporting units and assign assets and liabilities, including goodwill, to each reporting unit. Significant estimates and assumptions are used in determining the fair value of each reporting unit and is based on a combination of techniques, including the present value of future cash flows, multiples of competitors and multiples from sales of like businesses. The estimates and assumptions used to determine fair value are based on projections incorporated in our current operating plans, which include estimates and assumptions associated with sales growth, profitability, cash flows, capital spending and other available information. The determination of fair value also incorporates a risk-adjusted discount rate and other assumptions that market participants

may use. Changes in any of these estimates or assumptions could materially affect the determination of fair value and the associated goodwill impairment assessment for each reporting unit. Potential events and circumstances, such as the loss of client contracts, inability to acquire new clients, downward pressures on pricing and rising interest rates could materially impact the determination of a reporting unit's fair value and potentially result in a non-cash impairment charge in future periods.

Based on the operating results of the Global Ecommerce business at the end of the third quarter, we performed a goodwill impairment test to assess the recoverability of the carrying value of goodwill and determined that the estimated fair value of the reporting unit exceeded its carrying value by less than 20%. We conducted the goodwill impairment text for all our reporting units during the fourth quarter and determined that the estimated fair values of each reporting unit, with the exception of the Global Ecommerce reporting unit, was substantially in excess of their respective carrying values. The estimated fair value of the Global Ecommerce reporting unit still exceeded its carrying value by less than 20%.

The carrying value of goodwill for the Global Ecommerce reporting unit at December 31, 2019 was $609 million. We will continue to monitor and evaluate the carrying value of goodwill for this reporting unit, and should facts and circumstances change, a non-cash impairment charge could be recorded in the future.

Stock-based compensation expense

We recognize compensation cost for stock-based awards based on the estimated fair value of the award on the grant date. The fair value of certain stock awards is determined using a Black-Scholes valuation model or Monte Carlo simulation model. These models require assumptions regarding the expected stock price volatility, risk-free interest rate, expected life of the award and dividend yield. The expected stock price volatility is based on historical price changes of our stock. The risk-free interest rate is based on U.S. Treasuries with a term equal to the expected life of the stock award. The expected life of the award and dividend yield are based on historical experience.

We believe that the valuation techniques and the underlying assumptions are appropriate in determining the fair value of stock-based awards. If factors change causing our assumptions to change, our stock-based compensation expense could be different in the future. In addition, we estimate an expected forfeiture rate and recognize expense only for those shares expected to vest. If the actual forfeiture rate is different from our estimate, stock-based compensation expense recorded in the period could be adversely impacted.

Restructuring

Costs associated with restructuring actions primarily include employee severance and other employee separation costs. Certain costs associated with restructuring actions require us to make estimates and assumptions regarding the ultimate amount that will be paid and the timing of payments. Actual amounts paid and the timing of payments could differ from our original estimates and have a material impact our financial statements. On a quarterly basis, we compare our remaining restructuring reserves to our updated estimate of future remaining restructuring obligations and make adjustments if necessary.

Loss contingencies

In the ordinary course of business, we are routinely defendants in, or party to, a number of pending and threatened legal actions. On a quarterly basis, we review the status of each significant matter and assess the potential financial exposure. If the potential loss from any claim or legal action is considered probable and can be reasonably estimated, we establish a liability for the estimated loss. The assessment of the ultimate outcome of each claim or legal action and the determination of the potential financial exposure requires significant judgment. Estimates of potential liabilities for claims or legal actions are based only on information that is available at that time. As additional information becomes available, we may revise our estimates, and these revisions could have a material impact on our results of operations and financial position.

Legal and Regulatory Matters

See Legal Proceedings in Item 3 for information regarding our legal proceedings and *Other Tax Matters* in Note 15 to the Consolidated Financial Statements for regulatory matters regarding our tax returns.

Foreign Currency Exchange

During 2019, 14% of our consolidated revenue was from operations outside the United States. The functional currency for most of our foreign operations is the local currency. Changes in the value of the U.S. dollar relative to the currencies of countries in which we operate impact our reported assets, liabilities, revenue and expenses. Exchange rate fluctuations can also impact the settlement of intercompany receivables and payables between our subsidiaries in different countries. The translation of foreign currencies to the U.S. dollar did not have a material impact on revenues and operating results for the years ended December 31, 2019, 2018 and 2017.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to the impact of interest rate changes and foreign currency fluctuations. Our objective in managing exposure to foreign currency is to reduce the volatility in earnings and cash flows associated with fluctuations in foreign currency exchange rates on transactions denominated in foreign currencies. Accordingly, we enter into forward contracts, which change in value as foreign currency exchange rates change, and are intended to offset the corresponding change in value of the underlying external and intercompany transactions. The principal currencies actively hedged are the British Pound, Canadian Dollar and the Euro.

At December 31, 2019, 86% of our debt was fixed rate obligations, compared to 81% in 2018, with a weighted average interest rate of 4.9% compared to 4.7% in 2018. Variable rate debt had a weighted average interest rate of 3.6% at December 31, 2019, compared to 4.0% in 2018. A one-percentage point change in the effective interest rate of our variable rate debt would not have had a material impact on our 2018 or 2019 pre-tax income.

We employ established policies and procedures governing the use of financial instruments to manage our exposure to such risks and do not enter into foreign currency or interest rate transactions for speculative purposes.

We utilize a "Value-at-Risk" (VaR) model to determine the potential loss in fair value from changes in market conditions. The VaR model utilizes a "Monte Carlo" simulation approach or changes in bond spreads and assumes normal market conditions, a 95% confidence level and a one-day holding period. The model includes our public debt and foreign exchange derivative contracts, but excludes anticipated transactions, firm commitments and accounts receivables and payables denominated in foreign currencies, which certain of these instruments are intended to hedge. The VaR model is a risk analysis tool and does not purport to represent actual losses in fair value that will be incurred, nor does it consider the potential effect of favorable changes in market factors.

During 2019 and 2018, our maximum potential one-day loss in fair value of our exposure to foreign exchange rates and interest rates, using the Monte Carlo simulation approach or changes in bond spreads was not material.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

See "Index to Consolidated Financial Statements and Supplemental Data" in this Form 10-K.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act)), that are designed to reasonably assure that information required to be disclosed in reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and to reasonably assure that such information is accumulated and communicated to management, including our Chief Executive Officer (CEO) and Chief Financial Officer (CFO), to allow timely decisions regarding required disclosure.

Any system of controls and procedures, no matter how well designed and operated, can provide only reasonable (and not absolute) assurance of achieving the desired control objectives. Under the direction of our CEO and CFO, management evaluated the effectiveness of the design and operation of our disclosure controls and procedures as required by Rule 13a-15 or Rule 15d-15 under the Exchange Act. Notwithstanding this caution, the CEO and CFO have reasonable assurance that the disclosure controls and procedures were effective as of December 31, 2019.

Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Management assessed the effectiveness of the internal control over financial reporting as of December 31, 2019 under the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control - Integrated Framework (2013)* and concluded that the internal control over financial reporting was effective.

The effectiveness of our internal control over financial reporting as of December 31, 2019 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report in this Form 10-K.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting during the three months ended December 31, 2019, that have materially affected, or are reasonably likely to materially affect, such internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Other than information regarding our executive officers disclosed in Part I of this Annual Report, the information required by this Item is incorporated by reference to our Proxy Statement to be filed in connection with the 2020 Annual Meeting of Stockholders.

Code of Ethics

We have Business Practices Guidelines (BPG) that apply to all our officers and other employees and a Code of Business Conduct and Ethics (the Code) that applies to our Board of Directors. The BPG and the Code are posted on our corporate governance website located at www.pb.com/us/our-company/leadership-and-governance/corporate-governance.html. Amendments to either the BPG or the Code and any waiver from a provision of the BPG or the Code requiring disclosure will be disclosed on our corporate governance website.

Audit Committee - Audit Committee Financial Expert

The information regarding the Audit Committee, its members and the Audit Committee financial experts is incorporated by reference to our Proxy Statement to be filed in connection with the 2020 Annual Meeting of Stockholders.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item is incorporated by reference to our Proxy Statement to be filed in connection with the 2020 Annual Meeting of Stockholders.

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

EQUITY COMPENSATION PLAN INFORMATION TABLE

The following table provides information as of December 31, 2019 regarding the number of shares of common stock that may be issued under our equity compensation plans.

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans excluding securities reflected in column (a)
Equity compensation plans approved by security holders	12,822,684	$14.08	16,668,426
Equity compensation plans not approved by security holders	—	—	—
Total	12,822,684	$14.08	16,668,426

Other than information regarding securities authorized for issuance under equity compensation plans, the information required by this Item is incorporated by reference to our Proxy Statement to be filed in connection with the 2020 Annual Meeting of Stockholders.

ITEM 13. CERTAIN RELATIONSHIPS, RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information required by this Item is incorporated by reference to our Proxy Statement to be filed in connection with the 2020 Annual Meeting of Stockholders.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this Item is incorporated by reference to our Proxy Statement to be filed in connection with the 2020 Annual Meeting of Stockholders.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a)(1) Consolidated Financial Statements and Schedules	Page Number in Form 10-K
Consolidated Statements of Income for the years ended December 31, 2019, 2018 and 2017	38
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(a) Exhibits
(2)

Reg. S-K exhibits	Description	Status or incorporation by reference
3(a)	Amended and Restated Certificate of Incorporation of Pitney Bowes Inc.	Incorporated by reference to Exhibit 3(i)(a) to Form 8-K filed with the Commission on September 30, 2019 (Commission file number 1-3579)
3(b)	Pitney Bowes Inc. Amended and Restated By-laws (effective May 10, 2013)	Incorporated by reference to Exhibit 3(d) to Form 8-K filed with the Commission on May 13, 2013 (Commission file number 1-3579)
4(a)	Form of Indenture between the Company and SunTrust Bank, as Trustee	Incorporated by reference to Exhibit 4.4 to Registration Statement on Form S-3 (No. 333-72304) filed with the Commission on October 26, 2001
4(b)	Supplemental Indenture No. 1 dated April 18, 2003 between the Company and SunTrust Bank, as Trustee	Incorporated by reference to Exhibit 4.1 to Form 8-K filed with the Commission on August 18, 2004
4(d)	First Supplemental Indenture, by and among Pitney Bowes Inc., The Bank of New York, and Citibank, N.A., to the Indenture, dated as of February 14, 2005, by and between the Company and Citibank	Incorporated by reference to Exhibit 4.1 to Form 8-K filed with the Commission on October 24, 2007 (Commission file number 1-3579)
10(a) *	Retirement Plan for Directors of Pitney Bowes Inc.	Incorporated by reference to Exhibit 10(a) to Form 10-K filed with the Commission on March 30, 1993 (Commission file number 1-3579)
10(b.3) *	Pitney Bowes Inc. Directors' Stock Plan (Amended and Restated effective May 12, 2014)	Incorporated by reference to Exhibit 10(b.3) to Form 10-K filed with the Commission on February 20, 2015 (Commission file number 1-3579)
10(c) *	Pitney Bowes Stock Plan (as amended and restated as of January 1, 2002)	Incorporated by reference to Annex 1 to the Definitive Proxy Statement for the 2002 Annual Meeting of Stockholders filed with the Commission on March 26, 2002 (Commission file number 1-3579)
10(d) *	Pitney Bowes Inc. 2007 Stock Plan (as amended November 7, 2009)	Incorporated by reference to Exhibit (v) to Form 10-K filed with the Commission on February 26, 2010 (Commission file number 1-3579)
10(e) *	Pitney Bowes Inc. Key Employees' Incentive Plan (as amended and restated February 4, 2019)	Incorporated by reference to Exhibit 10(e) to Form 10-K filed with the Commission on February 20, 2019 (Commission file number 1-3579)
10(f) *	Pitney Bowes Severance Plan (as amended and restated as of January 1, 2008)	Incorporated by reference to Exhibit 10(e) to Form 10-K filed with the Commission on February 29, 2008 (Commission file number 1-3579)
10(g) *	Pitney Bowes Senior Executive Severance Policy (as amended and restated as of February 4, 2019)	Incorporated by reference to Exhibit 10(g) to Form 10-K filed with the Commission on February 20, 2019 (Commission file number 1-3579)
10(h) *	Pitney Bowes Inc. Deferred Incentive Savings Plan for the Board of Directors, as amended and restated effective January 1, 2009	Incorporated by reference to Exhibit 10(g) to Form 10-K filed with the Commission on February 26, 2009 (Commission file number 1-3579)
10(i) *	Pitney Bowes Inc. Deferred Incentive Savings Plan as amended and restated effective January 1, 2009	Incorporated by reference to Exhibit 10(h) to Form 10-K filed with the Commission on February 26, 2009 (Commission file number 1-3579)

Reg. S-K exhibits	Description	Status or incorporation by reference
10(j) *	Pitney Bowes Inc. 1998 U.K. S.A.Y.E. Stock Option Plan	Incorporated by reference to Annex II to the Definitive Proxy Statement for the 2006 Annual Meeting of Stockholders filed with the Commission on March 23, 2006 (Commission file number 1-3579)
10(k) *	Form of Long Term Incentive Award Agreement	Incorporated by reference to Exhibit 10(k) to Form 10-K filed with the Commission on February 25, 2013 (Commission file number 1-3579)
10(m)*	Pitney Bowes Director Equity Deferral plan dated November 8, 2013 (effective May 12, 2014)	Incorporated by reference to Exhibit 10(o) to Form 10-K filed with the Commission on February 22, 2016 (Commission file number 1-3579)
10(o)*	Pitney Bowes Executive Equity Deferral Plan dated November 7, 2014	Incorporated by reference to Exhibit 10(p) to Form 10-K filed with the Commission on February 22, 2016 (Commission file number 1-3579)
10(p)*	Pitney Bowes Inc. 2013 Stock Plan	Incorporated by reference to Annex A to the Definitive Proxy Statement for the 2013 Annual Meeting of Stockholders filed with the Commission on March 25, 2013 (Commission file number 1-3579)
10(q)*	Amended and Restated Pitney Bowes Inc. 2018 Stock Plan	Incorporated by reference to Annex A to the Definitive Proxy Statement for the 2019 Annual Meeting of Stockholders filed with the Commission on March 15, 2019 (Commission file number 1-3579)
10(r)	Credit Agreement, dated as of November 1, 2019 (the "Credit Agreement"), among the company, the lenders and issuing banks party thereto and JPMorgan Chase Bank, N.A., as administrative agent.	Incorporated by reference to Exhibit 10.1 to the Form 8-K filed with the Commission on November 5, 2019 (Commission file number 1-3579)
2.1	Stock and Asset Purchase Agreement, dated as of August 23, 2019, between Pitney Bowes Inc. and Starfish Parent LP*	Incorporated by reference to Exhibit 2.1 to the Form 8-K filed with the Commission on August 27, 2019 (Commission file number 1-3579)
2.2	Amendment to Stock and Asset Purchase Agreement, dated as of December 2, 2019, between Pitney Bowes Inc. and Starfish Parent LP*	Exhibit 2.2
4	Description of Registered Securities	Exhibit 4
21	Subsidiaries of the registrant	Exhibit 21
23	Consent of independent registered accounting firm	Exhibit 23
31.1	Certification of Chief Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as amended.	Exhibit 31.1
31.2	Certification of Chief Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as amended.	Exhibit 31.2
32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350	Exhibit 32.1
32.2	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350	Exhibit 32.2
101.SCH	XBRL Taxonomy Extension Schema Document	
101.CAL	XBRL Taxonomy Calculation Linkbase Document	
101.DEF	XBRL Taxonomy Definition Linkbase Document	
101.LAB	XBRL Taxonomy Label Linkbase Document	
101.PRE	XBRL Taxonomy Presentation Linkbase Document	
104	The cover page from the Company's Annual Report on Form 10-K for the year ended December 31, 2019, formatted in Inline XBRL (included as Exhibit 101).	

* The Exhibits identified above with an asterisk (*) are management contracts or compensatory plans or arrangements.

The Company has outstanding certain other long-term indebtedness. Such long-term indebtedness does not exceed 10% of the total assets of the Company; therefore, copies of instruments defining the rights of holders of such indebtedness are not included as exhibits. The Company agrees to furnish copies of such instruments to the SEC upon request.

ITEM 16. FORM 10-K SUMMARY

None

SIGNATURES

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

Date: February 20, 2020 PITNEY BOWES INC.
Registrant

By: /s/ Marc B. Lautenbach
Marc B. Lautenbach
President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Marc B. Lautenbach Marc B. Lautenbach	President and Chief Executive Officer - Director	February 20, 2020
/s/ Stanley J. Sutula III Stanley J. Sutula III	Executive Vice President, Chief Financial Officer (Principal Financial Officer)	February 20, 2020
/s/ Joseph R. Catapano Joseph R. Catapano	Vice President, Chief Accounting Officer (Principal Accounting Officer)	February 20, 2020
/s/ Michael I. Roth Michael I. Roth	Non-Executive Chairman - Director	February 20, 2020
/s/ Anne M. Busquet Anne M. Busquet	Director	February 20, 2020
/s/ Robert M. Dutkowsky Robert M. Dutkowsky	Director	February 20, 2020
/s/ Anne Sutherland Fuchs Anne Sutherland Fuchs	Director	February 20, 2020
/s/ Mary J. Steele Guilfoile Mary J. Steele Guilfoile	Director	February 20, 2020
/s/ S. Douglas Hutcheson S. Douglas Hutcheson	Director	February 20, 2020
/s/ Linda S. Sanford Linda S. Sanford	Director	February 20, 2020
/s/ David L. Shedlarz David L. Shedlarz	Director	February 20, 2020

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Pitney Bowes Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Pitney Bowes Inc. and its subsidiaries (the "Company") as of December 31, 2019 and 2018, and the related consolidated statements of income, comprehensive income, stockholders' equity (deficit) and cash flows for each of the three years in the period ended December 31, 2019, including the related notes and financial statement schedule listed in the index appearing under Item 15(a)(1) (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Changes in Accounting Principles

As discussed in Note 1 to the consolidated financial statements, the Company changed the manner in which it accounts for leases in 2019 and the manner in which it accounts for revenues from contracts with customers in 2018. The adoption of the accounting standard for leases is also discussed below as a critical audit matter.

Basis for Opinions

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

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

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

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

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

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Goodwill - Interim Impairment Assessment for the Global Ecommerce Reporting Unit

As described in Notes 1 and 9 to the consolidated financial statements, the Company's consolidated goodwill balance was $1,324 million as of December 31, 2019, and the goodwill balance associated with the Global Ecommerce reporting unit was $609 million. Management conducts an impairment test annually during the fourth quarter or sooner if circumstances indicate an impairment may exist. The impairment test for goodwill determines the fair value of the reporting unit and compares it to the reporting unit's carrying value, including goodwill. As disclosed by management, the fair value of the reporting unit is estimated by management using a combination of techniques, including the present value of future cash flows, multiples of competitors and multiples from sales of like businesses. Based on the operating results of the Global Ecommerce business at the end of the third quarter, management performed a goodwill impairment test to assess the recoverability of the carrying value of goodwill. As a result of the test, management determined that the estimated fair value of the reporting unit exceeded its carrying value and therefore no impairment was recorded. The estimates and assumptions used by management to determine fair value are based on projections incorporated in management's current operating plans, which include estimates and assumptions associated with sales growth, profitability, cash flows and capital spending, and other available information. The determination of fair value also incorporates a risk-adjusted discount rate and other assumptions that market participants may use.

The principal considerations for our determination that performing procedures relating to goodwill, specifically the interim impairment assessment performed for the Global Ecommerce reporting unit, is a critical audit matter are there was significant judgment by management in developing the fair value estimate of this reporting unit. This in turn led to significant auditor judgment, subjectivity, and effort in performing procedures to evaluate management's cash flow projections and significant assumptions, including sales growth, profitability, and the risk-adjusted discount rate. In addition, the audit effort involved the use of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill impairment test for the Global Ecommerce reporting unit, including controls over the valuation of the Company's reporting unit and the underlying cash flow projections. These procedures also included, among others, testing management's process for developing the fair value estimate; evaluating the appropriateness of management's model; testing the completeness, accuracy, and relevance of underlying data used in the model; and evaluating reasonableness of the significant assumptions used by management, including sales growth, profitability and the risk-adjusted discount rate. Evaluating management's assumptions related to sales growth and profitability involved evaluating whether the assumptions used by management were reasonable considering (i) the current and past performance of the reporting unit, (ii) the consistency with external market and industry data, and (iii) whether these assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in the evaluation of management's model and certain significant assumptions, including the risk-adjusted discount rate.

Income Taxes

As described in Notes 1 and 15 to the consolidated financial statements, the effective tax rate in 2019 was 47.9%, and the total benefit for income taxes was $13 million for the year ended December 31, 2019. The provision for income taxes includes income from U.S. and foreign affiliates taxed at statutory rates, the accrual or release of amounts for tax uncertainties, and U.S. tax impacts of foreign income in the U.S. The Company reported unrecognized tax benefits of $60 million. In addition, the Company has recorded a net deferred tax liability of $203 million as of December 31, 2019, comprised of deferred tax liabilities of $387 million and deferred tax assets of $184 million. These deferred tax assets are net of valuation allowance of $111 million to reduce the deferred tax assets to an amount that management determined is more-likely-than-not to be realized. The valuation allowance primarily relates to certain foreign, state and local net operating loss and tax credit carryforwards that are more-likely-than-not to expire unutilized. In estimating the necessary valuation allowance, management considers all available evidence for each jurisdiction including historical operating results, estimates of future taxable income and the feasibility of ongoing tax planning strategies.

The principal considerations for our determination that performing procedures relating to income taxes is a critical audit matter are there was significant judgment and estimation by management when assessing complex tax laws and regulations in the jurisdictions in which the Company operates, analyzing tax uncertainties, and assessing the need for a valuation allowance against deferred tax assets. This in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures to i) evaluate the identification and measurement of deferred tax assets and liabilities, ii) evaluate the timely identification and measurement of uncertain tax positions, and iii) assess the realizability of deferred tax assets. In addition, the audit effort involved the use of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to income taxes, including controls relating to the identification and recognition of the liability for uncertain tax positions and permanent and temporary differences within various jurisdictions, and the recognition and measurement of deferred tax assets and liabilities. These procedures also included, among others, (i) testing the provision for income taxes, including the effective tax rate reconciliation and the permanent and temporary differences, (ii) testing the underlying data and evaluating the significant assumptions used in establishing and measuring tax-related assets and liabilities, (iii) evaluating the identification of reserves for uncertain tax positions and the reasonableness of the more-likely-than-not determination in consideration of tax law in applicable jurisdictions, new rulings, court decisions, legislative actions, statute of limitations, and developments in tax examinations, and (iv) testing management's process for determining the deferred tax asset valuation allowance, including evaluating management's assessment of the realizability of deferred tax assets on a jurisdictional basis and evaluating the assumptions used by management related to future taxable income and the related expected utilization and the feasibility of ongoing tax planning strategies. Professionals with specialized skill and knowledge were used to assist in evaluating the reasonableness of management's judgments and estimates, including application of tax laws and regulations.

Adoption of the Accounting Standard for Leases

As described above and in Note 1 to the consolidated financial statements, the Company adopted the new accounting standard for leases on January 1, 2019 using the modified retrospective transition approach of applying the standard at the beginning of the earliest comparative period presented in the financial statements. Accordingly, prior period financial statements were recast, and a cumulative effect adjustment was recorded as of January 1, 2017 to reduce retained earnings by $137 million. Management's assessment of the impact of the new lease standard to the lessor portfolio considered changes in the timing and classification of revenue related to contract modifications, and changes related to the definition of a leased asset.

The principal considerations for our determination that performing procedures relating to the adoption of the accounting standard for leases is a critical audit matter are there was significant judgment by management in identifying the lease components within the Company's lessor portfolio and evaluating the accounting for lease modifications. This in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures to evaluate lease components, the accounting for lease modifications, and management's method of application of the new lease standard to the lessor portfolio. In addition, the audit effort involved the use of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's adoption of the new lease standard, including management's process to identify lease components and account for lease modifications. These procedures also included, among others, testing the determination of lease components, evaluating the accounting for lease modifications and testing the appropriateness of management's recast of prior period financial statements, including testing the completeness and accuracy of the underlying data used in the recast. Professionals with specialized skill and knowledge were used to assist in the evaluation of certain accounting conclusions, including the identification of lease components and accounting for lease modifications for the lessor portfolio.

/s/ PricewaterhouseCoopers LLP
Stamford, Connecticut
February 20, 2020

We have served as the Company's auditor since 1934.

