









Strong Today. Creating Our Tomorrow.

2018 Annual Report



QUICK FACTS



FINANCIAL HIGHLIGHTS

	2018	2017	2016
Revenue	\$71,861	\$66,585	\$61,610
Operating expenses	64,837	59,056	53,922
Net income	4,791	4,905	3,422
Adjusted net income*	6,301	5,254	5,095
Diluted earnings per share	5.51	5.61	3.86
Adjusted diluted earnings per share*	7.24	6.00	5.74
Dividends declared per share	3.64	3.32	3.12
Assets	50,016	45,574	40,545
Long-term debt	19,931	20,278	12,394
Shareowners' equity	3,037	1,024	430
Capital expenditures ¹	6,283	5,227	2,965
Cash and marketable securities	5,035	4,069	4,567

(in millions except for per-share amounts)

*See reconciliation of Non-GAAP financial measures on page A1.

¹Adjusted capital expenditures including principal repayments of capital lease obligations were \$6.623 billion in 2018.

KEY METRICS

	2018	2017	2016
Return on assets (GAAP)	10.0%	11.4%	8.7%
Return on assets (Adjusted)*	13.1%	12.0%	12.7%
Dividend yield	3.7%	2.6%	2.7%

FREE CASH FLOW

	2018	2017	2016
Net cash from operations	\$12,711	\$1,479	\$6,473
Capital expenditures ¹	(6,283)	(5,227)	(2,965)
Proceeds from disposals of PP&E	37	24	88
Net change in finance recei	vables 4	5	9
Other investing activities	1	1	(59)
Free cash flow ²	\$6,470	(\$3,718)	\$3,546
Discretionary pension contributions		\$7,291	\$2,461
Adjusted free cash flow excluding discretionary pension contributions	\$6,470	\$3,573	\$6,007

(in millions of dollars)

²Adjusted free cash flow including principal repayments of capital lease obligations was \$6.130 billion in 2018.





Strong Today. CREATING Our Tomorrow.

Dear Fellow Shareowner,

UPS is more than a year into a sweeping transformation that's touching every part of our business — from leadership and culture to our operations, processes and the way we go to market. We've identified key global megatrends that are poised to create the greatest impact on our business over the next decade and have aligned our strategies to capitalize on these market opportunities. We are investing in advanced technology and focusing on key sectors to stay at the forefront of our industry and create long-term value for customers and shareowners.

The path we are on expands our current competitive advantages and provides new

ways for UPS to grow. The investments we are making in our network, people, technology and products will improve leverage in our global operations and are creating greater differentiation for UPS in the markets we serve. Our customers will benefit from more flexibility, consistency and visibility in how packages are moved through our network. By enhancing the value we create for our customers, we will generate higher revenue per package, better balance between our business- and residential-based volumes and a higher level of earnings growth.

In short, UPS is Strong Today, and we are CREATING our Tomorrow.

We are implementing technology that's making our network and our company more efficient, more flexible, more resilient, and more anticipatory.

To generate higher quality revenue growth, we listened to our customers and are taking action to develop new solutions to better serve their needs and strengthen their loyalty.





Transformation and our Future

Embarking on transformation touches all facets of our business and puts UPS on a clear path to enhance performance, "futureproofing" the company and taking advantage of our most promising growth opportunities. Our transformation is designed to achieve three principal goals: generate high-quality revenue growth; drive efficiencies and cost reductions that will improve our margins; and further develop our talent as we continue to foster a culture of innovation.

There are several megatrends that are key to driving our business over the long-term. We are pursuing four central opportunities that serve as our new strategic growth imperatives:

- First, we reaffirmed our commitment to focus our portfolio, service offerings and pricing to meet the needs of small and medium-sized businesses.
- Second, we are increasing our range of offerings to solidify UPS as the provider of choice in both B2C and B2B e-commerce, the next frontier of growth.
- Third, we are improving our reach and capabilities in high-growth international markets to continue to expand market share.
- Finally, we are developing innovative logistics solutions to improve patient care across the healthcare and life sciences ecosystem.

To generate higher quality revenue growth, we listened to our customers and are taking action to develop new solutions to better serve their needs and strengthen their loyalty. These include new initiatives to expand our portfolio and enhance our customers' experience when doing business with UPS. We launched new international express offerings; expanded our Saturday operations; and added new e-commerce services, including our assetlight Ware2Go warehousing solution. We have simplified pricing for small and medium-sized businesses and equipped our sales force with the tools to provide customers with shipping quotes more quickly, often on the spot.

We are gaining traction with all of these initiatives, and these actions will continue to enhance our growth and earnings trajectory well into the future.

Strong Today...

We made substantial progress on the network investment initiatives we first discussed in early 2017. We are implementing technology that's making our network and our company more efficient, more flexible, more resilient, and more anticipatory. The result is a network that enables us to attract additional opportunities for high-quality revenue growth and generate improved operating margins.

We are capturing opportunities through digital technology and automation that are changing the way people and companies connect and communicate. We operate a highly efficient and integrated network that enables us to offer customers a broad portfolio of air, ground, express and deferred offerings with more visibility and control than ever before.

For example, we have further automated our technology platforms to provide enhanced tracking, as well as access to special services. Through the use of new technology, improved controls and state-of-the-art automation, our customers have more control over all of their shipments — inbound and outbound, package and freight, local and international.

Additionally, our advanced methods of optimizing the flows of freight and packages with available capacity results in improved transit times for our customers and better asset utilization and network efficiency. To



build on those improvements and fulfill the growing demand for our services, we are significantly expanding capacity through comprehensive investments across our operations. In 2018, we opened 22 new, highly automated facilities that added more than 400,000 packages per hour of sortation capacity. And the 18 highly automated facilities that will come online in 2019 will make us even more efficient.

These improvements have succeeded in large part due to the innovative ideas and commitment to service our people bring to UPS every day. We will continue to shape our culture so we can seize on the new market opportunities of the 21st century. We are doing this in part by realigning our management structure, and recruiting more outside talent who offer new experiences to enrich our leadership team. During the past year, we have appointed members of the leadership team to new positions, including three who joined us from outside of UPS. They bring new perspectives and ideas to a team of world-class leaders. The diversity of thought, experience and perspective of the entire team continues to position us for success.

Together, we are strengthening our business processes and culture. We are shifting a culture historically centered on "constructive dissatisfaction" to a new mindset of "continuous transformation." We are making our company stronger and more capable of delivering attractive returns in both the near and long terms.

Our Results

The progress we have made towards our transformation strategies and investments were reflected in our 2018 results. Here are the highlights:

We realized the benefits of transformation with both growth and efficiency improvements. We successfully delivered on our financial targets for full-year earnings growth. Adjusted diluted earnings per share increased 21%, to \$7.24*; marking an all-time high.

We produced good volume and revenue gains as well as improved the quality of our revenue. UPS delivered about 21 million packages per day. This higher volume drove a 7.9% increase in consolidated revenue, to \$72 billion.

In the U.S., our small package business revenue grew 6.9% to more than \$43 billion driven by the best increase in revenue per package in many years.

The International business segment turned an adjusted operating profit of \$2.6 billion* with strong growth in Export shipments in a changing environment.

The Supply Chain and Freight segment generated another year of excellent results with a 13%* increase in adjusted operating profit.

We generated outstanding cash flow, which enabled UPS to continue investing in our network and rewarding shareowners. For the year, we made \$6.6 billion* in adjusted capital expenditures, distributed \$3.2 billion in dividends and bought back \$1 billion in shares.

UPS was voted No. 1 in the delivery industry in Fortune magazine's 2018 rankings of the "World's Most Admired Companies." Just Capital recognized UPS as one of America's 100 Most Just Companies for the third straight year. We were named to the Dow Jones Sustainability World Index for the sixth straight year and achieved a prestigious spot on the Carbon Disclosure Project's climate change "A" list for our efforts to cut emissions, mitigate climate risks, and develop a lowcarbon economy. At UPS, global citizenship is part of who we are, and the deep culture of excellence that permeates the entire







	INDS DECLARED
Dollars pe	r share
2018	3.64
2017	3.32
2016	3.12
2015	2.92
2014	2.68

DIVIDENDS DECLADED





organization. In fact, UPS employees have committed to volunteering 20 million hours by the end of 2020. I am proud to see that our accomplishments and capabilities are being recognized around the world.

U.S. Domestic

The U.S. Domestic segment revenue growth was driven by strong demand across all products, especially Next Day Air, as well as revenue- per-package gains from our higher quality revenue initiatives. Revenue for Next Day Air products was up 7.5%, Deferred Air was 7.5% higher, and Ground products increased 6.7%. Adjusted operating profit for U.S. Domestic was \$3.9 billion* as we successfully opened new facilities and implemented new technologies across the business.

International

The International business segment grew both its top and bottom line in a changing economic environment. Revenue increased 7.1%* on a currency-neutral basis. Strong export shipment growth of 6.2% drove our total International volume to 3.2 million on average daily. Total adjusted operating profit increased to \$2.6 billion* and reached 35% of total UPS profits. The business's 18% operating margin continues to lead the industry. These results demonstrate our ability to grow and adapt while executing a disciplined approach to cost control.

Supply Chain and Freight

The Supply Chain and Freight segment produced another year of double–digit adjusted operating profit* growth in 2018. All major business units contributed excellent revenue growth, which was led by Forwarding; up 16%. The business units demonstrated continued growth as the result of greater alignment with small and medium-sized customers. These efforts drove Supply Chain and Freight adjusted operating profit up 13% in 2018 to \$901* million.

CREATING our Tomorrow...

We embarked on this transformation from a position of strength with a commitment to create our own future. UPS has a powerful brand, an exceptional and essential global network, and a broad product and solutions portfolio that is designed to meet the current and emerging needs of our customers. UPS produces strong cash flow, the industry's highest margins, and a solid balance sheet.

We have an unmatched global network that connects more than 2.5 million businesses in more than 220 countries and territories, with 10.6 million consumers and business people worldwide every day. And we continue to invest in this powerful network to help our customers succeed locally and around the world as we grow a higher quality revenue base.

I am confident that through our transformation we will solidify UPS as the fastest, most technology-enabled and most responsive company in the industry. By offering new, differentiated services, improving our efficiency and embracing the megatrends that will create growth opportunities, we are taking a business built on trust, reliability and integrity to the next level of performance.

We have a proud 111-year history at UPS. Our more than 481,000 employees have diverse backgrounds, experiences and perspectives and are committed to delivering the best service to every one of our customers.

In summary, we are building a new UPS that is Strong Today, and Creating a BETTER Tomorrow.

David Abney UPS Chairman and Chief Executive Officer

MANAGEMENT COMMITTEE



DAVID ABNEY UPS Chairman and Chief Executive Officer



JIM BARBER Chief Operating Officer



NORMAN BROTHERS, JR. Senior Vice President, General Counsel and Corporate Secretary



NANDO CESARONE President, UPS International



PHILIPPE GILBERT President, Supply Chain Solutions



KATE GUTMANN Chief Sales and Solutions Officer; SVP The UPS Store; UPS Capital – UPS



TERI PLUMMER MCCLURE Chief Human Resources Officer and Senior Vice President, Labor



RICHARD PERETZ Chief Financial Officer



JUAN PEREZ Chief Information and Engineering Officer



SCOTT PRICE Chief Strategy and Transformation Officer



KEVIN WARREN Chief Marketing Officer



GEORGE WILLIS President, U.S. Operations

UPS BOARD OF DIRECTORS

DAVID P. ABNEY

UPS Chairman and Chief Executive Officer Director since 2014

RODNEY C. ADKINS Former Senior Vice President, IBM Director since 2013

MICHAEL J. BURNS

Former Chairman, President and Chief Executive Officer, Dana Corporation Director since 2005

WILLIAM R. JOHNSON

Former Chairman, President and Chief Executive Officer, H.J. Heinz Company Director since 2009

DR. CANDACE KENDLE

Co-founder and Former Chairman and Chief Executive Officer of Kendle International, Inc. Director since 2011

ANN M. LIVERMORE

Former Executive Vice President, Hewlett-Packard Company Director since 1997

RUDY H.P. MARKHAM

Former Financial Director, Unilever Director since 2007

FRANCK MOISON

Former Vice Chairman, Colgate-Palmolive Company Director since 2017

CLARK T. RANDT, JR.

Former U.S. Ambassador to the People's Republic of China, President of Randt & Co. LLC *Director since 2010*

CHRISTINA SMITH SHI

Former President, Direct-to-Consumer, Nike, Inc. *Director since 2018*

JOHN T. STANKEY

Chief Executive Officer, WarnerMedia, LLC *Director since 2014*

CAROL B. TOMÉ

Chief Financial Officer and Executive Vice President — Corporate Services, The Home Depot, Inc. *Director since 2003*

KEVIN M. WARSH

Former Member of the Board of Governors of the Federal Reserve System, Distinguished Visiting Fellow, Hoover Institution, Stanford University *Director since 2012*

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

FOR ANNUAL AND TRANSITION REPORTS PURSUANT TO SECTIONS 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

(Mark One)

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

For the fiscal year ended December 31, 2018

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

For the transition period from Commission file number 001-15451 to



United Parcel Service, Inc.

Delaware (State or Other Jurisdiction of Incorporation or Organization) 55 Glenlake Parkway, N.E. Atlanta, Georgia (Address of Principal Executive Offices) 58-2480149 (I.R.S. Employer Identification No.) 30328 (Zip Code)

(404) 828-6000 (Registrant's telephone number, including area code)

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

Name of Each Exchange on Which Registered

New York Stock Exchange New York Stock Exchange New York Stock Exchange New York Stock Exchange New York Stock Exchange

Securities registered pursuant to Sec

Class B common stock, par value \$.01 per share Floating-Rate Senior Notes due 2020 1.625% Senior Notes due 2025 1% Senior Notes due 2028 0.375% Senior Notes due 2023 1.500% Senior Notes due 2032

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

Class A common stock, par value \$.01 per share

(Title of Class)

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

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

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

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

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

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

Large accelerated filer 🖾 Accelerated filer 🗆 Non-accelerated filer 🗆 Smaller reporting company 🗆 Emerging growth company 🗆

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

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

The aggregate market value of the class B common stock held by non-affiliates of the registrant was \$73,643,493,685 as of June 30, 2018. The registrant's class A common stock is not listed on a national securities exchange or traded in an organized over-the-counter market, but each share of the registrant's class A common stock is convertible into one share of the registrant's class B common stock.

As of February 6, 2019, there were 164,239,863 outstanding shares of class A common stock and 695,989,113 outstanding shares of class B common stock.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for its annual meeting of shareowners scheduled for May 9, 2019 are incorporated by reference into Part III of this report.

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PART I

Cautionary Statement About Forward-Looking Statements

This report, our Annual Report to Shareowners and our other filings with the Securities and Exchange Commission ("SEC") contain certain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Statements in the future tense, and all statements accompanied by terms such as "believe," "project," "expect," "estimate," "assume," "intend," "anticipate," "target," "plan" and variations thereof and similar terms, are intended to be forward-looking statements. Forward-looking statements are made subject to the safe harbor protections of the federal securities laws pursuant to Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934.

From time to time, we also include written or oral forward-looking statements in other publicly disclosed materials. Such statements relate to our intent, belief and current expectations about our strategic direction prospects and future results, and give our current expectations or forecasts of future events; they do not relate strictly to historical or current facts. Management believes that these forward-looking statements are reasonable as and when made. However, caution should be taken not to place undue reliance on any such forward-looking statements because such statements speak only as of the date when made.

Forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from our historical experience and our present expectations or anticipated results. These risks and uncertainties are described in Part I, "Item 1A. Risk Factors" and may also be described from time to time in our future reports filed with the SEC. You should consider the limitations on, and risks associated with, forward-looking statements and not unduly rely on the accuracy of predictions contained in such forward-looking statements. We do not undertake any obligation to update forward-looking statements to reflect events, circumstances, changes in expectations or the occurrence of unanticipated events after the date of those statements.

Item 1. Business

Overview

United Parcel Service, Inc. ("UPS") was founded in 1907 as a private messenger and delivery service in Seattle, Washington. Today, we are the world's largest package delivery company, a leader in the U.S. less-than-truckload industry and a premier provider of global supply chain management solutions. We operate one of the largest airlines in the world, as well as the world's largest fleet of alternative-powered vehicles. We deliver packages each business day for 1.5 million shipping customers to 9.1 million receivers ("consignees") in over 220 countries and territories. In 2018, we delivered an average of 20.7 million pieces per day, or a total of 5.2 billion packages. Total revenue in 2018 was \$71.861 billion.

We serve the global market for logistics services, which includes transportation, distribution, contract logistics, ground freight, ocean freight, air freight, customs brokerage, insurance and financing. We have three reporting segments: U.S. Domestic Package and International Package, which together we refer to as our global small package operations, and Supply Chain & Freight, all of which are described below.

Strategy

Our market strategy is to provide customers with advanced logistics solutions made possible by a broad portfolio of differentiated services and capabilities expertly assembled and integrated into our customers' businesses. This approach, supported by our efficient and globally balanced multimodal network, enables us to deliver value to our customers and thereby build lasting partnerships with them.

Customers are able to leverage our broad portfolio of logistics capabilities comprised of: our balanced global presence in North America, Europe, Middle East, Africa, Asia Pacific and Latin America; reliability; and industry-leading technologies and solutions expertise for competitive advantage in markets where they choose to compete.

We continue to invest in the expansion of the UPS business to serve our existing and prospective customers with a full range of advanced logistics products, services and capabilities across an ever-increasing geographical and industry footprint. Achieving our objectives has required new methods and innovative approaches to logistics services, including the acquisition and creation of platform-based businesses, specialized healthcare services such as Marken's clinical trial capabilities, a full range of brokerage and transportation insurance services, retail offerings such as UPS My Choice and more.

We have a long history of operating with joint venture and partnership arrangements to provide flexibility as we build scale. We often reevaluate these arrangements to ensure they are optimally designed for our future aspirations. For example, in 2018, we acquired full ownership of our express services unit in India, signaling a new era of opportunity and operational design in a high-growth international market. We closely monitor global trade and economic, geopolitical, regulatory and environmental factors, as well as other areas of risk and change to ensure we quickly adjust to a fast-moving world.

We aim to be a disciplined and focused business that purposefully reinvests capital to achieve both long-term strategic benefits and favorable returns. In September 2018, we communicated our commitment to continuous transformation to modernize our business and operations through state-of-the art technology. We see transformation as an ongoing commitment to enhance quality and efficiency as we deliver innovative capabilities and services. Our strategic investments are primarily focused in areas we believe will drive growth and lasting profit potential:

- Services and solutions for small and medium-sized businesses.
- International growth markets.
- Global Business to Consumer ("B2C") and Business to Business ("B2B") e-commerce.
- Healthcare and life-sciences logistics.
- Operational advancements and efficiencies through our technology-enabled network.

In 2018, we added nearly 400,000 pieces per hour of automated sort capacity globally, along with numerous new technologies to help control the network and ensure resources are in the right place at the right time.

We have a long history of sound financial management, and our consolidated balance sheet showcases financial strength. Cash generation is a significant strength of UPS, giving us ample capacity to service our obligations and facilitate distributions to shareowners, reinvest in our business and pursue growth opportunities.

Reporting segments and products & services

Global Small Package

Our global small package operations provide time-definite delivery services for express letters, documents, small packages and palletized freight via air and ground services. We serve more than 220 countries and territories around the world along with domestic delivery service in more than 50 countries. We handle packages up to 108 inches in length that weigh up to 150 pounds and are up to 165 inches in combined length and girth, as well as palletized shipments weighing more than 150 pounds. All of our package services are supported by numerous shipping, visibility and billing technologies.

We handle all levels of service (air, ground, domestic, international, commercial and residential) through one global integrated pickup and delivery network. We combine all packages within our network, unless dictated by specific service commitments. This enables one UPS driver to pick up customers' shipments for any of our services at the same scheduled time each day. Compared to companies with single service network designs, our integrated network uniquely provides operational and capital efficiencies while being more environmentally friendly.

We offer same-day pickup of air and ground packages upon request. Customers can schedule pickups up to six days a week, based on their specific needs. Additionally, our wholly-owned and partnered global network offers roughly 150,000 entry points where customers can tender a package to us at a location or time convenient to them. This combined network includes UPS drivers who can accept packages provided to them, UPS drop boxes, UPS Access Point locations, The UPS Store locations, authorized shipping outlets and commercial counters, alliance locations and customer centers attached to UPS facilities. Some of these locations offer a full array of services, including pickup, delivery and packing options, while others are drop-off locations only.

The continued growth of online and mobile shopping has increased our customers' needs for efficient and reliable returns, resulting in our development of a robust selection of returns services that are available in more than 145 countries. The portfolio provides a range of cost-effective label options and a vast network of consumer drop points, as well as a selection of returns technologies that promote efficiency and a friction-free consumer experience. These options vary based on customer need and country and include solutions such as UPS Returns, as well as more-specialized services such as UPS Returns Exchange. Our technologies promote systems integration, client ease of use and visibility of inbound merchandise, which help reduce costs and improve efficiency of our merchants' reverse logistics processes. UPS Returns Manager is an excellent example of this value.

We operate one of the largest airlines in the world, with global operations centered at our Worldport hub in Louisville, Kentucky. Worldport sort capacity has expanded over the years due to volume growth and centralization efforts. Our European air hub is located in Cologne, Germany, and we maintain Asia Pacific air hubs in Shanghai, China; Shenzhen, China and Hong Kong. Our regional air hub in Canada is located in Hamilton, Ontario and our regional air hub for Latin America and the Caribbean is in Miami, Florida.

Our U.S. regional air hubs in Dallas, Texas; Ontario, California; Philadelphia, Pennsylvania and Rockford, Illinois support Worldport. This network design creates cost-effective package processing in our most technology-enabled facilities, which allows us to use fewer, larger and more fuel-efficient aircraft. Our U.S. ground fleet serves all business and residential zip codes in the contiguous U.S.

U.S. Domestic Package Reporting Segment

We are a leader in time-definite, money-back guaranteed, small package delivery services in the United States. We offer a full spectrum of U.S. domestic guaranteed ground and air package transportation services.

- Customers can select from same day, next day, two day and three day delivery alternatives. UPS's Air portfolio offers options enabling customers to specify a time-of-day guarantee for their delivery (e.g., by 8:00 A.M., 10:30 A.M., noon, end of day, etc.).
- Customers can also leverage our extensive ground network to ship using our day-definite guaranteed ground service that serves every U.S. business and residential address. We deliver more ground packages in the U.S. than any other carrier, with average daily package volume of 14.5 million, most within one to three business days.
- We also offer UPS SurePost, an economy residential ground service for customers with non-urgent, lightweight residential shipments. UPS SurePost is a contractual residential ground service that combines the consistency and reliability of the UPS Ground network with final delivery often provided by the U.S. Postal Service. We utilize our operational technology to identify multiple package delivery opportunities and redirect UPS SurePost packages for final delivery, improving time in transit, customer service and operational efficiency.

We continue to invest in our smart global logistics network. Within our facilities, we are expanding automated capacity, driving greater efficiencies and providing additional network flexibilities. We also continue to invest in our air network capacity through aircraft acquisitions. In 2018, we expanded Saturday operations and opened 22 new facilities, including regional facilities in the Atlanta, Indianapolis, Phoenix, Salt Lake City and Dallas areas.

International Package Reporting Segment

Our International Package reporting segment includes small package operations in Europe, Asia Pacific, Canada and Latin America and the Indian sub-continent, Middle East and Africa ("ISMEA"). We offer a wide selection of guaranteed dayand time-definite international shipping services. We offer more guaranteed time-definite express options (Express Plus, Express and Express Saver) than any other carrier.

- In 2018, we continued expansion of our Express time-definite portfolios:
 - We expanded UPS WorldWide Express to 14 new countries around the globe.
 - UPS Express now reaches 137 countries with guaranteed mid-day delivery and 57 countries with guaranteed morning delivery with Express Plus.
 - Express Saver reaches 220 countries and territories with guaranteed end-of-day delivery.
 - We grew our Worldwide Express Freight Midday footprint by five times in 12 European countries by expanding this service to 39,000 new postal codes.
 - Worldwide Express Freight is available from 71 origin countries to 67 destination countries.
 - For international package shipments that do not require Express services, UPS Worldwide Expedited offers a reliable, deferred, guaranteed day-definite service option. The service is available from more than 80 origin countries to more than 220 countries and territories.
 - For cross-border ground package delivery, we offer UPS Standard delivery services within Europe, between the U.S. and Canada and between the U.S. and Mexico.

Europe, our largest region outside of the U.S., accounts for approximately half of international revenue and is one of the primary drivers of our growth. To accommodate the strong potential for growth in small package exports, we made a series of enhancements to both our ground and air networks that help reduce transit time by one to two days and will result in improved exporting opportunities for customers in Europe.

We are constantly striving to provide our customers with better service. In 2018, we provided our customers with greater flexibility by offering later pick-up times in nearly 52,000 postal codes across Europe, creating production and fulfillment benefits. We continue to make major European infrastructure investments, including a \$146 million facility in Eindhoven, the Netherlands, the opening of a \$150 million hub in London and the construction of a \$100 million hub in Paris. These investments are part of ongoing efforts allowing customers using UPS Standard to reach more than 80 percent of Europe's population within two business days. These recent expansions and enhancements are part of our commitment to invest nearly \$2 billion in our European infrastructure.

Asia Pacific remains a strategic market due to growth rates in intra-Asia trade and the expanding Chinese economy. To capitalize on these opportunities, we are bringing faster time-in-transit to customers focused on intra-Asia trade and reducing transit time from Asia to the U.S. and Europe. Through added flight frequencies, we provide our customers the ability to ship next day to more places in the U.S. and Europe - guaranteed - than any other express carrier. We serve more than 40 Asia Pacific countries and territories through more than two dozen alliances with local delivery companies that supplement company-owned operations. Our joint venture with SF Express combines SF's extensive Chinese network with UPS's delivery capabilities in the U.S. and Europe to increase our market presence and help provide Chinese enterprises with greater global access.

In 2018, we extended cut-off times by four hours for export shipment pickups, lengthening production windows. We upsized four daily flights to our Shenzhen Intra-Asia hub and Hong Kong to our new Boeing 747-8s for greater capacity to support customers with import needs through gateways in Shanghai, Shenzhen and Hong Kong.

High-growth markets are also a strategic imperative for UPS. A new direct flight from the U.S. to Dubai improves time in transit to key destinations in the ISMEA region for shippers throughout the U.S., Canada and the Americas. Markets like India in the ISMEA region provide new opportunities for growth. In 2018, we made additional investments in India to acquire full ownership of our express services unit, previously a joint venture. This follows the construction of a new facility in Hyderabad and an integrated logistics facility in Ahmedabad. These enhancements allow customers in ISMEA to reach markets in the U.S. and Europe within a 48-hour delivery window. In addition to these upgrades, we added Saturday delivery to seven countries in the region. The additional operating day gives our customers greater flexibility with their operations and scheduling.

Supply Chain & Freight

Supply Chain & Freight consists of our forwarding, logistics, truckload brokerage, UPS Freight, UPS Capital and other businesses. Supply chain complexity creates demand for a global service offering that incorporates transportation, distribution and international trade and brokerage services, with complementary financial and information services. Outsourcing of non-core logistics activity is a strategy more companies are pursuing. With increased competition and growth opportunities in new markets, businesses require flexible and responsive supply chains to support their business strategies. We meet this demand by offering a broad array of supply chain services in more than 200 countries and territories.

Forwarding

We are one of the largest U.S. domestic air freight carriers and among the top international air freight forwarders globally. We offer a portfolio of guaranteed and non-guaranteed global air freight services. Additionally, as one of the world's leading non-vessel operating common carriers, we provide ocean freight full-container load, less-than-container load and multimodal transportation services between most major ports around the world.

Truckload Brokerage

Coyote Logistics Midco, Inc. ("Coyote"), a U.S.-based third party logistics provider, was acquired in August 2015. We successfully integrated this large-scale truckload brokerage and transportation management services operation into our Supply Chain & Freight segment and have seen significant synergies in the areas of purchased transportation, backhaul utilization, technology systems and industry best practices. Coyote's access to our UPS fleet, combined with its broad carrier network, has created a customized capacity solution for all markets, customers and situations. Moreover, Coyote creates access to UPS services (such as air freight, customs brokerage and global freight forwarding) for its customer base.

Freightex, a U.K.- based freight brokerage firm, was acquired in January 2017. The acquisition of Freightex added a fullscale truckload brokerage and transportation management solution to UPS's European portfolio, creating a single-source solution for shippers throughout Europe with freight ranging from parcel to full truckload. In 2018, Freightex was rebranded to Coyote Logistics to further leverage the centralized technology and business models with the market knowledge, talent and established customer and carrier bases already in Europe. The Coyote Logistics European division complements UPS's North American truckload brokerage business, as many international shippers know and trust the Coyote truckload product.

Logistics

We provide value-added fulfillment and transportation management services to customers through our global network of company-owned and leased distribution centers and field stocking locations. We leverage a global network of more than 900 facilities in more than 100 countries around the globe to ensure products and parts are in the right place, at the right time.

Our distribution centers are strategically located near UPS air and ground transportation hubs for rapid delivery to consumer and business markets. In 2017, UPS began piloting a new integrated transportation fulfillment solution for small business e-commerce merchants, enabling them to rapidly expand and grow their offerings without additional capital investments. In 2018, we expanded our network to support new business growth by adding more than 1.6 million square feet of distribution capacity.

Also in 2018, we rolled out new cloud-based transportation and warehouse management software platforms to drive higher operational efficiency and improve service to customers. The result has been better visibility, more rapid onboarding of customers and improved flexibility and response times.

Building on a 2017 pilot program, in 2018 we expanded a new integrated transportation-fulfillment solution for small business e-commerce merchants in the United States. The program enables small merchants to rapidly expand and grow their online offerings by providing connectivity to multiple marketplaces.

UPS Post Sales, our service parts logistics solution, relies on a global network of central and field stocking sites to provide critical spare parts when and where customers need them. In 2018, we implemented new technology to support our Implantable Medical Device solution, which helps ensure surgical kits and devices arrive safely and on time at hospitals and surgery centers. This integrated solution was built in collaboration with WebOps, a medical device logistics and analytics technology provider, and Baxter Planning, an inventory planning and optimization solutions provider. We continue to expand UPS Access Point locations into our network, offering greater flexibility, more convenience and improved service for our customers.

UPS Express Critical provides urgent, secure transportation for time-sensitive and high-value goods. It includes same-day, next-flight-out and door-to-door ground services, including specialized charter and hand-carry services for both lightweight and heavyweight shipments.

UPS Freight

UPS Freight offers regional, inter-regional and long-haul less-than-truckload ("LTL") services in all 50 states, Canada, Puerto Rico, Guam, the U.S. Virgin Islands and Mexico. UPS Freight provides reliable LTL service backed by a day-definite, on-time guarantee at no additional cost. UPS Freight also provides dedicated contract carriage truckload services to select clients. Additionally, user friendly shipping, visibility and billing technology offerings, including UPS WorldShip, Quantum View and UPS Billing Center, allow freight customers to create electronic bills of lading, monitor shipment progress and reconcile shipping charges.

Customs Brokerage

We are among the world's largest customs brokers by both the number of shipments processed annually and by the number of dedicated brokerage employees worldwide. In addition to customs clearance services, we also provide product classification, trade management, duty drawback and consulting services through STTAS, a UPS company. STTAS was acquired in 2017 and is a major differentiator in our ability to become the global broker of choice in all markets important to our customers. In 2017, we also added to our portfolio UPS Zone Solutions, a leader in Foreign Trade Zone administration services in the United States.

UPS Capital

UPS Capital provides financial, insurance and payment services to leverage cash and help protect companies from risk in their supply chains. With services available in 22 countries and territories, UPS Capital and its affiliates support all aspects of the order-to-cash cycle, including financing inventory warehoused overseas, insuring shipments and providing payment solutions. The UPS Capital suite of insurance services, trade finance and payment solutions helps customers protect their assets and keeps their businesses running smoothly. UPS Capital also offers insured transportation of high value goods including loose gemstones, finished jewelry and wristwatches.

Our People

The strength of our company is our people, working together with a common purpose. We had more than 481,000 employees (excluding temporary seasonal employees) as of December 31, 2018, of which 399,000 are in the U.S. and 82,000 are located internationally. Our global workforce includes approximately 85,000 management employees (41% of whom are part-time) and 396,000 hourly employees (50% of whom are part-time).

As of December 31, 2018, we had approximately 283,000 employees employed under a national master agreement and various supplemental agreements with local unions affiliated with the Teamsters. These agreements expired on July 31, 2018. On October 5, 2018, the Teamsters declared that the tentative national master agreement for the U.S. Domestic Package business unit was considered ratified, and will be implemented as soon as five remaining local and supplemental agreements are negotiated and ratified. We remain in the process of negotiating and ratifying four of these local and supplemental agreements which, when ratified, will be retroactive to August 1, 2018. The UPS Freight business unit national master agreement was ratified on November 11, 2018.

We have approximately 2,800 pilots who are employed under a collective bargaining agreement with the Independent Pilots Association ("IPA"), which becomes amendable on September 1, 2021.

Our airline mechanics are covered by a collective bargaining agreement with Teamsters Local 2727. On February 8, 2019, the airline mechanics who are covered by this agreement voted to ratify a new contract which will become amendable November 1, 2023. In addition, approximately 3,100 of our auto and maintenance mechanics who are not employed under agreements with the Teamsters are employed under collective bargaining agreements with the International Association of Machinists and Aerospace Workers ("IAM") that will expire on July 31, 2019.

Competition

UPS is a global leader in logistics. We offer a broad array of services in the package and freight delivery industry and compete with many different local, regional, national and international logistics providers. Our competitors include worldwide postal services, various motor carriers, express companies, freight forwarders, air couriers and others, including startups that combine technology with crowdsourcing to focus on local market needs. Through our supply chain service offerings, we compete with a number of providers in the supply chain, financial services and information technology industries.

Competitive Strengths

Our competitive strengths include:

Global Network. We believe that our integrated global ground and air network is the most extensive in the industry. We provide all types of package services (air, ground, domestic, international, commercial and residential) through a single pickup and delivery service network. We also have extensive air freight, ocean freight, ground freight and logistics networks that provide additional capabilities in the global transportation and logistics market. Our sophisticated engineering systems allow us to optimize our network efficiency and asset utilization on a daily basis.

Global Presence. We serve more than 220 countries and territories around the world. We have a significant presence in all of the world's major economies.

Cutting-Edge Technology. We are a global leader in developing technology that helps our customers enhance their shipping and logistics business processes to lower costs, improve service and increase efficiency.

Technology powers virtually every service we offer and every operation we perform. Customer need drives our technology offerings. We offer a variety of online service options that enable our customers to integrate UPS functionality into their own businesses not only to send, manage and track their shipments conveniently, but also to provide their customers with better information services. We provide the infrastructure for an internet presence that extends to tens of thousands of customers who have integrated UPS tools directly into their own websites.

Broad Portfolio of Services. Our portfolio of services helps customers choose the delivery option that is most appropriate for their requirements. Increasingly, our customers benefit from business solutions that integrate many UPS services beyond package delivery. For example, our supply chain services – such as freight forwarding, truckload brokerage, customs brokerage, order fulfillment and returns management – help improve the efficiency of the supply chain management process.

Customer Relationships. We focus on building and maintaining long-term customer relationships. We serve 1.5 million shipping customers and more than 9.1 million delivery customers daily. Cross selling small package, supply chain and freight services across our customer base is an important growth mechanism for UPS.

Brand Equity. We have built a leading and trusted brand that stands for quality service, reliability and service innovation. The distinctive appearance of our vehicles and the professional courtesy of our drivers are major contributors to our brand equity.

Distinctive Culture. We believe that the dedication of our employees comes in large part from our distinctive "employee-owner" concept. Our employee stock ownership tradition dates back to 1927, when our founders, who believed that employee stock ownership was a vital foundation for successful business, first offered stock to employees. To encourage employee stock ownership, we maintain several stock-based compensation programs.

Financial Strength. Our financial strength gives us the resources to achieve global scale; to invest in employee development, technology, transportation equipment and facilities; to pursue strategic opportunities that facilitate our growth; to service our obligations and to return value to our shareowners in the form of dividends, share repurchases and steady share growth.

Government Regulation

We are subject to numerous laws and regulations in connection with our package and non-package businesses in the countries in which we operate. Certain of these laws and regulations are summarized below.

Air Operations

The U.S. Department of Transportation ("DOT"), the Federal Aviation Administration ("FAA") and the U.S. Department of Homeland Security, through the Transportation Security Administration ("TSA"), have regulatory authority over United Parcel Service Co.'s ("UPS Airlines") air transportation services. The Federal Aviation Act of 1958, as amended, is the statutory basis for DOT and FAA authority and the Aviation and Transportation Security Act of 2001, as amended, is the basis for TSA aviation security authority.

The DOT's authority primarily relates to economic aspects of air transportation, such as insurance requirements, discriminatory pricing, non-competitive practices, interlocking relations and cooperative agreements. The DOT also regulates, subject to the authority of the President of the United States, international routes, fares, rates and practices and is authorized to investigate and take action against discriminatory treatment of U.S. air carriers abroad. International operating rights for U.S. airlines are usually subject to bilateral agreements between the U.S. and foreign governments or, in the absence of such agreements, by principles of reciprocity. We are also subject to current and potential aviation regulations imposed by foreign governments in the countries in which we operate, including registration and license requirements and security regulations. UPS Airlines has international route operating rights granted by the DOT and we may apply for additional authorities when those operating rights are available and are required for the efficient operation of our international network. The efficiency and flexibility of our international air transportation network is dependent on DOT and foreign government regulations and operating restrictions.

The FAA's authority primarily relates to safety aspects of air transportation, including aircraft operating procedures, transportation of hazardous materials, record keeping standards and maintenance activities and personnel. In 1988, the FAA granted us an operating certificate, which remains in effect so long as we meet the safety and operational requirements of the applicable FAA regulations. In addition, we are subject to non-U.S. government regulation of aviation rights involving non-U.S. jurisdictions and non-U.S. customs regulation.

UPS aircraft maintenance programs and procedures, including aircraft inspection and repair at periodic intervals, are approved for all aircraft under FAA regulations. The future cost of repairs pursuant to these programs may fluctuate according to aircraft condition, age and the enactment of additional FAA regulatory requirements.

The TSA regulates various security aspects of air cargo transportation in a manner consistent with the TSA mission statement to "protect the Nation's transportation systems to ensure freedom of movement for people and commerce." UPS Airlines, and specified airport and off-airport locations, are regulated under TSA regulations applicable to the transportation of cargo in an air network. In addition, personnel, facilities and procedures involved in air cargo transportation must comply with TSA regulations.

UPS Airlines, along with a number of other domestic airlines, participates in the Civil Reserve Air Fleet ("CRAF") program. Our participation in the CRAF program allows the U.S. Department of Defense ("DOD") to requisition specified UPS Airlines aircraft for military use during a national defense emergency. The DOD is required to compensate us for the use of aircraft under the CRAF program. In addition, participation in CRAF entitles UPS Airlines to bid for other U.S. Government opportunities including small package and air freight.

Ground Operations

Our ground transportation of packages in the U.S. is subject to regulation by the DOT and its agency, the Federal Motor Carrier Safety Administration (the "FMCSA") and the states' jurisdiction with respect to the regulation of operations, safety, insurance and hazardous materials. We also must comply with the safety and fitness regulations promulgated by the FMCSA, including those relating to drug and alcohol testing and hours of service for drivers. We are subject to similar regulation in many non-U.S. jurisdictions.

The Postal Reorganization Act of 1970 created the U.S. Postal Service as an independent establishment of the executive branch of the federal government, and created the Postal Rate Commission, an independent agency, to recommend postal rates. The Postal Accountability and Enhancement Act of 2006 amended the 1970 Act to give the re-named Postal Regulatory Commission revised oversight authority over many aspects of the Postal Service, including postal rates, product offerings and service standards. We sometimes participate in the proceedings before the Postal Regulatory Commission in an attempt to secure fair postal rates for competitive services.

Our ground operations are subject to compliance with various cargo-security and transportation regulations issued by the U.S. Department of Homeland Security, including regulation by the TSA.

Customs

We are subject to the customs laws in the countries in which we operate, regarding the import and export of shipments, including those related to the filing of documents on behalf of client importers and exporters. Our activities in the U.S., including customs brokerage and freight forwarding, are subject to regulation by the Bureau of Customs and Border Protection, the TSA, the U.S. Federal Maritime Commission and the DOT. Our international operations are subject to similar regulatory structures in their respective jurisdictions.

Environmental

We are subject to federal, state and local environmental laws and regulations across all of our business units. These laws and regulations cover a variety of processes, including, but not limited to: proper storage, handling and disposal of waste materials; appropriately managing wastewater and stormwater; monitoring and maintaining the integrity of underground storage tanks; complying with laws regarding clean air, including those governing emissions; protecting against and appropriately responding to spills and releases and communicating the presence of reportable quantities of hazardous materials to local responders. We have established site- and activity-specific environmental compliance and pollution prevention programs to address our environmental responsibilities and remain compliant. In addition, we have created numerous programs which seek to minimize waste and prevent pollution within our operations.

Pursuant to the Federal Aviation Act, the FAA, with the assistance of the Environmental Protection Agency ("EPA"), is authorized to establish standards governing aircraft noise. Our aircraft fleet is in compliance with current noise standards of the federal aviation regulations. Our international operations are also subject to noise regulations in certain countries in which we operate.

Communications and Data Protection

Because of our extensive use of radio and other communication facilities in our aircraft and ground transportation operations, we are subject to the Federal Communications Act of 1934, as amended. In addition, the Federal Communications Commission regulates and licenses our activities pertaining to satellite communications. There has recently been increased regulatory and enforcement focus on data protection in the U.S. (at both the state and federal level) and in other countries. For example, the European Union ("E.U.") General Data Protection Regulation ("GDPR"), which became effective in May 2018, greatly increases the jurisdictional reach of E.U. law and increases the requirements related to personal data, including individual notice and opt-out preferences and public disclosure of significant data breaches. Additionally, violations of the GDPR can result in significant fines. Other governments have enacted or are enacting similar data protection laws, and are considering data localization laws that would govern the use of data outside of their respective jurisdictions.

Where You Can Find More Information

We maintain a website at *www.ups.com*. Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports filed with or furnished to the SEC pursuant to Section 13(a) of the Securities Exchange Act of 1934 are made available through our website *www.investors.ups.com* as soon as reasonably practical after we electronically file or furnish the reports to the SEC. However, information on these websites is not incorporated by reference into this report or any other report filed with or furnished to the SEC.

We have adopted a written Code of Business Conduct that applies to all of our directors, officers and employees, including our principal executive officer and senior financial officers. It is available in the governance section of our investor relations website, located at *www.investors.ups.com*. In the event that we make changes in, or provide waivers from, the provisions of the Code of Business Conduct that the SEC requires us to disclose, we intend to disclose these events in the governance section of our investor relations website.

Our Corporate Governance Guidelines and the Charters for our Audit Committee, Compensation Committee, Executive Committee, Risk Committee and Nominating and Corporate Governance Committee are also available in the governance section of our investor relations website.

Our sustainability report, which describes our activities that support our commitment to acting responsibly and contributing to society, is available at *www.sustainability.ups.com*. We provide the addresses to our internet sites solely for the information of investors. We do not intend for any addresses to be active links or to otherwise incorporate the contents of any website into this report.

Item 1A. Risk Factors

Our business, financial condition and results are subject to numerous risks and uncertainties. In connection with any investment decision, you should carefully consider the following factors, which could materially affect our business, financial condition or results of operations. You should read these Risk Factors in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7 and our Consolidated Financial Statements and related notes in Item 8.

General economic conditions, both in the U.S. and internationally, may adversely affect our results of operations.

We conduct operations in over 220 countries and territories. Our U.S. and international operations are subject to normal cycles affecting the economy in general, as well as the local economic environments in which we operate. The factors that create cyclical changes to the economy and to our business are beyond our control, may adversely impact our credit rating and it may be difficult for us to adjust our business model to mitigate the impact of these factors. In particular, our business is affected by levels of industrial production, consumer spending and retail activity and our business, financial position and results of operations could be materially affected by adverse developments in these aspects of the economy. In addition, there remains substantial economic uncertainty arising from the United Kingdom's 2016 vote to leave the European Union. In 2017 the U.K. government initiated a process to leave the E.U., and the U.K. and the E.U. continue to negotiate the future relationship between the U.K. and the E.U., which could take several years to finalize. The results of these negotiations could result in, among other things, fewer goods being transported globally, volatility in currency exchange rates and further regulations relating to, among other things, trade and aviation. Any of the foregoing could materially adversely affect our business, financial position and results of operations.

We face significant competition which could adversely affect our business, financial position and results of operations.

We face significant competition on a local, regional, national and international basis. Our competitors include the postal services of the U.S. and other nations, various motor carriers, express companies, freight forwarders, air couriers and others, including start ups and other companies that combine technologies with crowdsourcing to focus on local market needs. Competition may also come from other sources in the future, including as a result of the development of new technologies. Some of our competitors may have cost and organizational structures that differ from ours and may offer services and pricing terms that we may not be willing or able to offer. Additionally, to remain competitive, we may have to raise costs to our customers and our customers may not be willing to accept these higher costs. If we are unable to timely and appropriately respond to competitive pressures, our business, financial position and results of operations could be adversely affected.

The transportation industry continues to consolidate and competition remains strong. As a result of consolidation, our competitors may increase their market share and improve their financial capacity, and may strengthen their competitive positions. Business combinations could also result in competitors providing a wider variety of services and products at competitive prices, which could adversely affect our financial performance.

Changes in our relationships with our significant customers, including the loss or reduction in business from one or more of them, could have an adverse impact on us.

No single customer accounts for 10% or more of our consolidated revenue. We do not believe the loss of any single customer would materially impair our overall financial condition or results of operations; however, collectively, some of our large customers might account for a relatively significant portion of the growth in revenue in a particular quarter or year. These customers can drive the growth in revenue for particular services based on factors such as: new customer product launches; trends in the e-commerce industry, such as the seasonality associated with the fourth quarter holiday season; business mergers and acquisitions and the overall fast growth of a customer's underlying business. These customers could choose to divert all or a portion of their business with us to one of our competitors, demand pricing concessions for our services, require us to provide enhanced services that increase our costs, or develop their own shipping and distribution capabilities. If these factors drove some of our large customers to cancel all or a portion of their business relationships with us, it could materially impact the growth in our business and the ability to meet our current and long-term financial forecasts.

Our business is subject to complex and stringent regulation in the U.S. and internationally, which could increase our operating costs.

We are subject to complex and stringent aviation, transportation, environmental, security, labor, employment and other governmental laws, regulations and policies, both in the U.S. and in the other countries in which we operate. In addition, our business is impacted by laws, regulations and policies that affect global trade, including tariff and trade policies, export requirements, taxes, monetary policies and other restrictions and charges. Recently, trade discussions between the U.S. and some of its trading partners have been fluid, and any trade agreements that may be entered into are subject to a number of uncertainties, including the imposition of new tariffs or adjustments and changes to the products covered by existing tariffs. The impact of new laws, regulations and policies cannot be predicted. Compliance with new laws and regulations may increase our operating costs or require significant capital expenditures. Any failure to comply with applicable laws or regulations in the U.S. or in any of the countries in which we operate could result in substantial fines or possible revocation of our authority to conduct our operations, which could adversely affect our financial performance.

Increased security requirements could impose substantial costs on us and we could be the target of an attack or have a security breach.