PITNEY BOWES INC.
CONSOLIDATED STATEMENTS OF INCOME
(In thousands, except per share amounts)

	Years Ended December 31,		
	2019	2018	2017
Revenue:			
Business services	**$ 1,710,801**	$ 1,566,470	$ 1,071,021
Support services	**506,187**	552,472	581,474
Financing	**368,090**	394,557	406,395
Equipment sales	**352,104**	395,652	400,704
Supplies	**187,287**	218,304	231,412
Rentals	**80,656**	84,067	93,001
Total revenue	**3,205,125**	3,211,522	2,784,007
Costs and expenses:			
Cost of business services	**1,389,569**	1,233,105	770,018
Cost of support services	**162,300**	178,495	173,555
Financing interest expense	**44,648**	44,376	46,178
Cost of equipment sales	**244,210**	236,160	238,062
Cost of supplies	**49,882**	60,960	66,302
Cost of rentals	**31,530**	37,178	33,741
Selling, general and administrative	**1,003,989**	1,002,935	1,029,494
Research and development	**51,258**	58,523	60,857
Restructuring charges and asset impairments, net	**69,606**	25,899	44,849
Interest expense, net	**110,910**	115,381	117,984
Other components of net pension and postretirement cost	**(4,225)**	22,425	5,413
Other expense	**24,306**	7,964	3,856
Total costs and expenses	**3,177,983**	3,023,401	2,590,309
Income from continuing operations before income taxes	**27,142**	188,121	193,698
(Benefit) provision for income taxes	**(13,007)**	6,416	13,659
Income from continuing operations	**40,149**	181,705	180,039
Income from discontinued operations, net of tax	**154,460**	60,106	63,489
Net income	**$ 194,609**	$ 241,811	$ 243,528
Basic earnings per share attributable to common stockholders [(1)]:			
Continuing operations	**$ 0.23**	$ 0.97	$ 0.97
Discontinued operations	**0.88**	0.32	0.34
Net income	**$ 1.10**	$ 1.29	$ 1.31
Diluted earnings per share attributable to common stockholders [(1)]:			
Continuing operations	**$ 0.23**	$ 0.96	$ 0.96
Discontinued operations	**0.87**	0.32	0.34
Net income	**$ 1.10**	$ 1.28	$ 1.30

(1) The sum of the earnings per share amounts may not equal the totals due to rounding.

See Notes to Consolidated Financial Statements

PITNEY BOWES INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In thousands)

	Years Ended December 31,		
	2019	2018	2017
Net income	**$ 194,609**	$ 241,811	$ 243,528
Other comprehensive income (loss), net of tax:			
Foreign currency translations, net of tax of $3,071 in 2019 and $(4,992) in 2018	**75,319**	(52,299)	103,624
Net unrealized gain on cash flow hedges, net of tax of $49, $232, and $678, respectively	**146**	684	1,079
Net unrealized gain (loss) on available for sale securities, net of tax of $1,970, $(1,545), and $944, respectively	**5,910**	(5,002)	1,477
Adjustments to pension and postretirement plans, net of tax of ($1,270), $(13,508), and $3,089, respectively	**(845)**	(46,170)	12,185
Amortization of pension and postretirement costs, net of tax of $9,497, $21,675, and $13,936, respectively	**28,288**	64,999	26,828
Other comprehensive income (loss), net of tax	**108,818**	(37,788)	145,193
Comprehensive income	**$ 303,427**	$ 204,023	$ 388,721

See Notes to Consolidated Financial Statements

PITNEY BOWES INC.
CONSOLIDATED BALANCE SHEETS
(In thousands, except share amounts)

	December 31, 2019	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	**$ 924,442**	$ 867,262
Short-term investments	**115,879**	59,391
Accounts and other receivables (net of allowance of $17,830 and $17,443 respectively)	**373,471**	371,797
Short-term finance receivables (net of allowance of $12,556 and $12,418, respectively)	**629,643**	653,236
Inventories	**68,251**	62,279
Current income taxes	**5,565**	5,947
Other current assets and prepayments	**101,601**	74,782
Assets of discontinued operations	**17,229**	602,823
Total current assets	**2,236,081**	2,697,517
Property, plant and equipment, net	**376,177**	398,501
Rental property and equipment, net	**41,225**	46,228
Long-term finance receivables (net of allowance of $7,095 and $7,804, respectively)	**625,487**	635,908
Goodwill	**1,324,179**	1,332,351
Intangible assets, net	**190,640**	213,200
Operating lease assets	**200,752**	152,554
Noncurrent income taxes	**71,903**	65,001
Other assets	**400,456**	397,159
Total assets	**$ 5,466,900**	$ 5,938,419
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued liabilities	**$ 1,384,808**	$ 1,348,127
Current operating lease liabilities	**36,060**	35,208
Current portion of long-term debt	**20,108**	199,535
Advance billings	**101,920**	116,862
Current income taxes	**17,083**	15,284
Liabilities of discontinued operations	**9,713**	174,798
Total current liabilities	**1,569,692**	1,889,814
Long-term debt	**2,719,614**	3,066,073
Deferred taxes on income	**274,435**	253,560
Tax uncertainties and other income tax liabilities	**38,834**	39,548
Noncurrent operating lease liabilities	**177,711**	125,294
Other noncurrent liabilities	**400,518**	462,288
Total liabilities	**5,180,804**	5,836,577
Commitments and contingencies (See Note 16)		
Stockholders' equity:		
Cumulative preferred stock, $50 par value, 4% convertible	**—**	1
Cumulative preference stock, no par value, $2.12 convertible	**—**	396
Common stock, $1 par value (480,000,000 shares authorized; 323,337,912 shares issued)	**323,338**	323,338
Additional paid-in capital	**98,748**	121,475
Retained earnings	**5,438,930**	5,279,682
Accumulated other comprehensive loss	**(840,143)**	(948,961)
Treasury stock, at cost (152,888,969 and 135,662,830 shares, respectively)	**(4,734,777)**	(4,674,089)
Total stockholders' equity	**286,096**	101,842
Total liabilities and stockholders' equity	**$ 5,466,900**	$ 5,938,419

See Notes to Consolidated Financial Statements

PITNEY BOWES INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Years Ended December 31,		
	2019	2018	2017
Cash flows from operating activities:			
Net income	**$ 194,609**	$ 241,811	$ 243,528
Income from discontinued operations, net of tax	**(154,460)**	(60,106)	(63,489)
Restructuring payments	**(27,148)**	(52,730)	(26,080)
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	**159,142**	148,464	126,790
Stock-based compensation	**23,149**	21,042	24,389
Restructuring charges and asset impairments, net	**69,606**	25,899	44,849
Loss on sale of businesses	**17,683**	—	—
Pension plan settlement	**—**	31,329	—
Deferred tax provision (benefit)	**4,931**	64,065	(1,414)
Changes in operating assets and liabilities, net of acquisitions/divestitures:			
Decrease (increase) in accounts and other receivables	**8,318**	(44,031)	(7,165)
Decrease in finance receivables	**25,638**	53,280	147,836
Increase in inventories	**(5,588)**	(1,441)	(213)
Increase in other current assets and prepayments	**(27,096)**	(9,881)	(3,131)
Increase (decrease) in accounts payable and accrued liabilities	**11,492**	(2,758)	(18,651)
Decrease in current and noncurrent income taxes	**(40,119)**	(28,127)	(23,516)
Decrease in advance billings	**(10,361)**	(19,802)	(33,665)
Change in net operating lease assets and liabilities	**6,398**	346	14,840
Other, net	**(13,259)**	(16,565)	(23,508)
Net cash provided by operating activities: continuing operations	**242,935**	350,795	401,400
Net cash provided by (used in) operating activities: discontinued operations	**9,272**	(7,916)	52,758
Net cash provided by operating activities	**252,207**	342,879	454,158
Cash flows from investing activities:			
Purchases of available-for-sale securities	**(57,194)**	(81,527)	(125,055)
Proceeds from sales/maturities of available-for-sale securities	**108,548**	175,820	113,501
Net change in short-term and other investments	**(78,814)**	11,838	(8,285)
Capital expenditures	**(137,253)**	(137,810)	(118,247)
Reserve account deposits	**16,341**	21,008	10,954
Acquisitions, net of cash acquired	**(22,100)**	(10,484)	(482,853)
Other investing activities	**(10,091)**	(4,250)	(5,750)
Net cash used in investing activities: continuing operations	**(180,563)**	(25,405)	(615,735)
Net cash provided by (used in) investing activities: discontinued operations	**670,130**	334,532	(5,630)
Net cash provided by (used in) investing activities	**489,567**	309,127	(621,365)
Cash flows from financing activities:			
Proceeds from issuance of long-term debt	**389,986**	—	1,436,660
Principal payments of long-term debt	**(930,189)**	(570,180)	(964,550)
Dividends paid to stockholders	**(35,361)**	(140,498)	(139,490)
Common stock repurchases	**(105,000)**	—	—
Other financing activities	**(6,076)**	(55,741)	35,127
Net cash (used in) provided by financing activities	**(686,640)**	(766,419)	367,747
Effect of exchange rate changes on cash and cash equivalents	**2,046**	(25,381)	43,959
Increase (decrease) in cash and cash equivalents	**57,180**	(139,794)	244,499
Cash and cash equivalents at beginning of period	**867,262**	1,009,021	764,522
Cash and cash equivalents at end of period	**924,442**	869,227	1,009,021
Less cash and cash equivalents of discontinued operations	**—**	1,965	—
Cash and cash equivalents of continuing operations at end of period	**$ 924,442**	$ 867,262	$ 1,009,021
Cash interest paid	**$ 157,709**	$ 171,120	$ 169,279
Cash income tax payments, net of refunds	**$ 27,109**	$ 25,906	$ 53,247

See Notes to Consolidated Financial Statements

PITNEY BOWES INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)
(In thousands)

	Preferred stock	Preference stock	Common Stock	Additional Paid-in Capital	Retained earnings	Accumulated other comprehensive loss	Treasury stock	Total equity (deficit)
Balance at December 31, 2016	$ 1	$ 483	$ 323,338	$ 148,125	$ 5,107,734	$ (940,133)	$ (4,743,208)	$ (103,660)
Cumulative effect of accounting changes	—	—	—	—	(137,429)	—	—	(137,429)
Net income	—	—	—	—	243,528	—	—	243,528
Other comprehensive income	—	—	—	—	—	145,193	—	145,193
Cash dividends								
Common ($0.75 per share)	—	—	—	—	(139,454)	—	—	(139,454)
Preference	—	—	—	—	(36)	—	—	(36)
Issuances of common stock	—	—	—	(33,316)	—	—	31,338	(1,978)
Conversions to common stock	—	(42)	—	(831)	—	—	873	—
Stock-based compensation	—	—	—	24,389	—	—	—	24,389
Balance at December 31, 2017	1	441	323,338	138,367	5,074,343	(794,940)	(4,710,997)	30,553
Cumulative effect of accounting changes	—	—	—	—	104,026	(116,233)	—	(12,207)
Net income	—	—	—	—	241,811	—	—	241,811
Other comprehensive loss	—	—	—	—	—	(37,788)	—	(37,788)
Cash dividends								
Common ($0.75 per share)	—	—	—	—	(140,466)	—	—	(140,466)
Preference	—	—	—	—	(32)	—	—	(32)
Issuances of common stock	—	—	—	(37,030)	—	—	35,959	(1,071)
Conversions to common stock	—	(45)	—	(904)	—	—	949	—
Stock-based compensation	—	—	—	21,042	—	—	—	21,042
Balance at December 31, 2018	1	396	323,338	121,475	5,279,682	(948,961)	(4,674,089)	101,842
Net income	—	—	—	—	**194,609**	—	—	**194,609**
Other comprehensive income	—	—	—	—	—	**108,818**	—	**108,818**
Cash dividends								
Common ($0.20 per share)	—	—	—	—	**(35,353)**	—	—	**(35,353)**
Preference	—	—	—	—	**(8)**	—	—	**(8)**
Issuances of common stock	—	—	—	**(43,062)**	—	—	**41,378**	**(1,684)**
Conversions to common stock	—	**(130)**	—	**(2,804)**	—	—	**2,934**	—
Redemption of preferred/preference stock	**(1)**	**(266)**	—	**(10)**	—	—	—	**(277)**
Stock-based compensation	—	—	—	**23,149**	—	—	—	**23,149**
Repurchase of common stock	—	—	—	—	—	—	**(105,000)**	**(105,000)**
Balance at December 31, 2019	**$ —**	**$ —**	**$ 323,338**	**$ 98,748**	**$ 5,438,930**	**$ (840,143)**	**$ (4,734,777)**	**$ 286,096**

See Notes to Consolidated Financial Statements

1. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying Consolidated Financial Statements of Pitney Bowes Inc. and its wholly owned subsidiaries (we, us, our, or the company) have been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP). Intercompany transactions and balances have been eliminated. Certain prior year amounts have been reclassified to conform to the current year presentation.

Effective January 1, 2019, we adopted Accounting Standards Codification (ASC) 842, *Leases* (ASC 842), using the modified retrospective transition approach with a cumulative effect adjustment. Prior periods have been recast to conform to the current period presentation.

Discontinued operations includes the Software Solutions business, sold in December 2019 and the Production Mail business, sold in July 2018. All prior periods have been recast to report these operations as discontinued operations. See Note 4 for further details.

We recast our segment reporting to combine North America Mailing and International Mailing into the Sending Technology Solutions (SendTech Solutions) segment to reflect how we manage these operations and the products and services provided to our clients. Additionally, we sold the direct operations and moved to a dealer model in six smaller international markets within SendTech Solutions (Market Exits) and recognized a pre-tax loss of $18 million in other expense. In connection with the sale, we recognized a receivable for the transfer of the lease portfolio in these international markets of $24 million. This receivable is included in other receivables.

Based on their nature, we determined that certain costs previously classified as research and development and cost of business services should be classified in other line items within costs and expenses. Accordingly, the classification of these costs are reflected as such in the income statements for the years ended December 31, 2018 and 2017. For the year ended December 31, 2018, the reclassification of these costs reduced research and development expense and cost of business services by $29 million and $13 million, respectively, and increased selling, general and administrative expense and cost of equipment sales by $30 million and $12 million, respectively. For the year ended December 31, 2017, the reclassification of these costs reduced research and development expense and cost of business services by $15 million and $3 million, respectively, and increased selling, general and administrative expense and cost of equipment sales by $11 million and $7 million, respectively. Additionally, for the year ended December 31, 2018, cost of equipment sales and cost of rentals were reduced by $5 million and $3 million, respectively, and cost of support services was increased by $8 million. For the year ended December 31, 2017, both cost of equipment sales and cost of rentals were reduced by $3 million and cost of support services increased by $6 million.

The December 31, 2018 balance sheet reflects the correction to the classification of assets and liabilities by reducing short-term finance receivables and advance billings by $106 million and $6 million, respectively, and increasing long-term finance receivables by $100 million.

Effective January 1, 2018, we adopted ASU 2014-09, *Revenue from Contracts with Customers* using the modified retrospective method and recognized a $9 million cumulative effect adjustment to retained earnings at the date of the initial application. Additionally in 2018, we adopted ASU 2016-06, *Income Taxes: Intra-entity Transfers of Assets other than Inventory* and recognized a $3 million cumulative effect adjustment to retained earnings and ASU 2018-02, *Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income* with a cumulative effect adjustment to reclassify $116 million from AOCI to opening retained earnings. For more information, refer to our Annual Report on Form 10-K filed with the SEC on February 20, 2019.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires the use of estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses and accompanying disclosures, including the disclosure of contingent assets and liabilities. These estimates and assumptions are based on management's best knowledge of current events, historical experience and other information available when the financial statements are prepared. These estimates include, but are not limited to, goodwill and intangible asset impairment review, deferred tax asset valuation allowance, income tax reserves, revenue recognition for multiple element arrangements, pension and other postretirement costs, allowance for doubtful accounts and credit losses, residual values of leased assets, useful lives of long-lived and intangible assets, restructuring costs, the allocation of purchase price to assets and liabilities acquired in business combinations, stock-based compensation expense and loss contingencies. Actual results could differ from those estimates and assumptions.

Cash Equivalents and Investments

Cash equivalents include interest-earning investments with maturities of three months or less at the date of purchase. Short-term investments include investments with original maturities of greater than three months and remaining maturities of less than one year from the reporting date. Investments with maturities greater than one year from the reporting date are recorded as other assets.

Investment securities classified as available-for-sale are recorded at fair value with unrealized holding gains and losses, net of tax, recorded in accumulated other comprehensive income (AOCI). Purchase premiums and discounts are amortized using the effective interest method over the term of the security. Gains and losses on the sale of available-for-sale securities are recorded on the trade date using the specific identification method. Investment securities that management has the positive intent and ability to hold to maturity are classified as held-to-maturity and are carried at amortized cost.

Accounts and Other Receivables and Allowance for Doubtful Accounts

Accounts receivable are generally due within 30 days after the invoice date.

Accounts receivable are written off against the allowance after all collection efforts have been exhausted and management deems the account to be uncollectible. We provide an allowance for doubtful accounts based on historical loss experience, the age of the receivables, specific troubled accounts and other currently available information. We believe that our accounts receivable credit risk is low because of the geographic and industry diversification of our clients and small account balances for most of our clients. We continually evaluate the adequacy of the allowance for doubtful accounts and make adjustments as necessary.

Accounts and other receivables includes other receivables of $91 million at December 31, 2019 and $75 million at December 31, 2018.

Finance Receivables and Allowance for Credit Losses

Finance receivables are composed of sales-type lease receivables and unsecured revolving loan receivables. We provide an allowance for credit losses based on historical loss experience, the nature and volume of our portfolios, specific troubled accounts, prevailing economic conditions and our ability to manage the collateral. We continually evaluate the adequacy of the allowance for credit losses and make adjustments as necessary.

We establish credit approval limits based on the credit quality of the client and the type of equipment financed. We discontinue financing revenue recognition for lease receivables that are more than 120 days past due and for unsecured loan receivables that are more than 90 days past due. Revenue recognition is resumed when the client's payments reduce the account aging to less than 60 days past due. Finance receivables are written off against the allowance after all collection efforts have been exhausted and management deems the account to be uncollectible. We believe that our finance receivable credit risk is low because of the geographic and industry diversification of our clients and small account balances for most of our clients.

Inventories

Inventories are stated at the lower of cost or market. Cost is determined on the last-in, first-out (LIFO) basis for most U.S. inventories and on the first-in, first-out (FIFO) basis for most non-U.S. inventories.

Fixed Assets

Property, plant and equipment and rental equipment are stated at cost and depreciated principally using the straight-line method over their estimated useful lives, which are 50 years for buildings, 10 to 20 years for building improvements, up to 3 years for internal use software development costs, 3 to 12 years for machinery and equipment and 4 to 6 years for rental equipment. Major improvements that add to the productive capacity or extend the life of an asset are capitalized while repairs and maintenance are charged to expense as incurred. Leasehold improvements are amortized over the shorter of their estimated useful life or the remaining lease term. Fully depreciated assets are retained in fixed assets and accumulated depreciation until they are removed from service.

Intangible Assets

Finite-lived intangible assets are amortized using the straight-line method over their estimated useful lives of up to 10 years.

Research and Development Costs

Research and development costs include engineering costs related to research and development activities and are expensed as incurred.

Impairment Review for Long-lived and Finite-Lived Intangible Assets

Long-lived assets and finite-lived intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be fully recoverable. The estimated undiscounted future cash flows expected to result from the use and eventual disposition of the asset is compared to the asset's carrying value. The fair value of the asset is determined using probability weighted expected cash flow estimates, derived from our long-term business plans and historical experience, quoted market prices when

available and appraisals, as appropriate. If the estimated undiscounted cash flows are less than the asset's carrying value, an impairment charge is recorded to reduce the assets carrying value to its fair value.

Impairment Review for Goodwill

Goodwill is tested annually for impairment at the reporting unit level during the fourth quarter or sooner if circumstances indicate an impairment may exist. The impairment test for goodwill determines the fair value of each reporting unit and compares it to the reporting unit's carrying value, including goodwill. If the fair value of a reporting unit is less than its carrying value an impairment loss is recognized for the difference, not to exceed the carrying amount of goodwill.

Retirement Plans

Net periodic benefit cost includes current service cost, interest cost, expected return on plan assets and the amortization of actuarial gains and losses. Actuarial gains and losses arise from actual results that differ from previous assumptions and changes in assumptions. The expected return on plan assets is based on a market-related valuation of plan assets where differences between the actual and expected return on plan assets are recognized over a five-year period. Actuarial gains and losses are recognized in other comprehensive income, net of tax, and amortized to benefit cost primarily over the life expectancy of plan participants. The funded status of pension and other postretirement benefit plans is recognized in the consolidated balance sheets.

Stock-based Compensation

We primarily issue restricted stock units, non-qualified stock options and performance stock units under our stock award plans. Compensation expense for stock-based awards is measured based on the estimated fair value of the awards expected to vest and recognized on a straight-line basis over the requisite service period. The fair value of stock awards is estimated based on the fair value of our common stock on the grant date, less the present value of expected dividends or using the Black-Scholes valuation model or Monte Carlo simulation model. We believe that the valuation techniques and underlying assumptions are appropriate in estimating the fair value of stock awards. The majority of stock-based compensation expense is recorded in selling, general and administrative expense. Forfeitures are estimated at the time of grant to recognize expense for those awards that are expected to vest and are based on our historical forfeiture rates.

Revenue Recognition

We derive revenue from multiple sources including sales, rentals, financing and services. Certain transactions are consummated at the same time and can therefore generate revenue from multiple sources. The most common form of these transactions involves a sale or noncancelable lease of equipment, meter services and an equipment maintenance agreement. We are required to determine whether each product and service within the contract should be treated as a separate performance obligation (unit of accounting) for revenue recognition purposes. For contracts that include multiple performance obligations, the transaction price is allocated based on relative standalone selling prices (SSP) which are a range of selling prices that we would sell a good or service to a customer on a separate basis. SSP are established for each performance obligation at the inception of the contract and can be observable prices or estimated. The allocation of the transaction price to the various performance obligations impacts the timing of revenue recognition, but does not change the total revenue recognized. More specifically, revenue related to our offerings is recognized as follows:

Business services

Business services revenue includes revenue from mail processing services and ecommerce solutions. These services represent a series of distinct services that are similar in nature and revenue is recognized as the services are provided. We review third party relationships and record revenue on a gross basis when we act as a principal in a transaction and on a net basis when we act as an agent between a client and vendor. In determining whether we are acting as principal or agent, we consider several factors such as whether we are the primary obligor to the client, have control over pricing or have inventory risk.

Support services

Support services revenue includes revenue from equipment service contracts, subscriptions and meter services. Revenue is allocated to these services using selling prices charged in standalone replacement and renewal transactions. Since we have a stand-ready obligation to provide these services over the entire contract term, revenue is recognized on a straight-line basis over the term of the agreement.

Financing

We provide financing for our products primarily through sales-type leases. We also provide revolving lines of credit for the purchase of postage and supplies. We record financing income over the lease term using the effective interest method. Financing revenue also includes amounts related to sales-type leases that customers have extended or renewed for an additional term. Revenue for these contracts is recognized over the term of the modified lease using the effective interest method. We believe that our sales-type lease portfolio contains only normal collection risk.

Equipment residual values are determined at the inception of the lease using estimates of fair value at the end of the lease term. Fair value estimates are based primarily on historical renewal experience, used equipment markets, competition and technological changes. We evaluate residual values on an annual basis or sooner if circumstances warrant. Declines in estimated residual values considered "other-than-temporary" are recognized immediately. Increases in estimated future residual values are not recognized until the equipment is remarketed.

Equipment sales

We sell and lease equipment directly to customers and to distributors (re-sellers) throughout the world. The amount of revenue allocated to the equipment is based on a range of observable selling prices in standalone transactions. Revenue from the sale of equipment under sales-type leases is recognized as control of the equipment transfers to the customer, which is upon shipment for self-installed products and upon installation or customer acceptance for other products. Revenue from the direct sale of equipment is recognized as control of the equipment transfers to the customer, which is upon delivery for self-installed products and upon installation or customer acceptance for other products. We do not typically offer any rights of return.

Supplies

Supplies revenue is generally recognized upon delivery.

Rentals

Rentals revenue includes revenue from mailing equipment that does not meet the criteria to be accounted for as a sales-type lease. We may invoice in advance for rentals according to the terms of the agreement. We initially defer these advanced billings and recognize rentals revenue on a straight-line basis over the rental period. Revenue generated from financing clients for the continued use of equipment subsequent to the expiration of the original lease is recognized as rentals revenue.

Shipping and Handling

Shipping and handling costs are recognized as incurred and recorded in cost of revenues.