As a result of concerns about global terrorism and homeland security, governments around the world have adopted or may adopt stricter security requirements that will result in increased operating costs for businesses in the transportation industry. These requirements may change periodically as a result of regulatory and legislative requirements and in response to evolving threats. We cannot determine the effect that these new requirements will have on our cost structure or our operating results, and these rules or other future security requirements may increase our costs of operations and reduce operating efficiencies. Regardless of our compliance with security requirements or the steps we take to secure our facilities or fleet, we could be the target of an attack or security breaches could occur, which could materially adversely affect our operations or our reputation.

We are subject to increasingly stringent regulations related to climate change, and new regulations could materially increase our operating costs.

Concern over climate change, including the impact of global warming, has led to significant legislative and regulatory efforts, particularly internationally but also in the United States, to limit greenhouse gas ("GHG") emissions. State and local governments also are increasingly considering GHG regulation. The possibility of increased regulation of GHG emissions potentially exposes our transportation and logistics businesses to significant new taxes, fees and other costs. Compliance with such potential regulation or the associated potential costs is further complicated by the fact that various countries and regions are following different approaches to the regulation of climate change.

For example, in 2009 the European Commission approved the extension to the airline industry of the European Union Emissions Trading Scheme ("ETS") for GHG emissions. Under this decision, all of our flights operating within the European Union are covered by the ETS requirements, and we are required annually to purchase emission allowances in an amount exceeding the number of free allowances allocated to us under the ETS. Similarly, in 2016, the International Civil Aviation Organization ("ICAO") passed a resolution adopting the Carbon Offsetting and Reduction Scheme for International Aviation ("CORSIA"), which is a global, market-based emissions offset program to encourage carbon-neutral growth beyond 2020. A pilot phase is scheduled to begin in 2021 in which countries may voluntarily participate, and full mandatory participation is scheduled to begin in 2027. ICAO continues to develop details regarding implementation, but compliance with CORSIA will increase our operating costs.

In the U.S., Congress in the past several years has considered various bills that would regulate GHG emissions, but these bills so far have not received sufficient Congressional support for enactment. Nevertheless, some form of federal climate change legislation is possible in the future. Even in the absence of such legislation, the Environmental Protection Agency ("EPA"), spurred by judicial interpretation of the Clean Air Act, could determine to regulate GHG emissions, especially aircraft or diesel engine emissions, and this could impose substantial costs on us.

In August 2017, the U.S. announced its intention to withdraw from the Paris climate accord, an agreement among 196 countries to reduce GHG emissions, and the effect of that withdrawal on future U.S. policy regarding GHG emissions, on CORSIA and on other GHG regulation is uncertain. Nevertheless, the extent to which other countries implement that agreement could have an adverse direct or indirect effect on our business.

We may face additional regulations regarding GHG emissions internationally and in the United States. Potential costs to us of increased regulation regarding GHG emissions, especially aircraft or diesel engine emissions, include an increase in the cost of the fuel and other energy we purchase and capital costs associated with updating or replacing our aircraft or vehicles prematurely. We cannot predict the impact any future regulation would have on our cost structure or our operating results. It is possible that such regulation could significantly increase our operating expenses if we are unable to pass such costs along to our customers. Moreover, even without such regulation, increased awareness and any adverse publicity in the global marketplace about the GHGs emitted by companies in the airline and transportation industries could harm our reputation and reduce customer demand for our services, especially our air services.

Strikes, work stoppages and slowdowns by our employees could adversely affect our business, financial position and results of operations.

A significant number of our employees are employed under a national master agreement and various supplemental agreements with local unions affiliated with the Teamsters. In addition, our airline pilots, airline mechanics, ground mechanics and certain other employees are employed under other collective bargaining agreements. Strikes, work stoppages and slowdowns by our employees could adversely affect our ability to meet our customers' needs, and customers may do more business with competitors if they believe that such actions or threatened actions may adversely affect our ability to provide services. We may face a permanent loss of customers if we are unable to provide uninterrupted service, and this could materially adversely affect our business, financial position and results of operations. The terms of future collective bargaining agreements also may affect our competitive position and results of operations.

We are exposed to the effects of changing prices of energy, as well as gasoline, diesel and jet fuel, and interruptions in supplies of these commodities.

Changing fuel and energy costs may have a significant impact on our operations. We require significant quantities of fuel for our aircraft and delivery vehicles and are exposed to the risk associated with variations in the market price for petroleum products, including gasoline, diesel and jet fuel. We mitigate our exposure to changing fuel prices through our indexed fuel surcharges and we may also enter into hedging transactions from time to time. If we are unable to maintain or increase our fuel surcharges, higher fuel costs could adversely impact our operating results. Even if we are able to offset the cost of fuel with our surcharges, high fuel surcharges may result in a mix shift from our higher-yielding air products to lower-yielding ground products or an overall reduction in volume. There can be no assurance that our hedging transactions will be effective to protect us from changes in fuel prices. Moreover, we could experience a disruption in energy supplies as a result of war, actions by producers or other factors beyond our control, which could have a material adverse effect on our business.

Changes in exchange rates or interest rates may have a material adverse effect on our results.

We conduct business across the globe with a significant portion of our revenue derived from operations outside the United States. Our operations in international markets are affected by changes in the exchange rates for local currencies, and in particular the Euro, British Pound Sterling, Canadian Dollar, Chinese Renminbi and Hong Kong Dollar.

We are exposed to changes in interest rates, primarily on our short-term debt and that portion of our long-term debt that carries floating interest rates. The impact of a 100-basis-point change in interest rates affecting our debt is discussed in the "Quantitative and Qualitative Disclosures about Market Risk" section of this report. Additionally, changes in interest rates impact the valuation of our pension and postretirement benefit obligations and the related benefit cost recognized in the income statement. The impact of changes in interest rates on our pension and postretirement benefit obligations and costs is discussed further in the "Critical Accounting Policies and Estimates" section of this report.

We monitor and manage our exposures to changes in currency exchange rates and interest rates, and make use of derivative instruments to mitigate the impact of changes in these rates on our financial position and results of operations; however, changes in exchange rates and interest rates cannot always be predicted or hedged.

If we are unable to maintain our brand image and corporate reputation, our business may suffer.

Our success depends in part on our ability to maintain the image of the UPS brand and our reputation for providing excellent service to our customers. Service quality issues, actual or perceived, even when false or unfounded, could tarnish the image of our brand and may cause customers to use other companies. Also, adverse publicity surrounding labor relations, environmental concerns, security matters, political activities and the like, or attempts to connect our company to these sorts of issues, either in the United States or other countries in which we operate, could negatively affect our overall reputation and acceptance of our services by customers. Social media may accelerate and amplify the scope of negative publicity, and increase the challenge of responding to negative claims. Damage to our reputation and loss of brand equity could reduce demand for our services and thus have a material adverse effect on our business, financial position and results of operations, and could require additional resources to rebuild our reputation and restore the value of our brand.

A significant data breach or IT system disruption could adversely affect our business, financial results, or reputation, and we may be required to increase our spending on data and system security.

We rely heavily on information technology networks and systems, including the Internet, to manage or support a wide variety of important business processes and activities throughout our operations. For example, we rely on information technology to receive package level information in advance of physical receipt of packages, to track items that move through our delivery systems, to efficiently plan deliveries, to execute billing processes, and to track and report financial and operational data. Our franchised center locations and businesses we have acquired also are reliant on the use of information technology systems to manage their business processes and activities.

In addition, the provision of service to our customers and the operation of our networks and systems involve the storage and transmission of significant amounts of proprietary information and sensitive or confidential data, including personal information of customers, employees and others. To conduct our operations, we regularly move data across national borders, and consequently we are subject to a variety of continuously evolving and developing laws and regulations in the United States and abroad regarding privacy, data protection and data security. The scope of the laws that may be applicable to us is often uncertain and may be conflicting, particularly with respect to foreign laws. For example, the European Union's General Data Protection Regulation ("GDPR"), which greatly increases the jurisdictional reach of European Union law and adds a broad array of requirements for handling personal data, including the public disclosure of significant data breaches, became effective in May 2018. Other countries have enacted or are enacting data localization laws that require data to stay within their borders. All of these evolving compliance and operational requirements impose significant costs that are likely to increase over time.

Our information technology systems (as well as those of our franchisees and acquired businesses) may be susceptible to damage, disruptions or shutdowns due to failures during the process of upgrading or replacing software, databases or components thereof, power outages, hardware failures, computer viruses, cyber-attacks, ransomware attacks, malware attacks, malicious employees or other insiders, telecommunications failures, human errors or catastrophic events. Hackers, foreign governments, cyber-terrorists and cyber-criminals, acting individually or in coordinated groups, may launch distributed denial of service attacks or other coordinated attacks that may cause service outages, gain inappropriate or block legitimate access to systems or information, or result in other interruptions in our business. In addition, breaches in security could expose us, our customers and franchisees, or the individuals affected, to a risk of loss or misuse of proprietary information and sensitive or confidential data, including personal information of customers, employees and others. The techniques used to obtain unauthorized access, disable or degrade service or sabotage systems change frequently, may be difficult to detect for a long time and often are not recognized until launched against a target. As a result, we may be unable to anticipate these techniques or to implement adequate preventative measures.

We also depend on and interact with the information technology networks and systems of third-parties for many aspects of our business operations, including our customers and franchisees and service providers such as cloud service providers and third-party delivery services. These third parties may have access to information we maintain about our company, operations, customers, employees and vendors, or operating systems that are critical to or can significantly impact our business operations. Like us, these third-parties are subject to risks imposed by data breaches and cyber-attacks and other events or actions that could damage, disrupt or close down their networks or systems. Security processes, protocols and standards that we have implemented and contractual provisions requiring security measures that we may have sought to impose on such third-parties may not be sufficient or effective at preventing such events, which could result in unauthorized access to, or disruptions or denials of access to, or misuse of, information or systems that are important to our business, including proprietary information, sensitive or confidential data, and other information about our operations, customers, employees and suppliers, including personal information.

Any of these events that impact our information technology networks or systems, or those of acquired businesses, franchisees, customers, service providers or other third-parties, could result in disruptions in our operations, the loss of existing or potential customers, damage to our brand and reputation, regulatory scrutiny, and litigation and potential liability for us. Among other consequences, our customers' confidence in our ability to protect data and systems and to provide services consistent with their expectations could be impacted, further disrupting our operations. Similarly, an actual or alleged failure to comply with applicable U.S. or foreign data protection regulations or other data protection standards may expose us to litigation, fines, sanctions or other penalties.

We have invested and continue to invest in technology security initiatives, information technology risk management and disaster recovery plans. The cost and operational consequences of implementing, maintaining and enhancing further data or system protection measures could increase significantly to overcome increasingly intense, complex and sophisticated global cyber threats. Despite our best efforts, we are not fully insulated from data breaches and system disruptions. For example, in 2014, a broad-based malware intrusion targeting retailers throughout the U.S. was discovered and subsequently eradicated at approximately 1% of our franchisees' locations. While the impact of this cyber-attack, including the costs associated with investigation and remediation activities, was not material to our business and our financial results, there is no assurance that such impacts will not be material in the future, and our efforts to deter, identify, mitigate and/or eliminate future breaches may require significant additional effort and expense and may not be successful.

Severe weather or other natural or manmade disasters could adversely affect our business.

Severe weather conditions and other natural or manmade disasters, including storms, floods, fires or earthquakes, epidemics or pandemics, conflicts or unrest, or terrorist attacks, may result in decreased revenues, as our customers reduce their shipments, or increased costs to operate our business, which could have a material adverse effect on our results of operations for a quarter or year. Any such event affecting one of our major facilities could result in a significant interruption in or disruption of our business.

We make significant capital investments in our business of which a significant portion is tied to projected volume levels.

We require significant capital investments in our business consisting of aircraft, vehicles, technology, facilities and sorting and other types of equipment to support both our existing business and anticipated growth. Forecasting projected volume involves many factors which are subject to uncertainty, such as general economic trends, changes in governmental regulation and competition. If we do not accurately forecast our future capital investment needs, we could have excess capacity or insufficient capacity, either of which would negatively affect our revenues and profitability. In addition to forecasting our capital investment requirements, we adjust other elements of our operations and cost structure in response to adverse economic conditions; however, these adjustments may not be sufficient to allow us to maintain our operating margins in a weak economy.

We derive a significant portion of our revenues from our international operations and are subject to the risks of doing business in international markets.

We have significant international operations, and while the geographical diversity of our international operations helps ensure that we are not overly reliant on a single region or country, we are continually exposed to changing economic, political and social developments that are beyond our control. Emerging markets are typically more volatile than those in the developed world, and any broad-based downturn in these markets could reduce our revenues and adversely affect our business, financial position and results of operations. We are subject to many laws governing our international operations, including those that prohibit improper payments to government officials and commercial customers, and restrict where we can do business, our shipments to certain countries and the information that we can provide to non-U.S. governments.

We are subject to changes in markets and our business plans that have resulted, and may in the future result, in substantial write-downs of the carrying value of our assets, thereby reducing our net income.

Our regular review of the carrying value of our assets has resulted, from time to time, in significant impairments, and we may in the future be required to recognize additional impairment charges. Changes in business strategy, government regulations, or economic or market conditions have resulted and may result in further substantial impairments of our intangible, fixed or other assets at any time in the future. In addition, we have been and may be required in the future to recognize increased depreciation and amortization charges if we determine that the useful lives of our fixed assets or intangible assets are shorter than we originally estimated. Such changes could reduce our net income.

Employee health and retiree health and pension benefit costs represent a significant expense to us; further cost increases could materially and adversely affect us.

Our expenses relating to employee health and retiree health and pension benefits are significant. In recent years, we have experienced significant increases in some of these costs, largely as a result of economic factors beyond our control, including, in particular, ongoing increases in healthcare costs well in excess of the rate of inflation and historically low discount rates that we use to value our benefit plan obligations. Continually increasing healthcare costs, volatility in investment returns and discount rates, as well as changes in laws, regulations and assumptions used to calculate retiree health and pension benefit expenses, may adversely affect our business, financial position, results of operations or require significant contributions to our benefit plans. Our national master agreement with the Teamsters includes provisions that are designed to mitigate certain of these healthcare expenses, but there can be no assurance that our efforts will be successful or that the failure or success of these efforts will not materially adversely affect our business, financial position, results of operations or liquidity.

We participate in a number of trustee-managed multiemployer pension and health and welfare plans for employees covered under collective bargaining agreements. As part of the overall collective bargaining process for wage and benefit levels, we have agreed to contribute certain amounts to the multiemployer benefit plans during the contract period. The multiemployer benefit plans set benefit levels and are responsible for benefit delivery to participants. Future contribution amounts to multiemployer benefit plans will be determined only through collective bargaining, and we have no additional legal or constructive obligation to increase contributions beyond the agreed-upon amounts. However, in future collective bargaining negotiations, we could agree to make significantly higher future contributions to improve the funded status of one or more of these plans. The funded status of these multiemployer plans is impacted by various factors, including investment performance, healthcare inflation, changes in demographics and changes in participant benefit levels. At this time, we are unable to determine the amount of additional future contributions, if any, or whether any material adverse effect on our financial condition, results of operations or liquidity could result from our participation in these plans.

In addition to our on-going multiemployer pension plan obligations, we may have additional exposure with respect to benefits earned in the Central States Pension Fund (the "CSPF"). UPS was a contributing employer to the CSPF until 2007 when we withdrew from the CSPF and fully funded our allocable share of unfunded vested benefits by paying a \$6.1 billion withdrawal liability. Under a collective bargaining agreement with the International Brotherhood of Teamsters ("IBT"), UPS agreed to provide coordinating benefits in the UPS/IBT Full Time Employee Pension Plan ("UPS/IBT Plan") for UPS participants whose last employer was UPS and who had not retired as of January 1, 2008 ("the UPS Transfer Group") in the event that benefits are lawfully reduced by the CSPF in the future consistent with the terms of our withdrawal agreement with the CSPF. Under our withdrawal agreement with the CSPF, benefits to the UPS Transfer Group cannot be reduced without our consent and can only be reduced in accordance with applicable law.

In December 2014, Congress passed the Multiemployer Pension Reform Act ("MPRA"). This change in law for the first time permitted multiemployer pension plans to reduce benefit payments to retirees, subject to specific guidelines in the statute and government approval. In September 2015, the CSPF submitted a proposed pension benefit reduction plan to the U.S. Department of the Treasury ("Treasury"). In May 2016, Treasury rejected the proposed plan submitted by the CSPF. In the first quarter of 2018, Congress established a Joint Select Committee to develop a recommendation to improve the solvency of multiemployer plans and the Pension Benefit Guaranty Corporation ("PBGC") before a November 30, 2018 deadline. While the Committee's efforts failed to meet its deadline, the Committee made significant progress towards finding solutions that will address the long term solvency of multiemployer pension plans. UPS will continue to work with all stakeholders, including legislators and regulators, to implement an acceptable solution.

The CSPF has said that it believes a legislative solution to its funded status is necessary or that it will become insolvent in 2025, and we expect that the CSPF will continue to explore options to avoid insolvency. Numerous factors could affect the CSPF's funded status and UPS's potential obligation to pay coordinating benefits under the UPS/IBT Plan. Any obligation to pay coordinating benefits will be subject to a number of significant uncertainties, including whether the CSPF submits a revised MPRA filing and the terms thereof, or whether it otherwise seeks federal government assistance, as well as the terms of any applicable legislation, the extent to which benefits are paid by the PBGC and our ability to successfully defend legal positions we may take in the future under the MPRA, including the suspension ordering provisions, our withdrawal agreement and other applicable law.

We account for the potential obligation to pay coordinating benefits to the UPS Transfer Group under Accounting Standards Codification Topic 715- Compensation- Retirement Benefits ("ASC 715"), which requires us to provide a best estimate of various actuarial assumptions, including the eventual outcome of this matter, in measuring our pension benefit obligation at the December 31st measurement date. While we currently believe the most likely outcome to this matter and the broader systemic problems facing multiemployer pension plans is intervention by the federal government, ASC 715 does not permit anticipation of changes in law in making a best estimate of pension liabilities.

As such, our best estimate of the next most likely outcome at the measurement date is that the CSPF submits and implements another benefit reduction plan under the MPRA during 2019. We believe any MPRA filing would be designed to forestall insolvency by reducing benefits to participants other than the UPS Transfer Group to the maximum extent permitted, and then reducing benefits to the UPS Transfer Group by a lesser amount.

We have evaluated this outcome using a deterministic cash flow projection, reflecting updated estimated CSPF cash flows and investment earnings, the lack of legislative action and the absence of a MPRA filing by the CSPF in 2018. As a result, at the December 31, 2018 measurement date, the best estimate of our projected benefit obligation increased by \$1.6 billion for coordinating benefits that may be required to be directly provided by the UPS/IBT Plan to the UPS Transfer Group.

The future value of this estimate will be influenced by the terms and timing of any MPRA filing, changes in our discount rate, rate of return on assets and other actuarial assumptions, presumed solvency of the PBGC, as well as potential solutions resulting from federal government intervention. Any such event may result in a decrease or an increase in the best estimate of our projected benefit obligation. If the uncertainties are not resolved, it is reasonably possible that our projected benefit obligation could increase by approximately \$2.4 billion, resulting in a total obligation for coordinating benefits of approximately \$4.0 billion as previously disclosed. If a future change in law occurs, it may be a significant event requiring an interim remeasurement of the UPS/IBT Plan at the date the law is enacted. We will continue to assess the impact of these uncertainties on our projected benefit obligation in accordance with ASC 715.

We may have additional tax liabilities.

We are subject to income taxes in the U.S. and many foreign jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes. In the course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. For example, compliance with the 2017 United States Tax Cuts and Jobs Act (the "Tax Act") may require the collection of information not regularly produced within our company and the exercise of significant judgment in accounting for its provisions. Many aspects of the Tax Act remain unclear and may not be clarified for some time. In addition, many state jurisdictions continue to issue guidance on the state treatment of certain aspects of the Tax Act. As regulations and guidance evolve with respect to the Tax Act, our results may differ from previous estimates and may materially affect our tax rates and our financial position.

We regularly are under audit by tax authorities in different jurisdictions. Economic and political pressures to increase tax revenue in various jurisdictions may make resolving tax disputes favorably more difficult. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related litigation in the jurisdictions where we are subject to taxation could be materially different from our historical income tax provisions and accruals. In addition, changes in U.S. federal and state or international tax laws applicable to corporate multinationals, other fundamental law changes currently being considered by many countries, including the U.S., and changes in taxing jurisdictions' administrative interpretations, decisions, policies and positions may materially adversely impact our tax expense and cash flows.

We may be subject to various claims and lawsuits that could result in significant expenditures.

The nature of our business exposes us to the potential for various claims and litigation related to labor and employment, personal injury, property damage, business practices, environmental liability and other matters. Any material litigation or a catastrophic accident or series of accidents could have a material adverse effect on our business, financial position and results of operations.

We may not realize the anticipated benefits of acquisitions, joint ventures or strategic alliances.

As part of our business strategy, we may acquire businesses and form joint ventures or strategic alliances. Whether we realize the anticipated benefits from these transactions depends, in part, upon the successful integration between the businesses involved, the performance of the underlying operations, capabilities or technologies and the management of the acquired operations. Accordingly, our financial results could be materially adversely affected by our failure to effectively integrate the acquired operations, unanticipated performance issues, transaction-related charges or charges for impairment of long-term assets that we acquire.

Insurance and claims expenses could have a material adverse effect on our business, financial condition and results of operations.

We have a combination of both self-insurance and high-deductible insurance programs for the risks arising out of the services we provide and the nature of our global operations, including claims exposure resulting from cargo loss, personal injury, property damage, aircraft and related liabilities, business interruption and workers' compensation. Workers' compensation, automobile and general liabilities are determined using actuarial estimates of the aggregate liability for claims incurred and an estimate of incurred but not reported claims, on an undiscounted basis. Our accruals for insurance reserves reflect certain actuarial assumptions and management judgments, which are subject to a high degree of variability. If the number or severity of claims for which we are retaining risk increases, our financial condition and results of operations could be adversely affected. If we lose our ability to self-insure these risks, our insurance costs could materially increase and we may find it difficult to obtain adequate levels of insurance coverage.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 2. Properties

Operating Facilities

We own our headquarters, which is located in Atlanta, Georgia and consists of about 745,000 square feet of office space in an office campus, and our UPS Supply Chain Solutions group's headquarters, which is located in Alpharetta, Georgia and consists of about 310,000 square feet of office space.

We own or lease over 1,000 package operating facilities in the U.S., with approximately 73 million square feet of floor space. The smaller of these facilities have vehicles and drivers stationed for the pick-up and delivery of packages, and capacity to sort and transfer packages. The larger of these facilities also service our vehicles and equipment, and employ specialized mechanical installations for the sorting and handling of packages. We own or lease approximately 800 facilities that support our international package operations, with approximately 22 million square feet of floor space.

In addition, we own or lease more than 500 facilities, with approximately 35 million square feet of floor space, that support our freight forwarding and logistics operations. We own and operate a logistics campus consisting of approximately 4 million square feet in Louisville, Kentucky.

We own or lease approximately 200 UPS Freight service centers with approximately 6 million square feet of floor space. The main offices of UPS Freight are located in Richmond, Virginia and consist of about 217,000 square feet of office space.

Our aircraft are operated in a hub and spoke pattern in the U.S., with our principal air hub, known as Worldport, located in Louisville, Kentucky. The Worldport facility consists of over 5 million square feet and includes high-speed conveyor and computer control systems.

We also own or lease regional air hubs globally, with over 4 million square feet of floor space. Our U.S. regional air hubs are located in Dallas, Texas; Ontario, California; Philadelphia, Pennsylvania; and Rockford, Illinois. These hubs house facilities for the sorting, transfer and delivery of packages. Our European air hub is located in Cologne, Germany, and we maintain Asia-Pacific air hubs in Shanghai, China; Shenzhen, China; and Hong Kong. Our regional air hub in Canada is located in Hamilton, Ontario, and our regional air hub for Latin America and the Caribbean is in Miami, Florida.

Our primary information technology operations are consolidated in a 444,000 square foot owned facility, the Ramapo Ridge facility, in Mahwah, New Jersey. Our information technology headquarters is located in Parsippany, New Jersey, consisting of about 200,000 square feet of office space. We also own a 175,000 square foot facility in Alpharetta, Georgia, which serves as a backup to the main information technology operations facility in New Jersey. This facility provides production functions and backup capacity in the event that a power outage or other disaster incapacitates the main data center. It also helps to meet our internal communication needs.

Fleet

Aircraft

The following table shows information about our aircraft fleet as of December 31, 2018:

Description	Owned and Capital Leases	Short-term Leased or Chartered From Others	On Order	Under Option
Boeing 757-200	75			
Boeing 767-200		2		
Boeing 767-300	59	—	9	
Boeing 767-300BCF	3			
Airbus A300-600	52	—	—	
Boeing MD-11	37	5		
Boeing 747-400F	11	—		
Boeing 747-400BCF	2			
Boeing 747-8F	9	—	19	
Other		309		
Total	248	316	28	

Vehicles

We operate a global ground fleet of approximately 123,000 package cars, vans, tractors and motorcycles. Our ground support fleet consists of 36,000 pieces of equipment designed specifically to support our aircraft fleet, ranging from non-powered container dollies and racks to powered aircraft main deck loaders and cargo tractors. We also have 47,000 containers used to transport cargo in our aircraft.

Item 3. Legal Proceedings

See note 5 to the audited consolidated financial statements for a discussion of pension related matters and note 9 for a discussion of judicial proceedings and other matters arising from the conduct of our business activities.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Our class A common stock is not listed on a national securities exchange or traded in an organized over-the-counter market, but each share of our class A common stock is convertible into one share of our class B common stock. Our class B common stock is listed on the New York Stock Exchange under the symbol "UPS".

As of February 8, 2019, there were 155,651 and 19,151 shareowners of record of class A and class B common stock, respectively.

Our practice has been to pay dividends on a quarterly basis. The declaration of dividends is subject to the discretion of the Board of Directors and will depend on various factors, including our net income, financial condition, cash requirements, future prospects and other relevant factors.

On February 15, 2019, our Board declared a dividend of \$0.96 per share, which is payable on March 12, 2019 to shareowners of record on February 26, 2019. This represents a 5.5% increase from the previous \$0.91 per share quarterly dividend paid in December 2018.

A summary of repurchases of our class A and class B common stock during the fourth quarter of 2018 is as follows (in millions, except per share amounts):

	Total Number of Shares Purchased ⁽¹⁾	Total Number of Shares Purchased as Part of Publicly Announced Program	Pi	Average rice Paid er Share	Approximate Dollar Value of Shares that May Yet be Purchased Under the Program (as of month-end)
October 1—October 31	0.8	0.8	\$	116.96	\$ 3,495
November 1—November 30	0.7	0.7		110.33	3,416
December 1—December 31	0.8	0.8		101.13	3,339
Total October 1—December 31	2.3	2.3	\$	109.41	

⁽¹⁾ Includes shares repurchased through our publicly announced share repurchase program and shares tendered to pay the exercise price and tax withholding on employee stock options.

In May 2016, the Board of Directors approved a share repurchase authorization of \$8.0 billion, which replaced an authorization previously announced in 2013. The share repurchase authorization has no expiration date. As of December 31, 2018, we had \$3.339 billion of this share repurchase authorization remaining.

Share repurchases may take the form of accelerated share repurchases, open market purchases, or other such methods as we deem appropriate. The timing of our share repurchases will depend upon market conditions. We anticipate repurchasing approximately \$1.0 billion of shares in 2019.

Shareowner Return Performance Graph

The following performance graph and related information shall not be deemed "soliciting material" or to be "filed" with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933 or Securities Exchange Act of 1934, each as amended, except to the extent that the Company specifically incorporates such information by reference into such filing.

The following graph shows a five-year comparison of cumulative total shareowners' returns for our class B common stock, the Standard & Poor's 500 Index and the Dow Jones Transportation Average. The comparison of the total cumulative return on investment, which is the change in the stock price plus reinvested dividends for each of the quarterly periods, assumes that \$100 was invested on December 31, 2013 in the Standard & Poor's 500 Index, the Dow Jones Transportation Average and our class B common stock.



Comparison of Five-Year Cumulative Total Return

	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018
United Parcel Service, Inc.	\$ 100.00	\$ 108.67	\$ 101.61	\$ 124.68	\$ 133.59	\$ 112.91
Standard & Poor's 500 Index	\$ 100.00	\$ 113.68	\$ 115.24	\$ 129.02	\$ 157.17	\$ 150.27
Dow Jones Transportation Average	\$ 100.00	\$ 125.07	\$ 104.11	\$ 126.87	\$ 151.00	\$ 132.38

For information regarding our equity compensation plans, see Item 12 of this report.

Item 6. Selected Financial Data

The following table sets forth selected financial data for each of the five years in the period ended December 31, 2018 (in millions, except per share amounts). This financial data should be read together with our consolidated financial statements and related notes, Management's Discussion and Analysis of Financial Condition and Results of Operations, including the *Items Affecting Comparability* section, and other financial data appearing elsewhere in this report.

	Years Ended December 31,									
		2018		2017		2016		2015		2014
Selected Income Statement Data										
Revenue:										
U.S. Domestic Package	\$	43,593	\$	40,761	\$	38,284	\$	36,744	\$	35,851
International Package		14,442		13,342		12,346		12,142		13,032
Supply Chain & Freight		13,826		12,482		10,980		10,300		10,295
Total Revenue		71,861		66,585	_	61,610		59,186		59,178
Operating Expenses:										
Compensation and benefits		37,235		34,577		32,534		31,448		30,247
Other		27,602		24,479		21,388		20,495		22,161
Total Operating Expenses	_	64,837		59,056	_	53,922	_	51,943	_	52,408
Operating Profit:										
U.S. Domestic Package		3,643		4,303		4,628		4,427		4,244
International Package		2,529		2,429		2,417		2,123		1,884
Supply Chain and Freight		852		797		643		693		642
Total Operating Profit		7,024	_	7,529		7,688	_	7,243	_	6,770
Other Income and (Expense):										
Investment income (expense) and other		(400)		61		(2,186)		435		(1,776)
Interest expense		(605)		(453)		(381)		(341)		(353)
Income Before Income Taxes		6,019		7,137		5,121		7,337		4,641
Income Tax Expense		1,228		2,232		1,699		2,497		1,607
Net Income	\$	4,791	\$	4,905	\$	3,422	\$	4,840	\$	3,034
Per Share Amounts:	_		-		_		_		_	
Basic Earnings Per Share	\$	5.53	\$	5.63	\$	3.88	\$	5.37	\$	3.31
Diluted Earnings Per Share	\$	5.51	\$	5.61	\$	3.86	\$	5.34	\$	3.28
Dividends Declared Per Share	\$	3.64	\$	3.32	\$	3.12	\$	2.92	\$	2.68
Weighted Average Shares Outstanding:										
Basic		866		871		883		901		916
Diluted		870		875		887		906		924
				A	s of l	December 3	31.			
		2018		2017		2016		2015		2014

	2018		2017		2010		2015		2014
Selected Balance Sheet Data:									
Cash and marketable securities	\$	5,035	\$	4,069	\$	4,567	\$ 4,726	\$	3,283
Total assets		50,016		45,574		40,545	38,497		35,634
Long-term debt		19,931		20,278		12,394	11,316		9,856
Shareowners' equity		3,037		1,024		430	2,501		2,173

This table reflects the impact of the adoption of new accounting standards in 2018. Refer to note 1 to the audited consolidated financial statements.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview

During 2018, we produced strong revenue growth across all three segments. We realized improvements in revenue per piece as pricing and growth initiatives drove an increase in yields in all of our major products.

We achieved solid operating profit growth in both our International Package and Supply Chain & Freight segments. Operating profit in our U.S. Domestic segment operation was negatively impacted primarily by planned costs related to our transformation strategy, higher pension expenses, one less operating day and the impact of bringing new facility and technology projects on-line. The benefits of our efficiency and growth initiatives in the U.S. will not be fully realized until future periods.

Consolidated revenue increased 7.9% to \$71.861 billion, up from \$66.585 billion in 2017. Operating profit for 2018 decreased 6.7% to \$7.024 billion, which includes the impact of \$360 million pre-tax transformation strategy costs.

Consolidated average daily package volume increased 3.2% in 2018. We reported 2018 net income of \$4.791 billion and diluted earnings per share of \$5.51, compared to 2017 net income of \$4.905 billion and diluted earnings per share of \$5.61. Adjusting for the after-tax impacts of transformation costs of \$273 million and an increase in pension expense due to a mark-to-market loss recognized outside of the 10% corridor of \$1.237 billion (\$1.627 billion before tax), net income was \$6.301 billion.

Our consolidated results are presented in the table below:

	Year	r Eno	led Decemb	% Cha	ange	
	2018		2017	2016	2018/ 2017	2017/ 2016
Revenue (in millions)	\$ 71,861	\$	66,585	\$ 61,610	7.9 %	8.1 %
Operating Expenses (in millions)	64,837		59,056	53,922	9.8 %	9.5 %
Operating Profit (in millions)	\$ 7,024	\$	7,529	\$ 7,688	(6.7)%	(2.1)%
Operating Margin	9.8%		11.3%	12.5%		
Average Daily Package Volume (in thousands)	20,677		20,030	19,083	3.2 %	5.0 %
Average Revenue Per Piece	\$ 10.98	\$	10.53	\$ 10.29	4.3 %	2.3 %
Net Income (in millions)	\$ 4,791	\$	4,905	\$ 3,422	(2.3)%	43.3 %
Basic Earnings Per Share	\$ 5.53	\$	5.63	\$ 3.88	(1.8)%	45.1 %
Diluted Earnings Per Share	\$ 5.51	\$	5.61	\$ 3.86	(1.8)%	45.3 %

UNITED PARCEL SERVICE, INC. AND SUBSIDIARIES

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Items Affecting Comparability

The results and discussions that follow are reflective of how our executive management monitors the performance of our reporting segments. We supplement the reporting of our financial information determined under generally accepted accounting principles ("GAAP") with certain non-GAAP financial measures, including, as applicable, "adjusted" compensation and benefits, operating expenses, operating profit, operating margin, other income (expense), pre-tax income, net income and earnings per share. These adjustments reflect the non-comparable items discussed below. We believe that these adjusted financial results and assessing our prospects for future performance. We believe these adjusted financial measures are important indicators of our recurring results of operations because they exclude items that may not be indicative of, or are unrelated to, our underlying operating results and provide a useful baseline for analyzing trends in our underlying businesses. Additionally, these adjusted financial measures are used internally by management for the determination of incentive compensation awards, business unit operating performance analysis and business unit resource allocation.

Non-GAAP financial measures should be considered in addition to, and not as an alternative for, our reported results prepared in accordance with GAAP. Our non-GAAP financial information does not represent a comprehensive basis of accounting. Therefore, our non-GAAP financial information may not be comparable to similarly titled measures reported by other companies.

	Year E	ber 31,		
Non-GAAP Adjustments	2018	1	2017	2016
Operating Expenses:				
Transformation Strategy Costs	\$ 360	\$		\$ —
Total Adjustments to Operating Expenses	360			_
Other Income and (Expense):				
Defined Benefit Plans Mark-to-Market Charges	\$ 1,627	\$	800	\$ 2,651
Total Adjustments to Other Income and (Expense)	1,627		800	2,651
Total Adjustments to Income Before Income Taxes	 1,987		800	2,651
Income Tax Benefit from the Mark-to-Market Charges	(390)		(193)	(978)
Income Tax Benefit from Transformation Strategy Costs	(87)		(1))	(770)
	(87)		(259)	
Income Tax Benefit from the Tax Cuts and Jobs Act and Other Non-U.S. Tax Law Changes	 		(258)	
Total Adjustments to Income Tax Expense	\$ (477)	\$	(451)	\$ (978)
Total Adjustments to Net Income	\$ 1,510	\$	349	\$ 1,673

The year-over-year comparisons of our financial results are affected by the following items (in millions):

These items have been excluded from comparisons of "adjusted" Compensation and benefits, Operating Expenses, Operating Profit, Operating Margin, Other Income and (Expense), Income Tax Expense and effective tax rate in the discussion that follows. The income tax effects of the transformation strategy costs and the mark-to-market charges are calculated by multiplying the statutory tax rates applicable in each tax jurisdiction, including the U.S. federal jurisdiction and various U.S. state and non-U.S. jurisdictions, by the adjustments. The blended average of the applicable statutory tax rates in 2018, 2017 and 2016 were 24.0%, 24.1% and 36.9%, respectively. We believe this adjusted information provides useful comparison of year-to-year ongoing operating performance without considering the short-term impact of transformation strategy costs. We evaluate the performance of our businesses on an adjusted basis.
MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Impact of Changes in Foreign Currency Exchange Rates

We supplement the reporting of our revenue, revenue per piece, and operating profit, along with other income and expense, with similar non-GAAP measures that exclude the period-over-period impact of foreign currency exchange rate changes and hedging activities. We believe currency-neutral revenue, revenue per piece and operating profit information allows users of our financial statements to understand growth trends in our products and results. We evaluate the performance of our International Package and Supply Chain & Freight businesses on a currency-neutral basis.

Currency-neutral revenue, revenue per piece and operating profit are calculated by dividing current period reported U.S. dollar revenue, revenue per piece and operating profit by the current period average exchange rates to derive current period local currency revenue, revenue per piece and operating profit. The derived current period local currency revenue, revenue per piece and operating profit are then multiplied by the average foreign exchange rates used to translate the comparable results for each month in the prior year period (including the period over period impact of foreign currency revenue hedging activities). The difference between the current period U.S. dollar revenue, revenue per piece and operating profit is the period over period impact of currency fluctuations.

Transformation Strategy Costs

Transformation strategy costs described in note 16 to the audited consolidated financial statements have been excluded from comparisons of "adjusted" Compensation and benefits, Other Operating Expenses, Operating Profit, Operating Margin, Income Tax Expense and effective tax rate. The pre-tax transformation strategy costs totaled \$360 million (\$273 million after-tax) in 2018, and reflects costs and other benefits of \$262 million included within Compensation and benefits on the statements of consolidated income, and other costs of \$98 million recorded to total other expenses. We believe this adjusted information provides useful comparison of year-to-year ongoing operating performance without considering the short-term impact of transformation strategy costs.

Income Tax Benefit from the Tax Cuts and Jobs Act

We supplement the presentation of our income tax expense and effective tax rate with "adjusted" measures that exclude the impact of the income tax benefit from the Tax Cuts and Jobs Act (the "Tax Act") described in the "Income Tax Expense" section of Management's Discussion and Analysis and note 13 to the audited consolidated financial statements. We believe income tax expense and the effective tax rate excluding the tax benefit is useful in evaluating our ongoing operating performance for the current period to that of other periods presented.

Defined Benefit Plans Mark-to-Market Charges

We recognize changes in the fair value of plan assets and net actuarial gains and losses in excess of a 10% corridor for our pension and postretirement defined benefit plans immediately as part of net periodic benefit cost other than service cost. We supplement the presentation of our Other Income and (Expense) with "adjusted" measures that exclude the impact of the portion of net periodic benefit cost other than service cost represented by the gains and losses recognized in excess of the 10% corridor and the related income tax effects.

This adjusted net periodic benefit cost (\$615 million in 2018, \$843 million in 2017 and \$1.074 billion in 2016) utilizes the expected return on plan assets (7.68% in 2018 and 8.65% in 2017 and 2016). The non-adjusted net periodic benefit cost reflects the actual return on plan assets (-2.38% in 2018, 14.25% in 2017 and 6.06% in 2016) and the discount rate used to measure the projected benefit obligation at the December 31 measurement date (4.45% in 2018, 3.81% in 2017 and 4.34% in 2016). We believe excluding these mark-to-market charges from our adjusted results provides important supplemental information that reflects the anticipated long-term cost of our defined benefit plans and provides a benchmark for historical defined benefit cost trends that may provide a useful comparison of year-to-year financial performance without considering the short-term impact of changes in market interest rates, equity prices and similar factors.

We recognized pre-tax mark-to-market losses in "Other Income and (Expense)" of \$1.627 billion, \$800 million and \$2.651 billion on our pension and postretirement defined benefit plans related to the remeasurement of plan assets and liabilities recognized outside of a 10% corridor, for 2018, 2017 and 2016, respectively.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The table below indicates the amounts associated with each component of the pre-tax mark-to-market losses, as well as the weighted-average actuarial assumptions used to determine our net periodic benefit costs, for each year:

	Year Ended December 31,						
Components of mark-to-market gain (loss) (in millions):		2018 2017		2018		2016	
Discount rates	\$	845	\$	(2,288)	\$	(1,953)	
Return on assets		(1,057)		1,525		(732)	
Demographic and assumption changes		(22)		(37)		34	
Coordinating benefits attributable to the Central States Pension Fund		(1,393)					
Total mark-to-market gain (loss)	\$	(1,627)	\$	(800)	\$	(2,651)	

	Year Ended December 31,					
Weighted-average actuarial assumptions used to determine net periodic benefit cost:	2018	2017	2016			
Expected rate of return on plan assets	7.68 %	8.65%	8.65%			
Actual rate of return on plan assets	(2.38)%	14.25%	6.06%			
Discount rate used for net periodic benefit cost	3.81 %	4.34%	4.81%			
Discount rate at measurement date	4.45 %	3.81%	4.34%			

The \$1.627 billion, \$800 million and \$2.651 billion pre-tax mark-to-market losses for the years ended December 31, 2018, 2017 and 2016, respectively, were comprised of the following components:

2018 - \$1.627 billion pre-tax mark-to-market loss:

- *Return on Assets* (\$1.057 billion pre-tax loss): In 2018, the actual (2.38)% rate of return on plan assets was lower than our expected rate of return of 7.68%, primarily due to weak global equity markets.
- *Coordinating benefits attributable to the Central States Pension Fund* (\$1.393 billion pre-tax loss): This represents our current best estimate of potential coordinating benefits that may be required to be paid related to the Central States Pension Fund.
- *Discount Rates* (\$845 million pre-tax gain): The weighted-average discount rate for our pension and postretirement medical plans increased from 3.81% at December 31, 2017 to 4.45% at December 31, 2018, primarily due to both an increase in U.S. treasury yields and an increase in credit spreads on AA-rated corporate bonds in 2018.
- *Demographic and Assumption Changes* (\$22 million pre-tax loss): This represents the difference between actual and estimated participant data and demographic factors, including items such as healthcare cost trends, compensation rate increases and rates of termination, retirement and mortality.

2017 - \$800 million pre-tax mark-to-market loss:

- *Discount Rates* (\$2.288 billion pre-tax loss): The weighted-average discount rate for our pension and postretirement medical plans decreased from 4.34% at December 31, 2016 to 3.81% at December 31, 2017, primarily due to both a decline in U.S. treasury yields and a decrease in credit spreads on AA-rated corporate bonds in 2017.
- *Return on Assets* (\$1.525 billion pre-tax gain): In 2017, the actual 14.25% rate of return on plan assets exceeded our expected rate of return of 8.65%, primarily due to strong global equity and U.S. bond markets.
- *Demographic and Assumption Changes* (\$37 million pre-tax loss): This represents the difference between actual and estimated participant data and demographic factors, including items such as healthcare cost trends, compensation rate increases and rates of termination, retirement and mortality.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

2016 - \$2.651 billion pre-tax mark-to-market loss:

- *Discount Rates* (\$1.953 billion pre-tax loss): The weighted-average discount rate for our pension and postretirement medical plans decreased from 4.81% at December 31, 2015 to 4.34% at December 31 2016, primarily due to a decrease in credit spreads on AA-rated corporate bonds in 2016.
- *Return on Assets* (\$732 million pre-tax loss): In 2016, the actual 6.06% rate of return on plan assets fell short of our expected rate of return of 8.65%, primarily due to weak bond markets.
- *Demographic and Assumption Changes* (\$34 million pre-tax gain): This represents the difference between actual and estimated participant data and demographic factors, including items such as healthcare cost trends, compensation rate increases and rates of termination, retirement and mortality.

Expense Allocations

Certain operating expenses are allocated between our reporting segments using activity-based costing methods. These activity-based costing methods require us to make estimates that impact the amount of each expense category that is attributed to each segment. Changes in these estimates will directly impact the amount of expense allocated to each segment, and therefore the operating profit of each reporting segment. Our allocation methodologies are refined periodically, as necessary, to reflect changes in our businesses. There were no significant changes in our expense allocation methodologies during 2018, 2017 or 2016.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

U.S. Domestic Package Operations

	Year Ended December 31,			% Change		
	2018	2017	2016	2018/ 2017	2017/ 2016	
Average Daily Package Volume (in thousands):						
Next Day Air	1,542	1,460	1,379	5.6 %	5.9 %	
Deferred	1,432	1,400	1,350	2.3 %	3.7 %	
Ground	14,498	14,060	13,508	3.1 %	4.1 %	
Total Avg. Daily Package Volume	17,472	16,920	16,237	3.3 %	4.2 %	
Average Revenue Per Piece:						
Next Day Air	\$ 19.53	\$ 19.11	\$ 19.20	2.2 %	(0.5)%	
Deferred	13.12	12.44	11.85	5.5 %	5.0 %	
Ground	8.51	8.19	7.97	3.9 %	2.8 %	
Total Avg. Revenue Per Piece	\$ 9.86	\$ 9.48	\$ 9.25	4.0 %	2.5 %	
Operating Days in Period	253	254	255			
Revenue (in millions):						
Next Day Air	\$ 7,618	\$ 7,088	\$ 6,752	7.5 %	5.0 %	
Deferred	4,752	4,422	4,080	7.5 %	8.4 %	
Ground	31,223	29,251	27,452	6.7 %	6.6 %	
Total Revenue	\$ 43,593	\$40,761	\$38,284	6.9 %	6.5 %	
Operating Expenses (in millions):						
Operating Expenses	\$ 39,950	\$36,458	\$33,656	9.6 %	8.3 %	
Transformation Strategy Costs	(235)		—			
Adjusted Operating Expenses	\$ 39,715	\$36,458	\$33,656	8.9 %	8.3 %	
Operating Profit (in millions) and Operating Margin:						
Operating Profit	\$ 3,643	\$ 4,303	\$ 4,628	(15.3)%	(7.0)%	
Adjusted Operating Profit	\$ 3,878	\$ 4,303	\$ 4,628	(9.9)%	(7.0)%	
Operating Margin	8.4%	10.6%	12.1%			
Adjusted Operating Margin	8.9%	10.6%	12.1%			

Revenue

The change in overall revenue was impacted by the following factors for the years ended December 31, 2018 and 2017, compared with the corresponding prior year periods:

	Volume	Rates / Product Mix	Fuel Surcharge	Total Revenue Change
Revenue Change Drivers:				
2018/ 2017	2.9%	2.5%	1.5%	6.9%
2017/ 2016	3.8%	1.8%	0.9%	6.5%

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Volume

2018 compared to 2017

Our overall volume increased across all products in 2018 despite one less operating day, largely due to continued growth in overall retail sales, of which e-commerce continues to represent a larger percentage of the total growth. Growth was focused within the retail, healthcare and manufacturing industries.

Business-to-consumer shipments, which represented more than 50% of total U.S. Domestic Package volume, grew 6.2% for the year and drove overall increases in both air and ground shipments. While business-to-business shipments were relatively flat in 2018 compared to 2017, volume grew 3% in the fourth quarter of 2018 compared to 2017.

Among our air products, volume increased in 2018 for our Next Day Air and Deferred services. Solid air volume growth continued for those products most aligned with business-to-consumer shipping, including our residential Next Day Air, Next Day Air Saver and Second Day package products, as consumers continue to demand faster and more economical delivery options. This growth was slightly offset by declines in residential Next Day Air letter, Next Day Air Saver letter and Second Day letter volume.

The increase in ground volume in 2018 was driven by growth in residential ground and SurePost volume, which benefited from continued e-commerce demand. Business-to-business ground shipments were relatively flat in 2018 compared to 2017, however they grew approximately 3% in the fourth quarter of 2018 compared to 2017.