Deferred Charges

Certain incremental costs to obtain a contract are capitalized if we expect the benefit of those costs to be realized over a period greater than one year. These costs primarily relate to sales commission on multi-year equipment. These costs are amortized in a manner consistent with the timing of the related revenue over the contract performance period or longer, if renewals are expected and the renewal commission is not commensurate with the initial commission. Unamortized contract costs at December 31, 2019 and December 31, 2018 were $26 million and $20 million, respectively, and are included in other assets. Amortization expense for the year ended December 31, 2019 and 2018 was $7 million and $9 million, respectively.

Restructuring Charges

Costs associated with restructuring actions primarily include employee severance and other employee separation costs. These costs are recognized when a liability is incurred, which is generally upon communication to the affected employees, and the amount to be paid is both probable and reasonably estimable. Severance accruals are based on company policy, historical experience and negotiated settlements.

Derivative Instruments

In the normal course of business, we are exposed to the impact of changes in foreign currency exchange rates and interest rates. We limit these risks by following established risk management policies and procedures, including the use of derivatives. We use derivative instruments to limit the effects of currency exchange rate fluctuations on financial results and manage the related cost of debt. We do not use derivatives for trading or speculative purposes.

We record derivative instruments at fair value and the accounting for changes in fair value depends on the intended use of the derivative, the resulting designation and the effectiveness of the instrument in offsetting the risk exposure it is designed to hedge. To qualify as a hedge, a derivative must be highly effective in offsetting the risk designated for hedging purposes. The hedge relationship must be formally documented at inception, detailing the particular risk management objective and strategy for the hedge. The effectiveness of the hedge relationship is evaluated on a retrospective and prospective basis.

The use of derivative instruments exposes us to counterparty credit risk. To mitigate such risks, we enter into contracts only with financial institutions that meet stringent credit requirements. We regularly review our credit exposure balances and the creditworthiness of our counterparties. We have not seen a material change in the creditworthiness of our derivative counterparties.

Income Taxes

We recognize deferred tax assets and liabilities for the future tax consequences attributable to differences between the carrying amounts of assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using the enacted tax rates expected

to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date of such change. A valuation allowance is provided when it is more likely than not that a deferred tax asset will not be realized. In estimating the necessity and amount of a valuation allowance, we consider all available evidence for each jurisdiction including historical operating results, estimates of future taxable income and the feasibility of ongoing tax planning strategies. We adjust the valuation allowance through income tax expense when new information becomes available that would alter our determination of the amount of deferred tax assets that will ultimately be realized.

Earnings per Share

Basic earnings per share is computed based on the weighted-average number of common shares outstanding during the year. Diluted earnings per share is computed based on the weighted-average number of common shares plus the dilutive effect of common stock equivalents.

Translation of Non-U.S. Currency Amounts

In general, the functional currency of our foreign operations is the local currency. Assets and liabilities of subsidiaries operating outside the U.S. are translated at rates in effect at the end of the period and revenue and expenses are translated at average monthly rates during the period. Net deferred translation gains and losses are included as a component of accumulated other comprehensive income.

Loss Contingencies

In the ordinary course of business, we are routinely defendants in, or party to, a number of pending and threatened legal actions. On a quarterly basis, we review the status of each significant matter and assess the potential financial exposure. If the potential loss from any claim or legal action is considered probable and can be reasonably estimated, we establish a liability for the estimated loss. The assessment of the ultimate outcome of each claim or legal action and the determination of the potential financial exposure requires significant judgment. Estimates of potential liabilities for claims or legal actions are based only on information that is available at that time. As additional information becomes available, we may revise our estimates, and these revisions could have a material impact on our results of operations and financial position. Legal fees are expensed as incurred.

New Accounting Pronouncements

New Accounting Pronouncements - Standards Adopted in 2019

On January 1, 2019, we adopted ASC 842 using the modified retrospective transition approach of applying the standard at the beginning of the earliest comparative period presented in the financial statements. We recognized a cumulative effect adjustment at January 1, 2017 to reduce retained earnings by $137 million and recast prior period financial statements. See Notes 7 and 17 for more information.

From a lessor perspective, the standard simplifies the accounting for lease modifications and aligns accounting of lease contracts with revenue recognition guidance. We continue to classify leases as sales-type or operating, with the determination affecting both the pattern and classification of income recognition. There were changes in the timing and classification of revenue related to contract modifications. There were also changes related to the definition of a leased asset, which requires us to account for two lease components as a single lease component. Under prior guidance, one of the components was generally accounted for as a sales-type lease and the second as an operating lease. Under ASC 842, the two components are generally accounted for as sales-type leases and certain income and costs previously recognized over the life of the lease are now accelerated.

From a lessee perspective, the standard requires us to recognize right-of-use assets and lease liabilities for real estate and equipment operating leases and to provide new disclosures about our leasing activities. We elected the short-term lease recognition exemption and did not recognize right-of-use assets or lease liabilities for leases with a term less than 12 months. We also elected the practical expedient to not separate lease and non-lease components for our lessee portfolio.

On January 1, 2019, we also adopted Accounting Standards Update (ASU) 2017-08, *Receivables - Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities*, which shortens the amortization period for certain callable debt securities held at a premium, requiring the premium to be amortized to the earliest call date. The adoption of this standard did not have a material impact on our consolidated financial statements.

In July 2019, we prospectively adopted ASU 2018-15, *Intangibles - Goodwill and Other-Internal-Use Software.* The ASU aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The adoption of this standard did not have a material impact on our consolidated financial statements.

New Accounting Pronouncements - Standards Not Yet Adopted

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses*. The ASU sets forth a current expected credit loss model, which requires companies to measure expected credit losses for all financial instruments held at the reporting date based on historical experience, current conditions and reasonably supportable forecasts. This replaces the existing incurred loss model and is applicable to the measurement of credit losses on financial assets measured at amortized cost and applies to some off-balance sheet credit exposures. We have implemented internal controls and accounting policies to facilitate the preparation of financial information that will be required under the new standard. This standard is effective beginning January 1, 2020. We will adopt the standard using the modified retrospective transition approach with a cumulative effect adjustment at January 1, 2020 to retained earnings. We do not expect the cumulative effect adjustment, or the impact of this standard on an ongoing basis, will be material to our financial statements.

In December 2019, the FASB issued ASU 2019-12, *Simplifying the Accounting for Income Taxes*. The ASU simplifies the accounting for income taxes by removing certain exceptions to the general principles and also clarifies and amends existing guidance. This standard is effective beginning January 1, 2021, with early adoption permitted. We are currently assessing the impact this standard will have on our consolidated financial statements.

2. Revenue

Disaggregated Revenue

The following tables disaggregate our revenue by source and timing of recognition:

	Year Ended December 31, 2019					
	Global Ecommerce	Presort Services	SendTech Solutions	Revenue from products and services	Revenue from leasing transactions and financing	Total consolidated revenue
Revenue from products and services						
Business services	$ 1,151,510	$ 529,588	$ 29,703	$ 1,710,801	$ —	$ 1,710,801
Support services	—	—	506,187	506,187	—	506,187
Financing	—	—	—	—	368,090	368,090
Equipment sales	—	—	80,562	80,562	271,542	352,104
Supplies	—	—	187,287	187,287	—	187,287
Rentals	—	—	—	—	80,656	80,656
Subtotal	1,151,510	529,588	803,739	2,484,837	$ 720,288	$ 3,205,125
Revenue from leasing transactions and financing						
Financing	—	—	368,090	368,090		
Equipment sales	—	—	271,542	271,542		
Rentals	—	—	80,656	80,656		
Total revenue	$ 1,151,510	$ 529,588	$ 1,524,027	$ 3,205,125		
Timing of revenue recognition from products and services						
Products/services transferred at a point in time	$ —	$ —	$ 334,046	$ 334,046		
Products/services transferred over time	1,151,510	529,588	469,693	2,150,791		
Total	$ 1,151,510	$ 529,588	$ 803,739	$ 2,484,837		

	Year Ended December 31, 2018					
	Global Ecommerce	Presort Services	SendTech Solutions	Revenue from products and services	Revenue from leasing transactions and financing	Total consolidated revenue
Revenue from products and services						
Business services	$ 1,022,862	$ 515,795	$ 27,813	$ 1,566,470	$ —	$ 1,566,470
Support services	—	—	552,472	552,472	—	552,472
Financing	—	—	—	—	394,557	394,557
Equipment sales	—	—	88,616	88,616	307,036	395,652
Supplies	—	—	218,304	218,304	—	218,304
Rentals	—	—	—	—	84,067	84,067
Subtotal	1,022,862	515,795	887,205	2,425,862	$ 785,660	$ 3,211,522
Revenue from leasing transactions and financing						
Financing	—	—	394,557	394,557		
Equipment sales	—	—	307,036	307,036		
Rentals	—	—	84,067	84,067		
Total revenue	$ 1,022,862	$ 515,795	$ 1,672,865	$ 3,211,522		
Timing of revenue recognition from products and services						
Products/services transferred at a point in time	$ —	$ —	$ 386,844	$ 386,844		
Products/services transferred over time	1,022,862	515,795	500,361	2,039,018		
Total	$ 1,022,862	$ 515,795	$ 887,205	$ 2,425,862		

	Year Ended December 31, 2017					
	Global Ecommerce	Presort Services	SendTech Solutions	Revenue from products and services	Revenue from leasing transactions and financing	Total consolidated revenue
Revenue from products and services						
Business services	$ 551,678	$ 497,901	$ 21,442	$ 1,071,021	$ —	$ 1,071,021
Support services	564	—	580,910	581,474	—	581,474
Financing	—	—	—	—	406,395	406,395
Equipment sales	—	—	119,416	119,416	281,288	400,704
Supplies	—	—	231,412	231,412	—	231,412
Rentals	—	—	—	—	93,001	93,001
Subtotal	552,242	497,901	953,180	2,003,323	$ 780,684	$ 2,784,007
Revenue from leasing transactions and financing						
Financing	—	—	406,395	406,395		
Equipment sales	—	—	281,288	281,288		
Rentals	—	—	93,001	93,001		
Total revenue	$ 552,242	$ 497,901	$ 1,733,864	$ 2,784,007		
Timing of revenue recognition from products and services						
Products/services transferred at a point in time	$ —	$ —	$ 421,470	$ 421,470		
Products/services transferred over time	552,242	497,901	531,710	1,581,853		
Total	$ 552,242	$ 497,901	$ 953,180	$ 2,003,323		

Our performance obligations are as follows:

Business services includes providing mail processing services, cross-border solutions, shipping solutions and fulfillment, delivery and return services. Revenue is recognized over time as the services are provided. Contract terms for these services range from one to five years followed by annual renewal periods.

Support services includes providing maintenance, professional, meter and other subscription services for our mailing equipment. Contract terms range from one year to five years, depending on the term of the lease contract for the related equipment. Revenue for maintenance, subscription and meter services is recognized ratably over the contract period and revenue for professional services is recognized when services are provided.

Equipment sales generally include the sale of mailing equipment, excluding sales-type leases. We recognize revenue upon delivery for self-install equipment and upon acceptance or installation for other equipment. We provide a warranty that our equipment is free of defects and meets stated specifications. The warranty is not considered a separate performance obligation.

Supplies revenue is recognized upon delivery.

Revenue from leasing transactions and financing includes revenue from sales-type leases, operating leases, finance income and late fees.

Advance Billings from Contracts with Customers

	Balance Sheet Location	December 31, 2019	December 31, 2018	Increase/ (decrease)
Advance billings, current	Advance billings	**$ 92,464**	$ 111,829	$ (19,365)
Advance billings, noncurrent	Other noncurrent liabilities	**$ 1,245**	$ 1,985	$ (740)

Advance billings are recorded when cash payments are due in advance of our performance. Items in advance billings primarily relate to support services on mailing equipment. Revenue is recognized ratably over the contract term.

The net decrease in advance billings at December 31, 2019 is due to revenue recognized during the period in excess of advance billings. Revenue recognized during the period includes $112 million of advance billings at the beginning of the period, partially offset by advance billings in the year.

Future Performance Obligations

Future performance obligations include revenue streams bundled with our leasing contracts, primarily maintenance, meter services and other subscription services. The transaction prices allocated to future performance obligations will be recognized as follows:

	2020	2021	2022-2024	Total
SendTech Solutions	$ 288,689	$ 223,759	$ 261,947	$ 774,395

The table above does not include revenue related to performance obligations for contracts with terms less than 12 months and expected consideration for those performance obligations where revenue is recognized based on the amount billable to the customer.

3. Segment Information

Our reportable segments are Global Ecommerce, Presort Services and SendTech Solutions. Global Ecommerce and Presort Services comprise the Commerce Services reporting group. The principal products and services of each reportable segment are as follows:

Global Ecommerce: Includes the revenue and related expenses from products and services that facilitate domestic retail and ecommerce shipping solutions, including fulfillment and returns, and global cross-border ecommerce transactions.

Presort Services: Includes revenue and related expenses from sortation services to qualify large volumes of First Class Mail, Marketing Mail and Bound and Packet Mail (Marketing Mail Flats and Bound Printed Matter) for postal worksharing discounts.

SendTech Solutions: Includes the revenue and related expenses from sending technology solutions for physical mailing, digital mailing and shipping, financing, services, supplies and other applications to help simplify and save on the sending, tracking and receiving of letters and packages.

Management measures segment profitability and performance using segment earnings before interest and taxes (EBIT). Segment EBIT is calculated by deducting from segment revenue the related costs and expenses attributable to the segment. Segment EBIT excludes interest, taxes, general corporate expenses, restructuring charges, asset impairment charges and other items not allocated to a particular business segment. Management believes that it provides investors a useful measure of operating performance and underlying trends of the business. Segment EBIT may not be indicative of our overall consolidated performance and therefore, should be read in conjunction with our consolidated results of operations. The following tables provide information about our reportable segments and reconciliation of segment EBIT to net income.

	Revenues		
	Years Ended December 31,		
	2019	2018	2017
Global Ecommerce	**$ 1,151,510**	$ 1,022,862	$ 552,242
Presort Services	**529,588**	515,795	497,901
Commerce Services	**1,681,098**	1,538,657	1,050,143
SendTech Solutions	**1,524,027**	1,672,865	1,733,864
Total revenue	**$ 3,205,125**	$ 3,211,522	$ 2,784,007
Geographic data:			
United States	**$ 2,745,928**	$ 2,679,300	$ 2,262,249
Outside United States	**459,197**	532,222	521,758
Total revenue	**$ 3,205,125**	$ 3,211,522	$ 2,784,007

	EBIT		
	Years Ended December 31,		
	2019	2018	2017
Global Ecommerce	**$ (70,146)**	$ (32,379)	$ (17,899)
Presort Services	**70,693**	73,768	97,506
Commerce Services	**547**	41,389	79,607
SendTech Solutions	**490,322**	558,959	553,266
Total segment EBIT	**490,869**	600,348	632,873
Reconciling items:			
Interest, net	**(155,558)**	(159,757)	(164,162)
Unallocated corporate expenses	**(211,529)**	(185,919)	(219,924)
Restructuring charges and asset impairments, net	**(69,606)**	(25,899)	(44,849)
Pension settlement	**—**	(31,329)	—
Loss on Market Exits	**(17,683)**	—	—
Transaction costs	**(2,728)**	(1,359)	(6,384)
Loss on extinguishment of debt	**(6,623)**	(7,964)	(3,856)
Benefit (provision) for income taxes	**13,007**	(6,416)	(13,659)
Income from continuing operations	**40,149**	181,705	180,039
Income from discontinued operations, net of tax	**154,460**	60,106	63,489
Net income	**$ 194,609**	$ 241,811	$ 243,528

	Depreciation and amortization		
	Years Ended December 31,		
	2019	2018	2017
Global Ecommerce	**$ 68,385**	$ 61,046	$ 36,786
Presort Services	**29,440**	26,838	26,541
Commerce Services	**97,825**	87,884	63,327
SendTech Solutions	**39,758**	39,104	39,359
Total for reportable segments	**137,583**	126,988	102,686
Corporate	**21,559**	21,476	24,104
Total depreciation and amortization	**$ 159,142**	$ 148,464	$ 126,790

	Capital expenditures		
	Years Ended December 31,		
	2019	2018	2017
Global Ecommerce	**$ 53,374**	$ 46,073	$ 26,810
Presort Services	**27,394**	42,531	20,860
Commerce Services	**80,768**	88,604	47,670
SendTech Solutions	**32,276**	24,648	40,445
Total for reportable segments	**113,044**	113,252	88,115
Corporate	**24,209**	24,558	30,132
Total capital expenditures	**$ 137,253**	$ 137,810	$ 118,247

	Assets		
	December 31,		
	2019	2018	2017
Global Ecommerce	**$ 1,102,313**	$ 1,023,732	$ 1,016,045
Presort Services	**524,817**	431,512	387,701
Commerce Services	**1,627,130**	1,455,244	1,403,746
SendTech Solutions	**2,152,734**	2,325,797	2,454,094
Total for reportable segments	**3,779,864**	3,781,041	3,857,840
Cash and cash equivalents	**924,442**	867,262	1,009,021
Short-term investments	**115,879**	59,391	48,988
Assets of discontinued operations	**17,229**	602,823	923,012
Other corporate assets	**629,486**	627,902	795,745
Consolidated assets	**$ 5,466,900**	$ 5,938,419	$ 6,634,606
Identifiable long-lived assets:			
United States	**$ 399,234**	$ 424,706	$ 389,944
Outside United States	**18,168**	20,023	26,696
Total	**$ 417,402**	$ 444,729	$ 416,640

4. Discontinued Operations

In December 2019, we completed the sale of the Software Solutions business, with the exception of the software business in Australia, which closed in January 2020, to an affiliate of Syncsort Incorporated for approximately $700 million, subject to certain adjustments.

The operating results of the Software Solutions business are now reported as discontinued operations. Discontinued operations also includes the Production Mail business that was sold in July 2018.

Selected financial information of discontinued operations is as follows:

	Year Ended December 31, 2019		
	Software Solutions	**Production Mail**	**Total**
Revenue	**$ 272,565**	**$ —**	**$ 272,565**
Earnings (loss) from discontinued operations	**$ 22,160**	**$ (663)**	**$ 21,497**
Gain (loss) on sale	**195,957**	**(14,644)**	**181,313**
Income (loss) from discontinued operations before taxes	**$ 218,117**	**$ (15,307)**	**202,810**
Tax provision			**48,350**
Income from discontinued operations, net of tax			**$ 154,460**

	Year Ended December 31, 2018		
	Software Solutions	Production Mail	Total
Revenue	$ 340,855	$ 211,542	$ 552,397
Earnings from discontinued operations	$ 49,587	$ 18,952	$ 68,539
Gain on sale	—	60,611	60,611
Income from discontinued operations before taxes	$ 49,587	$ 79,563	129,150
Tax provision			69,044
Income from discontinued operations, net of tax			$ 60,106

	Year Ended December 31, 2017		
	Software Solutions	Production Mail	Total
Revenue	$ 331,624	$ 426,676	$ 758,300
Income from discontinued operations before taxes	$ 34,386	$ 61,074	95,460
Tax provision			31,971
Income from discontinued operations, net of tax			$ 63,489

The major categories of assets and liabilities included in assets of discontinued operations and liabilities of discontinued operations are as follows:

	December 31, 2019	December 31, 2018
Cash and cash equivalents	**$ —**	$ 1,965
Accounts and other receivables, net	**3,241**	85,399
Inventories	**—**	855
Other current assets and prepayments	**2,550**	26,121
Property, plant and equipment, net	**152**	12,140
Rental property and equipment, net	**—**	179
Goodwill [1]	**9,562**	434,160
Intangible assets, net	**—**	13,937
Operating lease assets	**—**	4,234
Other assets	**1,724**	23,833
Assets of discontinued operations	**$ 17,229**	$ 602,823
Accounts payable and accrued liabilities	**$ 4,340**	$ 44,917
Current operating lease liabilities	**—**	2,000
Advance billings	**5,373**	113,110
Noncurrent operating lease liabilities	**—**	1,943
Other noncurrent liabilities	**—**	12,828
Liabilities of discontinued operations	**$ 9,713**	$ 174,798

[1] Goodwill amount at December 31, 2018 is net of accumulated impairment charges of $148 million.

5. Earnings per Share (EPS)

The calculations of basic and diluted earnings per share are presented below. The sum of earnings per share amounts may not equal the totals due to rounding.

	Years Ended December 31,		
	2019	2018	2017
Numerator:			
Income from continuing operations	**$ 40,149**	$ 181,705	$ 180,039
Income from discontinued operations, net of tax	**154,460**	60,106	63,489
Net income (numerator for diluted EPS)	**194,609**	241,811	243,528
Less: Preference stock dividend	**8**	32	36
Income attributable to common stockholders (numerator for basic EPS)	**$ 194,601**	$ 241,779	$ 243,492
Denominator:			
Weighted-average shares used in basic EPS	**176,251**	187,277	186,332
Dilutive effect of common stock equivalents	**1,198**	1,105	1,103
Weighted-average shares used in diluted EPS	**177,449**	188,382	187,435
Basic earnings per share:			
Continuing operations	**$ 0.23**	$ 0.97	$ 0.97
Discontinued operations	**0.88**	0.32	0.34
Net income	**$ 1.10**	$ 1.29	$ 1.31
Diluted earnings per share:			
Continuing operations	**$ 0.23**	$ 0.96	$ 0.96
Discontinued operations	**0.87**	0.32	0.34
Net income	**$ 1.10**	$ 1.28	$ 1.30
Anti-dilutive options excluded from diluted earnings per share:	**15,751**	12,089	10,267

6. Inventories

Inventories consisted of the following:

	December 31,	
	2019	2018
Raw materials	**$ 13,514**	$ 8,229
Supplies and service parts	**21,840**	21,841
Finished products	**36,969**	36,692
Inventory at FIFO cost, net	**72,323**	66,762
Excess of FIFO cost over LIFO cost	**(4,072)**	(4,483)
Total inventory, net	**$ 68,251**	$ 62,279

7. Finance Assets and Lessor Operating Leases

Finance Assets

Finance receivables are comprised of sales-type lease receivables and unsecured revolving loan receivables. Sales-type lease receivables are generally due in monthly, quarterly or semi-annual installments over periods ranging from three to five years. Loan receivables arise primarily from financing services offered to our clients for postage and supplies. Most loan receivables are generally due each month; however, customers may rollover outstanding balances. Interest is recognized on loan receivables using the effective interest method and related annual fees are initially deferred and recognized ratably over the annual period covered. Client acquisition costs are expensed as incurred.