2017 compared to 2016

Our overall volume increased across all products in 2017, largely due to continued growth in overall retail sales, of which e-commerce continues to represent a larger percentage of the total growth. Business-to-consumer shipments, which represented just over 50% of total U.S. Domestic Package volume, grew 9.4% for the year, which drove increases in both air and ground shipments. Business-to-business shipments decreased slightly in 2017 compared to 2016 largely due to declines in volume in professional services as a result of increased digitization, and high tech industries.

Among our air products, volume increased in 2017 for our Next Day Air and Deferred services. Solid air volume growth continued for those products most aligned with business-to-consumer shipping, including our residential Next Day Air, Next Day Air Saver and Three Day Select package products, as consumers continue to demand faster options. This growth was slightly offset by a decline in Next Day Air letter volume, largely due to declines in the professional services industry as a result of continued growth in digitization.

The increase in ground volume in 2017 was driven by growth in residential ground and SurePost volume, which benefited from continued e-commerce demand. Business-to-business shipments decreased slightly due to adverse weather conditions in third quarter 2017, however this decrease was partially offset by an increase in our return shipping services.

Rates and Product Mix

2018 compared to 2017

Overall revenue per piece increased 4.0% in 2018, and was impacted by changes in base rates, the implementation of new surcharges for oversized packages and other fees, customer and product mix and fuel surcharge rates.

Revenue per piece for ground and air products was positively impacted by a base rate increase on December 24, 2017. UPS Ground rates and UPS Air services rates increased an average net 4.9%. Effective June 4, 2018, we increased the surcharge for Over Maximum Limits, Oversize Pallet Handling, and added a shipping correction audit fee. Effective July 8, 2018, we implemented a U.S. Residential Large Package surcharge and an additional handling surcharge for packages exceeding 70 pounds. Additionally peak surcharges were in effect from October 1, 2018 through December 22, 2018 for U.S. Residential, Large Packages and packages Over Maximum Limits. The charge was designed to enable UPS to continue to offset some of the additional expenses incurred during significant volume surges. Additionally on December 5, 2018, we announced an average 4.9% base rate increase effective December 26, 2018 for UPS Ground and UPS Air services.

In the first quarter of 2017, we began our expanded Saturday ground operations to several metropolitan areas in the United States. As of December 31, 2018, Saturday service is available in approximately 6,100 cities and towns in the U.S. covering approximately 60% of the population.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Revenue per piece for all products was positively impacted by higher fuel surcharge rates in 2018 due to escalating fuel prices and increases in rates.

Revenue per piece for our Next Day Air services increased in 2018 compared with 2017. The increase in Next Day Air revenue per piece was primarily due to an increase in base rates driven by pricing initiatives and an increase in average billable weight per piece which more than offset an unfavorable shift in product mix.

Revenue per piece for our Deferred air services increased in 2018 compared with 2017 due to an increase in base rate pricing driven by pricing initiatives and average billable weight per piece offset slightly by an unfavorable shift in product mix.

Ground revenue per piece increased in 2018 compared with 2017, primarily due to base rate increases driven by our pricing initiatives. These factors were partially offset by changes in product mix, as we experienced faster volume growth in our SurePost product.

2017 compared to 2016

Overall revenue per piece increased 2.5% in 2017, and was impacted by changes in base rates, customer and product mix and fuel surcharge rates.

Revenue per piece for ground and air products was positively impacted by a base rate increase on December 26, 2016. UPS Ground rates and UPS Air services rates increased an average net 4.9%. Effective January 8, 2017, we changed the dimensional weight calculation for packages subject to UPS daily rates. On June 19, 2017, we announced a new peak charge applicable during selected weeks in November and December 2017 for U.S. Residential, Large Packages and packages Over Maximum Limits. The new charge is designed to enable UPS to continue to offset some of the additional expenses incurred during significant volume surges. Additionally on October 25, 2017, we announced an average 4.9% base rate increase effective December 24, 2017 for UPS Ground and UPS Air services.

In the first quarter of 2017, we began our expanded Saturday ground operations to several metropolitan areas in the United States. As of December 2017, Saturday service was available in approximately 4,700 cities and towns in the U.S. covering approximately 50% of the population. A Saturday pickup stop charge went into effect on May 1, 2017 and varies depending on the pickup service selected.

Revenue per piece for all products was positively impacted by higher fuel surcharge rates for 2017.

Revenue per piece for our Next Day Air services decreased in 2017 compared with 2016. The decrease in Next Day Air revenue per piece was primarily driven by a shift in product mix, as our lower yielding products experienced much larger volume growth than our higher yielding products. This shift was offset slightly by an increase in the average billable weight per piece.

Revenue per piece of our Deferred air services increased in 2017 compared with 2016. Deferred revenue per piece increased primarily due to an increase in average billable weight per piece, but was partially offset by an unfavorable shift in product mix.

Ground revenue per piece increased in 2017, primarily due to base rate increases, higher fuel surcharge rates and an increase in average billable weight per piece. These factors were partially offset by changes in product mix, as we experienced faster volume growth in our SurePost product.

Fuel Surcharges

UPS applies a fuel surcharge on our domestic air and ground services. The air fuel surcharge is based on the U.S. Department of Energy's ("DOE") Gulf Coast spot price for a gallon of kerosene-type jet fuel, while the ground fuel surcharge is based on the DOE's On-Highway Diesel Fuel Price. Based on published rates, the average fuel surcharge rates for domestic air and ground products were as follows:

	Year E	nded December	% Point Change		
	2018	2017	2016	2018/ 2017	2017/ 2016
Next Day Air / Deferred	7.7%	5.1%	3.6%	2.6%	1.5%
Ground	7.0%	5.6%	4.9%	1.4%	0.7%

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Effective February 6, 2017, the U.S. fuel surcharge rates are reset weekly instead of monthly. In addition, the price indices have moved from a two month to a two week lag in order to more closely align fuel surcharge revenues with fuel expenses. In June and October 2018, ground fuel surcharge rates were raised by 0.50% and 0.25%, respectively, for all thresholds. In October 2018, Domestic air fuel surcharge rates were increased by 0.25% for all thresholds.

While fluctuations in fuel surcharge percentages can be significant from period to period, fuel surcharges represent one of the many individual components of our pricing structure that impact our overall revenue and yield. Additional components include the mix of services sold, the base price and extra service charges we obtain for these services and the level of pricing discounts offered.

Total domestic fuel surcharge revenue increased by \$632 million in 2018 as a result of higher fuel surcharge rates caused by an increase in jet and diesel fuel prices, as well as an overall increase in package volume which drove increased delivery miles driven and aircraft block hours.

Operating Expenses

2018 compared to 2017

Operating expenses for the segment increased \$3.492 billion in 2018 compared with 2017, which included \$235 million of transformation strategy costs. Excluding the impact of transformation strategy costs, operating expenses for the segment increased \$3.257 billion in 2018, primarily due to pickup and delivery costs (up \$1.305 billion), the costs of operating our domestic integrated air and ground network (up \$1.649 billion) and the costs of package sorting (up \$639 million), offset by a reduction in indirect operating costs (down \$336 million) for the year. These expenses were primarily due to higher volume, increased employee compensation costs, higher pension expense, higher fuel prices, a 6.2% increase in average daily block hours and expansion of our technology-enabled network.

The growth in pickup and delivery and network costs was impacted by several factors:

- We incurred higher employee compensation and benefit costs largely resulting from volume growth, which impacted an increase in average daily union labor hours (up 5.2%), scheduled union pay rate and benefit increases and growth in the overall size of the workforce due to facility expansions. Labor hour increases were also related to the continued expansion in Saturday operations. In addition, pension expense increased due to lower year-end discount rates used to measure the pension benefit obligation, driving higher service costs.
- We incurred higher fuel expense in 2018 primarily due to higher fuel prices and increased volume which resulted in higher fuel usage (increase in aircraft block hours of 6.2% and package delivery miles driven of 4.4%), partially offset by alternative fuel tax credits. The manner in which we purchase fuel also influences the net impact of fuel on our results. The majority of our contracts for fuel purchases utilize index-based pricing formulas plus or minus a fixed locational/supplier differential. While many of the indices are aligned, each index may fluctuate at a different pace, driving variability in the prices paid for fuel. Because of this, our operating results may be affected should the market price of fuel suddenly change by a significant amount or change by amounts that do not result in an adjustment in our fuel surcharges, which can significantly affect our earnings either positively or negatively in the short-term.
- We incurred higher costs associated with outside contract carriers, primarily due to volume growth (including SurePost), higher fuel surcharges passed to us by carriers and general rate increases.
- In order to contain costs, we continually adjust our air and ground networks to better match higher volume levels. In addition, we continue to deploy and utilize technology to increase package sorting and delivery productivity.

Total cost per piece increased 6.6% in 2018 compared with 2017, which includes transformation strategy costs of \$235 million. The cost per piece increase was primarily impacted by the cost increases described previously. The increased expenses in 2018 were also driven by costs related to the improvement of our smart global logistics network, including additional aircraft leases to improve our air service reliability; costs related to the implementation of Saturday operations in additional markets, depreciation costs due to new facilities placed in service and higher pension expense. Costs were also negatively impacted by rising fuel prices offset by net changes in depreciation, primarily driven by changes in the useful lives of vehicles, plant equipment and building improvements.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

2017 compared to 2016

Operating expenses for the period increased \$2.802 billion in 2017, primarily due to pickup and delivery costs (up \$1.312 billion), the cost of operating our domestic integrated air and ground network (up \$810 million), the costs of package sorting (up \$746 million), offset by a reduction in indirect operating costs (down \$66 million). These increases were driven primarily by overall volume growth in 2017. Adjusted operating expenses were impacted by several factors:

- We incurred higher employee compensation, largely resulting from volume growth, an increase in average daily union labor hours (up 6.5%), growth in the overall size of the workforce and an increase in wage rates.
- Employee benefit costs increased, largely due to increased employee healthcare, partially offset by a decrease in pension expense and workers' compensation expense.
- We incurred higher fuel expense in 2017 primarily due to higher fuel prices and increased volume, which resulted in higher fuel usage (increase in aircraft block hours of 7.0% and package delivery miles driven of 4.1%).
- We incurred higher costs associated with outside contract carriers, primarily due to volume growth (including SurePost), higher fuel surcharges passed to us by carriers and general rate increases.

Total cost per piece increased 4.3% in 2017 compared to 2016 and was primarily impacted by the cost increases described previously. The increased expenses in 2017 were also driven by capacity constraints due to volume surges in the fourth quarter of 2017, start-up costs of several investments underway to further expand and modernize our air and ground networks, and the costs of implementing Saturday operations. Costs were further impacted by rising fuel prices.

Operating Profit and Margin

2018 compared to 2017

Operating profit was negatively impacted primarily by planned costs related to our transformation strategy, higher pension expenses, one less operating day and the impact of bringing new facility and technology projects on-line. Operating profit decreased \$660 million in 2018 compared with 2017 with operating margins decreasing 220 basis points to 8.4%. Excluding the impact of transformation strategy costs, operating profit decreased \$425 million in 2018 compared to 2017 with operating margins decreasing 170 basis points. While benefits from fuel (fuel surcharge revenue increased at a faster pace than expense) and lower net depreciation expense had a positive impact on operating profit, higher purchased transportation costs due to volume growth, one less operating day and an increase in pension costs driven by lower discount rates weighed on profits. Additionally, operating profit was negatively impacted by costs related to continued investments in our smart global logistics network, including implementation of Saturday operations in additional markets. The benefits of these projects will not be fully realized until future periods.

2017 compared to 2016

Operating profit decreased \$325 million in 2017 compared with 2016. Operating margin decreased 150 basis points to 10.6%. Operating profit was negatively impacted by an increase in continued investments in new buildings and new strategic investments, including deployment of Saturday operations. There was an adverse impact from higher purchased transportation costs due to volume surges in the fourth quarter of 2017 and from fuel as expense increased at a faster pace than fuel surcharge revenue.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

International Package Operations

	Year H	Ended Decemb	% Ch	inge	
	2018	2017	2016	2018/ 2017	2017/ 2016
Average Daily Package Volume (in thousands):					
Domestic	1,723	1,715	1,635	0.5%	4.9 %
Export	1,482	1,395	1,211	6.2%	15.2 %
Total Avg. Daily Package Volume	3,205	3,110	2,846	3.1%	9.3 %
Average Revenue Per Piece:					
Domestic	\$ 6.59	\$ 6.07	\$ 5.85	8.6%	3.8 %
Export	29.27	28.70	30.34	2.0%	(5.4)%
Total Avg. Revenue Per Piece	\$ 17.08	\$ 16.22	\$ 16.27	5.3%	(0.3)%
Operating Days in Period	253	254	255		
Revenue (in millions):					
Domestic	\$ 2,874	\$ 2,646	\$ 2,441	8.6%	8.4 %
Export	10,973	10,170	9,369	7.9%	8.5 %
Cargo & Other	595	526	536	13.1%	(1.9)%
Total Revenue	\$14,442	\$13,342	\$12,346	8.2%	8.1 %
Operating Expenses (in millions):					
Operating Expenses	\$11,913	\$10,913	\$ 9,929	9.2%	9.9 %
Transformation Strategy Costs	(76)	—	—		
Adjusted Operating Expenses	\$11,837	\$10,913	\$ 9,929	8.5%	9.9 %
Operating Profit (in millions) and Operating Margin:					
Operating Profit	\$ 2,529	\$ 2,429	\$ 2,417	4.1%	0.5 %
Adjusted Operating Profit	\$ 2,605	\$ 2,429	\$ 2,417	7.2%	0.5 %
Operating Margin	17.5%	18.2%	19.6%		
Adjusted Operating Margin	18.0%	18.2%	19.6%		
Currency Translation Benefit / (Cost)—(in millions)*:					
Revenue				\$ 147	\$ (325)
Operating Expenses				(157)	(50)
Operating Profit				\$ (10)	\$ (375)

* Net of currency hedging; amount represents the change compared to the prior year.

Revenue

The change in overall revenue was impacted by the following factors for the years ended December 31, 2018 and 2017, compared with the corresponding prior year periods:

	Volume	Rates / Product Mix	Fuel Surcharge	Currency	Total Revenue Change
Revenue Change Drivers:					
2018/ 2017	2.6%	1.8 %	2.7%	1.1 %	8.2%
2017/ 2016	8.8%	(0.7)%	2.6%	(2.6)%	8.1%

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Volume

2018 compared to 2017

Our overall average daily volume increased in 2018 largely due to strong demand from several sectors including retail, industrial manufacturing, high-tech and healthcare. Business-to-consumer shipments remained relatively flat for the year.

We continued to experience export volume growth in 2018. The growth was mainly driven by our European, U.S. and Asian operations, which experienced increases in volume on almost all major trade lanes. European export volume showed growth in the Europe-to-U.S. and intra-Europe trade lanes. Export volume into the U.S. grew in most major trade lanes, led by Europe and the Americas. Asia export volume growth was the most significant in the Asia-to- Americas and intra-Asia trade lanes. Export volume growth was strong across most major products, with a continued shift towards our premium express products, such as Worldwide Express and Transborder Express services.

Domestic volume increased slightly, primarily due to growth in Mexico, Canada and Netherlands, while domestic products in the Euro zone declined slightly.

2017 compared to 2016

Our overall average daily volume increased in 2017, largely due to continued strength in business-to-consumer volume, as well as strong demand from several sectors including retail, industrial manufacturing, high-tech and healthcare.

We continued to experience export volume growth in 2017. The growth was mainly driven by our European, Asian and U.S. operations, which experienced increases in volume to major trade lanes of the world. European export volume increased in 2017, with growth in all trade lanes. Asia export volume also increased in 2017, with particular strength in Asia-to-U.S., Asia-to-Americas and intra-Asia trade lanes. Export volume into the U.S. grew in all trade lanes, led by Europe and the Americas. Export volume growth was strong across all major products, with a continued shift towards our premium express products, such as Worldwide Express and Transborder Express services.

The increase in domestic volume in 2017 was primarily due to growth in Turkey, Germany, France, Italy and U.K.

Rates and Product Mix

2018 compared to 2017

Total average revenue per piece increased 5.3% in 2018, impacted by a 110 basis point increase from currency. Additionally, total revenue per piece was impacted by an increase in fuel surcharge revenue, as well as a shift in product mix, as the growth in higher yielding premium products continued to exceed overall growth.

On December 24, 2017, we implemented an average 4.9% net increase in base and accessorial rates for international shipments originating in the United States. Rate changes for shipments originating outside the U.S. are made throughout the year and vary by geographic market. On October 15, 2018, we implemented a 0.50% increase in International Air-Import fuel surcharge. Additionally, on December 5, 2018, we announced an average 4.9% net increase in base and accessorial rates for international shipping originating in the United States, which became effective on December 26, 2018.

Export revenue per piece increased 2.0% in 2018, impacted by a 60 basis point increase from currency, shift in product mix and higher fuel surcharge revenue.

Domestic revenue per piece increased 8.6% in 2018, impacted by a 320 basis point increase from currency and higher fuel surcharges.

2017 compared to 2016

Total average revenue per piece decreased 0.3% in 2017, impacted by a 250 basis point reduction from currency and a shift in product mix. These factors were partially offset by an increase in fuel surcharge rates as well as an increase in base rates.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

On December 26, 2016, we implemented an average 4.9% net increase in base and accessorial rates for international shipments originating in the United States. Rate changes for shipments originating outside the U.S. are made throughout the year and vary by geographic markets. Effective September 17, 2017, a peak surcharge was applied to any shipment originating from China or Hong Kong to the United States for certain service levels during the peak period. The surcharge was applied as a rate per pound based upon the billable weight of the shipment. Additionally, on October 25, 2017, we announced an average 4.9% net increase in base and accessorial rates for international shipping originating in the United States; changes became effective on December 24, 2017.

Export revenue per piece decreased 5.4% in 2017, impacted by a 320 basis point reduction from currency and product mix. This was partially offset by an increase in fuel surcharges, an increase in base rates and strong volume growth in premium products.

Domestic revenue per piece increased 3.8% in 2017, impacted by a 50 basis point increase from currency, increases in base rates and higher fuel surcharges.

Fuel Surcharges

We maintain fuel surcharges on our international air and ground services. The fuel surcharges for international air products originating inside or outside the United States are largely indexed to the DOE's Gulf Coast spot price for a gallon of kerosene-type jet fuel, while the fuel surcharges for ground products originating outside the United States are indexed to fuel prices in the international region or country where the shipment takes place.

While fluctuations in fuel surcharge percentages can be significant from period to period, fuel surcharges represent one of the many individual components of our pricing structure that impact our overall revenue and yield. Additional components include the mix of services sold, the base price and extra service charges we obtain for these services and the level of pricing discounts offered.

Total international fuel surcharge revenue increased by \$382 million in 2018, primarily due to volume increases and higher fuel prices. Total international fuel surcharge revenue increased by \$325 million in 2017, primarily due to volume increase, higher fuel prices and pricing changes made to base freight rates and to the fuel surcharge indices from a two month lag to a two week lag.

Operating Expenses

2018 compared to 2017

Overall operating expenses increased by \$1.0 billion, which included a \$76 million increase from transformation strategy costs. Excluding the impact of the transformation strategy costs, adjusted operating expenses for the segment increased \$924 million in 2018 primarily due to increased volumes, currency fluctuations and higher fuel costs driven by increased usage and higher prices.

In addition to variability in usage and fuel prices, the manner in which we purchase fuel also influences the net impact of fuel on our results. The majority of our contracts for fuel purchases utilize index-based pricing formulas plus or minus a fixed locational/supplier differential. While many of the indices are aligned, each index may fluctuate at a different pace, driving variability in the prices paid for fuel. Because of this, our operating results may be affected should the market price of fuel suddenly change by a significant amount or change by amounts that do not result in an adjustment in our fuel surcharges, which can affect our earnings either positively or negatively in the short-term.

Operating expenses were impacted by changes in the cost of operating our international integrated air and ground network, which increased \$546 million, as well as pickup and delivery costs, which increased \$287 million. The increase in network costs was largely driven by volume growth in the majority of our products and higher fuel costs due to increased prices and usage. Additionally, the increase in pickup and delivery costs is due to increased volume. Operating expenses were also impacted by a \$91 million increase in indirect overhead and package sorting costs and other costs.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

2017 compared to 2016

Overall operating expenses increased by \$984 million, primarily due to increased volumes, higher fuel usage and currency fluctuations.

Operating expenses were impacted by changes in the cost of operating our international integrated air and ground network, which increased \$424 million, as well as pickup and delivery costs, which increased \$287 million. The increase in network costs was largely driven by volume growth in our Express products, which drove a 3.0% increase in aircraft block hours and higher fuel usage. Additionally, the increase in pickup and delivery costs is due to increased volume. Operating expenses were also impacted in 2017 by a \$273 million increase in indirect overhead and package sorting costs and other costs.

Operating Profit and Margin

2018 compared to 2017

Operating profit increased \$100 million (4.1%) in 2018 compared with 2017, including \$76 million in transformation strategy costs. Operating margin decreased 70 basis points to 17.5%. Adjusted operating profit without transformation strategy costs increased by \$176 million (7.2%) in 2018, while the adjusted operating margin decreased 20 basis points to 18.0%. Included in adjusted operating profit is a \$10 million decrease due to currency. Currency adjusted margin was 18.3% up from 18.2% in the prior year.

2017 compared to 2016

Operating profit increased \$12 million in 2017 compared with 2016. Operating margin increased 140 basis points to 18.2%. Operating margin was affected by negative currency exchange movements due to volatility of both hedged and unhedged currencies. Included in adjusted operating profit is a \$375 million decrease due to currency.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Supply Chain & Freight Operations

	Year Ended December 31,					% Change			
		2018		2017	 2016	20	18/ 2017		2017/ 2016
Freight LTL Statistics:									
Revenue (in millions)	\$	2,706	\$	2,598	\$ 2,385		4.2 %		8.9%
Revenue Per Hundredweight	\$	25.52	\$	24.08	\$ 23.44		6.0 %		2.7%
Shipments (in thousands)		9,720		10,210	9,961		(4.8)%		2.5%
Shipments Per Day (in thousands)		38.4		40.5	39.4		(5.2)%		2.8%
Gross Weight Hauled (in millions of lbs)	1	0,605		10,788	10,174		(1.7)%		6.0%
Weight Per Shipment (in lbs)		1,091		1,057	1,021		3.2 %		3.5%
Operating Days in Period		253		252	253				
Revenue (in millions):									
Forwarding		6,580		5,674	4,873		16.0 %		16.4%
Logistics		3,234		3,017	2,644		7.2 %		14.1%
Freight		3,218		3,000	2,737		7.3 %		9.6%
Other		794		791	726		0.4 %		9.0%
Total Revenue	\$ 1	3,826	\$	12,482	\$ 10,980		10.8 %		13.7%
Operating Expenses (in millions):									
Operating Expenses	\$ 1	2,974	\$	11,685	\$ 10,337		11.0 %		13.0%
Transformation Strategy Costs		(49)							
Adjusted Operating Expenses	\$ 1	2,925	\$	11,685	\$ 10,337		10.6 %		13.0%
Operating Profit (in millions) and Operating Margins:									
Operating Profit	\$	852	\$	797	\$ 643		6.9 %		24.0%
Adjusted Operating Profit	\$	901	\$	797	\$ 643		13.0 %		24.0%
Operating Margin		6.2%		6.4%	5.9%				
Adjusted Operating Margin		6.5%		6.4%	5.9%				
Currency Translation Benefit / (Cost)—(in millions)*:									
Revenue						\$	39	\$	10
Operating Expenses							(44)		(12)
Operating Profit						\$	(5)	\$	(2)

* Amount represents the change compared to the prior year.

In December 2016, we acquired Marken, a global provider of supply chain solutions to the life sciences industry and leader in clinical trials, material storage and distribution. Marken's financial results are included in the above table within the Logistics unit from the date of the acquisition and have impacted the year-over-year comparability of revenue, operating expenses and operating profit for the years ended December 31, 2017 and 2016.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Revenue

2018 compared to 2017

Total revenue for the Supply Chain & Freight segment increased \$1.344 billion in 2018 compared to 2017.