Finance receivables consisted of the following:

	December 31, 2019			December 31, 2018		
	North America	**International**	**Total**	North America	International	Total
Sales-type lease receivables						
Gross finance receivables	**$ 1,055,852**	**$ 224,202**	**$ 1,280,054**	$ 1,110,898	$ 242,036	$ 1,352,934
Unguaranteed residual values	**41,934**	**11,789**	**53,723**	52,637	12,772	65,409
Unearned income	**(319,281)**	**(65,888)**	**(385,169)**	(383,453)	(55,113)	(438,566)
Allowance for credit losses	**(10,920)**	**(2,085)**	**(13,005)**	(10,253)	(2,355)	(12,608)
Net investment in sales-type lease receivables	**767,585**	**168,018**	**935,603**	769,829	197,340	967,169
Loan receivables						
Loan receivables	**298,247**	**27,926**	**326,173**	300,319	29,270	329,589
Allowance for credit losses	**(5,906)**	**(740)**	**(6,646)**	(6,777)	(837)	(7,614)
Net investment in loan receivables	**292,341**	**27,186**	**319,527**	293,542	28,433	321,975
Net investment in finance receivables	**$ 1,059,926**	**$ 195,204**	**$ 1,255,130**	$ 1,063,371	$ 225,773	$ 1,289,144

Maturities of gross loan receivables and gross sales-type lease receivables at December 31, 2019 were as follows:

	Sales-type Lease Receivables			Loan Receivables		
	North America	**International**	**Total**	**North America**	**International**	**Total**
2020	$ 422,688	$ 88,282	$ 510,970	$ 265,091	$ 27,926	$ 293,017
2021	300,669	64,001	364,670	11,295	—	11,295
2022	195,533	42,421	237,954	9,778	—	9,778
2023	102,765	22,042	124,807	4,649	—	4,649
2024	33,309	6,549	39,858	6,341	—	6,341
Thereafter	888	907	1,795	1,093	—	1,093
Total	$ 1,055,852	$ 224,202	$ 1,280,054	$ 298,247	$ 27,926	$ 326,173

Allowance for Credit Losses

Activity in the allowance for credit losses was as follows:

	Sales-type Lease Receivables		Loan Receivables		
	North America	International	North America	International	Total
Balance at December 31, 2016	$ 8,247	$ 2,647	$ 8,517	$ 1,089	$ 20,500
Amounts charged to expense	7,544	1,280	6,273	510	15,607
Accounts written off	(8,070)	(1,133)	(7,692)	(579)	(17,474)
Balance at December 31, 2017	7,721	2,794	7,098	1,020	18,633
Amounts charged to expense	7,928	1,315	6,825	532	16,600
Accounts written off	(5,396)	(1,754)	(7,146)	(715)	(15,011)
Balance at December 31, 2018	10,253	2,355	6,777	837	20,222
Amounts charged to expense	**5,672**	**1,157**	**4,746**	**569**	**12,144**
Accounts written off	**(5,005)**	**(1,427)**	**(5,617)**	**(666)**	**(12,715)**
Balance at December 31, 2019	**$ 10,920**	**$ 2,085**	**$ 5,906**	**$ 740**	**$ 19,651**

Aging of Receivables

The aging of gross finance receivables was as follows:

	December 31, 2019				
	Sales-type Lease Receivables		Loan Receivables		
	North America	International	North America	International	Total
1 - 90 days	**$ 1,032,912**	**$ 220,819**	**$ 294,001**	**$ 27,697**	**$ 1,575,429**
> 90 days	**22,940**	**3,383**	**4,246**	**229**	**30,798**
Total	**$ 1,055,852**	**$ 224,202**	**$ 298,247**	**$ 27,926**	**$ 1,606,227**
Past due amounts > 90 days					
Still accruing interest	**$ 4,835**	**$ 1,081**	**$ 2,094**	**$ 121**	**$ 8,131**
Not accruing interest	**18,105**	**2,302**	**2,152**	**108**	**22,667**
Total	**$ 22,940**	**$ 3,383**	**$ 4,246**	**$ 229**	**$ 30,798**

	December 31, 2018				
	Sales-type Lease Receivables		Loan Receivables		
	North America	International	North America	International	Total
1 - 90 days	$ 1,069,290	$ 238,114	$ 294,126	$ 29,079	$ 1,630,609
> 90 days	41,608	3,922	6,193	191	51,914
Total	$ 1,110,898	$ 242,036	$ 300,319	$ 29,270	$ 1,682,523
Past due amounts > 90 days					
Still accruing interest	$ 7,917	$ 1,111	$ 1,769	$ 72	$ 10,869
Not accruing interest	33,691	2,811	4,424	119	41,045
Total	$ 41,608	$ 3,922	$ 6,193	$ 191	$ 51,914

Credit Quality

The extension of credit lines to new and existing clients uses a combination of an automated credit score, where available, and a detailed manual review of the client's financial condition and, when applicable, payment history. Once credit is granted, the payment performance of the client is managed through automated collections processes and is supplemented with direct follow up should an account become delinquent. We have robust automated collections and extensive portfolio management processes. The portfolio

management processes ensure that our global strategy is executed, collection resources are allocated appropriately and enhanced tools and processes are implemented as needed.

We use a third party to score the majority of the North America portfolio on a quarterly basis using a commercial credit score. We do not use a third party to score our International portfolio because the cost to do so is prohibitive, given that it is a localized process and there is no single credit score model that covers all countries.

The table below shows the North America portfolio by relative risk class (low, medium, high) based on the relative scores of the accounts within each class. The relative scores are determined based on a number of factors, including the company type, ownership structure, payment history and financial information. Some accounts are not scored; however, absence of a score is not indicative of the credit quality of the account. The degree of risk, as defined by the third party, refers to the relative risk that an account may become delinquent in the next 12 month period.

- Low risk accounts are companies with very good credit scores and are considered to approximate the top 30% of all commercial borrowers.
- Medium risk accounts are companies with average to good credit scores and are considered to approximate the middle 40% of all commercial borrowers.
- High risk accounts are companies with poor credit scores, are delinquent or are at risk of becoming delinquent and are considered to approximate the bottom 30% of all commercial borrowers.

	December 31,	
	2019	2018
Sales-type lease receivables		
Low	**$ 837,386**	$ 922,414
Medium	**161,204**	131,650
High	**21,041**	22,110
Not Scored	**36,221**	34,724
Total	**$ 1,055,852**	$ 1,110,898
Loan receivables		
Low	**$ 216,295**	$ 238,620
Medium	**63,302**	43,952
High	**5,140**	5,947
Not Scored	**13,510**	11,800
Total	**$ 298,247**	$ 300,319

Lease Income

Lease income from sales-type leases was as follows:

	Years Ended December 31,		
	2019	2018	2017
Profit recognized at commencement [(1)]	**$ 142,353**	$ 171,938	$ 157,375
Interest income	**229,719**	245,751	253,224
Total lease income from sales-type leases	**$ 372,072**	$ 417,689	$ 410,599

[(1)] Lease contracts do not include variable lease payments.

Lessor Operating Leases

We also lease mailing equipment under operating leases with terms of one to five years. Maturities of these operating leases are as follows:

2020	$ 33,903
2021	17,158
2022	7,836
2023	5,369
2024	1,072
Total	$ 65,338

8. Fixed Assets

Fixed assets consisted of the following:

	December 31,	
	2019	2018
Land	**$ 9,333**	$ 9,333
Machinery and equipment	**606,420**	559,419
Capitalized software	**410,171**	401,602
Buildings and improvements	**191,108**	186,048
	1,217,032	1,156,402
Accumulated depreciation	**(840,855)**	(757,901)
Property, plant and equipment, net	**$ 376,177**	$ 398,501
Rental property and equipment	**$ 151,195**	$ 132,605
Accumulated depreciation	**(109,970)**	(86,377)
Rental property and equipment, net	**$ 41,225**	$ 46,228

Depreciation expense was $123 million, $110 million and $99 million for the years ended December 31, 2019, 2018 and 2017, respectively.

9. Acquisitions, Intangible Assets and Goodwill

Acquisitions

In October 2017, we acquired Newgistics for $471 million, net of cash acquired. The results of Newgistics are included in our consolidated operating results from the date of acquisition. Our consolidated revenue for the year ended December 31, 2017 includes $140 million from Newgistics. On a pro forma basis, had we acquired Newgistics on January 1, 2017, revenue would have been $341 million higher for the year ended December 31, 2017. The impact on earnings would not have been material.

Intangible Assets

Intangible assets consisted of the following:

	December 31, 2019			December 31, 2018		
	Gross Carrying Amount	**Accumulated Amortization**	**Net Carrying Amount**	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Customer relationships	**$ 265,665**	**$ (88,550)**	**$ 177,115**	$ 338,320	$ (149,539)	$ 188,781
Software & technology	**31,600**	**(19,999)**	**11,601**	54,297	(35,325)	18,972
Trademarks & other	**13,324**	**(11,400)**	**1,924**	22,305	(16,858)	5,447
Total intangible assets, net	**$ 310,589**	**$ (119,949)**	**$ 190,640**	$ 414,922	$ (201,722)	$ 213,200

Amortization expense was $36 million, $39 million and $28 million for the years ended December 31, 2019, 2018 and 2017, respectively.

The future amortization expense for intangible assets at December 31, 2019 is as follows:

2020	$ 33,429
2021	29,972
2022	29,026
2023	26,188
2024	26,188
Thereafter	45,837
Total	$ 190,640

Actual amortization expense may differ from the amounts above due to, among other things, fluctuations in foreign currency exchange rates, acquisitions, divestitures and impairment charges.

Goodwill

Changes in the carrying amount of goodwill by reporting segment are shown in the tables below.

	December 31, 2018	**Acquisitions/ dispositions**	**Other [1]**	**December 31, 2019**
Global Ecommerce	$ 609,431	**$ —**	**$ —**	**$ 609,431**
Presort Services	207,465	**5,064**	**—**	**212,529**
Commerce Services	816,896	**5,064**	**—**	**821,960**
SendTech Solutions	515,455	**(10,490)**	**(2,746)**	**502,219**
Total goodwill	$ 1,332,351	**$ (5,426)**	**$ (2,746)**	**$ 1,324,179**

	December 31, 2017	Acquisitions	Other [1]	December 31, 2018
Global Ecommerce	$ 602,461	$ 7,623	$ (653)	$ 609,431
Presort Services	204,781	2,684	—	207,465
Commerce Services	807,242	10,307	(653)	816,896
SendTech Solutions	527,108	—	(11,653)	515,455
Total goodwill	$ 1,334,350	$ 10,307	$ (12,306)	$ 1,332,351

(1) Primarily represents foreign currency translation adjustments.

10. Fair Value Measurements and Derivative Instruments

We measure certain financial assets and liabilities at fair value on a recurring basis. Fair value is a market-based measure considered from the perspective of a market participant rather than an entity-specific measure. An entity is required to classify certain assets and liabilities measured at fair value based on the following fair value hierarchy that prioritizes the inputs used to measure fair value:

Level 1 – Unadjusted quoted prices in active markets for identical assets and liabilities.

Level 2 – Quoted prices for identical assets and liabilities in markets that are not active, quoted prices for similar assets and liabilities in active markets or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 – Unobservable inputs that are supported by little or no market activity, may be derived from internally developed methodologies based on management's best estimate of fair value and that are significant to the fair value of the asset or liability.

Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. Our assessment of the significance of a particular input to the fair value measurement requires judgment and may affect its placement within the fair value hierarchy. The following tables show, by level within the fair value hierarchy, our financial assets and liabilities that are accounted for at fair value on a recurring basis at December 31, 2019 and 2018.

	December 31, 2019			
	Level 1	Level 2	Level 3	Total
Assets:				
Investment securities				
Money market funds / commercial paper	**$ 161,441**	**$ 240,364**	**$ —**	**$ 401,805**
Equity securities	**—**	**21,979**	**—**	**21,979**
Commingled fixed income securities	**1,656**	**18,404**	**—**	**20,060**
Government and related securities	**64,572**	**17,478**	**—**	**82,050**
Corporate debt securities	**—**	**72,149**	**—**	**72,149**
Mortgage-backed / asset-backed securities	**—**	**66,339**	**—**	**66,339**
Derivatives				
Foreign exchange contracts	**—**	**3,256**	**—**	**3,256**
Total assets	**$ 227,669**	**$ 439,969**	**$ —**	**$ 667,638**
Liabilities:				
Derivatives				
Foreign exchange contracts	**$ —**	**$ (1,402)**	**$ —**	**$ (1,402)**
Total liabilities	**$ —**	**$ (1,402)**	**$ —**	**$ (1,402)**

	December 31, 2018			
	Level 1	Level 2	Level 3	Total
Assets:				
Investment securities				
Money market funds / commercial paper	$ 220,756	$ 391,891	$ —	$ 612,647
Equity securities	—	19,133	—	19,133
Commingled fixed income securities	1,570	20,141	—	21,711
Government and related securities	98,790	9,787	—	108,577
Corporate debt securities	—	56,938	—	56,938
Mortgage-backed / asset-backed securities	—	98,334	—	98,334
Derivatives				
Foreign exchange contracts	—	2,031	—	2,031
Total assets	$ 321,116	$ 598,255	$ —	$ 919,371
Liabilities:				
Derivatives				
Foreign exchange contracts	$ —	$ (735)	$ —	$ (735)
Total liabilities	$ —	$ (735)	$ —	$ (735)

Investment Securities

The valuation of investment securities is based on the market approach using inputs that are observable, or can be corroborated by observable data, in an active marketplace. The following information relates to our classification into the fair value hierarchy:

- *Money Market Funds / Commercial Paper:* Money market funds typically invest in government securities, certificates of deposit, commercial paper and other highly liquid, low risk securities. Money market funds are principally used for overnight deposits and are classified as Level 1 when unadjusted quoted prices in active markets are available and as Level 2 when they are not actively traded on an exchange. Direct investments in commercial paper are not listed on an exchange in an active market and are classified as Level 2.
- *Equity Securities:* Equity securities are comprised of mutual funds investing in U.S. and foreign stocks. These mutual funds are classified as Level 2.
- *Commingled Fixed Income Securities:* Commingled fixed income securities are comprised of mutual funds that invest in a variety of fixed income securities, including securities of the U.S. government and its agencies, corporate debt, mortgage-backed securities and asset-backed securities. Fair value is based on the value of the underlying investments owned by each fund, minus its liabilities, divided by the number of shares outstanding, as reported by the fund manager. These mutual funds are classified as Level 1 when unadjusted quoted prices in active markets are available and as Level 2 when they are not actively traded on an exchange.
- *Government and Related Securities:* Debt securities are classified as Level 1 where active, high volume trades for identical securities exist. Valuation adjustments are not applied to these securities. Debt securities are classified as Level 2 where fair value is determined using quoted market prices for similar securities or benchmarking model derived prices to quoted market prices and trade data for identical or comparable securities.
- *Corporate Debt Securities:* Corporate debt securities are valued using recently executed comparable transactions, market price quotations or bond spreads for the same maturity as the security. These securities are classified as Level 2.
- *Mortgage-Backed Securities / Asset-Backed Securities:* These securities are valued based on external pricing indices or on external price/spread data. These securities are classified as Level 2.

Available-For-Sale Securities

Available-for-sale securities consisted of the following:

	December 31, 2019			
	Amortized cost	**Gross unrealized gains**	**Gross unrealized losses**	**Estimated fair value**
Government and related securities	**$ 80,732**	**$ 1,358**	**$ (114)**	**$ 81,976**
Corporate debt securities	**70,426**	**2,009**	**(286)**	**72,149**
Commingled fixed income securities	**1,675**	**—**	**(19)**	**1,656**
Mortgage-backed / asset-backed securities	**65,679**	**960**	**(300)**	**66,339**
Total	**$ 218,512**	**$ 4,327**	**$ (719)**	**$ 222,120**

	December 31, 2018			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Estimated fair value
Government and related securities	$ 109,776	$ 47	$ (1,336)	$ 108,487
Corporate debt securities	58,714	4	(1,780)	56,938
Commingled fixed income securities	1,637	—	(67)	1,570
Mortgage-backed / asset-backed securities	100,186	167	(2,019)	98,334
Total	$ 270,313	$ 218	$ (5,202)	$ 265,329

Investment securities in a loss position were as follows:

	December 31, 2019		December 31, 2018	
	Fair Value	**Gross unrealized losses**	Fair Value	Gross unrealized losses
Greater than 12 continuous months	$ 9,227	$ 136	$ 177,331	$ 4,355
Less than 12 continuous months	52,521	583	48,318	847
Total	$ 61,748	$ 719	$ 225,649	$ 5,202

We have not recognized an other-than-temporary impairment on any of the investment securities in an unrealized loss position because we have the ability and intent to hold these securities until recovery of the unrealized losses and expect to receive the stated principal and interest at maturity.

At December 31, 2019, scheduled maturities of available-for-sale securities were as follows:

	Amortized cost	**Estimated fair value**
Within 1 year	$ 35,393	$ 35,495
After 1 year through 5 years	49,647	50,426
After 5 years through 10 years	59,265	60,345
After 10 years	74,207	75,854
Total	$ 218,512	$ 222,120

The actual maturities may not coincide with scheduled maturities as certain securities contain early redemption features and/or allow for the prepayment of obligations with or without penalty.

Held-to-Maturity Securities

Held-to-maturity securities at December 31, 2019, include $383 million of time deposits scheduled to mature within six months. Due to the short-term nature of these investments, they are recorded at cost as it approximates fair value.

Derivative Instruments

Foreign Exchange Contracts

We enter into foreign exchange contracts to mitigate the currency risk associated with anticipated inventory purchases between affiliates and from third parties. These contracts are designated as cash flow hedges. The effective portion of the gain or loss on cash flow hedges is included in AOCI in the period that the change in fair value occurs and is reclassified to earnings in the period that the hedged item is recorded in earnings. At December 31, 2019 and 2018, outstanding contracts associated with these anticipated transactions had a notional amount of $7 million and $8 million, respectively. The valuation of foreign exchange derivatives is based on a market approach using observable market inputs, such as foreign currency spot and forward rates and yield curves.

Interest Rate Swaps

We had an interest rate swap with a notional amount of $300 million to mitigate the interest rate risk associated with $300 million of variable-rate term loans. This swap matured in September 2018. While outstanding, the swap was designated as a cash flow hedge and the effective portion of the gain or loss on the cash flow hedge was included in AOCI in the period that the change in fair value occurred and reclassified to earnings in the period that the hedged item was recorded in earnings.

The fair value of our derivative instruments at December 31, 2019 and 2018 was as follows:

		December 31,	
Designation of Derivatives	Balance Sheet Location	**2019**	2018
Derivatives designated as hedging instruments			
Foreign exchange contracts	Other current assets and prepayments	**$ 207**	$ 61
	Accounts payable and accrued liabilities	**(56)**	(104)
Derivatives not designated as hedging instruments			
Foreign exchange contracts	Other current assets and prepayments	**3,049**	1,970
	Accounts payable and accrued liabilities	**(1,346)**	(631)
	Total derivative assets	**3,256**	2,031
	Total derivative liabilities	**(1,402)**	(735)
	Total net derivative asset	**$ 1,854**	$ 1,296

The amounts included in AOCI at December 31, 2019 will be recognized in earnings within the next 12 months. No amount of ineffectiveness was recorded in earnings for these designated cash flow hedges.

The following represents the results of cash flow hedging relationships for the years ended December 31, 2019 and 2018:

	Years Ended December 31,					
	Derivative Gain (Loss) Recognized in AOCI (Effective Portion)			Gain (Loss) Reclassified from AOCI to Earnings (Effective Portion)		
Derivative Instrument	**2019**	2018	Location of Gain (Loss) (Effective Portion)	**2019**	2018
Foreign exchange contracts	**$ 371**	$ 106	Revenue	**$ 72**	$ 11
			Cost of sales	**104**	51
Interest rate swap	**$ —**	$ (1,776)	Interest Expense	**—**	—
				$ 176	$ 62

We also enter into foreign exchange contracts to minimize the impact of exchange rate fluctuations on short-term intercompany loans and related interest that are denominated in a foreign currency. The revaluation of the intercompany loans and interest and the mark-to-market adjustment on the derivatives are both recorded in earnings. All outstanding contracts at December 31, 2019 mature over the next three months.

The following represents the mark-to-market adjustment on our non-designated derivative instruments for the years ended December 31, 2019 and 2018:

		Years Ended December 31,	
		Derivative Gain (Loss) Recognized in Earnings	
Derivatives Instrument	Location of Derivative Gain (Loss)	2019	2018
Foreign exchange contracts	Selling, general and administrative expense	**$ 5,154**	$ (33,453)

Credit-Risk-Related Contingent Features

Certain derivative instruments contain credit-risk-related contingent features that could require us to post collateral based on our long-term senior unsecured debt ratings and the net fair value of our derivatives. At December 31, 2019, we were not required to post any collateral.

Fair Value of Financial Instruments

Our financial instruments include cash and cash equivalents, investment securities, accounts receivable, loan receivables, derivative instruments, accounts payable and debt. The carrying value for cash and cash equivalents, accounts receivable, loans receivable, and accounts payable approximate fair value. The fair value of our debt is estimated based on recently executed transactions and market price quotations. The inputs used to determine the fair value of our debt were classified as Level 2 in the fair value hierarchy. The carrying value and estimated fair value of our debt at December 31, 2019 and 2018 was as follows:

	December 31,	
	2019	2018
Carrying value	**$ 2,739,722**	$ 3,265,608
Fair value	**$ 2,572,794**	$ 3,003,678

11. Supplemental Balance Sheet Information

The following table shows selected balance sheet information:

	December 31,	
	2019	2018
Other assets:		
Long-term investments	**$ 288,963**	$ 311,417
Pension asset	**20,403**	14,502
Contract costs	**26,048**	20,420
Other	**65,042**	50,820
Total	**$ 400,456**	$ 397,159
Accounts payable and accrued liabilities:		
Accounts payable	**$ 282,125**	$ 280,936
Reserve account deposits	**591,118**	574,777
Customer deposits	**115,889**	125,574
Employee related liabilities	**219,995**	208,840
Other	**175,681**	158,000
Total	**$ 1,384,808**	$ 1,348,127
Other noncurrent liabilities:		
Pension liability	**$ 214,742**	$ 276,563
Postretirement medical benefits	**147,972**	149,463
Other	**37,804**	36,262
Total	**$ 400,518**	$ 462,288

12. Restructuring Charges and Asset Impairments

The table below shows the activity in our restructuring reserves:

	Severance and benefits costs	Other exit costs	Total
Balance at December 31, 2017	$ 42,151	$ 1,569	$ 43,720
Expenses, net	18,426	6,033	24,459
Cash payments	(46,936)	(5,794)	(52,730)
Balance at December 31, 2018	13,641	1,808	15,449
Expenses, net	**22,794**	**911**	**23,705**
Cash payments	**(24,498)**	**(2,650)**	**(27,148)**
Balance at December 31, 2019	**$ 11,937**	**$ 69**	**$ 12,006**

The majority of the remaining restructuring reserves are expected to be paid over the next 12-24 months.

Asset impairments

Asset impairment charges were $46 million, $1 million, and $4 million in 2019, 2018, and 2017, respectively. Asset impairment charges in 2019 primarily include $39 million due to the write-off of capitalized software costs related to the development of an enterprise resource planning (ERP) system in our international markets.

13. Debt

	Interest rate	December 31, 2019	2018
Notes due September 2020	4.125%	—	300,000
Notes due October 2021	4.125%	**600,000**	600,000
Notes due May 2022	4.625%	**400,000**	400,000
Notes due April 2023	5.20%	**400,000**	400,000
Notes due March 2024	4.625%	**500,000**	500,000
Notes due January 2037	5.25%	**35,841**	35,841
Notes due March 2043	6.70%	**425,000**	425,000
Term loans	Variable	**400,000**	630,000
Other debt		**5,108**	5,297
Principal amount		**2,765,949**	3,296,138
Less: unamortized costs, net		**26,227**	30,530
Total debt		**2,739,722**	3,265,608
Less: current portion long-term debt		**20,108**	199,535
Long-term debt		**$ 2,719,614**	$ 3,066,073

During 2019, we repaid all term loans outstanding at the beginning of the year and secured a new five-year $400 million secured term loan, scheduled to mature November 2024 (the 2024 Term Loan). The term loan bears interest at LIBOR plus 1.75% and resets monthly. Interest at December 31, 2019 was 3.55%. We also redeemed the $300 million September 2020 Notes. Finally, we replaced our $1 billion revolving credit facility scheduled to mature in January 2021 with a $500 million secured credit facility that expires in November 2024 (the Credit Facility). As of December 31, 2019 we had not drawn upon the Credit Facility. The Credit Facility contains financial covenants of which we were in compliance with at December 31, 2019. A $6 million loss was incurred on the early redemption of debt and is recorded in other expense.

Interest rates on certain notes are subject to adjustment based on changes in our credit ratings. In April 2019, Moody's lowered our corporate credit rating from Ba1 to Ba2. As a result, the interest rates on the May 2022 notes, September 2020 notes, October 2021 notes and April 2023 notes increased 0.25% during the year. In November 2019, Moody's and Standard and Poor's lowered the credit rating of our unsecured notes and the interest rates on the October 2021 notes, May 2022 notes and April 2023 notes will increase an additional 0.50% in the second quarter of 2020.

Annual maturities of outstanding debt at December 31, 2019 are as follows:

2020	$ 20,108
2021	620,000
2022	430,000
2023	440,000
2024	795,000
Thereafter	460,841
Total	$ 2,765,949

In December 2019, we obtained commitments for a five-year $650 million term loan, and in February 2020, we obtained lender commitments for an additional $200 million. The combined commitment amount of $850 million is scheduled to mature January 2025 (the 2025 Term Loan). On February 10, 2020, we announced a cash tender offer to purchase up to $950 million aggregate principal amount of the October 2021 Notes, the May 2022 Notes, the April 2023 Notes and the March 2024 Notes (collectively, the Notes). On February 19, 2020, we funded the 2025 Term Loan and will use the net proceeds and the remaining proceeds from the sale of the Software Solutions business to redeem the Notes on or around February 24, 2020. The 2025 Term Loan bears interest at LIBOR plus 5.5% and resets monthly.

14. Retirement Plans and Postretirement Medical Benefits

We provide certain retirement benefits to our U.S. employees hired prior to January 1, 2005 and to eligible employees outside the U.S. under various defined benefit retirement plans. Benefit accruals under most of our significant defined benefit plans have been frozen.

We also provide certain employer subsidized health care and employer provided life insurance benefits in the U.S. and Canada to eligible retirees and their dependents. Employees hired before January 1, 2005 in the U.S. and April 1, 2005 in Canada become eligible for retiree medical benefits after reaching age 55 and with the completion of the required service period. The cost of these benefits is recognized over the period the employee provides credited service to the company.