Forwarding revenue increased \$906 million in 2018 compared with 2017, primarily due to increased truckload brokerage volume as well as tonnage increases in our international air freight and ocean freight forwarding businesses. Sell price improvements in our international air freight forwarding business also contributed to the increase in revenue. Revenue in our truckload brokerage business was driven by robust demand and tight capacity.

Logistics revenue increased by \$217 million in 2018 compared with 2017, as we experienced growth in the healthcare, aerospace, retail and manufacturing sectors.

UPS Freight revenue increased \$218 million in 2018 compared with 2017, despite fourth-quarter volume declines as a result of the contract ratification process wherein we took actions to clear our LTL network. Revenue was driven by increases in average weight per shipment from improved customer mix due to middle market growth. LTL revenue per hundredweight increased 6.0% as LTL base rate increases for certain shipments in the U.S., Canada and Mexico, averaging 5.9%, took effect March 26, 2018. Fuel surcharge revenue also increased \$75 million due to changes in diesel fuel prices.

2017 compared to 2016

Total revenue for the Supply Chain & Freight segment increased \$1.502 billion in 2017 compared to 2016.

Forwarding revenue increased \$801 million in 2017 compared with 2016, primarily due to increased truckload brokerage volume movement and tonnage increases in our international air freight and North American air freight forwarding businesses. The volume and tonnage increases were driven by improving overall market demand.

Logistics revenue increased \$373 million in 2017 due to growth in mail services, healthcare, retail and aerospace solutions, offset by declines among our high tech customers. Additionally, the Marken acquisition on December 21, 2016 contributed to the increase in revenue. Revenue was positively impacted by currency exchange rate movements.

UPS Freight revenue increased \$263 million in 2017 compared to 2016, driven by increases in shipments and weight per shipment. These increases were impacted by an overall improvement in market demand and customer mix. LTL revenue per hundredweight increased slightly as LTL base rate increases, averaging 4.9%, took effect September 19, 2016. Additionally, effective June 26, 2017, LTL base rates increased by an additional 4.9% for certain shipments in the U.S., Canada and Mexico. Fuel surcharge revenue also increased \$70 million due to changes in overall LTL shipment volume and diesel fuel prices.

Revenue for the other businesses within Supply Chain & Freight increased \$65 million in 2017 due to revenue growth at UPS Capital and UPS Customer Solutions, as well as service contracts with the U.S. Postal Service.

Operating Expenses

2018 compared to 2017

Total operating expenses for the Supply Chain & Freight segment increased \$1.289 billion in 2018 compared to 2017, which includes \$49 million of costs related to our transformation strategy.

Forwarding operating expenses increased \$845 million in 2018 compared with 2017, largely due to increased purchased transportation expenses, transformation strategy costs, and a \$20 million favorable legal settlement in 2017. Excluding \$16 million in costs related to our transformation strategy, Forwarding operating expenses increased \$829 million. Purchased transportation expense increased \$720 million compared to 2017 primarily due to increased truckload brokerage volume and higher tonnage in our international air freight forwarding business as well as the resulting costs passed to us from outside contract carriers.

Logistics operating expenses increased \$205 million in 2018 compared with 2017. Excluding \$22 million in costs related to our transformation strategy, Logistics operating expenses increased \$183 million. The increases were driven by costs associated with retail facility expansions, increased rates for mail services and strategic information technology investments.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

UPS Freight operating expenses increased \$258 million in 2018 compared with 2017. Excluding \$6 million in costs related to our transformation strategy, UPS Freight operating expenses increased \$252 million. Total cost per LTL shipment increased 11.4% in 2018 compared to 2017. The operating expenses increased largely due to costs associated with operating our linehaul network (\$85 million) and increases in pickup and delivery costs (\$60 million). The linehaul network and pickup and delivery costs were driven by higher fuel prices and expense for outside transportation carriers, including fuel surcharges passed on to us by these outside carriers.

2017 compared to 2016

Total operating expenses for the Supply Chain & Freight segment increased \$1.348 billion in 2017 compared to 2016.

Forwarding operating expenses increased \$752 million, largely due to increased purchased transportation expenses. This was offset by operating efficiencies and the receipt of a \$20 million favorable legal settlement in the second quarter of 2017. Purchased transportation expense increased by \$770 million compared to 2016 due to increased truckload brokerage movements and the resulting increased fuel surcharges passed to us from outside transportation providers. Increased tonnage and third-party air carrier procurement rates in our North American and international air freight forwarding businesses, also contributed to increased purchased transportation expenses.

Logistics operating expenses increased \$308 million in 2017, primarily due to the acquisition of Marken in 2016 and increased purchased transportation costs driven by increased volume and rates for mail services.

UPS Freight operating expenses increased \$256 million in 2017 compared with 2016. The increase in operating expense was largely due to costs associated with operating our linehaul network (\$126 million) and increases in pickup and delivery costs (\$99 million). The network costs and pickup and delivery expenses were driven by higher fuel cost and higher expense for outside transportation carriers, largely due to LTL volume growth and fuel surcharges passed to us by outside carriers. Total cost per LTL shipment increased 5.7% in 2017 compared to 2016. Operating expenses related to our casualty self-insurance reserves also increased in 2017 compared with 2016.

Other expenses for the other businesses within Supply Chain & Freight increased \$32 million in 2017 compared with 2016 primarily due to UPS Capital, UPS Customer Solutions and service contracts with the U.S. Postal Service, slightly offset by decreases in The UPS Store.

Operating Profit and Margin

2018 compared to 2017

Total operating profit for the Supply Chain & Freight segment increased \$55 million in 2018 compared to 2017, which includes a \$49 million impact related to transformation strategy costs. Excluding transformation strategy costs, operating profit increased \$104 million. Operating margin decreased 20 basis points to 6.2%, while the adjusted operating margin increased 10 basis points to 6.5%.

Operating profit for the Forwarding unit increased \$61 million in 2018 compared with 2017. Excluding the \$16 million impact related to transformation strategy costs, operating profit increased \$77 million. Operating profit and margins increased mainly due to tonnage increases in our international air freight and ocean freight forwarding business as well as pricing improvements. Additionally, our truckload brokerage business grew due to robust demand and tight capacity.

Operating profit for the Logistics unit increased \$12 million in 2018 compared with 2017. Excluding the \$22 million impact related to transformation strategy costs, operating profit increased \$34 million. Operating profit and margins increased due to higher demand in the healthcare, aerospace, retail and manufacturing sectors.

UPS Freight operating profit decreased \$40 million in 2018 compared with 2017. Excluding the \$6 million impact related to transformation strategy costs, operating profit decreased \$34 million. Operating profit and margins decreased as volume declined due to labor uncertainties around the Teamsters contract ratification, partially offsetting the increased LTL revenue per hundredweight realized during the year. Actions to clear our LTL network as a result of the contract ratification process reduced operating profit by approximately \$60 million.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The combined operating profit for all of our other businesses within Supply Chain & Freight increased \$22 million in 2018, primarily due to higher operating profit at UPS Capital, UPS Customer Solutions and The UPS Store, as well as service contracts with the U.S. Postal Service. Excluding the \$5 million impact related to transformation strategy costs, operating profit increased \$27 million.

2017 compared to 2016

Total operating profit for the Supply Chain & Freight segment increased \$154 million in 2017 compared with 2016.

Operating profit for the Forwarding unit increased \$49 million in 2017 compared with 2016. Operating profit and margins for the North American air freight business increased in 2017 due to an increase in volume, slightly offset by higher transportation expenses. Operating profit and margins in our international air freight forwarding business increased due to volume increases and higher revenue per kilo, slightly offset by higher rates at which we procure capacity from third-party air carriers.

Operating profit for the Logistics unit increased \$65 million in 2017 compared to 2016 due to strong performance in the U.S. as well as within our mail services. Additionally, the Marken acquisition in 2016 contributed to the increase in operating profit.

UPS Freight operating profit increased \$7 million in 2017 compared with 2016, as increased volume and prices were partially offset by increased purchased transportation costs.

The combined operating profit for all of our other businesses in this segment increased \$33 million in 2017, primarily due to higher operating profit at UPS Capital, UPS Customer Solutions and The UPS Store, as well as service contracts with the U.S. Postal Service.

UNITED PARCEL SERVICE, INC. AND SUBSIDIARIES MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Consolidated Operating Expenses

	Year I	Year Ended December 31,			ange	
	2018	2017	2016	2018/ 2017	2017/ 2016	
Operating Expenses (in millions):						
Compensation and Benefits:	\$ 37,235	\$ 34,577	\$ 32,534	7.7 %	6.3%	
Transformation Strategy Costs	(262)	—	—			
Adjusted Compensation and Benefits	36,973	34,577	32,534	6.9 %	6.3%	
Repairs and Maintenance	1,732	1,601	1,542	8.2 %	3.8%	
Depreciation and Amortization	2,207	2,282	2,224	(3.3)%	2.6%	
Purchased Transportation	13,409	11,696	9,848	14.6 %	18.8%	
Fuel	3,427	2,690	2,118	27.4 %	27.0%	
Other Occupancy	1,362	1,155	1,037	17.9 %	11.4%	
Other Expenses	5,465	5,055	4,619	8.1 %	9.4%	
Total Other Expenses	27,602	24,479	21,388	12.8 %	14.5%	
Other Transformation Strategy Costs	(98)	—	—			
Adjusted Total Other Expenses	\$ 27,504	\$ 24,479	\$ 21,388	12.4 %	14.5%	
Total Operating Expenses	\$ 64,837	\$ 59,056	\$ 53,922	9.8 %	9.5%	
Adjusted Total Operating Expenses	\$ 64,477	\$ 59,056	\$ 53,922	9.2 %	9.5%	
Currency Translation Cost / (Benefit)*				\$ 201	\$ 62	

* Amount represents the change compared to the prior year.

Compensation and Benefits

2018 compared to 2017

Total compensation and benefits increased \$2.658 billion in 2018 compared to 2017. Excluding the impact of transformation strategy costs of \$262 million discussed in note 16 to the audited consolidated financial statements, adjusted compensation and benefits expense increased \$2.396 billion in 2018.

Employee payroll costs increased \$1.459 billion in 2018 compared with 2017, largely due to higher U.S. domestic hourly and management compensation costs. Total compensation costs increased 6.9%, while consolidated average daily volume growth was 3.2%. U.S. domestic compensation costs for hourly employees increased largely due to higher volume growth, contractual union wage increases, headcount increases, wage rate adjustments for part time workers and a 5.2% increase in average daily union labor hours. Compensation costs for management employees increased primarily due to merit salary increases and growth in the overall size of the workforce.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Benefits expense increased \$1.199 billion in 2018 compared to 2017. Excluding the impact of transformation strategy costs of \$262 million, benefits costs increased \$937 million in 2018 compared to 2017, primarily due to the following factors:

- Health and welfare costs increased \$341 million in 2018 compared to 2017, largely due to increased contributions to multiemployer plans resulting from contractual contribution rate increases and an overall increase in the size of the workforce.
- Pension and retirement benefits expense increased \$312 million in 2018 compared to 2017 primarily due to increased expense in UPS sponsored pension plans due to lower discount rates and additional expenses related to multiemployer plan contributions, which were impacted by contractual contribution rate increases and an overall increase in the size of the workforce. These increases were partially offset by lower Pension Benefit Guaranty Corporation premiums due to prior voluntary pension contributions, as well as the amendment of the UPS Retirement Plan in the prior year.
- Vacation, holiday, excused absence, payroll tax and other expenses increased \$244 million in 2018 due to salary increases and growth in the overall size of the workforce.
- Workers' compensation expense increased \$40 million in 2018 compared to 2017 as we experienced less favorable actuarial adjustments.

2017 compared to 2016

Total compensation and benefits increased \$2.043 billion in 2017 compared to 2016.

Employee payroll costs increased \$1.273 billion in 2017 compared with 2016, largely due to higher U.S. domestic hourly and management compensation costs. Total compensation costs increased 6.4%, while consolidated average daily volume growth was 5.0%. U.S. domestic compensation costs for hourly employees increased largely due to fourth quarter 2017 seasonal staffing increases resulting from 5.4% volume growth, contractual union wage increases, headcount increases, wage rate adjustments for part time workers and a 6.5% increase in average daily union labor hours. Compensation costs for management employees increased primarily due to merit salary increases and growth in the overall size of the workforce.

Benefits expense increased \$770 million in 2017 compared to 2016, primarily due to the following factors:

- Pension costs increased \$342 million in 2017 compared to 2016, primarily due to increased expense in UPS sponsored pension plans due to lower discount rates and additional expenses related to multiemployer plan contributions, which were impacted by contractual contribution rate increases and an overall increase in the size of the workforce.
- Health and welfare costs increased \$240 million in 2017, largely due to increased contributions to multiemployer plans resulting from contractual contribution rate increases and an overall increase in the size of the workforce.
- Vacation, holiday, excused absence, payroll tax and other expenses increased \$251 million in 2017 due to salary increases and growth in the overall size of the workforce.
- Workers' compensation expense decreased \$63 million in 2017 as we experienced more favorable actuarial adjustments. This decrease was partially offset by increases in work hours, medical trends and wage increases. Insurance reserves are established for estimates of the loss that we will ultimately incur on reported workers' compensation claims, as well as estimates of claims that have been incurred but not reported, and take into account a number of factors, including our history of claim losses, payroll growth and the impact of safety improvement initiatives.

Repairs and Maintenance

2018 compared to 2017

The \$131 million increase in repairs and maintenance expense in 2018 was primarily due to maintenance of our transportation equipment and aircraft and routine repairs to buildings and facilities. Building expansions and additions throughout 2018 also contributed to increases in expense.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

2017 compared to 2016

The \$59 million increase in repairs and maintenance expense in 2017 was primarily due to repairs and maintenance of our transportation equipment resulting from growth in the size of our vehicle fleet and routine repairs to buildings and facilities.

Depreciation and Amortization

2018 compared to 2017

We evaluate the useful lives of all our property, plant and equipment based on our usage, maintenance and replacement policies, and taking into account physical and economic factors that may affect the useful lives of the assets. Refer to note 1 in our consolidated financial statements for further description of our policy.

Total depreciation and amortization expense decreased \$75 million in 2018 compared with 2017. The principal components of this change included:

- An increase in expense of \$257 million arising from capital investments in several large facilities and other new projects coming into service. This had the effect of decreasing net income by \$205 million or \$0.24 per share on a basic and diluted basis in 2018; and
- A decrease in expense of \$286 million resulting from prospective revisions to our estimates of useful lives for building improvements, vehicles and plant equipment as part of our ongoing investment in transformation. This had the effect of increasing net income by \$228 million or \$0.26 per share on a basic and diluted basis.

Combining the impact of the revisions to the estimated useful lives with the impact of the increased capital investments noted above resulted in a net decrease of \$29 million to depreciation expense and an increase to net income of \$23 million or \$0.03 per share on both a basic and diluted basis in 2018.

The changes to the estimated useful lives described above are expected to decrease 2019 depreciation and amortization expense by approximately \$335 million as compared to 2018. However, this will be largely offset by approximately \$330 million of additional depreciation expense related to the addition of numerous facility automation and capacity expansion projects, which are part of our multi-year transformation strategy.

2017 compared to 2016

Depreciation and amortization expense increased \$58 million in 2017 compared with 2016, primarily due to the following factors: (1) depreciation expense on vehicles increased due to an overall increase in the size of our vehicle fleet in our U.S. Domestic Package and UPS Freight operations, (2) depreciation expense for buildings and facilities increased due to the opening of new facilities and facility automation and capacity expansion projects and (3) amortization expense of intangible assets increased in conjunction with the Marken acquisition. These factors were largely offset by a decrease in amortization expense related to longer lived internally developed capitalized software.

Purchased Transportation

2018 compared to 2017

The \$1.713 billion increase in purchased transportation expense charged to us by third-party air, rail, ocean and truck carriers in 2018 compared with 2017 was primarily driven by the following factors:

- Expense for our Forwarding and Logistics business increased \$824 million in 2018, primarily due to increased truckload brokerage freight loads per day; increased tonnage in our international air freight forwarding business, and increased volume and rates for mail services. Additionally, expenses increased due to additional fuel surcharges passed onto us from outside contract carriers.
- U.S. Domestic Package expense increased \$326 million in 2018, primarily due to increased volume, general rate increases and higher fuel surcharges passed to us from outside contract carriers.
- International Package expense increased \$180 million in 2018, primarily due to the increased usage of third-party carriers to handle higher transborder volume and an unfavorable impact from currency exchange rate movements.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

- UPS Freight expense increased \$153 million in 2018, due to an increase in our ground freight pricing product, LTL tonnage and higher fuel surcharges passed to us from outside transportation providers, partially offset by declines in our LTL shipments due to fourth quarter labor uncertainties around the Teamsters contract ratification.
- We incurred additional purchased transportation expense of \$230 million in 2018 compared to 2017, which was primarily due to leasing additional aircraft to handle increases in air volume and higher jet fuel surcharges associated with aircraft charters.

2017 compared to 2016

The \$1.848 billion increase in purchased transportation expense charged to us by third-party air, rail, ocean and truck carriers in 2017 compared with 2016 was primarily driven by the following factors:

- Expense for our Forwarding and Logistics business increased \$937 million in 2017, primarily due to increased truckload brokerage freight loads per day and the resulting increased fuel surcharges passed to us from outside transportation providers; increased volume and rates for mail services; and increased tonnage in our North American and international air freight forwarding businesses. Additionally, purchased transportation expense increased due to the acquisition of Marken in December 2016.
- U.S. Domestic Package expense increased \$421 million in 2017, primarily due to increased volume (including SurePost), higher rates and higher fuel surcharges passed to us from outside contract carriers.
- International Package expense increased \$270 million in 2017, primarily due to the increased usage of third-party carriers (due to higher volume); higher fuel surcharges passed to us from outside transportation providers and an unfavorable impact of currency exchange rate movements.
- UPS Freight expense increased \$163 million in 2017, due to an increase in LTL shipments and higher fuel surcharges passed to us from outside transportation providers.

Fuel

2018 compared to 2017

Fuel expense increased \$737 million in 2018 as compared to 2017. The increase in fuel expense in 2018 was primarily due to higher jet fuel, diesel and unleaded gasoline prices and higher consumption due to higher total aircraft block hours and increased Domestic Package delivery miles driven as a result of overall higher volume. These increases were partially offset by the benefit of alternative fuel costs.

The manner in which we purchase fuel also influences the net impact of fuel on our results. The majority of our contracts for fuel purchases utilize index-based pricing formulas plus or minus a fixed locational/supplier differential. While many of the indices are aligned, each index may fluctuate at a different pace, driving variability in the prices paid for fuel. Because of this, our operating results may be affected should the market price of fuel suddenly change by a significant amount or change by amounts that do not result in an adjustment in our fuel surcharges, which can significantly affect our earnings either positively or negatively in the short-term.

2017 compared to 2016

The \$572 million increase in fuel expense in 2017 as compared to 2016 was primarily due to higher jet fuel, diesel and unleaded gasoline prices, which increased fuel expense by \$419 million. Additionally, increased alternative fuel costs and fuel consumption increased expense by \$170 million primarily due to volume increases, which resulted in higher total aircraft block hours and Domestic Package delivery miles driven. These increases were partially offset by increased fuel efficiency.

Other Occupancy

2018 compared to 2017

The \$207 million increase in other occupancy expense in 2018 compared to 2017 was largely due to higher facility rent expense, property tax expense and utility expenses. These increases were primarily driven by an increase in the number of operating facilities compared to 2017.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

2017 compared to 2016

The \$118 million increase in other occupancy expense in 2017 compared to 2016 was largely due to higher facility rent expense driven by new facilities, as well as higher utilities and property taxes at our operating facilities.

Other Expenses

2018 compared to 2017

The \$410 million increase in other expenses in 2018 compared to 2017 was primarily attributable to increases in transportation equipment rental, outside professional service costs, security protection, non-income based state and local taxes, and data processing costs. Additionally, costs of \$86 million related to our transformation strategy contributed to the increase in 2018 when compared to 2017.

2017 compared to 2016

The \$436 million increase in other expenses in 2017 compared to 2016 was caused by (1) an auto liability insurance expense increase of \$75 million due to miles driven, medical trend rates and severity experience trends and (2) transportation equipment rental increase of \$60 million driven by growth in package volume.

The remaining \$280 million increase is comprised of increases in several other expense categories, including outside professional services, security protection, computer and plant supplies and air cargo handling, partially offset by a decrease in advertising expense.

Other Income and (Expense)

The following table sets forth investment income (expense) and other and interest expense for the years ended December 31, 2018, 2017 and 2016 (in millions):

	Year H	anded Decem	% Change			
	2018	2017	2016	2018/ 2017	2017/ 2016	
Investment Income (Expense) and Other	\$ (400)	61	(2,186)	NA	(102.8)%	
Defined Benefit Plans Mark-to-Market Charges	1,627	800	2,651	103.4%	(69.8)%	
Adjusted Investment Income (Expense) and Other	1,227	861	465	42.5%	85.2 %	
Interest Expense	(605)	(453)	(381)	33.6%	18.9 %	
Total Other Income and (Expense)	\$ (1,005)	\$ (392)	\$ (2,567)	156.4%	(84.7)%	
Adjusted Other Income and (Expense)	\$ 622	\$ 408	\$ 84	52.5%	NA	

Investment Income (Expense) and Other

2018 compared to 2017

Investment income (expense) and other for the period decreased \$461 million, which included a \$827 million increase in mark-to-market pension charges. Excluding the impact of the defined benefit plan mark-to-market charges, adjusted investment income (expense) and other for the period increased \$366 million, which was comprised of expected investment returns on pension assets, net of interest cost on projected benefit obligations and prior service cost. Expected returns on plan assets increased as a result of both higher discretionary contributions and higher actual returns on plan assets in 2017. Interest cost on projected benefit obligations decreased as a result of lower discount rates. Investment income increased as a result of higher yields on invested assets, partially offset by foreign currency exchange rate movements.

UNITED PARCEL SERVICE, INC. AND SUBSIDIARIES MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND

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2017 compared to 2016

Investment income (expense) and other for the period increased \$2.247 billion, which included a \$1.851 billion decrease in mark-to-market pension charges. Excluding the impact of the defined benefit plan mark-to-market charges, adjusted investment income (expense) and other for the period increased \$396 million, which was comprised of expected investment returns on pension assets, net of interest cost on projected benefit obligations and prior service cost. Expected returns on plan assets increased as a result of higher discretionary contributions in 2017 and 2016. Investment income also increased as a result of higher invested assets and the ongoing reduction in losses from fair value adjustments on real estate partnerships, partially offset by foreign currency exchange rate movements.

Interest Expense

2018 compared to 2017

Interest expense increased in 2018 as compared to 2017, primarily due to higher average outstanding debt balances and higher effective interest rates, partially offset by higher capitalized interest related to several large construction projects.

2017 compared to 2016

Interest expense increased in 2017 as compared to 2016, primarily due to the issuance of long-term Canadian Dollar Senior Notes, Euro Senior Notes and U.S. Dollar Senior Notes and higher effective interest rates on senior notes.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Income Tax Expense

The following table sets forth income tax expense and our effective tax rate for the years ended December 31, 2018, 2017 and 2016 (in millions):

	Year	Ended Decem	ber 31,	% Change		
	2018	2017	2016	2018/ 2017	2017/ 2016	
Income Tax Expense:	\$ 1,228	\$ 2,232	\$ 1,699	(45.0)%	31.4%	
Income Tax Impact of:						
Defined Benefit Plans Mark-to-Market Charge	390	193	978			
Transformation Strategy Costs	87					
Income Tax Benefit from the Tax Cuts and Jobs Act and Other Non-U.S. Tax Law Changes	_	258	—			
Adjusted Income Tax Expense	\$ 1,705	\$ 2,683	\$ 2,677	(36.5)%	0.2%	
Effective Tax Rate	20.4%	31.3%	33.2%			
Adjusted Effective Tax Rate	21.3%	33.8%	34.4%			

Our effective tax rate is affected by recurring factors such as statutory tax rates in the jurisdictions in which we operate and the relative amounts of taxable income we earn in those jurisdictions. It is also affected by discrete items that may occur in any given year but may not be consistent from year to year.

Our effective tax rate decreased to 20.4% in 2018, compared with 31.3% in 2017 and 33.2% in 2016, primarily due to the effects of the aforementioned recurring factors and the following discrete tax items.

Tax Cuts and Jobs Act

On December 22, 2017, the United States enacted into law the Tax Act. The Tax Act made broad and complex changes to the U.S. tax code, including a permanent corporate rate reduction to 21% and a transition to a territorial international system effective in 2018. The Tax Act includes provisions that affected 2017, including: (1) requiring a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries ("Transition Tax") that is payable over eight years; (2) requiring a remeasurement of all U.S. deferred tax assets and liabilities to the newly enacted corporate tax rate of 21% and (3) providing for additional first-year depreciation that allows full expensing of qualified property placed into service after September 27, 2017.

In late December 2017, the SEC staff issued Staff Accounting Bulletin ("SAB") 118, which provided guidance on accounting for the tax effects of the Tax Act. SAB 118 provides a measurement period that should not extend beyond one year from the Tax Act enactment date for companies to complete the related accounting under U.S. GAAP. We recorded a \$272 million provisional benefit inclusive of our Transition Tax liability, the change in our indefinite reinvestment assertion for certain foreign subsidiaries and the remeasurement of our U.S. net deferred tax liabilities for the year ended December 31, 2017. During the fourth quarter of 2018, we completed our accounting for the Tax Act based on the current regulatory guidance available at the end of the SAB 118 measurement period and recorded no net adjustment to our provisional estimate.

The Tax Act also enacted provisions that took effect in 2018 including but not limited to: (1) a provision that imposes U.S. tax on certain foreign subsidiary income known as Global Intangible Low-Taxed Income ("GILTI"); (2) a new deduction for Foreign-Derived Intangible Income ("FDII"); (3) additional limitations on tax deductions for expenses such as interest and executive compensation, and (4) a new minimum tax based on certain payments from a U.S. company to foreign related parties known as the Base Erosion and Anti-Abuse Tax ("BEAT").

We included the impact of each of the newly effective Tax Act provisions in our computation of the 2018 income tax expense. Throughout 2018, the U.S. Department of the Treasury and Internal Revenue Service issued preliminary regulatory guidance clarifying certain provisions of the Tax Act. We anticipate additional regulatory guidance and technical clarifications that could change our future income tax expense. When additional guidance is issued, we will recognize the related tax impact in the quarter of enactment.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

2018 Discrete Items

The decrease in our effective tax rate was primarily due to the impact of the Tax Act which reduced the U.S. federal corporate income tax rate from 35% to 21% effective January 1, 2018.

In the fourth quarter of 2018, we recognized an income tax benefit of \$390 million related to pre-tax mark-to-market losses of \$1.627 billion on our pension and postretirement defined benefit plans. This income tax benefit was generated at a higher average tax rate than the 2018 U.S. federal statutory tax rate because it included the effect of U.S. state and local and foreign taxes.

We recorded pre-tax transformation strategy costs of \$360 million during the year ended December 31, 2018. As a result, we recorded an additional income tax benefit of \$87 million. This income tax benefit was generated at a higher average tax rate than the 2018 U.S. federal statutory tax rate due to the effect of U.S. state and local and foreign taxes.

The recognition of excess tax benefits and deficiencies related to share-based compensation in income tax expense resulted in a net tax benefit of \$38 million and reduced our effective tax rate by 0.6% during the year ended December 31, 2018.

Other factors that impacted our 2018 effective tax rate include favorable resolutions of uncertain tax positions, favorable U.S. state and local tax law changes, favorable tax provisions enacted in the Bipartisan Budget Act of 2018 and discrete tax credits associated with the filing of our 2017 U.S. federal income tax return.

2017 Discrete Items

In addition to the impact of the Tax Act described above, the following discrete items were recorded during the year ended December 31, 2017.

In the fourth quarter of 2017, we recognized an income tax benefit of \$193 million related to pre-tax mark-to-market losses of \$800 million on our pension and postretirement defined benefit plans. This income tax benefit was generated at a lower average tax rate than the 2017 U.S. federal statutory tax rate due to future tax rate changes enacted by the Tax Act and differences between U.S. and foreign statutory rates, which was partially offset by the effect of U.S. state and local taxes.

In the fourth quarter of 2017, tax law changes were enacted in certain non-U.S. jurisdictions in which we operate. As a result, we recorded a decrease to our foreign net deferred tax assets of \$14 million with a corresponding net increase to deferred tax expense of \$14 million for the year ended December 31, 2017.

In the first quarter of 2017, we adopted a new accounting standard that requires the recognition of excess tax benefits related to share-based compensation in income tax expense, which resulted in tax benefits for the year ended December 31, 2017 of \$71 million and reduced our effective tax rate by 1.0%.

2016 Discrete Items

In the fourth quarter of 2016, we recognized an income tax benefit of \$978 million related to pre-tax mark-to-market losses of \$2.651 billion on our pension and postretirement defined benefit plans. This income tax benefit was generated at a higher average tax rate than the U.S. federal statutory tax rate because it included the effect of U.S. state and local taxes.

As described in the Items Affecting Comparability section, certain items have been excluded from comparisons of "adjusted" income taxes in the discussion that follows.

Our adjusted effective tax rate decreased to 21.3% in 2018 from 33.8% in 2017 primarily due to the impact of the Tax Act which reduced the U.S. federal corporate income tax rate from 35% to 21% effective January 1, 2018.

Our adjusted effective tax rate decreased to 33.8% in 2017 from 34.4% in 2016 primarily due to favorable discrete tax adjustments related to recognition of excess tax benefits related to share-based compensation in income tax expense.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Liquidity and Capital Resources

As of December 31, 2018, we had \$5.035 billion in cash, cash equivalents and marketable securities. We believe that our current cash position, access to the commercial paper programs and long-term debt capital markets and cash flow generated from operations should be adequate not only for operating requirements but also to enable us to complete our capital expenditure programs, transformation strategy and to fund dividend payments, share repurchases and long-term debt payments through the next several years. We regularly evaluate opportunities to optimize our capital structure, including through issuances of debt to refinance existing debt and to fund ongoing cash needs.

Cash Flows From Operating Activities

The following is a summary of the significant sources (uses) of cash from operating activities (amounts in millions):

	 2018	 2017	 2016
Net Income	\$ 4,791	\$ 4,905	\$ 3,422
Non-cash operating activities ⁽¹⁾	6,048	5,770	6,438
Pension and postretirement plan contributions (UPS sponsored plans)	(186)	(7,794)	(2,668)
Hedge margin receivables and payables	482	(732)	(142)
Income tax receivables and payables	469	(550)	(505)
Changes in working capital and other non-current assets and liabilities	1,091	(168)	(47)
Other operating activities	16	48	(25)
Net cash from operating activities	\$ 12,711	\$ 1,479	\$ 6,473

(1) Represents depreciation and amortization, gains and losses on derivative transactions and foreign exchange, deferred income taxes, provisions for

uncollectible accounts, pension and postretirement benefit expense, stock compensation expense and other non-cash items.

Cash from operating activities remained strong throughout 2016 to 2018. Most of the variability in operating cash flows during the 2016 to 2018 time period relates to the funding of our company-sponsored pension and postretirement benefit plans (and related cash tax deductions). Except for discretionary or accelerated fundings of our plans, contributions to our company-sponsored pension plans have largely varied based on whether any minimum funding requirements are present for individual pension plans. We made no discretionary contributions to our three primary company-sponsored U.S. pension plans in 2018, however we made contributions of \$7.291 and \$2.461 billion in 2017 and 2016, respectively. The remaining contributions from 2016 to 2018 were due to contributions to our international pension plans and U.S. postretirement medical benefit plans.

Apart from the transactions described above, operating cash flow was impacted by changes in our hedge margin receivables and payables, timing of income tax receipts and payments and improvements in our working capital position. The net hedge margin collateral received (paid) from our derivative counterparties was \$482, \$(732) and \$(142) million during 2018, 2017 and 2016, respectively, due to settlements and changes in the fair value of the derivative contracts used in our currency and interest rate hedging programs. Cash payments for income taxes were \$2 million, \$1.559 billion and \$2.064 billion for 2018, 2017 and 2016, respectively, primarily impacted by the timing of a \$5.0 billion pension contribution made in December 2017 which resulted in a tax refund in 2018, and the timing of current tax deductions.

As of December 31, 2018, the total of our worldwide holdings of cash, cash equivalents and marketable securities were \$5.035 billion, of which approximately \$2.853 billion was held by foreign subsidiaries. The amount of cash, cash equivalents and marketable securities held by our U.S. and foreign subsidiaries fluctuates throughout the year due to a variety of factors, including the timing of cash receipts and disbursements in the normal course of business. Cash provided by operating activities in the U.S. continues to be our primary source of funds to finance domestic operating needs, capital expenditures, share repurchases and dividend payments to shareowners. All cash, cash equivalents and marketable securities held by foreign subsidiaries are generally available for distribution to the U.S. without any U.S. federal income taxes. Any such distributions may be subject to foreign withholding and U.S. state taxes. When amounts earned by foreign subsidiaries are expected to be indefinitely reinvested, no accrual for taxes is provided.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Cash Flows From Investing Activities

Our primary sources (uses) of cash for investing activities were as follows (amounts in millions):

	2018		2017		2016
Net cash used in investing activities	\$ (6,330)	\$	(4,971)	\$	(2,563)
Capital Expenditures:	 	_		_	
Buildings, facilities and plant equipment	\$ (3,147)	\$	(2,954)	\$	(1,316)
Aircraft and parts	(1,496)		(789)		(350)
Vehicles	(931)		(924)		(864)
Information technology	(709)		(560)		(435)
Total Capital Expenditures : ⁽¹⁾	\$ (6,283)	\$	(5,227)	\$	(2,965)
Capital Expenditures as a % of Revenue	 8.7%		7.9%		4.9%
Other Investing Activities:					
Proceeds from disposals of property, plant and equipment	\$ 37	\$	24	\$	88
Net decrease in finance receivables	\$ 4	\$	5	\$	9
Net (purchases), sales of marketable securities	\$ (87)	\$	360	\$	911
Cash paid for business acquisitions	\$ (2)	\$	(134)	\$	(547)
Other investing activities	\$ 1	\$	1	\$	(59)

⁽¹⁾ In addition to capital expenditures of \$6.283 billion in 2018, there were capital expenditures relating to the principal repayments of capital lease obligations of \$340 million. These are included in cash flows from financing activities.

We have commitments for the purchase of aircraft, vehicles, equipment and real estate to provide for the replacement of existing capacity and anticipated future growth. We generally fund our capital expenditures with our cash from operations. Future capital spending for anticipated growth and replacement assets will depend on a variety of factors, including economic and industry conditions. In 2017 we began a multi-year investment program in our smart logistics network which impacts all asset categories, with the largest investments in buildings, facilities and plant equipment. This investment program will continue in 2019, whereby we anticipate that our capital expenditures will be approximately \$7.0 billion.

As such, capital expenditures on buildings, facilities and plant equipment increased in 2018 compared to prior periods in our U.S. and international package businesses, largely due to several facility automation and capacity expansion projects. Capital spending on aircraft also increased in 2018 compared to prior periods due to increased contract deposits on open aircraft orders and final payments associated with the delivery of aircraft. Capital spending on information technology increased in 2018 compared to the prior periods due to further development of technology enabled enhancements and capitalized software projects.

The proceeds from the disposal of property, plant and equipment were largely due to the disposal of equipment in 2018, vehicle retirements in 2017 and insurance recoveries in 2016. The purchases and sales of marketable securities are largely determined by liquidity needs and the periodic rebalancing of investment types and will fluctuate from period to period.

Cash paid for business acquisitions was related to our acquisition of area franchise rights for The UPS Store in 2018, Freightex, Nightline and STTAS in 2017 and Marken in 2016.

Other investing activities are impacted by changes in our non-current investments, capital contributions into certain investment partnerships and various other items.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Cash Flows From Financing Activities

Our primary sources (uses) of cash for financing activities were as follows (amounts in millions, except per share data):

	2018		2017		2016
Net cash used in financing activities	\$ (5,692)	\$	3,287	\$	(3,140)
Share Repurchases:					
Cash expended for shares repurchased	\$ (1,011)	\$	(1,813)	\$	(2,678)
Number of shares repurchased	(8.9)		(16.1)		(25.4)
Shares outstanding at year-end	858		859		868
Percent reduction in shares outstanding	(0.1)%	(0.1)% (1.0)			(2.0)%
Dividends:					
Dividends declared per share	\$ 3.64	\$	3.32	\$	3.12
Cash expended for dividend payments	\$ (3,011)	\$	(2,771)	\$	(2,643)
Borrowings:					
Net borrowings (repayments) of debt principal	\$ (1,622)	\$	7,827	\$	2,034
Other Financing Activities:					
Cash received for common stock issuances	\$ 240	\$	247	\$	245
Other financing activities	\$ (288)	\$	(203)	\$	(98)
Capitalization:					
Total debt outstanding at year-end	\$ 22,736	\$	24,289	\$	16,075
Total shareowners' equity at year-end	3,037		1,024		430
Total capitalization	\$ 25,773	\$	25,313	\$	16,505

For the years ended December 31, 2018, 2017 and 2016, we repurchased a total of 8.9, 16.1 and 25.2 million shares of class A and class B common stock for \$1.000, \$1.816 and \$2.680 billion, respectively (\$1.011, \$1.813 and \$2.678 billion in repurchases for 2018, 2017 and 2016, respectively, are reported on the cash flow statement due to the timing of settlements).

In May 2016, the Board of Directors approved a share repurchase authorization of \$8.0 billion, which replaced an authorization previously announced in 2013. The share repurchase authorization has no expiration date. As of December 31, 2018, we had \$3.339 billion of this share repurchase authorization remaining.

Share repurchases may take the form of accelerated share repurchases, open market purchases, or other such methods as we deem appropriate. The timing of our share repurchases will depend upon market conditions. We anticipate repurchasing approximately \$1.0 billion of shares in 2019.

The declaration of dividends is subject to the discretion of the Board of Directors and will depend on various factors, including our net income, financial condition, cash requirements, future prospects and other relevant factors. We expect to continue the practice of paying regular cash dividends. In February 2019, we increased our quarterly dividend payment from \$0.91 to \$0.96 per share, a 5.5% increase.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Issuances of debt in 2018 consisted primarily of commercial paper. In 2017 and 2016 we completed senior rate note offerings of \$8.355 and \$1.775 billion, respectively. The following is a summary of debt issuances in 2017 and 2016 (in millions):

	Principal Amount in USD
2017	
Fixed-rate senior notes:	
2.050% senior notes	\$ 700
2.350% senior notes	600
2.500% senior notes	1,000
2.800% senior notes	500
3.050% senior notes	1,000
3.750% senior notes	1,150
Floating-rate senior notes (multiple issuances)	1,461
Euro senior notes:	
0.375% senior notes (€700)	815
1.500% senior notes (€500)	582
Canadian senior notes:	
2.125% senior notes (C\$750)	547
Total	\$ 8,355
2016	Principal Amount in USD
Fixed-rate senior notes:	
2.400% senior notes	\$ 500
3.400% senior notes	500
Floating-rate senior notes (multiple issuances)	226
Euro senior notes:	
1.000% senior notes (€500)	549
	\$ 1,775

The remaining debt issuances for 2017 and 2016 consisted primarily of commercial paper.

Repayment of debt in 2018 and 2017 consisted primarily of the maturity of our \$750 million 5.50% fixed-rate senior notes that matured in January 2018 and \$375 million 1.125% fixed-rate senior notes that matured in October 2017. In 2016, there were no repayments of fixed-rate senior notes or floating-rate senior notes. The remaining repayments of debt during the 2016 through 2018 time period included paydowns of commercial paper and scheduled principal payments on our capitalized lease obligations. We consider the overall fixed and floating interest rate mix of our portfolio and the related overall cost of borrowing when planning for future issuances and non-scheduled repayments of debt.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The amount of commercial paper outstanding fluctuates throughout the year based on daily liquidity needs. The following is a summary of our commercial paper program (amount in millions):

	outstand	nal currency ling balance ear-end			Average balance outstanding	Average balance outstanding (\$)	Average interest rate	
2018								
USD	\$	1,968	\$	1,968	\$	2,137	\$ 2,137	1.81 %
EUR	€	606	\$	694	€	360	\$ 425	(0.38)%
Total			\$	2,662				

	outstan	nal currency ding balance rear-end	standing balance t year-end (\$)	Average balance Average balance outstanding outstanding (\$)		Average interest rate	
2017							
USD	\$	2,458	\$ 2,458	\$	2,163	\$ 2,163	0.88 %
EUR	€	622	\$ 745	€	941	\$ 1,062	(0.39)%
Total			\$ 3,203				

	outstai	onal currency nding balance year-end	Outstanding balance at year-end (\$)		Average balance outstanding			Average balance outstanding (\$)	Average interest rate		
2016											
USD	\$	2,406	\$	2,406	\$	1,838	\$	1,838	0.44 %		
EUR	€	801	\$	844	€	776	\$	817	(0.28)%		
GBP	£	—	\$	—	£	94	\$	116	0.50 %		
Total			\$	3,250							

The variation in cash received from common stock issuances was primarily due to the level of stock option exercises by employees in the 2016 through 2018 period.

The cash outflows in other financing activities were impacted by several factors, primarily the repurchase of shares to satisfy tax withholding obligations on vested employee stock awards of \$259, \$247 and \$167 million for 2018, 2017 and 2016, respectively. Net cash inflows from premium received on capped call options for the purchase of UPS class B shares were \$34 million in 2018, and \$54 million in both 2017 and 2016.

Sources of Credit

See note 8 to the audited consolidated financial statements for a discussion of our available credit and debt covenants.

Guarantees and Other Off-Balance Sheet Arrangements

We do not have guarantees or other off-balance sheet financing arrangements, including variable interest entities, which we believe could have a material impact on financial condition or liquidity.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Contractual Commitments

We have contractual obligations and commitments in the form of capital leases, operating leases, debt obligations, purchase commitments and certain other liabilities. We intend to satisfy these obligations through the use of cash flow from operations. The following table summarizes the expected cash outflow to satisfy our contractual obligations and commitments as of December 31, 2018 (in millions):

Commitment Type	20	19	2020	2021	2022	2023	A	fter 2023	Total
Capital Leases	\$	158	\$ 95	\$ 42	\$ 39	\$ 36	\$	293	\$ 663
Operating Leases		578	477	399	325	262		926	2,967
Debt Principal	3	,667	998	2,551	2,000	2,303		10,830	22,349
Debt Interest		624	582	525	461	389		5,626	8,207
Purchase Commitments ⁽¹⁾	3	,686	1,732	1,150	383	22		8	6,981
Tax Act Repatriation Liability		—		—				96	96
Pension Funding	2	,192							2,192
Total	\$ 10	,905	\$ 3,884	\$ 4,667	\$ 3,208	\$ 3,012	\$	17,779	\$ 43,455

⁽¹⁾ Purchase commitments include aircraft leases that we entered into in 2019.

Our capital lease obligations relate primarily to leases on aircraft and real estate. Capital leases, operating leases and purchase commitments, as well as our debt principal obligations, are discussed further in note 8 to our consolidated financial statements. The amount of interest on our debt was calculated as the contractual interest payments due on our fixed-rate debt, in addition to interest on variable rate debt that was calculated based on interest rates as of December 31, 2018. The calculations of debt interest take into account the effect of interest rate swap agreements. For debt denominated in a foreign currency, the U.S. Dollar equivalent principal amount of the debt at the end of the year was used as the basis to calculate future interest payments.

Purchase commitments represent contractual agreements to purchase assets, goods or services that are legally binding, including contracts for aircraft, construction of new or expanded facilities and orders for technology equipment and vehicles. As of December 31, 2018, we had firm commitments to purchase 19 new Boeing 747-8F cargo aircraft to be delivered between 2019 and 2022 and nine Boeing 767 aircraft to be delivered between 2019 and 2020.

On December 22, 2017, the United States enacted into law the Tax Act requiring a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries. Companies may elect to pay the tax over eight years based on an installment schedule outlined in the Tax Act but are required under current IRS guidance to offset certain overpayments of tax against the liability. We intend to make this election and have reflected our remaining transition tax due by year as a contractual obligation.

There are no anticipated required minimum cash contributions to our qualified U.S. pension plans in 2019 (these plans are discussed further in note 5 to the audited consolidated financial statements). The amount of any minimum funding requirement, as applicable, for these plans could change significantly in future periods, depending on many factors, including future plan asset returns, discount rates and changes to pension plan funding regulations. A decline in discount rates or a sustained significant decline in the world equity or bond markets could result in our domestic pension plans being subject to significantly higher minimum funding requirements. Actual contributions made in future years could materially differ and consequently required minimum contributions beyond 2019 cannot be reasonably estimated.

As discussed in note 6 to the audited consolidated financial statements, we are not currently subject to any minimum contributions or surcharges with respect to the multiemployer pension and health and welfare plans in which we participate. Contribution rates to these multiemployer pension and health and welfare plans are established through the collective bargaining process. As we are not subject to any minimum contribution levels, we have not included any amounts in the contractual commitments table with respect to these multiemployer plans.

The table above does not include approximately \$216 million of liabilities for uncertain tax positions because we are uncertain if or when such amounts will ultimately be settled in cash. Uncertain tax positions are further discussed in note 13 to the consolidated financial statements.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

As of December 31, 2018, we had outstanding letters of credit totaling approximately \$1.256 billion issued in connection with our self-insurance reserves and other routine business requirements. We also issue surety bonds as an alternative to letters of credit in certain instances, and as of December 31, 2018, we had \$1.031 million of surety bonds written. As of December 31, 2018, we had unfunded loan commitments totaling \$164 million associated with UPS Capital.

We believe that funds from operations and borrowing programs will provide adequate sources of liquidity and capital resources to meet our expected long-term needs for the operation of our business, including anticipated capital expenditures, for the foreseeable future.

Contingencies

See note 5 to the audited consolidated financial statements for a discussion of pension related matters and note 9 for a discussion of judicial proceedings and other matters arising from the conduct of our business activities.

Collective Bargaining Agreements

Status of Collective Bargaining Agreements

As of December 31, 2018, we had approximately 283,000 employees employed under a national master agreement and various supplemental agreements with local unions affiliated with the Teamsters. These agreements expired on July 31, 2018. On October 5, 2018, the Teamsters declared that the tentative national master agreement for the U.S. Domestic Package business unit was considered ratified, and will be implemented as soon as five remaining local and supplemental agreements are negotiated and ratified. We remain in the process of negotiating and ratifying four of these local and supplemental agreements which, when ratified, will be retroactive to August 1, 2018. The UPS Freight business unit national master agreement was ratified on November 11, 2018.

We have approximately 2,800 pilots who are employed under a collective bargaining agreement with the Independent Pilots Association ("IPA"), which becomes amendable on September 1, 2021.

Our airline mechanics are covered by a collective bargaining agreement with Teamsters Local 2727. On February 8, 2019, the airline mechanics who are covered by this agreement voted to ratify a new contract which will become amendable November 1, 2023. In addition, approximately 3,100 of our auto and maintenance mechanics who are not employed under agreements with the Teamsters are employed under collective bargaining agreements with the International Association of Machinists and Aerospace Workers ("IAM") that will expire on July 31, 2019.

Multiemployer Benefit Plans

We contribute to a number of multiemployer defined benefit and health and welfare plans under terms of collective bargaining agreements that cover our union represented employees. Our current collective bargaining agreements set forth the annual contribution increases allotted to the plans that we participate in, and we are in compliance with these contribution rates. These limitations will remain in effect throughout the terms of the existing collective bargaining agreements.

New Accounting Pronouncements

Recently Adopted Accounting Standards

See note 1 to the audited consolidated financial statements for a discussion of recently adopted accounting standards.