Retirement Plans

The benefit obligations and funded status of defined benefit pension plans are as follows:

	United States		Foreign	
	2019	2018	**2019**	2018
Accumulated benefit obligation	**$ 1,612,551**	$ 1,500,691	**$ 745,658**	$ 659,628
Projected benefit obligation				
Benefit obligation - beginning of year	**$ 1,501,140**	$ 1,727,737	**$ 662,644**	$ 751,373
Service cost	**83**	92	**1,543**	2,159
Interest cost	**63,171**	61,490	**17,853**	18,089
Plan participants' contributions	**—**	—	**6**	7
Actuarial loss (gain)	**160,390**	(124,298)	**68,385**	(41,995)
Foreign currency changes	**—**	—	**25,452**	(40,559)
Plan amendments	**—**	—	**—**	9,009
Settlements and curtailments	**(6,684)**	(82,273)	**(2,682)**	(6,703)
Benefits paid	**(105,046)**	(81,608)	**(26,259)**	(28,736)
Benefit obligation - end of year	**$ 1,613,054**	$ 1,501,140	**$ 746,942**	$ 662,644
Fair value of plan assets				
Fair value of plan assets - beginning of year	**$ 1,327,034**	$ 1,557,907	**$ 562,517**	$ 632,710
Actual return on plan assets	**261,579**	(73,745)	**98,006**	(17,043)
Company contributions	**10,135**	6,753	**10,085**	10,939
Plan participants' contributions	**—**	—	**6**	7
Settlements and curtailments	**(6,684)**	(82,273)	**(1,773)**	—
Foreign currency changes	**—**	—	**25,726**	(35,360)
Benefits paid	**(105,046)**	(81,608)	**(26,259)**	(28,736)
Fair value of plan assets - end of year	**$ 1,487,018**	$ 1,327,034	**$ 668,308**	$ 562,517
Amounts recognized in the Consolidated Balance Sheets				
Noncurrent asset	**$ 383**	$ 277	**$ 20,020**	$ 14,225
Current liability	**(9,019)**	(10,975)	**(1,313)**	(1,197)
Noncurrent liability	**(117,401)**	(163,408)	**(97,341)**	(113,155)
Funded status	**$ (126,037)**	$ (174,106)	**$ (78,634)**	$ (100,127)

Information provided in the table below is only for pension plans with an accumulated benefit obligation in excess of plan assets at December 31, 2019 and 2018:

	United States		Foreign	
	2019	2018	**2019**	2018
Projected benefit obligation	**$ 1,612,745**	$ 1,500,680	**$ 615,288**	$ 540,798
Accumulated benefit obligation	**$ 1,612,241**	$ 1,500,231	**$ 614,293**	$ 538,666
Fair value of plan assets	**$ 1,486,325**	$ 1,326,296	**$ 516,634**	$ 426,446

Pretax amounts recognized in AOCI consist of:

	United States		Foreign	
	2019	2018	**2019**	2018
Net actuarial loss	**$ 772,850**	$ 809,836	**$ 315,319**	$ 318,474
Prior service (credit) cost	**(270)**	(330)	**8,317**	8,496
Transition asset	**—**	—	**(11)**	(17)
Total	**$ 772,580**	$ 809,506	**$ 323,625**	$ 326,953

The components of net periodic benefit cost (income) for defined benefit pension plans were as follows:

	United States			Foreign		
	2019	2018	2017	**2019**	2018	2017
Service cost	**$ 83**	$ 92	$ 132	**$ 1,543**	$ 2,159	$ 2,274
Interest cost	**63,171**	61,490	68,611	**17,853**	18,089	18,836
Expected return on plan assets	**(92,726)**	(101,087)	(97,656)	**(34,363)**	(35,687)	(32,242)
Amortization of net transition asset	**—**	—	—	**(6)**	(7)	(8)
Amortization of prior service (credit) cost	**(60)**	(60)	(60)	**243**	(71)	(71)
Amortization of net actuarial loss	**26,146**	31,298	28,954	**6,337**	7,264	8,052
Special termination benefits	**—**	—	—	**—**	208	—
Settlements and curtailments	**2,381**	44,665	—	**397**	(13)	—
Net periodic benefit (income) cost	**$ (1,005)**	$ 36,398	$ (19)	**$ (7,996)**	$ (8,058)	$ (3,159)

In connection with the disposition of the Production Mail Business and certain other actions, a pre-tax, non-cash pension settlement charge of $45 million for the U.S. pension plans was incurred in 2018. We recognized $32 million of this charge in other components of net pension and postretirement cost and the remaining $13 million in income from discontinued operations, net of tax.

Other changes in plan assets and benefit obligations for defined benefit pension plans recognized in other comprehensive income were as follows:

	United States		Foreign	
	2019	2018	**2019**	2018
Net actuarial (gain) loss	**$ (8,459)**	$ 50,534	**$ 3,643**	$ 3,824
Plan amendment	**—**	—	**—**	9,009
Amortization of net actuarial loss	**(26,146)**	(31,298)	**(6,337)**	(7,264)
Amortization of prior service credit (cost)	**60**	60	**(243)**	71
Net transition asset	**—**	—	**6**	7
Settlements and curtailments	**(2,381)**	(44,665)	**(397)**	13
Total recognized in other comprehensive income	**$ (36,926)**	$ (25,369)	**$ (3,328)**	$ 5,660

Weighted-average actuarial assumptions used to determine end of year benefit obligations and net periodic benefit cost for defined benefit pension plans include:

	2019	2018	2017
United States			
Used to determine benefit obligations			
Discount rate	**3.34%**	4.34%	3.69%
Rate of compensation increase	**N/A**	N/A	N/A
Used to determine net periodic benefit cost			
Discount rate	**4.34%**	3.69%	4.20%
Expected return on plan assets	**6.75%**	7.00%	6.75%
Rate of compensation increase	**N/A**	N/A	N/A
Foreign			
Used to determine benefit obligations			
Discount rate	**0.65% - 2.95%**	0.75% - 3.55%	0.65% - 3.35%
Rate of compensation increase	**1.50% - 2.50%**	1.50% - 2.50%	1.50% - 2.50%
Used to determine net periodic benefit cost			
Discount rate	**0.75% - 3.55%**	0.65% - 3.35%	0.70% - 3.65%
Expected return on plan assets	**4.25% - 6.25%**	3.75% - 6.25%	3.75% - 6.25%
Rate of compensation increase	**1.50% - 2.50%**	1.50% - 3.25%	1.50% - 3.30%

A discount rate is used to determine the present value of our future benefit obligations. The discount rate for our U.S. pension and postretirement medical benefit plans is determined by matching the expected cash flows associated with our benefit obligations to a pool of corporate long-term, high-quality fixed income debt instruments available as of the measurement date. The discount rate for our largest foreign plan, the U.K. Qualified Pension Plan (the U.K. Plan), is determined by using a model that discounts each year's estimated benefit payments by an applicable spot rate derived from a yield curve created from a large number of high quality corporate bonds. For our other smaller foreign pension plans, the discount rate is selected based on high-quality fixed income indices available in the country in which the plan is domiciled.

The expected return on plan assets is based on historical and expected rates of return for current and planned asset classes in the plans' investment portfolio after analyzing historical experience and future expectations of the returns and volatility of the various asset classes. The overall expected rate of return for the portfolio is based on the target asset allocation of our global pension plans, adjusted for historical and expected experience of active portfolio management results, when compared to the benchmark returns.

During 2020, we estimate making contributions of $9 million to our U.S. pension plans and $10 million to our foreign pension plans.

Investment Strategy and Asset Allocation - U.S. Pension Plans

The investment strategy of our U.S. pension plans is to maximize returns within reasonable and prudent levels of risk, to achieve and maintain full funding of the accumulated benefit obligation and the actuarial liabilities and to earn an expected rate of return. Pension plan assets are invested in accordance with our strategic asset allocation policy to achieve these objectives. Pension plan assets are exposed to various risks, such as interest rate, market and credit risks. Investments are diversified across asset classes and within each class to reduce the risk of large losses and are periodically rebalanced. Derivatives, such as swaps, options, forwards and futures contracts may be used for market exposure, to alter risk/return characteristics and to manage foreign currency exposure. We do not have any significant concentrations of credit risk within the plan assets. Investment objectives and investment managers are reviewed periodically. Target and actual asset allocations for the U.S. pension plans were as follows:

	Target allocation	Percent of Plan Assets at December 31,	
	2020	2019	2018
Asset category			
Equities	**30%**	30%	26%
Fixed income	**63%**	63%	64%
Real estate	**5%**	5%	7%
Private equity	**2%**	2%	3%
Total	**100%**	100%	100%

Investment Strategy and Asset Allocation - Foreign Pension Plans

Our foreign pension plan assets are managed by outside investment managers and monitored regularly by local trustees and our corporate personnel. Investment strategies vary by country and plan, with each strategy tailored to achieve the expected rate of return within an appropriate risk level, depending upon the liability profile of plan participants, local funding requirements, investment markets and restrictions. The U.K. Plan comprises 77% of the total foreign pension plan assets. The U.K. pension plan's investment strategy is to maximize returns within reasonable and prudent levels of risk, to achieve and maintain full funding of the accumulated benefit obligation and the actuarial liabilities and to earn an expected rate of return. Plan assets are invested in accordance with our strategic asset allocation policy to achieve these objectives. Pension plan assets are exposed to various risks, such as interest rate, market and credit risks. Investments are diversified across asset classes and within each class to minimize the risk of large losses and are periodically rebalanced. Derivatives, such as swaps, options, forwards and futures contracts may be used for market exposure, to alter risk/return characteristics and to manage currency exposure. We do not have any significant concentrations of credit risk within the plan assets. Investment objectives and investment managers are reviewed periodically. Target and actual asset allocations for the U.K. Plan were as follows:

	Target Allocation	Percent of Plan Assets at December 31,	
	2020	2019	2018
Asset category			
Equities	**30%**	35%	38%
Fixed income	**50%**	46%	41%
Real estate	**10%**	9%	10%
Diversified growth	**10%**	9%	10%
Cash	**—%**	1%	1%
Total	**100%**	100%	100%

The target asset allocation used to manage the investment portfolios is based on the broad asset categories shown above. The plan asset categories presented in the fair value hierarchy are subsets of the broad asset categories.

The fair value of the U.K. plan assets was $516 million and $426 million at December 31, 2019 and 2018, respectively, and the expected long-term weighted average rate of return on these plan assets was 6.25% in both 2019 and 2018.

Fair Value Measurements of Plan Assets

The following tables show the U.S. and foreign pension plans' assets:

United States Pension Plans

	December 31, 2019			
	Level 1	**Level 2**	**Level 3**	**Total**
Money market funds	**$ —**	**$ 4,917**	**$ —**	**$ 4,917**
Equity securities	**—**	**265,832**	**—**	**265,832**
Commingled fixed income securities	**—**	**275,335**	**—**	**275,335**
Government and related securities	**292,506**	**15,764**	**—**	**308,270**
Corporate debt securities	**—**	**528,425**	**—**	**528,425**
Mortgage-backed securities /asset-backed securities	**—**	**51,770**	**—**	**51,770**
Private equity	**—**	**—**	**23,608**	**23,608**
Real estate	**—**	**—**	**71,337**	**71,337**
Securities lending collateral	**—**	**106,886**	**—**	**106,886**
Total plan assets at fair value	**$ 292,506**	**$ 1,248,929**	**$ 94,945**	**$ 1,636,380**
Securities lending payable				**(106,886)**
Cash				**9,409**
Other				**(51,885)**
Fair value of plan assets				**$ 1,487,018**

	December 31, 2018			
	Level 1	Level 2	Level 3	Total
Money market funds	$ 3,498	$ 5,759	$ —	$ 9,257
Equity securities	110,840	109,864	—	220,704
Commingled fixed income securities	—	281,258	—	281,258
Government and related securities	258,535	16,144	—	274,679
Corporate debt securities	—	435,285	—	435,285
Mortgage-backed securities /asset-backed securities	—	23,474	—	23,474
Private equity	—	—	32,750	32,750
Real estate	—	—	96,877	96,877
Securities lending collateral	—	117,603	—	117,603
Total plan assets at fair value	$ 372,873	$ 989,387	$ 129,627	$ 1,491,887
Securities lending payable				(117,603)
Cash				11,341
Other				(58,591)
Fair value of plan assets				$ 1,327,034

Foreign Plans

	December 31, 2019			
	Level 1	**Level 2**	**Level 3**	**Total**
Money market funds	**$ —**	**$ 8,734**	**$ —**	**$ 8,734**
Equity securities	**—**	**222,554**	**—**	**222,554**
Commingled fixed income securities	**—**	**264,131**	**—**	**264,131**
Government and related securities	**—**	**43,405**	**—**	**43,405**
Corporate debt securities	**—**	**34,528**	**—**	**34,528**
Real estate	**—**	**—**	**45,335**	**45,335**
Diversified growth funds	**—**	**—**	**47,621**	**47,621**
Total plan assets at fair value	**$ —**	**$ 573,352**	**$ 92,956**	**$ 666,308**
Cash				**1,516**
Other				**484**
Fair value of plan assets				**$ 668,308**

	December 31, 2018			
	Level 1	Level 2	Level 3	Total
Money market funds	$ —	$ 11,172	$ —	$ 11,172
Equity securities	—	194,914	—	194,914
Commingled fixed income securities	—	198,902	—	198,902
Government and related securities	—	40,055	—	40,055
Corporate debt securities	—	29,996	—	29,996
Real estate	—	—	42,143	42,143
Diversified growth funds	—	—	40,766	40,766
Total plan assets at fair value	$ —	$ 475,039	$ 82,909	$ 557,948
Cash				3,903
Other				666
Fair value of plan assets				$ 562,517

The following information relates to our classification of investments into the fair value hierarchy:

- *Money Market Funds:* typically invest in government securities, certificates of deposit, commercial paper and other highly liquid, low risk securities. Money market funds are principally used for overnight deposits.
- *Equity Securities:* include U.S. and foreign stocks, American Depository Receipts, preferred stock and commingled funds. There are no shares of our common stock included in the plan assets of our pension plans.
- *Commingled Fixed Income Securities:* mutual funds that invest in fixed income securities of the U.S. government and its agencies, corporate debt, mortgage-backed securities and asset-backed securities. Fair value is based on the market value of the underlying investments owned by each fund, minus its liabilities, divided by the number of shares outstanding as reported by the fund manager.
- *Government and Related Securities:* include treasury notes and bonds, foreign government issues, U.S. government sponsored agency debt and commingled funds. Municipal debt securities include general obligation securities and revenue-backed securities. Fair value is based on benchmarking model derived prices to quoted market prices and trade data for identical comparable securities.
- *Corporate Debt Securities*: comprised of both investment grade debt and high-yield debt. Fair value is determined using recently executed transactions, market price quotations where observable, or bond spreads.
- *Mortgage-Backed Securities / Asset-Backed Securities*: mortgage-backed securities (MBS) are comprised of agency-backed MBS, non-agency MBS, collateralized mortgage obligations, commercial MBS and commingled funds. Asset-backed securities (ABS) are primarily comprised of credit card receivables, auto loan receivables, student loan receivables and Small Business Administration loans. These securities are valued based on external pricing indices, external price/spread data or broker quotes.

- *Private Equity*: comprised of units in fund-of-funds investment vehicles. Fund-of-funds consist of various private equity investments and are used in an effort to gain greater diversification. Investments are valued in accordance with the most appropriate valuation techniques.
- *Real Estate:* include units in open-ended commingled real estate funds. Investments are valued in accordance with the most appropriate valuation techniques.
- *Diversified Growth Funds:* comprised of units in commingled diversified growth funds. Investments are valued based on the net asset value (NAV) per unit as reported by the fund manager.
- *Securities Lending Fund:* represents a commingled fund through our custodian's securities lending program. The U.S. pension plan lends securities that are held within the plan to other banks and/or brokers, and receives collateral, typically cash. This collateral is invested in a short-term fixed income securities commingled fund. This amount invested in the fund is offset by a corresponding liability reflected in the U.S. pension plan's net assets available for benefits.

Level 3 Gains and Losses

The following table summarizes the changes in the fair value of Level 3 assets:

United States Pension Plans

	Private equity	Real estate	Total
Balance at December 31, 2017	$ 38,362	$ 91,352	$ 129,714
Realized gains	8,264	1,001	9,265
Unrealized (losses) gains	(1,409)	4,462	3,053
Net purchases, sales and settlements	(12,467)	62	(12,405)
Balance at December 31, 2018	32,750	96,877	129,627
Realized gains	**5,625**	**14,876**	**20,501**
Unrealized losses	**(5,288)**	**(12,517)**	**(17,805)**
Net purchases, sales and settlements	**(9,479)**	**(27,899)**	**(37,378)**
Balance at December 31, 2019	**$ 23,608**	**$ 71,337**	**$ 94,945**

Foreign Pension Plans

	Real estate	Diversified growth funds	Total
Balance at December 31, 2017	$ 41,601	$ 44,024	$ 85,625
Unrealized gains (losses)	1,317	(4,948)	(3,631)
Net purchases, sales and settlements	1,653	4,090	5,743
Foreign currency	(2,428)	(2,400)	(4,828)
Balance at December 31, 2018	42,143	40,766	82,909
Unrealized (losses) gains	**(799)**	**4,954**	**4,155**
Net purchases, sales and settlements	**1,618**	**107**	**1,725**
Other	**687**	**—**	**687**
Foreign currency	**1,686**	**1,794**	**3,480**
Balance at December 31, 2019	**$ 45,335**	**$ 47,621**	**$ 92,956**

Nonpension Postretirement Benefits

The benefit obligation and funded status for nonpension postretirement benefit plans are as follows:

	2019	2018
Benefit obligation		
Benefit obligation - beginning of year	**$ 166,476**	$ 188,841
Service cost	**967**	1,405
Interest cost	**6,584**	6,640
Plan participants' contributions	**3,003**	3,200
Actuarial loss (gain)	**6,930**	(11,304)
Foreign currency changes	**674**	(1,177)
Curtailment	**—**	(533)
Benefits paid	**(20,530)**	(20,596)
Benefit obligation - end of year [1]	**$ 164,104**	$ 166,476
Fair value of plan assets		
Fair value of plan assets - beginning of year	**$ —**	$ —
Company contribution	**17,527**	17,396
Plan participants' contributions	**3,003**	3,200
Benefits paid	**(20,530)**	(20,596)
Fair value of plan assets - end of year	**$ —**	$ —
Amounts recognized in the Consolidated Balance Sheets		
Current liability	**$ (16,132)**	$ (17,013)
Non-current liability	**(147,972)**	(149,463)
Funded status	**$ (164,104)**	$ (166,476)

(1) The benefit obligation for U.S. nonpension postretirement plans was $150 million and $154 million at December 31, 2019 and 2018, respectively.

Pretax amounts recognized in AOCI consist of:

	2019	2018
Net actuarial loss	**$ 33,272**	$ 28,368
Prior service cost	**502**	823
Total	**$ 33,774**	$ 29,191

The components of net periodic benefit cost for nonpension postretirement benefit plans were as follows:

	2019	2018	2017
Service cost	**$ 967**	$ 1,405	$ 1,727
Interest cost	**6,584**	6,640	7,100
Amortization of prior service cost	**321**	304	297
Amortization of net actuarial loss	**2,026**	3,048	3,600
Curtailment	**—**	246	—
Net periodic benefit cost	**$ 9,898**	$ 11,643	$ 12,724

Other changes in plan assets and benefit obligation for nonpension postretirement benefit plans recognized in other comprehensive income were as follows:

	2019	2018
Net actuarial loss (gain)	**$ 6,931**	$ (11,837)
Curtailment	**—**	(246)
Amortization of net actuarial loss	**(2,026)**	(3,048)
Amortization of prior service cost	**(321)**	(304)
Total recognized in other comprehensive income	**$ 4,584**	$ (15,435)

The weighted-average discount rates used to determine end of year benefit obligation and net periodic pension cost include:

	2019	2018	2017
Discount rate used to determine benefit obligation			
U.S.	**3.20%**	4.20%	3.55%
Canada	**3.00%**	3.60%	3.35%
Discount rate used to determine net period benefit cost			
U.S.	**4.20%**	3.55%	3.90%
Canada	**3.60%**	3.35%	3.65%

The assumed health care cost trend rate used in measuring the accumulated postretirement benefit obligation for the U.S. plan was 6.5% for 2019 and 7.0% for 2018. The assumed health care trend rate is 7.0% for 2020 and will gradually decline to 5.0% by the year 2028 and remain at that level thereafter. Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans.

Estimated Future Benefit Payments

The following benefit payments, which reflect expected future service, are expected to be paid.

	Pension Benefits	Nonpension Benefits
2020	$ 131,577	$ 16,129
2021	125,439	15,480
2022	124,142	14,756
2023	124,559	13,592
2024	121,767	12,500
Thereafter	600,327	53,101
	$ 1,227,811	$ 125,558

Savings Plans

We offer voluntary defined contribution plans to our U.S. employees designed to help them accumulate additional savings for retirement. We provide a core contribution to all employees, regardless if they participate in the plan, and match a portion of each participating employees' contribution, based on eligible pay. Total contributions to our defined contribution plans were $28 million in 2019 and $31 million in 2018.

15. Income Taxes

Income from continuing operations before taxes consisted of the following:

	Years Ended December 31,		
	2019	2018	2017
U.S.	**$ 910**	$ 109,393	$ 135,636
International	**26,232**	78,728	58,062
Total	**$ 27,142**	$ 188,121	$ 193,698

The (benefit) provision for income taxes from continuing operations consisted of the following:

	Years Ended December 31,		
	2019	2018	2017
U.S. Federal:			
Current	**$ (18,789)**	$ (56,743)	$ 25,774
Deferred	**11,577**	61,514	(23,863)
	(7,212)	4,771	1,911
U.S. State and Local:			
Current	**(9,142)**	(12,214)	(3,022)
Deferred	**8,043**	866	13,426
	(1,099)	(11,348)	10,404
International:			
Current	**9,993**	11,308	(7,679)
Deferred	**(14,689)**	1,685	9,023
	(4,696)	12,993	1,344
Total current	**(17,938)**	(57,649)	15,073
Total deferred	**4,931**	64,065	(1,414)
Total (benefit) provision for income taxes	**$ (13,007)**	$ 6,416	$ 13,659
Effective tax rate	**(47.9)%**	3.4%	7.1%

The effective tax rate for 2019 includes benefits of $23 million from the release of a foreign valuation allowance and $9 million from the resolution of certain tax examinations. The effective tax rate for 2019 also includes a tax of $3 million on the $18 million book loss from Market Exits, primarily due to nondeductible basis differences. The effective tax rate for 2018 includes tax benefits of $37 million related to true-ups from the Tax Cuts and Jobs Act of 2017 and $17 million from the resolution of certain tax examinations. The effective tax rate for 2017 includes provisional tax benefits of $39 million from the Tax Cuts and Jobs Act of 2017 and $30 million from the resolution of tax examinations.

A reconciliation of income taxes computed at the federal statutory rate and our provision for income taxes consist of the following:

	Years Ended December 31,		
	2019	2018	2017
Federal statutory provision	**$ 5,700**	$ 39,505	$ 67,794
State and local income taxes [1]	**(868)**	1,292	3,739
Impact of foreign operations taxed at rates other than the U.S. statutory rate [2]	**(18,541)**	(2,483)	(12,054)
Accrual/release of uncertain tax amounts related to foreign operations	**191**	(4,595)	(17,919)
U.S. tax impacts of foreign income in the U.S.	**5,587**	5,854	1,750
Tax incentives/credits/exempt income	**(5,437)**	3,526	(14,587)
Unrealized stock compensation benefits	**2,176**	1,941	3,778
Remeasurement of U.S. deferred taxes	**—**	(13,121)	(108,176)
U.S. tax on unremitted earnings	**—**	(23,711)	90,916
Other, net [3]	**(1,815)**	(1,792)	(1,582)
(Benefit) provision for income taxes	**$ (13,007)**	$ 6,416	$ 13,659

(1) Includes release of tax uncertainties of $(3) million, $(9) million and $(3) million for the years ended December 31, 2019, 2018 and 2017, respectively.
(2) Includes foreign valuation allowance release of $23 million and $3 million tax on Market Exits for the year ended December 31, 2019.
(3) Includes $1 million benefit related to interest for the year ended December 31, 2019.

Deferred tax liabilities and assets consisted of the following:

	December 31,	
	2019	2018
Deferred tax liabilities:		
Depreciation	**$ (69,222)**	$ (71,757)
Deferred profit (for tax purposes) on sale to finance subsidiary	**(30,791)**	(41,951)
Lease revenue and related depreciation	**(174,083)**	(149,176)
Intangible assets	**(88,024)**	(98,707)
Other	**(24,941)**	(34,425)
Gross deferred tax liabilities	**(387,061)**	(396,016)
Deferred tax assets:		
Nonpension postretirement benefits	**41,015**	42,422
Pension	**43,763**	60,063
Inventory and equipment capitalization	**2,735**	6,042
Restructuring charges	**2,944**	5,064
Long-term incentives	**12,929**	11,517
Net operating loss	**82,673**	106,029
Tax credit carry forwards	**64,430**	64,148
Tax uncertainties gross-up	**6,577**	6,692
Other	**38,247**	46,623
Gross deferred tax assets	**295,313**	348,600
Less: Valuation allowance	**(110,781)**	(142,496)
Net deferred tax assets	**184,532**	206,104
Total deferred taxes, net	**$ (202,529)**	$ (189,912)

A valuation allowance is recognized to reduce deferred tax assets to an amount that will more-likely-than-not be realized. The valuation allowance relates primarily to certain foreign, state and local net operating loss and tax credit carryforwards that will more-likely-than-not expire unutilized.

We have net operating loss carryforwards of $162 million as of December 31, 2019, of which $145 million can be carried forward indefinitely and the remainder expire over the next 20 years. In addition, we have tax credit carryforwards of $64 million, of which $52 million can be carried forward indefinitely and the remainder expire over the next 13 years.

As of December 31, 2019, we assert that we are no longer permanently reinvested in $421 million of post-1986 earnings generated from non-U.S. subsidiaries, which were subject to the deemed repatriation toll charge under the Act. We continue to be permanently reinvested in our remaining undistributed earnings of $261 million as well as other outside basis differences. While a determination of the full liability that would be incurred if these earnings were repatriated is not practical, we have estimated the withholding taxes would be approximately $3 million.

Uncertain Tax Positions

A reconciliation of the amount of unrecognized tax benefits is as follows:

	2019	2018	2017
Balance at beginning of year	**$ 71,458**	$ 89,767	$ 124,728
Increases from prior period positions	**510**	88	528
Decreases from prior period positions	**(9,711)**	(15,145)	(31,470)
Increases from current period positions	**5,052**	6,001	5,951
Decreases relating to settlements with tax authorities	**(2,626)**	(4,844)	(6,953)
Reductions from lapse of applicable statute of limitations	**(4,381)**	(4,409)	(3,017)
Balance at end of year	**$ 60,302**	$ 71,458	$ 89,767

The amount of the unrecognized tax benefits at December 31, 2019, 2018 and 2017 that would affect the effective tax rate if recognized was $54 million, $65 million and $74 million, respectively.

On a regular basis, we conclude tax return examinations, statutes of limitations expire, and court decisions interpret tax law. We regularly assess tax uncertainties in light of these developments. As a result, it is reasonably possible that the amount of our unrecognized tax benefits will decrease in the next 12 months, and we expect this change could be up to 15% of our unrecognized tax benefits. We recognize interest and penalties related to uncertain tax positions in our provision for income taxes. We recognized interest and penalties of $(1) million, $(1) million and $(4) million related to uncertain tax positions in the provision for income taxes for the years ended December 31, 2019, 2018 and 2017 respectively. We had $3 million and $4 million accrued for the payment of interest and penalties at December 31, 2019 and 2018, respectively.

Other Tax Matters

As is the case with other large corporations, our tax returns are examined each year by tax authorities in the U.S. and other global taxing jurisdictions in which we have operations. The IRS examinations of our consolidated U.S. income tax returns for tax years prior to 2017 are closed to audit; however, various post-2011 U.S. state and local tax returns are still subject to examination. In Canada, the examination of our tax filings prior to 2015 are closed to audit. Other significant jurisdictions include France (closed through 2014), Germany (closed through 2016) and the U.K. (closed through 2016, except for an item under appeal). We also have other less significant tax filings currently subject to examination.

We regularly assess the likelihood of tax adjustments in each of the tax jurisdictions in which we have operations and account for the related financial statement implications. We believe we have established tax reserves that are appropriate given the possibility of tax adjustments. However, determining the appropriate level of tax reserves requires judgment regarding the uncertain application of tax law and the possibility of tax adjustments. Future changes in tax reserve requirements could have a material impact, positive or negative, on our results of operations, financial position and cash flows.

16. Commitments and Contingencies

In the ordinary course of business, we are routinely defendants in, or party to, a number of pending and threatened legal actions. These may involve litigation by or against us relating to, among other things, contractual rights under vendor, insurance or other contracts; intellectual property or patent rights; equipment, service, payment or other disputes with clients; or disputes with employees. Some of these actions may be brought as a purported class action on behalf of a purported class of employees, clients or others. In management's opinion, it is not reasonably possible that the potential liability, if any, that may result from these actions, either individually or collectively, will have a material effect on our financial position, results of operations or cash flows. However, as litigation is inherently unpredictable, there can be no assurances in this regard.

In August 2018, the Company, certain of its directors, officers and several banks who served as underwriters, were named as defendants in City of Livonia Retiree Health and Disability Benefits Plan v. Pitney Bowes Inc. et al., a putative class action lawsuit filed in Connecticut state court. The complaint asserts claims under the Securities Act of 1933, as amended, on behalf of those who purchased notes issued by the Company in connection with a September 13, 2017 offering, alleging, among other things, that the Company failed to make certain disclosures relating to components of its third quarter 2017 performance at the time of the notes offering. The complaint seeks compensatory damages and other relief. On October 24, 2019, the court granted the defendants' motions to strike the complaint for failure to state a claim, and the time for plaintiff to appeal or amend the complaint has expired.

In addition, in December 2018 and then in February 2019, certain of the Company's officers and directors were named as defendants in two virtually identical derivative actions purportedly brought on behalf of the Company, Clem v. Lautenbach et al. and Devolin v. Lautenbach et al. These two actions, both filed by the same counsel in Connecticut state court, allege, among other things, breaches of fiduciary duty relating to these same disclosures, and seek compensatory damages and other relief derivatively for the benefit of the Company. Defendants have moved to dismiss these actions; given that the defendants have prevailed in the Livonia action, plaintiffs in these cases have conceded that these cases should be dismissed.

On October 12, 2019, we were affected by a ransomware attack that temporarily disrupted customer access to some services. Our financial information was not affected and there is no evidence that any sensitive or confidential company, client, consumer or employee data was improperly accessed or extracted from our network. The backup data storage systems for virtually all our client, employee and other business data were also not affected. Our financial results were impacted by this attack, primarily as a result of business interruption, incremental costs related to the attack and costs to enhance our cybersecurity protections, and our financial results may be impacted in the future. We have insurance related to this event and expect a portion of any profit impact, including the profit associated with any loss of revenue, to ultimately be covered by insurance. We are working closely with our carriers; however, we are currently not able to reasonably estimate the amount of proceeds we will receive.

17. Leased Assets and Liabilities

We lease real estate and equipment under operating and finance lease agreements. Our leases have terms of up to 15 years, and may include an option to extend the lease for up to 5 years. At lease commencement, a lease liability and corresponding right-of-use asset is recognized. Lease liabilities represent the present value of future lease payments over the expected lease term, including options to extend or terminate the lease when it is reasonably certain those options will be exercised. Lease payments include all fixed payments and variable payments tied to an index. Variable payments excluded from the right-of-use asset and lease liability primarily include common area maintenance charges, property taxes, insurance and mileage. The present value of our lease liability is determined using our incremental borrowing rate at lease inception. Information regarding operating and financing leases are as follows:

Leases	Balance Sheet Location	December 31, 2019	December 31, 2018
Assets			
Operating	Operating lease assets	**$ 200,752**	$ 152,554
Finance	Property, plant and equipment, net	**10,443**	10,683
Total leased assets		**$ 211,195**	$ 163,237
Liabilities			
Operating	Current operating lease liabilities	**$ 36,060**	$ 35,208
	Noncurrent operating lease liabilities	**177,711**	125,294
Finance	Accounts payable and accrued liabilities	**2,879**	2,708
	Other noncurrent liabilities	**7,927**	7,054
Total lease liabilities		**$ 224,577**	$ 170,264

	Years Ended December 31,		
Lease Cost	**2019**	2018	2017
Operating lease expense	**$ 48,503**	$ 43,727	$ 41,676
Finance lease expense			
Amortization of leased assets	**3,372**	2,697	2,295
Interest on lease liabilities	**700**	527	465
Variable lease expense	**23,188**	21,864	20,838
Sublease income	**(1,948)**	(1,735)	(736)
Total expense	**$ 73,815**	$ 67,080	$ 64,538

Operating lease expense includes immaterial amounts related to leases with terms of 12 months or less.

Future Lease Payments	**Operating Leases**	**Finance Leases**	**Total**
2020	$ 47,632	$ 3,525	$ 51,157
2021	42,244	3,133	45,377
2022	33,945	2,560	36,505
2023	27,122	1,899	29,021
2024	23,165	1,042	24,207
Thereafter	97,867	277	98,144
Total	271,975	12,436	284,411
Less: present value discount	58,204	1,630	59,834
Lease liability	$ 213,771	$ 10,806	$ 224,577

At December 31, 2019, there were no operating leases signed but not yet commenced.

Lease Term and Discount Rate	**December 31, 2019**	December 31, 2018
Weighted-average remaining lease term		
Operating leases	**7.7 years**	7.2 years
Finance leases	**3.9 years**	4.1 years
Weighted-average discount rate		
Operating leases	**6.1%**	4.5%
Finance leases	**6.8%**	6.2%

	Years Ended December 31,		
Cash Flow Information	**2019**	2018	2017
Operating cash outflows - operating leases	**$ 44,252**	$ 40,599	$ 39,192
Operating cash outflows - finance leases	**$ 700**	$ 527	$ 465
Financing cash outflows - finance leases	**$ 3,096**	$ 2,564	$ 2,185
Leased assets obtained in exchange for new lease obligations			
Operating leases	**$ 87,160**	$ 36,260	$ 33,788
Finance leases	**$ 4,072**	$ 5,715	$ 3,325

18. Stockholders' Equity

Common and Treasury Stock

The following table summarizes the changes in shares of Common Stock outstanding and Treasury Stock:

	Common Stock Outstanding	Treasury Stock
Balance at December 31, 2016	185,668,718	137,669,194
Issuance of common stock	881,480	(881,480)
Conversions to common stock	53,540	(53,540)
Balance at December 31, 2017	186,603,738	136,734,174
Issuance of common stock	1,043,809	(1,043,809)
Conversions to common stock	27,535	(27,535)
Balance at December 31, 2018	187,675,082	135,662,830
Repurchases of common stock	**(18,595,315)**	**18,595,315**
Issuance of common stock	**1,276,797**	**(1,276,797)**
Conversions to common stock	**92,379**	**(92,379)**
Balance at December 31, 2019	**170,448,943**	**152,888,969**

Preferred and Preference Stock

In June 2019, we redeemed all outstanding shares of the 4% Convertible Cumulative Preferred Stock and the $2.12 Convertible Preference Stock**.**

At December 31, 2019, 37,116,835 shares were reserved for issuance under our stock plans and dividend reinvestment program.

19. Accumulated Other Comprehensive Loss

Reclassifications out of accumulated other comprehensive loss were as follows:

	Amounts Reclassified from AOCI (a)		
	Years Ended December 31,		
	2019	2018	2017
Gain (loss) on cash flow hedges			
Revenue	**$ 72**	$ 11	$ (179)
Cost of sales	**104**	51	(32)
Interest expense	**—**	(1,183)	(2,028)
Loss on extinguishment of debt	**—**	(1,267)	—
Total before tax	**176**	(2,388)	(2,239)
Tax provision (benefit)	**44**	(941)	(872)
Net of tax	**$ 132**	$ (1,447)	$ (1,367)
Gain (loss) on available for sale securities			
Interest income (expense)	**$ 1,079**	$ 3,244	$ (520)
Tax provision (benefit)	**270**	821	(201)
Net of tax	**$ 809**	$ 2,423	$ (319)
Pension and Postretirement Benefit Plans (b)			
Transition asset	**$ 6**	$ 7	$ 8
Prior service costs	**(504)**	(173)	(166)
Actuarial losses	**(34,509)**	(41,610)	(40,606)
Settlement	**(2,778)**	(44,898)	—
Total before tax	**(37,785)**	(86,674)	(40,764)
Tax benefit	**(9,497)**	(21,675)	(13,936)
Net of tax	**$ (28,288)**	$ (64,999)	$ (26,828)

(a) Amounts in parentheses indicate reductions to income and increases to other comprehensive income.
(b) Reclassified from accumulated other comprehensive loss to other components of net pension and postretirement cost. These amounts are included in net periodic costs for defined benefit pension plans and nonpension postretirement benefit plans (see Note 14 for additional details).

Changes in accumulated other comprehensive income (loss) were as follows:

	Cash flow hedges	Available-for-sale securities	Pension and postretirement benefit plans	Foreign currency adjustments	Total
Balance January 1, 2017	$ (1,485)	$ 120	$ (787,813)	$ (150,955)	$ (940,133)
Other comprehensive loss before reclassifications (a)	(288)	1,158	12,185	103,624	116,679
Amounts reclassified from accumulated other comprehensive loss (a), (b)	1,367	319	26,828	—	28,514
Net other comprehensive income (loss)	1,079	1,477	39,013	103,624	145,193
Balance at December 31, 2017	(406)	1,597	(748,800)	(47,331)	(794,940)
Cumulative effect of accounting change	(87)	344	(116,490)	—	(116,233)
Restated balance at December 31, 2017	(493)	1,941	(865,290)	(47,331)	(911,173)
Other comprehensive loss before reclassifications (a)	(763)	(2,579)	(46,170)	(52,299)	(101,811)
Amounts reclassified from accumulated other comprehensive loss (a), (b)	1,447	(2,423)	64,999	—	64,023
Net other comprehensive income (loss)	684	(5,002)	18,829	(52,299)	(37,788)
Balance at December 31, 2018	191	(3,061)	(846,461)	(99,630)	(948,961)
Other comprehensive loss before reclassifications (a)	**278**	**6,719**	**(845)**	**75,319**	**81,471**
Amounts reclassified from accumulated other comprehensive loss (a), (b)	**(132)**	**(809)**	**28,288**	**—**	**27,347**
Net other comprehensive loss	**146**	**5,910**	**27,443**	**75,319**	**108,818**
Balance at December 31, 2019	**$ 337**	**$ 2,849**	**$ (819,018)**	**$ (24,311)**	**$ (840,143)**

(a) Amounts are net of tax. Amounts in parentheses indicate debits to AOCI.
(b) See table above for additional details of these reclassifications.

20. Stock-Based Compensation Plans

We have a long-term incentive program whereby eligible employees may be granted restricted stock units, non-qualified stock options and performance stock units. The Executive Compensation Committee of the Board of Directors administers these plans. We settle stock awards with treasury shares. At December 31, 2019, there were 16,668,426 shares available for future grants under our long-term incentive program.

Restricted Stock Units

Restricted stock units (RSUs) entitle the holder to shares of common stock as the units vest, typically over a three-year service period. The following table summarizes information about RSUs:

	2019		2018	
	Shares	Weighted average grant date fair value	Shares	Weighted average grant date fair value
Outstanding - beginning of the year	**3,228,339**	**$ 13.33**	2,651,053	$ 14.16
Granted	**3,113,886**	**6.56**	1,754,098	12.36
Vested	**(1,360,219)**	**11.90**	(963,010)	11.41
Forfeited	**(501,159)**	**8.71**	(213,802)	13.26
Outstanding - end of the year	**4,480,847**	**$ 9.51**	3,228,339	$ 13.33

The fair value of RSUs is determined based on the stock price on the grant date less the present value of expected dividends. At December 31, 2019, there was $13 million of unrecognized compensation cost related to RSUs that is expected to be recognized over a weighted-average period of 1.6 years. The intrinsic value of RSUs outstanding at December 31, 2019 was $18 million. The intrinsic value of RSUs vested during 2019, 2018 and 2017 was $16 million, $17 million and $26 million, respectively. The fair value of RSUs vested during 2019, 2018 and 2017 was $18 million, $18 million and $14 million, respectively. During 2017, we granted 1,995,473 RSUs at a weighted average fair value of $13.24.

In 2019 and 2018, we granted 155,709 and 131,420 RSUs, respectively, to non-employee directors. These RSUs vest one year from the grant date.

Performance Stock Units

Performance stock units (PSUs) are stock awards where the number of shares ultimately received by the employee is conditional upon the attainment of certain performance targets as well as total shareholder return relative to peer companies. PSUs vest at the end of a three-year service period and the actual number of shares awarded may range from 0% to 200% of the target award. However, the final determination of the number of shares to be issued is made by our Board of Directors, who may reduce, but not increase, the number of shares to be awarded (negative discretion). PSUs are accounted for as variable awards until the end of the service period when the grant date is established.

The following table summarizes share information about PSUs:

	2019		2018	
	Shares	**Weighted average grant date fair value**	Shares	Weighted average grant date fair value
Outstanding - beginning of the year	**1,653,004**	**$ 13.08**	1,145,025	$ 13.43
Granted	**1,368,182**	**6.60**	733,148	12.64
Vested	**—**	**—**	(91,493)	12.21
Forfeited	**(242,824)**	**9.65**	(133,676)	14.26
Outstanding - end of the year	**2,778,362**	**$ 10.09**	1,653,004	$ 13.08

Share-based compensation expense for PSUs is recognized ratably over the service period based on the number shares expected to be awarded and the fair value of an award. The fair value of PSUs is determined using a Monte Carlo simulation model. Due to the variability of these awards, significant fluctuations in share-based compensation expense for PSUs recognized from one period to the next are possible.

Stock Options

Stock options are granted at an exercise price equal to or greater than the stock price of our common stock on the grant date. Options vest ratably over three years and expire ten years from the grant date. At December 31, 2019, there was $3 million of unrecognized compensation cost related to stock options that is expected to be recognized over a weighted-average period of 1.4 years. The intrinsic value of options outstanding and options exercisable at December 31, 2019 was not significant. There were no stock option exercises in 2019, 2018 or 2017.

The following table summarizes information about stock option activity:

	2019		2018	
	Shares	**Per share weighted average exercise prices**	Shares	Per share weighted average exercise prices
Options outstanding - beginning of the year	**13,593,156**	**$ 15.30**	10,495,039	$ 21.67
Granted	**869,297**	**6.57**	4,932,467	8.47
Canceled	**(533,921)**	**11.06**	(258,509)	13.09
Expired	**(1,105,848)**	**24.75**	(1,575,841)	36.86
Options outstanding - end of the year	**12,822,684**	**$ 14.08**	13,593,156	$ 15.30
Options exercisable - end of the year	**7,288,614**	**$ 18.49**	6,824,433	$ 20.23

The following table provides additional information about stock options outstanding and exercisable at December 31, 2019:

	Options Outstanding			Options Exercisable		
Range of per share exercise prices	Shares	Per share weighted-average exercise price	Weighted-average remaining contractual life	Shares	Per share weighted-average exercise price	Weighted-average remaining contractual life
$4.32 - $8.55	3,855,770	$ 6.18	9.0 years	—	$ —	—
$12.64 - $19.45	6,001,756	14.36	6.6 years	4,323,456	14.86	6.2 years
$21.54 - $26.07	2,965,158	23.77	1.6 years	2,965,158	23.77	1.6 years
	12,822,684	$ 14.08	6.2 years	7,288,614	$ 18.49	4.3 years

The fair value of stock options is determined using a Black-Scholes valuation model and requires assumptions be made regarding the expected stock price volatility, risk-free interest rate, life of the award and dividend yield. The expected stock price volatility is based on historical price changes of our stock. The risk-free interest rate is based on U.S. Treasuries with a term equal to the expected life of the award. The expected life of the award and expected dividend yield are based on historical experience.

The following table lists the weighted average of assumptions used to calculate the fair value of stock options granted:

	Years Ended December 31,		
	2019	2018	2017
Expected dividend yield	**3.0%**	9.9%	5.7%
Expected stock price volatility	**41.5%**	37.8%	29.7%
Risk-free interest rate	**2.5%**	2.8%	2.3%
Expected life	**5 years**	7 years	7 years
Weighted-average fair value per option granted	**$1.98**	$1.26	$2.00
Fair value of options granted	**$1,722**	$6,229	$5,107

Employee Stock Purchase Plan (ESPP)

We maintain a non-compensatory ESPP that enables substantially all U.S. and Canadian employees to purchase shares of our common stock at an offering price of 95% of the average market price on the offering date. At no time will the exercise price be less than the lowest price permitted under Section 423 of the Internal Revenue Code. Employees purchased 258,838 shares and 218,424 shares in 2019 and 2018, respectively. We have reserved 2,293,166 common shares for future purchase under the ESPP.

21. Quarterly Financial Data (unaudited)

Beginning in the third quarter of 2019, Software Solutions was presented as a discontinued operation. Accordingly, amounts previously reported for the first and second quarters of 2019 and 2018 have been recast from what was previously reported in our quarterly filings on Form 10-Q.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2019					
Revenue	$ 795,084	$ 788,573	$ 790,125	$ 831,343	$ 3,205,125
Cost of revenue	467,187	468,227	467,805	518,920	1,922,139
Operating expenses	322,620	287,312	341,870	304,042	1,255,844
Income (loss) from continuing operations before income taxes	5,277	33,034	(19,550)	8,381	27,142
Provision (benefit) for income taxes	7,820	3,724	(24,895)	344	(13,007)
(Loss) income from continuing operations	(2,543)	29,310	5,345	8,037	40,149
(Loss) income from discontinued operations	(116)	(5,613)	(8,470)	168,659	154,460
Net (loss) income	$ (2,659)	$ 23,697	$ (3,125)	$ 176,696	$ 194,609
Basic (loss) earnings per share [1]					
Continuing operations	$ (0.01)	$ 0.17	$ 0.03	$ 0.05	$ 0.23
Discontinued operations	—	(0.03)	(0.05)	0.99	0.88
Net income	$ (0.01)	$ 0.13	$ (0.02)	$ 1.04	$ 1.10
Diluted (loss) earnings per share [1]					
Continuing operations	$ (0.01)	$ 0.16	$ 0.03	$ 0.05	$ 0.23
Discontinued operations	—	(0.03)	(0.05)	0.98	0.87
Net income	$ (0.01)	$ 0.13	$ (0.02)	$ 1.03	$ 1.10

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Revenue	$ 820,289	$ 773,538	$ 760,281	$ 857,414	$ 3,211,522
Cost of revenues	444,032	426,818	419,311	500,113	1,790,274
Operating expenses	310,300	308,077	295,782	318,968	1,233,127
Income from continuing operations before income taxes	65,957	38,643	45,188	38,333	188,121
Provision (benefit) for income taxes	17,498	2,205	(2,468)	(10,819)	6,416
Income from continuing operations	48,459	36,438	47,656	49,152	181,705
Income from discontinued operations	11,511	15,157	32,621	817	60,106
Net income	$ 59,970	$ 51,595	$ 80,277	$ 49,969	$ 241,811
Basic earnings per share [1]:					
Continuing operations	$ 0.26	$ 0.19	$ 0.25	$ 0.26	$ 0.97
Discontinued operations	0.06	0.08	0.17	—	0.32
Net income	$ 0.32	$ 0.28	$ 0.43	$ 0.27	$ 1.29
Diluted earnings per share [1]:					
Continuing operations	$ 0.26	$ 0.19	$ 0.25	$ 0.26	$ 0.96
Discontinued operations	0.06	0.08	0.17	—	0.32
Net income	$ 0.32	$ 0.27	$ 0.43	$ 0.26	$ 1.28

[1] The sum of earnings per share amounts may not equal the totals due to rounding.

PITNEY BOWES INC.
SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS AND RESERVES
(Dollars in thousands)

Description	Balance at beginning of year	Additions charged to expense	Deductions	Balance at end of year
Allowance for doubtful accounts				
2019	**$ 17,443**	**$ 16,345**	**$ (15,958)**	**$ 17,830**
2018	$ 14,319	$ 9,770	$ (6,646)	$ 17,443
2017	$ 13,506	$ 7,426	$ (6,613)	$ 14,319
Valuation allowance for deferred tax asset				
2019	**$ 142,496**	**$ 5,324**	**$ (37,038)**	**$ 110,782**
2018	$ 178,156	$ 3,682	$ (39,342)	$ 142,496
2017	$ 127,095	$ 53,782	$ (2,721)	$ 178,156

Exhibit 2.2

AMENDMENT TO STOCK AND ASSET PURCHASE AGREEMENT

This AMENDMENT TO STOCK AND ASSET PURCHASE AGREEMENT (this "Amendment") is made as of December 2, 2019, by and between Pitney Bowes Inc., a Delaware corporation (the "Seller"), and Starfish Parent, LP, a Delaware limited partnership (the "Purchaser"). Capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings given to them in the Purchase Agreement (as defined below).

R E C I T A L S

WHEREAS, the Purchaser and the Seller are parties to that certain Stock and Asset Purchase Agreement, dated as of August 23, 2019 (the "Purchase Agreement"), providing for the sale of the Business (as such term is defined in the Purchase Agreement) by the Seller to the Purchaser, on the terms and subject to the conditions set forth therein;

WHEREAS, pursuant to Section 9.5 of the Purchase Agreement, the Purchase Agreement may be amended by the execution of an instrument in writing signed by the Purchaser and the Seller; and

WHEREAS, the parties hereto desire to amend the Purchase Agreement as set forth herein.

A G R E E M E N T

NOW, THEREFORE, in consideration of the mutual promises, covenants and agreements herein contained, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Amendments to the Purchase Agreement.

1.1 Section 2.5(a) of the Disclosure Schedules is hereby amended by adding the following:

4. Australia - The occurrence of one of the following events: (x) receipt by Purchaser of written notice under the Foreign Acquisitions and Takeovers Act 1975 (Cth) ("FATA"), by or on behalf of the Treasurer of the Commonwealth of Australia ("Treasurer") stating that the Commonwealth Government of Australia has no objection, or has no objection subject to Acceptable FIRB Conditions, to the transfer of the Transferred Assets and Transferred Employees, and assumption of Assumed Liabilities, as applicable, with respect to Australia contemplated by this Agreement; or (y) the Treasurer ceases to be empowered to make an order under Part 3 of the FATA in respect of such transfer and assumption, as applicable, whichever occurs first; or (z) the relevant periods specified in the FATA having elapsed such that the Treasurer is prohibited by section 77 of the FATA from making an order or decision in respect of the transfer of the Transferred Assets and Transferred Employees, and assumption of Assumed Liabilities, as applicable, with respect to Australia contemplated by this Agreement and such actions are not prohibited by section 82 of the FATA. "Acceptable

FIRB Conditions" means the conditions (i) specified in FIRB GN47 (Tax Conditions); (ii) relating to the protection of sensitive data; or (iii) which otherwise do not materially impede the purchase and sale of the Transferred Assets, Transferred Employees and Assumed Liabilities, with respect to Australia taken as a whole.

1.2 The language in Section 1.5(b) of the Purchase Agreement is hereby deleted in its entirety and replaced with the following:

In the event that the portion of the Purchase Price allocated to any Initial Jurisdiction is required by applicable Law to be paid in a Foreign Currency at the Principal Closing, (i) on the Principal Closing Date, the local Subsidiary of the Purchaser shall pay to the Seller (or the applicable local Selling Entity or other Affiliate of the Seller designated by the Seller) an amount in the applicable Foreign Currency equal to (A) such portion of the Purchase Price allocated to the applicable Initial Jurisdiction (as determined in accordance with Section 2.4) in U.S. dollars multiplied by (B) the Exchange Rate as of the Principal Closing Date with respect to each applicable Foreign Currency and (ii) the amount of the Closing Purchase Price payable in U.S. dollars shall be reduced by the portion of the Purchase Price allocated to such Initial Jurisdiction pursuant to the foregoing clause (i). For the avoidance of doubt, the term "Closing Purchase Price" shall mean the aggregate of the amount payable in U.S. dollars at the Principal Closing and any portion of the Purchase Price allocated to an Initial Jurisdiction as payable in a Foreign Currency at the Principal Closing pursuant to the immediately preceding sentence.

2. Covenants.

2.1 The Purchaser hereby agrees to use its reasonable best efforts to take, or cause to be taken, all actions and do, or cause to be done, all things necessary, proper or advisable to obtain a no objection notification, or no objection notification subject to Acceptable FIRB Conditions, issued by the Treasurer under the FATA, in the most expeditious manner practicable. Such reasonable best efforts shall include, but not be limited to, proactive and regular communications with the Treasurer or his delegates acting through FIRB, negotiation in good faith regarding any potential conditions to such no objection notification including by not withholding, conditioning or delaying the acceptance of any commercially reasonable conditions consistent with this Amendment, and the prompt and timely submission of any supplemental information requested by the Treasurer in connection with the purchase and sale of the Transferred Assets, Transferred Employees and Assumed Liabilities, with respect to Australia. In connection therewith, (x) the Seller shall reasonably cooperate with the Purchaser and (y) the Purchaser shall keep the Seller apprised of the status of any communications with, and any inquiries or requests for additional information from, the Treasurer. For the avoidance of doubt, nothing in this Amendment shall restrict the Purchaser's ability to consider and comment on any draft conditions proposed to be included in any no objection notification to be issued by the Treasurer under section 74 of the FATA.

3. Miscellaneous.

3.1 Effect of Amendment. Except as otherwise expressly provided for herein, the Purchase Agreement shall remain unchanged and shall continue in full force and effect. From and

after the date hereof, any references to the Purchase Agreement shall be deemed to be references to the Purchase Agreement as amended by this Amendment.

3.2 Successors and Assigns. This Amendment shall inure to the benefit of and be binding upon the parties hereto and their respective legal representatives and successors. This Amendment does not, and is not intended to, confer upon any Person other than the parties to this Amendment any rights or remedies hereunder.

3.3 Governing Law. This Amendment shall be governed in all respects, including as to validity, interpretation and effect, by the internal laws of the State of Delaware, without giving effect to the conflict of laws rules thereof to the extent that the application of the law of another jurisdiction would be required thereby.

3.4 Counterparts. This Amendment may be executed simultaneously in one or more counterparts (including by facsimile or electronic .pdf submission), and by the different parties in separate counterparts, each of which when executed shall be deemed to be an original, but all of which shall constitute one and the same agreement.

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties have caused this Amendment to be executed as of the date first above written.

SELLER

PITNEY BOWES INC.

By: /s/ [●]
Name: [●]
Title: [●]

PURCHASER

STARFISH PARENT, LP

By:/s/ [●]__
Name: [●]
Title: [●]

[[5245066]]

Exhibit 4

DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

Pitney Bowes Inc. ("Pitney Bowes", the "Company", "we", "our" or "us") has two classes of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"): our common stock, par value $1.00 per share (the "Common Stock") and our 6.70% Notes Due 2043 (the "notes"). When we refer to "Pitney Bowes", the "Company", "we", "our" and "us" in this exhibit, we mean only Pitney Bowes Inc., and not Pitney Bowes Inc. together with any of its subsidiaries, unless the context indicates or requires otherwise.

DESCRIPTION OF COMMON STOCK

The following summary description sets forth some of the general terms and provisions of the Common Stock. Because this is a summary description, it does not contain all of the information that may be important to you. For a more detailed description of the Common Stock, you should refer to the provisions of our restated certificate of incorporation (the "certificate of incorporation") and our by-laws, as amended and restated, each of which is an exhibit to the Annual Report on Form 10-K to which this description is an exhibit.

General

Under the certificate of incorporation, the Company is authorized to issue up to 480,000,000 shares of Common Stock with a par value of $1.00 per share, 600,000 shares of cumulative preferred stock with a par value of $50.00 per share (the "preferred stock") and 5,000,000 shares of preference stock without a par value (the "preference stock"). The shares of Common Stock currently outstanding are fully paid and nonassessable. As of January 31, 2020, there were 171,147,940 shares of Common Stock outstanding and no shares of preferred stock or preference stock outstanding. The Board of Directors has the authority to make, alter, amend or repeal the by-laws, subject to certain limitations set forth in the certificate of incorporation and the by-laws.

No Preemptive, Redemption or Conversion Rights

The Common Stock is not redeemable, is not subject to sinking fund provisions, does not have any conversion rights and is not subject to call. Holders of shares of Common Stock have no preemptive rights to maintain their percentage of ownership in future offerings or sales of stock of the Company.

Voting Rights

Holders of shares of Common Stock have one vote per share in all elections of directors and on all other matters submitted to a vote of stockholders of the Company. Holders of shares of Common Stock do not have cumulative voting rights.

Board of Directors

Our Board of Directors is not classified. Our by-laws establish that the size of the whole Board of Directors shall be not less than 3, with the exact number of directors to be fixed from time to time by a duly adopted resolution of the Board of Directors.

No Action by Stockholder Consent

The certificate of incorporation prohibits action that is required or permitted to be taken at any annual or special meeting of stockholders of the Company from being taken by the written consent of stockholders without a meeting.

Power to Call Special Stockholder Meeting

Under Delaware law, a special meeting of stockholders may be called by our Board of Directors or by any other person authorized to do so in the certificate of incorporation or by-laws. Pursuant to our by-laws, special meetings of the stockholders may be called, for any purpose or purposes, only by the Board of Directors at any time pursuant to a resolution approved by the majority of the Board of Directors.

Advance Notice Requirements

Our by-laws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or other business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals of these kinds must be timely given in writing to the Secretary of the Company before the meeting at which the action is to be taken. Generally, to be timely, notice of stockholder proposals generally must be delivered no later than the 90th and no earlier than the 120th day before the first anniversary of the preceding year's annual meeting. However, in the event that the date of the annual meeting is more than 30 days before or 60 days after such anniversary, notice must be delivered no earlier than the 120th day before such annual meeting and no later than the latest of (i) the 90th day before such annual meeting or (ii) if the first public announcement of the date of such annual meeting is less than 100 days prior to the date of such annual meeting, the 10th day following the day on which public announcement is first made. The notice must contain certain information specified in the by-laws.

Dividend Rights

Subject to the preferences applicable to any outstanding shares of preferred stock or preference stock, the holders of Common Stock are entitled to receive dividends, if any, when and as declared, from time to time, by our Board of Directors out of the assets legally available therefor.

Liquidation, Dissolution or Similar Rights

Subject to the preferences applicable to any outstanding shares of preferred stock or preference stock, upon the dissolution, liquidation or winding up of the Company, the remainder of the assets of the Company shall be distributed ratably among the holders of the shares of Common Stock at the time outstanding.

DESCRIPTION OF THE NOTES

The following summary description sets forth some of the general terms and provisions of the notes. Because this is a summary description, it does not contain all of the information that may be important to you. For a more detailed description of the notes, you should refer to the provisions of the indenture dated as of February 14, 2005, as amended or supplemented from time to time (the "indenture"), between us and The Bank of New York Mellon (formerly known as The Bank of New York), as successor trustee to Citibank, N.A., as trustee (the "trustee"), which has been filed as an exhibit to our registration statement on Form S-3 (File No. 333-151753) filed with the SEC on June 18, 2008.

General

As of January 31, 2020, there was $425 million total principal amount of the notes outstanding. We may, without the consent of the holders of the notes, issue additional senior debt securities having the same ranking and the same interest rate, maturity date and other terms as the notes. Any such additional senior debt securities, together with the notes currently outstanding, will constitute a single series of senior debt securities under the indenture.

The notes are our unsecured senior obligations and rank equally with all of our other unsubordinated debt. The notes do not constitute obligations of our subsidiaries. Creditors of our subsidiaries are entitled to a claim on the assets of those subsidiaries Consequently, in the event of a liquidation or reorganization of any subsidiary, creditors of the subsidiary are likely to be paid in full before any distribution is made to the Company and holders of notes, except to the extent that the Company is itself recognized as a creditor of such subsidiary, in which case the Company's claims would still be subordinate to any security interests in the assets of such subsidiary and any debt of such subsidiary senior to that held by the Company.

The notes will mature at 100% of their principal amount on March 7, 2043. However, we may redeem, or may be required to repurchase, the notes prior to their maturity at a redemption or repurchase price described below under "Optional Redemption" or "Change of Control Offer", respectively. There is no sinking fund for the notes.

The notes have been issued only in minimum denominations of $25.00 or an integral multiple of $25.00 in excess thereof.

We will not pay any additional amounts to compensate any beneficial owner of notes for any United States tax withheld from payments of principal of or premium, if any, or interest on the notes.

The notes are subject to defeasance in the manner described under the heading "Defeasance" below.

Principal and interest is payable, and transfers of the notes may be registered, at the office or offices or agency we maintain for such purposes, provided that payment of interest on the notes will be paid at such place by check mailed to the persons entitled thereto at the addresses of such persons appearing on the security register. The notes have been issued as global debt securities. For more information, please refer to "Book-Entry Delivery and Form" below. DTC will be the depositary with respect to the notes. The notes have been issued as fully-registered securities in the name of Cede & Co., DTC's nominee.

Interest

The notes bear interest from the most recent interest payment date (as defined below) on which we paid or provided for interest on the notes, at the rate of 6.70% per annum. We pay interest on each note quarterly in arrears on March 7, June 7, September 7 and December 7 of each year. We refer to each of these dates as an "interest payment date". We pay interest on the notes on an interest payment date to the person in whose name that note was registered at the close of business on the date that is 15 calendar days immediately preceding an interest payment date, whether or not a business day, which we refer to herein as a "regular record date". Interest on the notes is paid on the basis of a 360-day year comprised of twelve 30-day months.

In the event that an interest payment date, stated maturity date or date of earlier redemption or repurchase, as the case may be, is not a business day, we will pay interest on the next day that is a business day, with the same force and effect as if made on such interest payment date, stated maturity date or date of earlier redemption or repurchase, as the case may be, and without any interest or other payment with respect to the delay. For purposes of the notes, a "business day" is a day other than a Saturday, a Sunday or any other day on which banking institutions in The City of New York are authorized or required by law or executive order to remain closed.

Optional Redemption

We may redeem the notes at our option, in whole or in part in $25.00 increments, at any time or from time to time on or after March 7, 2018 at a redemption price equal to the sum of 100% of the principal amount of the notes being redeemed, plus accrued and unpaid interest, if any, on those notes to the redemption date; provided, however, that interest shall be payable on an interest payment date that falls on or before the redemption date to holders of notes on the regular record date for such interest payment date.

If we have given notice as provided in the indenture and made funds available for the redemption of any notes called for redemption on the redemption date referred to in that notice, those notes will cease to bear interest on that redemption date. We will give written notice of any redemption of any notes to holders of the notes to be redeemed at their addresses, as shown in the security register for the notes, at least 30 days and not more than 60 days prior to the date fixed for redemption. The notice of redemption will specify, among other items, the date fixed for redemption, the redemption price and the aggregate principal amount of the notes to be redeemed.

If we choose to redeem less than all of the notes, we will notify the trustee at least 60 days before giving notice of redemption, or such shorter period as is satisfactory to the trustee, of the aggregate principal amount of the notes to be redeemed and the applicable redemption date. The trustee will select, in such manner as it shall deem appropriate and fair, the notes to be redeemed in part.

Change of Control Offer

If a change of control triggering event occurs, unless we have exercised our option to redeem the notes as described above under "Optional Redemption", we will be required to make an offer (the "change of control offer") to each holder of notes to repurchase all or any part (equal to a principal amount of $25.00 or an integral multiple of $25.00 in excess thereof) of that holder's notes on the terms set forth in the notes. In the change of control offer, we will be required to offer payment in

cash equal to 101% of the principal amount of the notes to be repurchased plus accrued and unpaid interest, if any, on the notes to be repurchased to the date of repurchase (the "change of control payment"), subject to the rights of holders of the notes on a regular record date to receive interest due on the related interest payment date falling on or prior to the date of repurchase.

Within 30 days following any change of control triggering event or, at our option, prior to any change of control, but after public announcement of the transaction that constitutes or may constitute the change of control, we will mail a notice to holders of the notes, with a copy to the trustee, describing the transaction that constitutes or may constitute the change of control triggering event and offering to repurchase the notes on the date specified in the notice, which date will be no earlier than 30 days and no later than 60 days from the date such notice is mailed (the "change of control payment date"). The notice, if mailed prior to the date of consummation of the change of control, will state that the offer to purchase is conditioned on the change of control triggering event occurring on or prior to the change of control payment date. In the event that such offer to purchase fails to satisfy the condition in the preceding sentence, we will cause another notice meeting the aforementioned requirements to be mailed to holders of the notes.

On the change of control payment date, we will, to the extent lawful:

- accept for payment all notes or portions of notes properly tendered pursuant to the change of control offer;
- deposit with the paying agent an amount equal to the change of control payment in respect of all notes or portions of notes properly tendered; and
- deliver or cause to be delivered to the trustee the notes properly accepted together with an officers' certificate stating the aggregate principal amount of notes or portions of notes being repurchased.

The paying agent will promptly transmit to each holder of properly tendered notes the change of control payment for the notes being repurchased, and the trustee will promptly authenticate and mail (or cause to be transferred by book-entry) to each holder a new note equal in principal amount to any unrepurchased portion, if any, of any notes surrendered; provided, that each new note will be in a principal amount of $25.00 or an integral multiple of $25.00 in excess thereof.

We will not be required to make a change of control offer upon the occurrence of a change of control triggering event if a third party makes such an offer in the manner, at the times and otherwise in compliance with the requirements for an offer made by us and the third party repurchases all notes properly tendered and not withdrawn under its offer. In addition, we will not repurchase any notes if there has occurred and is continuing on the change of control payment date an event of default under the indenture, other than a default in the payment of the change of control payment upon a change of control triggering event.

Upon the occurrence of a change of control triggering event, we may not have sufficient funds to repurchase the notes in the amount of the change of control payment in cash at such time. In addition, our ability to repurchase the notes for cash may be limited by law or the terms of other agreements relating to our indebtedness outstanding at the time. The failure to make such repurchase would result in a default under the notes.

We will comply with the requirements of Rule 14e-1 under the Exchange Act, and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the notes as a result of a change of control triggering event. To the extent that the provisions of any such securities laws or regulations conflict with the change of control offer provisions of the notes, we will comply with those securities laws and regulations and will not be deemed to have breached our obligations under the change of control offer provisions of the notes by virtue of any such conflict.

For purposes of the change of control offer provisions of the notes, the following terms will be applicable:

"***Change of control***" means the occurrence of any of the following: (1) the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any "person" (as that term is used in Section 13(d)(3) of the Exchange Act) (other than Pitney Bowes, any subsidiary or employee benefit plan of Pitney Bowes or employee benefit plan of any subsidiary of Pitney Bowes) becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 under the Exchange Act), directly or indirectly, of more than 50% of the voting stock of Pitney Bowes or other voting stock into which the voting stock of Pitney Bowes is reclassified, consolidated, exchanged or changed, measured by voting power rather than number of shares; (2) the direct or indirect sale, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or more series of transactions approved by the board of directors of Pitney Bowes as part of a single plan, of 85% or more of the total consolidated assets of Pitney Bowes as shown on Pitney Bowes's most recent audited balance sheet, to one or more "persons" (as that term is defined in the indenture) (other than Pitney Bowes or one of the subsidiaries of Pitney Bowes); or (3) the first day on which a majority of the members of the board of directors of Pitney Bowes are not continuing directors. Notwithstanding the foregoing, a transaction will not be deemed to involve a change of control if (1) Pitney Bowes becomes a direct or indirect wholly-owned subsidiary of a holding company and (2)(A) the direct or indirect holders of the voting stock of such holding company immediately following that transaction are substantially the same as the holders of the voting stock of Pitney Bowes immediately prior to that transaction or (B) immediately following that transaction, no person or group (other than a holding company satisfying the requirements of this sentence) is the beneficial owner, directly or indirectly, of more than 50% of the voting stock of such holding company.

"***Change of control triggering event***" means the occurrence of both a change of control and a rating event.

"***Continuing directors***" means, as of any date of determination, any member of the board of directors of Pitney Bowes who (1) was a member of such board of directors on the date the notes were issued or (2) was nominated for election, elected or appointed to such board of directors with the approval of a majority of the continuing directors who were members of such board of directors at the time of such nomination, election or appointment (either by a specific vote or by approval of the proxy statement of Pitney Bowes in which such member was named as a nominee for election as a director, without objection to such nomination).

"***Investment grade rating***" means a rating equal to or higher than Baa3 (or the equivalent) by Moody's and BBB- (or the equivalent) by S&P, and the equivalent investment grade credit rating from any additional rating agency or rating agencies selected by Pitney Bowes.

"***Moody's***" means Moody's Investors Service, Inc., and its successors.

"***Rating agencies***" means (1) each of Moody's and S&P; and (2) if either of Moody's or S&P ceases to rate the notes or fails to make a rating of the notes publicly available, in each case for reasons outside of the control of Pitney Bowes, a "nationally recognized statistical rating organization" within the meaning of Section 3(a)(62) of the Exchange Act selected by Pitney Bowes (as certified by a resolution of the board of directors of Pitney Bowes) as a replacement agency for Moody's or S&P, or both of them, as the case may be.

"***Rating event***" means the rating on the notes is lowered by each of the rating agencies and the notes are rated below an investment grade rating by each of the rating agencies on any day within the 60-day period (which 60-day period will be extended so long as the rating of the notes is under publicly announced consideration for a possible downgrade by any of the rating agencies) after the earlier of (1) the occurrence of a change of control and (2) public notice of the occurrence of a change of control or the intention of Pitney Bowes to effect a change of control; provided, however, that a rating event otherwise arising by virtue of a particular reduction in rating will be deemed not to have occurred in respect of a particular change of control (and thus will not be deemed a rating event for purposes of the definition of change of control triggering event) if the rating agencies making the reduction in rating to which this definition would otherwise apply do not announce or publicly confirm or inform the trustee in writing at Pitney Bowes's or its request that the reduction was the result, in whole or in part, of any event or circumstance consisting of or arising as a result of, or in respect of, the applicable change of control (whether or not the applicable change of control has occurred at the time of the rating event).

"***S&P***" means Standard & Poor's Ratings Services, a division of The McGraw-Hill Companies, Inc., and its successors.

"***Voting stock***" means, with respect to any specified "person" (as that term is used in Section 13(d)(3) of the Exchange Act) as of any date, the capital stock of such person that is at the time entitled to vote generally in the election of the board of directors of such person.

Certain Covenants

Set forth below are certain covenants applicable to the notes. You can find the definitions of certain terms used in this section under "Certain Covenant Definitions".

Limitation on Liens

So long as any of the notes remain outstanding, we will not, nor will we permit any Restricted Subsidiary to, issue, assume, guarantee or become liable for any Indebtedness if that Indebtedness is secured by a Mortgage upon any Principal Domestic Manufacturing Plant or upon any shares of stock or Indebtedness of any Restricted Subsidiary without in any such case effectively providing that the notes will be secured equally and ratably with (or prior to) that Indebtedness, except that the foregoing restrictions will not apply to:

- Mortgages on property of any corporation existing at the time that corporation is acquired by us or a Restricted Subsidiary (including by way of merger or consolidation) or at the time of a sale, lease or other disposition of all or substantially all of the properties of a corporation

to us or a Restricted Subsidiary, as long as any such Mortgage is not extended to cover any property previously owned by us or a Restricted Subsidiary;

- Mortgages on property of a corporation existing at the time the corporation first becomes a Restricted Subsidiary;
- Mortgages on any property existing on the date the notes are first issued under the indenture or when we acquired that property;
- Mortgages securing any Indebtedness that a wholly-owned Restricted Subsidiary owes to us or another wholly-owned Restricted Subsidiary;
- Mortgages that we enter into within specified time periods to finance the acquisition, repair, improvement or construction of any property;
- mechanics' liens, tax liens, liens in favor of a governmental body to secure progress payments or the acquisition of real or personal property from the governmental body, and other specified liens which were not incurred in connection with any borrowing of money, as long as we are contesting those liens in good faith or those liens do not materially impair the use of any Principal Domestic Manufacturing Plant;
- Mortgages arising from any judgment, decree or order of a court in a pending proceeding;
- any extension, renewal or replacement of any of the Mortgages described above, as long as the amount of Indebtedness secured does not exceed the amount originally secured plus any fees incurred in connection with the refinancing.

Notwithstanding the above, we may issue, assume, guarantee or become liable for, and may permit any Restricted Subsidiary to issue, assume, guarantee or become liable for, secured Indebtedness which would otherwise be subject to the foregoing restrictions, provided that the total of the aggregate amount of that Indebtedness then outstanding, excluding secured Indebtedness permitted under the foregoing exceptions, together with the aggregate amount of all Attributable Debt with respect to sale and leaseback transactions, does not exceed 15% of Consolidated Net Tangible Assets.

Limitation on Sales and Leasebacks

We will not, nor will we permit any Restricted Subsidiary to, enter into any sale and leaseback arrangement involving a Principal Domestic Manufacturing Plant which has a term of more than three years, except for sale and leaseback arrangements between us and a wholly-owned Restricted Subsidiary or between wholly-owned Restricted Subsidiaries, unless:

- we enter into the sale and leaseback transaction within 180 days after the Principal Domestic Manufacturing Plant is acquired, constructed or placed into service by us;
- the rent that we pay under the related lease is reimbursed under a contract between us or a Restricted Subsidiary and the United States government or one of its agencies or instrumentalities;
- the aggregate amount of all Attributable Debt with respect to sale and leaseback transactions plus all Indebtedness secured by Mortgages on Principal Domestic Manufacturing Plants or upon shares of stock or Indebtedness of any Restricted Subsidiary (with the exception of

secured Indebtedness which is excluded as described under "Limitation on Liens" above) does not exceed 15% of Consolidated Net Tangible Assets; or

- we apply an amount equal to, in the case of a sale or transfer for cash, the lesser of the net proceeds of the sale or transfer of the Principal Domestic Manufacturing Plant and the net book value, or, in the case of a sale or transfer otherwise than for cash, the lesser of the fair market value of the Principal Domestic Manufacturing Plant and the net book value, within 180 days of the effective date of the sale and leaseback arrangement to the retirement of our or a Restricted Subsidiary's unsubordinated Indebtedness, which may include the notes. However, we cannot satisfy this test by retiring Indebtedness that we were otherwise obligated to repay within the 180-day period.

Consolidation, Merger or Sale of Assets

We shall not consolidate or merge with or into any other corporation and shall not sell, lease or convey our assets as an entirety, or substantially as an entirety, to another corporation if, as a result of that action, any of our assets would become subject to a Mortgage, unless either:

- that Mortgage could be created under the indenture without equally and ratably securing the notes; or
- the notes will be secured equally and ratably with or prior to the Indebtedness secured by that Mortgage.

The indenture provides that we may consolidate with, sell, convey or lease all or substantially all of our assets to, or merge with or into, any other corporation, if:

- either we are the continuing corporation or the successor corporation is a domestic corporation and expressly assumes the due and punctual payment of the principal of and premium, if any, and interest on all the debt securities outstanding under the indenture, including the notes, according to their tenor and the due and punctual performance and observance of all of the covenants and conditions of the indenture to be performed or observed by us; and
- immediately after such merger, consolidation, sale, conveyance or lease, we or such successor corporation, as the case may be, is not in material default in the performance or observance of any such covenant or condition.

Certain Covenant Definitions

For purposes of the foregoing covenants applicable to the notes, the following terms will be applicable:

"***Attributable Debt***" in respect of a sale and leaseback arrangement means, at the time of determination, the lesser of:

- the sale price of the Principal Domestic Manufacturing Plant to be leased multiplied by a fraction the numerator of which is the remaining portion of the base term of the lease and the denominator of which is the base term of the lease; and

- the total rental payments under the lease discounted to present value using an interest factor determined in accordance with generally accepted financial practice. However, if we cannot readily determine that interest factor, we will use an annual rate of 11%, compounded semi-annually. We will also exclude from rental payments any amounts paid on account of property taxes, maintenance, repairs, insurance, water rates and other items which are not payments for property rights.

"***Consolidated Net Tangible Assets***" means as of any particular time, the aggregate amount of assets after deducting current liabilities, goodwill, patents, copyrights, trademarks, and other intangibles, in each case as shown on our most recent consolidated financial statements prepared in accordance with U.S. generally accepted accounting principles.

"***Consolidated Net Worth***" means the sum of (1) the par value of our capital stock, (2) our capital in excess of par value and (3) retained earnings, in each case as shown on our most recent consolidated financial statements prepared in accordance with U.S. generally accepted accounting principles.

"***Indebtedness***" means any notes, bonds, debentures or other similar indebtedness for money borrowed.

"***Mortgage***" means a mortgage, security interest, pledge or lien.

"***Principal Domestic Manufacturing Plant***" means any manufacturing or processing plant or warehouse (other than any plant or warehouse which, in the opinion of our board of directors, is not material to our total business), including land and fixtures, which is owned by us or a Subsidiary, located in the United States and has a gross book value (without deduction of any depreciation reserves) on the determination date of more than 1% of our Consolidated Net Worth.

"***Restricted Subsidiary***" means any Subsidiary of ours which

- is organized under the laws of the United States or any state of the United States or the District of Columbia;
- transacts all or a substantial part of its business in the United States; and
- owns a Principal Domestic Manufacturing Plant.

However, "Restricted Subsidiary" does not include Pitney Bowes Credit Corporation or any other Subsidiary which

- is primarily engaged in providing or obtaining financing for the sale or lease of products that we or our Subsidiaries sell or lease or is otherwise primarily engaged in the business of a finance company; or
- is primarily engaged in the business of owning, developing or leasing real property other than a Principal Domestic Manufacturing Plant.

"***Subsidiary***" means any corporation of which at least a majority of the outstanding voting stock is owned by us, or by us and one or more Subsidiaries, or by one or more Subsidiaries.

Trustee, Paying Agent, Authenticating Agent and Registrar

The Bank of New York Mellon acts as trustee for the notes, which have been issued under the indenture. From time to time, we and some of our subsidiaries maintain deposit accounts and conduct

other banking transactions, including lending transactions, with the trustee in the ordinary course of business.

Notices

Any notices required to be given to the holders of the notes will be given to DTC.

Governing Law

The indenture and the notes are governed by, and will be construed in accordance with, New York law.

Book-Entry Delivery and Form

The notes have been issued in the form of one or more global securities that were deposited upon issuance with the trustee as custodian for DTC in New York, New York, and registered in the name of Cede & Co., DTC's nominee.

Beneficial interests in the global securities are represented through book-entry accounts of financial institutions acting on behalf of beneficial owners as direct or indirect participants in DTC. Investors hold their interests in the global securities through either DTC (in the United States) or (in Europe) through Clearstream or Euroclear. Investors may hold their interests in the global securities directly if they are participants of such systems, or indirectly through organizations that are participants in these systems. Clearstream and Euroclear will hold interests on behalf of their participants through customers' securities accounts in Clearstream's and Euroclear's names on the books of their respective U.S. depositaries, which in turn will hold these interests in customers' securities accounts in the depositaries' names on the books of DTC. Except as set forth below, the global securities may be transferred, in whole and not in part, only to another nominee of DTC or to a successor of DTC or its nominee.

Notes represented by a global security can be exchanged for definitive securities in registered form only if:

- DTC notifies us that it is unwilling or unable to continue as depositary for that global security and we do not appoint a successor depositary within 90 days after receiving that notice;
- at any time DTC ceases to be a clearing agency registered or in good standing under the Exchange Act or other applicable law and we do not appoint a successor depositary within 90 days after becoming aware that DTC has ceased to be registered or in good standing as a clearing agency; or
- we determine that that global security will be exchangeable for definitive securities in registered form and notify the trustee of our decision.

A global security that can be exchanged as described in the preceding paragraph will be exchanged for definitive securities of the same series and terms issued in authorized denominations in registered form for the same aggregate principal amount. The definitive securities will be registered in the names of the owners of the beneficial interests in the global security as directed by DTC.

We will make principal, premium, if any, and interest payments on all notes represented by a global security to the paying agent which in turn will make payment to DTC or its nominee, as the case may be, as the sole registered owner and the sole holder of the notes represented by a global security for all purposes under the indenture. Accordingly, we, the trustee and any paying agent will have no responsibility or liability for:

- any aspect of DTC's records relating to, or payments made on account of, beneficial ownership interests in a note represented by a global security;
- any other aspect of the relationship between DTC and its participants or the relationship between those participants, and the owners of beneficial interests in a global security held through those participants, or the maintenance, supervision or review of any of DTC's records relating to those beneficial ownership interests.

DTC has advised us that its practice is to credit participants' accounts on each payment date with payments in amounts proportionate to their respective beneficial interests in the principal amount of such global security as shown on DTC's records upon DTC's receipt of funds and corresponding detail information. Payments by participants to owners of beneficial interests in a global security will be governed by standing instructions and customary practices, as is the case with securities held for customer accounts registered in "street name", and will be the sole responsibility of those participants. Book-entry notes may be more difficult to pledge because of the lack of a physical note.

So long as DTC or its nominee is the registered owner of a global security, DTC or its nominee, as the case may be, will be considered the sole owner and holder of the notes represented by that global security for all purposes of the notes. Owners of beneficial interests in the notes will not be entitled to have notes registered in their names, will not receive or be entitled to receive physical delivery of the notes in definitive form and will not be considered owners or holders of notes under the indenture. Accordingly, each person owning a beneficial interest in a global security must rely on the procedures of DTC and, if that person is not a DTC participant, on the procedures of the participant through which that person owns its interest, to exercise any rights of a holder of notes. The laws of some jurisdictions require that certain purchasers of securities take physical delivery of the securities in certificated form. These laws may impair the ability to transfer beneficial interests in a global security. Beneficial owners may experience delays in receiving payments on their notes since payments will initially be made to DTC and must then be transferred through the chain of intermediaries to the beneficial owner's account.

We understand that, under existing industry practices, if we request holders to take any action, or if an owner of a beneficial interest in a global security desires to take any action which a holder is entitled to take under the indenture, then DTC would authorize the participants holding the relevant beneficial interests to take that action and those participants would authorize the beneficial owners owning through such participants to take that action or would otherwise act upon the instructions of beneficial owners owning through them.

Beneficial interests in a global security will be shown on, and transfers of those ownership interests will be effected only through, records maintained by DTC and its participants for that global security. The conveyance of notices and other communications by DTC to its participants and by its

participants to owners of beneficial interests in the notes will be governed by arrangements among them, subject to any statutory or regulatory requirements in effect.

Redemption notices shall be sent to DTC or its nominee, Cede & Co. If less than all of the notes are being redeemed, DTC's practice is to determine by lot the amount of the interest of each direct participant in such notes to be redeemed.

A beneficial owner will be required to give notice of any option to elect to have its notes repurchased by us, through its participant, to the trustee, and will effect delivery of those notes by causing the direct participant to transfer the participant's interest in the global security representing those notes, on DTC's records, to the trustee. The requirement for physical delivery of notes in connection with a demand for repurchase will be deemed satisfied when the ownership rights in the global security representing those notes are transferred by direct participants on DTC's records.

Payments in respect of the notes will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit direct participants' accounts upon DTC's receipt of funds and corresponding detail information from an issuer or agent, on the payable date in accordance with their respective holdings shown on DTC's records. Payments by participants to beneficial owners will be governed by standing instructions and customary practices, as is the case with notes held for the accounts of customers in bearer form or registered in "street name" and will be the responsibility of such participant and not of DTC, the agent, or the issuer, subject to any statutory or regulatory requirements as may be in effect from time to time. Payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the issuer or agent, disbursement of such payments to direct participants will be the responsibility of DTC, and disbursement of such payments to the beneficial owners will be the responsibility of direct and indirect participants.

The indenture does not limit the amount of debt securities that can be issued thereunder and provide that debt securities of any series may be issued thereunder up to the aggregate principal amount that we may authorize from time to time. The indenture does not limit the amount of other indebtedness or securities that we may issue.

The indenture requires the annual filing by the Company with the trustee of a certificate as to compliance with certain covenants contained in the indenture.

We will comply with Section 14(e) under the Exchange Act, to the extent applicable, and any other tender offer rules under the Exchange Act that may then be applicable, in connection with any obligation to purchase notes at the option of the holders thereof.

Except as described herein, there are no covenants or provisions contained in the indenture that may afford the holders of the notes protection in the event that we enter into a highly-leveraged transaction.

Events of Default

An Event of Default with respect to the debt securities of any series issued under the indenture, including the notes, is defined as:

- default in the payment of any installment of interest upon any of the debt securities of such series as and when the same shall become due and payable, and continuance of such default for a period of 30 days;
- default in the payment of all or any part of the principal of any of the debt securities of such series as and when the same shall become due and payable either at maturity, upon any redemption, by declaration or otherwise;
- default in the performance, or breach, of any other covenant or warranty contained in the debt securities of such series or set forth in the indenture (other than a covenant or warranty included in the indenture solely for the benefit of one or more series of debt securities other than such series) and continuance of such default or breach for a period of 90 days after due notice by the trustee or by the holders of at least 25% in principal amount of the outstanding securities of such series; or
- certain events of bankruptcy, insolvency or reorganization of the Company.

The indenture provides that the trustee shall notify the holders of debt securities of each series of any continuing default known to the trustee which has occurred with respect to such series within 90 days after the occurrence thereof. The indenture provides that, notwithstanding the foregoing, except in the case of default in the payment of the principal of, or interest, if any, on any of the debt securities of such series, the trustee may withhold such notice if the trustee in good faith determines that the withholding of such notice is in the interests of the holders of debt securities of such series.

The indenture provides that if an Event of Default with respect to any series of debt securities shall have occurred and be continuing, either the trustee or the holders of not less than 25% in aggregate principal amount of debt securities of such series then outstanding may declare the principal amount of all debt securities of such series to be due and payable immediately, but upon certain conditions such declaration may be annulled. Any past defaults and the consequences thereof, except a default in the payment of principal of or interest, if any, on debt securities of such series, may be waived by the holders of a majority in principal amount of the debt securities of such series then outstanding.

Subject to the provisions of the indenture relating to the duties of the trustee, in case an Event of Default with respect to any series of debt securities shall occur and be continuing, the trustee shall not be under any obligation to exercise any of the trusts or powers vested in it by the indentures at the request or direction of any of the holders of such series, unless such holders shall have offered to such trustee reasonable security or indemnity. The holders of a majority in aggregate principal amount of the debt securities of each series affected and then outstanding shall have the right, subject to certain limitations, to direct the time, method and place of conducting any proceeding for any remedy available to the trustee under the indenture or exercising any trust or power conferred on the trustee with respect to the debt securities of such series; provided that the trustee may refuse to follow any direction which is in conflict with any law or the indenture and subject to certain other limitations.

No holder of any debt security of any series will have any right under the indenture to institute any proceeding with respect to the indenture or for any remedy thereunder, unless such holder shall have previously given the trustee written notice of an Event of Default with respect to debt securities of such series and unless the holders of at least 25% in aggregate principal amount of the outstanding debt securities of such series also shall have made written request, and offered reasonable indemnity,

to the trustee to institute the proceeding, and the trustee shall have failed to institute the proceeding within 60 days after its receipt of such request, and the trustee shall not have received from the holders of a majority in aggregate principal amount of the outstanding debt securities of such series a direction inconsistent with such request. However, the right of a holder of any debt security to receive payment of the principal of and interest, if any, on such debt security on or after the due dates expressed in such debt security, or to institute suit for the enforcement of any such payment on or after such dates, shall not be impaired or affected without the consent of such holder.

Merger

The indenture provides that the Company may consolidate with, sell, convey or lease all or substantially all of its assets to, or merge with or into, any other corporation, if:

- either the Company is the continuing corporation or the successor corporation is a domestic corporation and expressly assumes the due and punctual payment of the principal of and interest on all the debt securities outstanding under the indenture according to their tenor and the due and punctual performance and observance of all of the covenants and conditions of the indenture to be performed or observed by the Company; and
- immediately after such merger, consolidation, sale, conveyance or lease, the Company or such successor corporation, as the case may be, is not in material default in the performance or observance of any such covenant or condition.

Satisfaction and Discharge of Indentures

The indenture with respect to any series of debt securities—except for certain specified surviving obligations including the Company's obligation to pay the principal of and interest on the debt securities of such series—will be discharged and cancelled upon the satisfaction of certain conditions, including the payment of all the debt securities of such series or the deposit with the trustee under the indenture of cash or appropriate government obligations or a combination thereof sufficient for such payment or redemption in accordance with the indenture and the terms of the debt securities of such series.

Modification of the Indentures

The indenture contains provisions permitting the Company and the trustee, with the consent of the holders of not less than a majority in aggregate principal amount of the debt securities of each series at the time outstanding under the indenture affected thereby, to execute supplemental indentures adding any provisions to, or changing in any manner or eliminating any of the provisions of, the indenture or any supplemental indenture or modifying in any manner the rights of the holders of the debt securities of each such series. No such supplemental indenture, however, may:

- extend the final maturity date of any debt security, or reduce the principal amount thereof, or reduce the rate or extend the time of payment of any interest thereon, or reduce any amount payable on redemption thereof, or impair or affect the right of any holder of debt securities to institute suit for payment thereof or, if the debt securities provide therefor, any right of repayment at the option of the holders of the debt securities, without the consent of the holder of each debt security so affected;

- reduce the aforesaid percentage of debt securities of such series, the consent of the holders of which is required for any such supplemental indenture, without the consent of the holders of all debt securities of such series so affected; or
- reduce the amount of principal payable upon acceleration of the maturity date of any original issue discount security.

Additionally, in certain circumstances prescribed in the indenture, the Company and the trustee may execute supplemental indentures without the consent of the holders of debt securities.

Defeasance

The indenture provides, if such provision is made applicable to the debt securities of any series, that the Company may elect to terminate, and be deemed to have satisfied and to be discharged from, all its obligations with respect to such series of debt securities— except for the obligations to register the transfer or exchange of such debt securities, to replace mutilated, destroyed, lost or stolen debt securities, to maintain an office or agency in respect of such debt securities, to compensate and indemnify the trustee and to pay or cause to be paid the principal of, and interest, if any, on all debt securities of such series when due—upon the deposit with the trustee, in trust for such purpose, of funds or government obligations which through the payment of principal and interest in accordance with their terms will provide funds in an amount sufficient, in the opinion of a nationally recognized independent registered public accounting firm, to pay the principal of and premium and interest, if any, on the outstanding debt securities of such series, and any mandatory sinking fund or analogous payments thereon, on the scheduled due dates therefor. We call this termination, satisfaction and discharge "defeasance." Such a trust may be established only if, among other things:

- the Company has delivered to the trustee an opinion of counsel with regard to certain matters, including an opinion to the effect that the holders of such debt securities will not recognize income, gain or loss for federal income tax purposes as a result of such deposit and discharge and will be subject to federal income tax on the same amounts and in the same manner and at the same times as would have been the case if such deposit and defeasance had not occurred, and which opinion of counsel must be based upon:
  - a ruling of the U.S. Internal Revenue Service to the same effect; or
  - a change in applicable U.S. federal income tax law after the date of the indenture such that a ruling is no longer required;
- no Event of Default shall have occurred or be continuing; and
- such deposit shall not result in a breach or violation of, or constitute a default under the indenture or any other material agreement or instrument to which the Company is a party or by which the Company is bound.

Exhibit 21

PITNEY BOWES INC.
SUBSIDIARIES OF REGISTRANT
The Registrant, Pitney Bowes Inc., a Delaware Corporation, has no parent
The following are subsidiaries of the Registrant
(as of December 31, 2019)

Subsidiary Name	Country or state of incorporation
AtLast Holdings Inc.	Colorado
B. Williams Funding Corp.	Delaware
Borderfree Limited	Ireland
Borderfree Research and Development Ltd.	Israel
Borderfree Trading (Shanghai) Co., Ltd.	China
Borderfree UK Limited	United Kingdom
Borderfree, Inc.	Delaware
Elmcroft Road Realty Corporation	Connecticut
Enroute Systems Corporation	Deleware
FSL Holdings Inc.	Connecticut
FSL Risk Managers Inc.	New York
Harvey Company, L.L.C	Delaware
Intreprinderea Cu Capital Strain "Tacit Knowledge" S.R.L.	Republic of Moldova
Mount Verde Insurance Company, Inc.	Vermont
Newgistics, Inc.	Delaware
NGS Holdings, Inc.	Delaware
NGS Intermediate Holdings, Inc.	Delaware
OldEurope Limited	United Kingdom
OldMS Limited	United Kingdom
PB Can US Holding LLC	Delaware
PB Equipment Management Inc.	Delaware
PB European UK LLC	Delaware
PB Nova Scotia Holding Inc.	Delaware
PB Nova Scotia Holdings ULC	Canada
PB Nova Scotia II ULC	Canada
PB Nova Scotia VI ULC	Canada
PB Nova Scotia VII ULC	Canada
PB Professional Services Inc.	Delaware
PB US Can LLC	Delaware
PB Wilmington USlux, LLC	Delaware
PB Worldwide Inc,	Delaware
Pitney Bowes (Asia Pacific) Pte. Ltd	Singapore
Pitney Bowes Australia FAS Pty Limited	Australia
Pitney Bowes Australia Pty Limited	Australia
Pitney Bowes Brasil Equipamentos e Servicos Ltda	Brazil
Pitney Bowes Canada II LP	Canada
Pitney Bowes Deutschland GmbH	Germany
Pitney Bowes Finance Ireland Limited	Ireland
Pitney Bowes Finance Limited	United Kingdom

Pitney Bowes Funding SRL	Barbados
Pitney Bowes Global Financial Services LLC	Delaware
Pitney Bowes Global Limited	United Kingdom
Pitney Bowes Global LLC	Delaware
Pitney Bowes Holdco Limited	United Kingdom
Pitney Bowes Holding SNC	France
Pitney Bowes Holdings Limited	United Kingdom
Pitney Bowes India Private Limited	India
Pitney Bowes International Finance Limited	United Kingdom
Pitney Bowes International Holdings, Inc.	Delaware
Pitney Bowes Ireland Limited	Ireland
Pitney Bowes Japan K.K.	Japan
Pitney Bowes Limited	United Kingdom
Pitney Bowes Luxembourg Holding II S.a.r.l.	Luxembourg
Pitney Bowes Luxembourg Holding S.a.r.l.	Luxembourg
Pitney Bowes New Zealand Limited	New Zealand
Pitney Bowes Nova Scotia ULC	Canada
Pitney Bowes of Canada Ltd. - Pitney Bowes du Canada Ltee	Canada
Pitney Bowes PayCo Australia PTY LTD	Australia
Pitney Bowes PayCo Canada Ltd.	Canada
Pitney Bowes PayCo EMR Limited	United Arab Emirates
Pitney Bowes PayCo Holdings Limited	Ireland
Pitney Bowes PayCo Hong Kong Limited	Hong Kong
Pitney Bowes PayCo Japan KK	Japan
Pitney Bowes PayCo Korea Ltd	South Korea
Pitney Bowes PayCo Mexico, S. DE R.L. DE C.V.	Mexico
Pitney Bowes PayCo Singapore Pte Ltd	Singapore
Pitney Bowes PayCo Switzerland GmbH	Switzerland
Pitney Bowes PayCo UK Limited	United Kingdom
Pitney Bowes PayCo US Inc.	Delaware
Pitney Bowes Polska Sp. z.o.o.	Poland
Pitney Bowes Presort Services, Inc.	Delaware
Pitney Bowes Properties Inc.	Connecticut
Pitney Bowes Puerto Rico, Inc.	Puerto Rico
Pitney Bowes SAS	France
Pitney Bowes Shelton Realty LLC	Connecticut
Pitney Bowes Software Pty Ltd	Australia
Pitney Bowes UK Funding Limited	United Kingdom
Pitney Bowes UK LP	United Kingdom
Tacit Knowledge Latin America, S. de R.L de C.V.	Mexico
Tacit Knowledge Ltd.	United Kingdom
Tacit Knowledge Singapore PTE. LTD.	Singapore
Tacit Knowledge, Inc.	California
The Pitney Bowes Bank, Inc.	Utah
Wheeler Financial from Pitney Bowes Inc.	Delaware
Wheeler Insurance, Ltd.	Vermont

EXHIBIT 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-224833, 333-190308, 333-145527, 333-132592, 333-132591, 333-132590, 333-132589, 333-66735, 333-05731 and 333-231313) and on Form S-3 (Nos. 333-216744, 333-198756) of Pitney Bowes Inc. of our report dated February 20, 2020 relating to the financial statements and financial statement schedule and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Stamford, Connecticut
February 20, 2020

Exhibit 31.1

CERTIFICATION PURSUANT TO

SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Marc B. Lautenbach, certify that:

1. I have reviewed this Annual Report on Form 10-K of Pitney Bowes Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 20, 2020

/s/ Marc B. Lautenbach

Marc B. Lautenbach

President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO

SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Stanley J. Sutula III, certify that:

1. I have reviewed this Annual Report on Form 10-K of Pitney Bowes Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 20, 2020

/s/ Stanley J. Sutula III

Stanley J. Sutula III

Executive Vice President and Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO

18 U.S.C. SECTION 1350

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Pitney Bowes Inc. (the "Company") on Form 10-K for the year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Marc B. Lautenbach, President and Chief Executive Officer of the Company, certify, to the best of my knowledge, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Marc B. Lautenbach

Marc B. Lautenbach

President and Chief Executive Officer

Date: February 20, 2020

The foregoing certification is being furnished solely to accompany this report pursuant to 18 U.S.C. §1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the Company.

Exhibit 32.2

CERTIFICATION PURSUANT TO

18 U.S.C. SECTION 1350

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Pitney Bowes Inc. (the "Company") on Form 10-K for the year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Stanley J. Sutula III, Executive Vice President and Chief Financial Officer of the Company, certify, to the best of my knowledge, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Stanley J. Sutula III

Stanley J. Sutula III

Executive Vice President and Chief Financial Officer

Date: February 20, 2020

The foregoing certification is being furnished solely to accompany this report pursuant to 18 U.S.C. §1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the Company.