Accounting Standards Issued But Not Yet Effective

See note 1 to the audited consolidated financial statements for a discussion of accounting standards issued, but not yet effective.

Rate Adjustments

Effective February 18, 2019, general UPS Freight rates will increase by 5.9%. This rate adjustment applies to noncontractual less-than-truckload (LTL) shipments. The impact of this general rate increase may vary by specific lane or shipment characteristics such as weight or class.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which are prepared in accordance with accounting principles generally accepted in the United States of America. As indicated in note 1 to our consolidated financial statements, the amounts of assets, liabilities, revenue and expenses reported in our financial statements are affected by estimates and judgments that are necessary to comply with generally accepted accounting principles. We base our estimates on prior experience and other assumptions that we consider reasonable to our circumstances. Actual results could differ from our estimates, which would affect the related amounts reported in our consolidated financial statements. While estimates and judgments are applied in arriving at many reported amounts, we believe that the following matters may involve a higher degree of judgment and complexity.

Contingencies

As discussed in note 9 to the audited consolidated financial statements, we are involved in various legal proceedings and contingencies. The events that may impact our contingent liabilities are often unique and generally are not predictable. At the time a contingency is identified, we consider all relevant facts as part of our evaluation. We record a liability for a loss when the loss is probable of occurring and reasonably estimable. Events may arise that were not anticipated and the outcome of a contingency may result in a loss to us that differs from our previously estimated liability. These factors could result in a material difference between estimated and actual operating results. Contingent losses that are probable and estimable, excluding those related to income taxes and self-insurance which are discussed further below, were not material to our financial position or results of operations as of, and for the year ended, December 31, 2018. In addition, we have certain contingent liabilities that have not been recognized as of December 31, 2018, because a loss is not reasonably estimable.

Goodwill and Intangible Impairment

We perform impairment testing of goodwill for each of our reporting units on an annual basis. In our U.S. Domestic Package and International Package reporting segments, we have the following reporting units: Europe, Asia, Americas and ISMEA (Indian Subcontinent, Middle East and Africa). In our Supply Chain & Freight segment we have the following reporting units: Forwarding, Logistics, UPS Mail Innovations, UPS Freight, The UPS Store, UPS Capital, Marken and Coyote Logistics. Our annual goodwill impairment testing date is July 1st for each reporting unit owned at the testing date. In assessing goodwill for impairment, we initially evaluate qualitative factors to determine if it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If the qualitative assessment is not conclusive and it is necessary to calculate the fair value of a reporting unit, then we utilize a two-step process to test goodwill for impairment. First, a comparison of the fair value of the applicable reporting unit with the aggregate carrying value, including goodwill, is performed. If the carrying amount of a reporting unit exceeds the reporting unit's fair value, we perform the second step of the goodwill impairment test to determine the amount of impairment loss. The second step includes comparing the implied fair value of the affected reporting unit's goodwill with the carrying value of that goodwill.

We primarily determine the fair value of our reporting units using a discounted cash flow model ("DCF model") and supplement this with observable valuation multiples for comparable companies, as appropriate. The completion of the DCF model requires that we make a number of significant assumptions to produce an estimate of future cash flows. These assumptions include projections of future revenue, costs, capital expenditures and working capital changes. In addition, we make assumptions about the estimated cost of capital and other relevant variables, as required, in estimating the fair value of our reporting units. The projections that we use in our DCF model are updated annually and will change over time based on the historical performance and changing business conditions for each of our reporting units. The determination of whether goodwill is impaired involves a significant level of judgment in these assumptions, and changes in our business strategy, government regulations, or economic or market conditions could significantly impact these judgments. We routinely monitor market conditions and other factors to determine if interim impairment tests are necessary. If impairment indicators are present in future periods, the resulting impairment charges could have a material impact on our results of operations.

None of the reporting units incurred any goodwill impairment charges in 2018, 2017 or 2016. Changes in our forecasts could cause carrying values of our reporting units to exceed their fair values in future periods, potentially resulting in a goodwill impairment charge. During the year, management monitored the actual performance of the business relative to the fair value assumptions used during our annual goodwill impairment test. For the periods presented, no triggering events were identified that required an interim impairment test. Based on most recent tests, the fair value of all our reporting units substantially exceed their carrying value.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

A trade name with a carrying value of \$200 million and licenses with a carrying value of \$5 million as of December 31, 2018 are considered to be indefinite-lived intangibles, and therefore are not amortized. Impairment tests for indefinite-lived intangibles are performed on an annual basis. We determined that the income approach, specifically the relief from royalty method, is the most appropriate valuation method for the trade name. The estimated fair value of the trade name is compared to the carrying value of the asset. If the carrying value of the trade name exceeds its estimated fair value, an impairment charge is recognized for the amount by which the carrying amount of the asset exceeds its fair value. This valuation approach requires that we make a number of assumptions to estimate fair value. These assumptions include projections of future revenues, market royalty rates, tax rates, discount rates and other relevant variables. The projections we use in the model are updated annually and will change over time based on the historical performance and changing business conditions.

All of our remaining recorded intangible assets are deemed to be finite-lived intangibles, and are amortized over their estimated useful lives. Impairment tests for these intangible assets are only performed when a triggering event occurs that indicates that the carrying value of the intangible may not be recoverable based on the undiscounted future cash flows of the intangible. If the carrying amount of the intangible is determined not to be recoverable, a write-down to fair value is recorded. Fair values are determined based on a DCF model. If impairment indicators are present in future periods, the resulting impairment charges could have a material impact on our results of operations. There was a \$12 and \$7 impairment of finite-lived intangible assets in 2018 and 2017, respectively and no impairment of finite-lived intangible assets in 2016. There was no impairment of indefinite-lived intangible assets in 2018, 2017 or 2016.

Self-Insurance Accruals

We self-insure costs associated with workers' compensation claims, automobile liability, health and welfare and general business liabilities, up to certain limits. Insurance reserves are established for estimates of the loss that we will ultimately incur on reported claims, as well as estimates of claims that have been incurred but not yet reported. Recorded balances are based on reserve levels, which incorporate historical loss experience and judgments about the present and expected levels of cost per claim. Trends in actual experience are a significant factor in the determination of such reserves. We believe our estimated reserves for such claims are adequate, but actual experience in claim frequency and/or severity could materially differ from our estimates and affect our results of operations.

Workers' compensation, automobile liability and general liability insurance claims may take several years to completely settle. Consequently, actuarial estimates are required to project the ultimate cost that will be incurred to fully resolve the claims. A number of factors can affect the actual cost of a claim, including the length of time the claim remains open, trends in healthcare costs and the results of related litigation. Furthermore, claims may emerge in future years for events that occurred in a prior year at a rate that differs from previous actuarial projections. Changes in state legislation with respect to workers' compensation can affect the adequacy of our self-insurance accruals. All of these factors can result in revisions to prior actuarial projections and produce a material difference between estimated and actual operating results. Prior to 2017, outside actuarial studies are now performed quarterly as we believe this provides us with better quarterly estimates of our outstanding workers' compensation liability.

We sponsor a number of health and welfare insurance plans for our employees. These liabilities and related expenses are based on estimates of the number of employees and eligible dependents covered under the plans, anticipated medical usage by participants and overall trends in medical costs and inflation. Actual experience may differ from these estimates and, therefore, produce a material difference between estimated and actual operating results.

Pension and Postretirement Medical Benefits

Our pension and other postretirement benefit costs are calculated using various actuarial assumptions and methodologies. These assumptions include discount rates, healthcare cost trend rates, inflation, compensation increase rates, expected returns on plan assets, mortality rates and other factors. The assumptions utilized in recording the obligations under our plans represent our best estimates, and we believe that they are reasonable, based on information as to historical experience and performance as well as other factors that might cause future expectations to differ from past trends.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Differences in actual experience or changes in assumptions may affect our pension and other postretirement obligations and future expense. The primary factors contributing to actuarial gains and losses each year are (1) changes in the discount rate used to value pension and postretirement benefit obligations as of the measurement date, (2) differences between the expected and the actual return on plan assets, (3) changes in demographic assumptions including mortality, (4) participant experience different from demographic assumptions and (5) changes in coordinating benefits with plans not sponsored by UPS.

We recognize changes in the fair value of plan assets and net actuarial gains or losses in excess of a corridor (defined as 10% of the greater of the fair value of plan assets or the plans' projected benefit obligations) in pension expense annually at December 31st each year. The remaining components of pension expense (herein referred to as "ongoing net periodic benefit cost"), primarily service and interest costs and the expected return on plan assets, are reported on a quarterly basis.

The following sensitivity analysis shows the impact of a 25 basis point change in the assumed discount rate and return on assets for our pension and postretirement benefit plans, and the resulting increase/(decrease) on our obligations and expense as of, and for the year ended, December 31, 2018 (in millions).

Pension Plans	25 Basis Point Increase	25 Basis Point Decrease
Discount Rate:		
Effect on ongoing net periodic benefit cost	\$ (48)	\$ 50
Effect on net periodic benefit cost for amounts recognized outside the 10% corridor	(360)	1,065
Effect on projected benefit obligation	(1,717)	1,823
Return on Assets:		
Effect on ongoing net periodic benefit cost ⁽¹⁾	(106)	106
Effect on net periodic benefit cost for amounts recognized outside the 10% corridor ⁽²⁾	(24)	24
Postretirement Medical Plans Discount Rate:		
Effect on ongoing net periodic benefit cost	3	(3)
Effect on net periodic benefit cost for amounts recognized outside the 10% corridor	(10)	11
Effect on accumulated postretirement benefit obligation	(53)	62
Healthcare Cost Trend Rate:		
Effect on ongoing net periodic benefit cost	1	(1)
Effect on net periodic benefit cost for amounts recognized outside the 10% corridor	9	(9)
Effect on accumulated postretirement benefit obligation	15	(16)

⁽¹⁾ Amount calculated based on 25 basis point increase / decrease in the expected return on assets.

⁽²⁾ Amount calculated based on 25 basis point increase / decrease in the actual return on assets.

Pension Backstop

UPS was a contributing employer to the Central States Pension Fund ("CSPF") until 2007 when we withdrew from the CSPF and fully funded our allocable share of unfunded vested benefits by paying a \$6.1 billion withdrawal liability. Under a collective bargaining agreement with the International Brotherhood of Teamsters ("IBT"), UPS agreed to provide coordinating benefits in the UPS/IBT Full Time Employee Pension Plan ("UPS/IBT Plan") for UPS participants whose last employer was UPS and who had not retired as of January 1, 2008 ("the UPS Transfer Group") in the event that benefits are lawfully reduced by the CSPF in the future consistent with the terms of our withdrawal agreement with the CSPF. Under our withdrawal agreement with the CSPF, benefits to the UPS Transfer Group cannot be reduced without our consent and can only be reduced in accordance with applicable law.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

In December 2014, Congress passed the Multiemployer Pension Reform Act ("MPRA"). This change in law for the first time permitted multiemployer pension plans to reduce benefit payments to retirees, subject to specific guidelines in the statute and government approval. In September 2015, the CSPF submitted a proposed pension benefit reduction plan to the U.S. Department of the Treasury ("Treasury"). In May 2016, Treasury rejected the proposed plan submitted by the CSPF. In the first quarter of 2018, Congress established a Joint Select Committee to develop a recommendation to improve the solvency of multiemployer plans and the Pension Benefit Guaranty Corporation ("PBGC") before a November 30, 2018 deadline. While the Committee's efforts failed to meet its deadline, the Committee made significant progress towards finding solutions that will address the long term solvency of multiemployer pension plans. UPS will continue to work with all stakeholders, including legislators and regulators, to implement an acceptable solution.

The CSPF has said that it believes a legislative solution to its funded status is necessary or that it will become insolvent in 2025, and we expect that the CSPF will continue to explore options to avoid insolvency. Numerous factors could affect the CSPF's funded status and UPS's potential obligation to pay coordinating benefits under the UPS/IBT Plan. Any obligation to pay coordinating benefits will be subject to a number of significant uncertainties, including whether the CSPF submits a revised MPRA filing and the terms thereof, or whether it otherwise seeks federal government assistance, as well as the terms of any applicable legislation, the extent to which benefits are paid by the PBGC and our ability to successfully defend legal positions we may take in the future under the MPRA, including the suspension ordering provisions, our withdrawal agreement and other applicable law.

We account for the potential obligation to pay coordinating benefits to the UPS Transfer Group under Accounting Standards Codification Topic 715- *Compensation- Retirement Benefits* ("ASC 715"), which requires us to provide a best estimate of various actuarial assumptions, including the eventual outcome of this matter, in measuring our pension benefit obligation at the December 31st measurement date. While we currently believe the most likely outcome to this matter and the broader systemic problems facing multiemployer pension plans is intervention by the federal government, ASC 715 does not permit anticipation of changes in law in making a best estimate of pension liabilities.

As such, our best estimate of the next most likely outcome at the measurement date is that the CSPF submits and implements another benefit reduction plan under the MPRA during 2019. We believe any MPRA filing would be designed to forestall insolvency by reducing benefits to participants other than the UPS Transfer Group to the maximum extent permitted, and then reducing benefits to the UPS Transfer Group by a lesser amount.

We have evaluated this outcome using a deterministic cash flow projection, reflecting updated estimated CSPF cash flows and investment earnings, the lack of legislative action and the absence of a MPRA filing by the CSPF in 2018. As a result, at the December 31, 2018 measurement date, the best estimate of our projected benefit obligation increased by \$1.6 billion for coordinating benefits that may be required to be directly provided by the UPS/IBT Plan to the UPS Transfer Group.

The future value of this estimate will be influenced by the terms and timing of any MPRA filing, changes in our discount rate, rate of return on assets and other actuarial assumptions, presumed solvency of the PBGC, as well as potential solutions resulting from federal government intervention. Any such event may result in a decrease or an increase in the best estimate of our projected benefit obligation. If the uncertainties are not resolved, it is reasonably possible that our projected benefit obligation could increase by approximately \$2.4 billion, resulting in a total obligation for coordinating benefits of approximately \$4.0 billion as previously disclosed. If a future change in law occurs, it may be a significant event requiring an interim remeasurement of the UPS/IBT Plan at the date the law is enacted. We will continue to assess the impact of these uncertainties on our projected benefit obligation in accordance with ASC 715.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Depreciation, Residual Value and Impairment of Fixed Assets

As of December 31, 2018, we had \$26.576 billion of net fixed assets, the most significant category of which is aircraft. In accounting for fixed assets, we make estimates about the expected useful lives and the expected residual values of the assets, and the potential for impairment based on the fair values of the assets and the cash flows generated by these assets.

We evaluate the useful lives of our property, plant and equipment based on our usage, maintenance and replacement policies, and taking into account physical and economic factors that may affect the useful lives of the assets. As part of our ongoing investment in transformation in 2018, we revised our estimates of useful lives for building improvements, vehicles and plant equipment based on our current assessment of these factors. In general, these changes in estimate had the effect of lengthening the useful lives of vehicles, building improvements and plant equipment. The change in estimates for building improvements, vehicles and plant equipment was applied prospectively beginning in 2018 through depreciation expense. See "Consolidated Operating Expense" of Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" for the discussion of the impacts to "Depreciation and amortization." See note 1 to the audited consolidated financial statements for a discussion of our accounting policies. See note 4 to the audited consolidated financial statements for a discussion of the change in estimated useful lives.

In estimating the lives and expected residual values of aircraft, we have relied upon actual experience with the same or similar aircraft types. Subsequent revisions to these estimates could be caused by changes to our maintenance program, changes in the utilization of the aircraft, governmental regulations on aging aircraft and changing market prices of new and used aircraft of the same or similar types. We periodically evaluate these estimates and assumptions, and adjust the estimates and assumptions as necessary. Adjustments to the expected lives and residual values are accounted for on a prospective basis through depreciation expense. In estimating cash flows, we project future volume levels for our different air express products in all geographic regions in which we do business. Adverse changes in these volume forecasts, or a shortfall of our actual volume compared with our projections, could result in our current aircraft capacity exceeding current or projected demand. This situation could lead to an excess of a particular aircraft, resulting in an aircraft impairment charge or a reduction of the expected life of an aircraft (thus resulting in increased depreciation expense).

We review long-lived assets for impairment when circumstances indicate the carrying amount of an asset may not be recoverable based on the undiscounted future cash flows of the asset. If the carrying amount of the asset is determined not to be recoverable, a write-down to fair value is recorded. Fair values are determined based on quoted market values, discounted cash flows or external appraisals, as appropriate. We review long-lived assets for impairment at the individual asset or the asset group level for which the lowest level of independent cash flows can be identified. The circumstances that would indicate potential impairment may include, but are not limited to, a significant change in the extent to which an asset is utilized and operating or cash flow losses associated with the use of the asset.

There were no impairment charges on our property, plant and equipment during 2018, 2017 and 2016.

Fair Value Measurements

In the normal course of business, we hold and issue financial instruments that contain elements of market risk, including derivatives, marketable securities, finance receivables, pension assets, other investments and debt. Certain of these financial instruments are required to be recorded at fair value, principally derivatives, marketable securities, pension assets and certain other investments. Fair values are based on listed market prices, when such prices are available. To the extent that listed market prices are not available, fair value is determined based on other relevant factors, including dealer price quotations. If listed market prices and other relevant facts are not available, inputs are developed from unobservable data reflecting our own assumptions and include situations where there is little or no market activity for the asset or liability. Certain financial instruments, including over-the-counter derivative instruments, are valued using pricing models that consider, among other factors, contractual and market prices, correlations, time value, credit spreads and yield curve volatility factors. Changes in the fixed income, foreign exchange and commodity markets will impact our estimates of fair value in the future, potentially affecting our results of operations. A quantitative sensitivity analysis of our exposure to changes in commodity prices, foreign currency exchange rates and interest rates is presented in the "Quantitative and Qualitative Disclosures about Market Risk" section of this report.

Certain non-financial assets and liabilities are measured at fair value on a nonrecurring basis, including property, plant, and equipment, goodwill and intangible assets. These assets are not measured at fair value on a recurring basis; however, they are subject to fair value adjustments in certain circumstances, such as when there is evidence of an impairment.
MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

We allocate the fair value of purchase consideration to the tangible assets acquired, liabilities assumed and intangible assets acquired based on their estimated fair values. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is recorded as goodwill. Such valuations require management to make significant estimates and assumptions, especially with respect to intangible assets. Significant estimates in valuing certain intangible assets include, but are not limited to, future expected cash flows from acquired customers, technology and trade names from a market participant perspective, useful lives and discount rates. Management's estimates of fair value are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable and, as a result, actual results may differ from estimates. During the measurement period, which is one year from the acquisition date, we may record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Upon the conclusion of the measurement period, any subsequent adjustments are recorded to earnings.

Income Taxes

We make certain estimates and judgments in determining income tax expense for financial statement purposes. These estimates and judgments occur in the calculation of income by legal entity and jurisdiction, tax credits, benefits, and deductions, and in the calculation of deferred tax assets and liabilities, which arise from differences in the timing of recognition of revenue and expense for tax and financial statement purposes, as well as tax, interest and penalties related to uncertain tax positions. Significant changes to these estimates may result in an increase or decrease to our tax provision in a subsequent period.

We assess the likelihood that we will be able to recover our deferred tax assets. If recovery is not likely, we must increase our provision for taxes by recording a valuation allowance against the deferred tax assets that we estimate will not ultimately be recoverable. We believe that we will ultimately recover a substantial majority of the deferred tax assets recorded on our consolidated balance sheets. However, should there be a change in our ability to recover our deferred tax assets, our tax provision would increase in the period in which we determined that the recovery was not likely.

The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax regulations. We recognize liabilities for uncertain tax positions based on a two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. Once it is determined that the position meets the recognition threshold, the second step requires us to estimate and measure the largest amount of tax benefit that is more likely than not to be realized upon ultimate settlement. The difference between the amount of recognizable tax benefit and the total amount of tax benefit from positions filed or to be filed with the tax authorities is recorded as a liability for uncertain tax benefits. It is inherently difficult and subjective to estimate such amounts, as we have to determine the probability of various possible outcomes. We reevaluate uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in facts or circumstances, changes in tax law, effectively settled issues under audit, and new audit activity. Such a change in recognition or measurement could result in the recognition of a tax benefit or an additional charge to the tax provision.

See note 13 to the audited consolidated financial statements for a discussion of impacts of the Tax Act.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risk from changes in certain commodity prices, foreign currency exchange rates and interest rates. All of these market risks arise in the normal course of business, as we do not engage in speculative trading activities. In order to manage the risk arising from these exposures, we utilize a variety of commodity, foreign exchange and interest rate forward contracts, options and swaps. A discussion of our accounting policies for derivative instruments and further disclosures are provided in note 15 to the consolidated financial statements.

Commodity Price Risk

We are exposed to changes in the prices of refined fuels, principally jet-A, diesel and unleaded gasoline, as well as changes in the price of natural gas and other alternative fuels. Currently, the fuel surcharges that we apply to our domestic and international package and LTL services are the primary means of reducing the risk of adverse fuel price changes. In order to mitigate the impact of fuel surcharges imposed on us by outside carriers, we regularly adjust the rates we charge for our freight brokerage, inter-modal and truckload services. The majority of our contracts for fuel purchases utilize index-based pricing formulas plus or minus a fixed locational/supplier differential. While many of the indices are aligned, each index may fluctuate at a different pace, driving variability in the prices paid for fuel. Because of this, our operating results may be affected should the market price of fuel suddenly change by a significant amount or change by amounts that do not result in an adjustment in our fuel surcharges, which can significantly affect our earnings either positively or negatively in the short-term. Additionally, we periodically use a combination of option, forward and futures contracts to provide partial protection from changing fuel and energy prices. As of December 31, 2018 and 2017, however, we had no commodity contracts outstanding.

Foreign Currency Exchange Risk

We have foreign currency risks related to our revenue, operating expenses and financing transactions in currencies other than the local currencies in which we operate. We are exposed to currency risk from the potential changes in functional currency values of our foreign currency-denominated assets, liabilities and cash flows. Our most significant foreign currency exposures relate to the Euro, British Pound Sterling, Canadian Dollar, Chinese Renminbi and Hong Kong Dollar. We use forwards as well as a combination of purchased and written options to hedge forecasted cash flow currency exposures. These derivative instruments generally cover forecasted foreign currency exposures for periods of 12 to 48 months. We also utilize forward contracts to hedge portions of our anticipated cash settlements of intercompany transactions subject to foreign currency remeasurement.

Interest Rate Risk

We have issued debt instruments, including debt associated with capital leases, that accrue expense at fixed and floating rates of interest. We use a combination of interest rate swaps as part of our program to manage the fixed and floating interest rate mix of our total debt portfolio and related overall cost of borrowing. The notional amount, interest payment and maturity dates of the swaps match the terms of the associated debt. We also utilize forward starting swaps and similar instruments to lock in all or a portion of the borrowing cost of anticipated debt issuances. Our floating-rate debt and interest rate swaps subject us to risk resulting from changes in short-term (primarily LIBOR) interest rates.

We also are subject to interest rate risk with respect to our pension and postretirement benefit obligations, as changes in interest rates will effectively increase or decrease our liabilities associated with these benefit plans, which also results in changes to the amount of pension and postretirement benefit expense recognized in future periods.

We have investments in debt securities, as well as cash-equivalent instruments, some of which accrue income at variable rates of interest. Additionally, we hold a portfolio of finance receivables that accrue income at fixed and floating rates of interest.

Sensitivity Analysis

The following analysis provides quantitative information regarding our exposure to foreign currency exchange risk, interest rate risk and equity price risk embedded in our existing financial instruments. We utilize valuation models to evaluate the sensitivity of the fair value of financial instruments with exposure to market risk that assume instantaneous, parallel shifts in exchange rates, interest rate yield curves and commodity and equity prices. For options and instruments with non-linear returns, models appropriate to the instrument are utilized to determine the impact of market shifts.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

There are certain limitations inherent in the sensitivity analyses presented, primarily due to the assumption that exchange rates change in a parallel fashion and that interest rates change instantaneously. In addition, the analyses are unable to reflect the complex market reactions that normally would arise from the market shifts modeled. While this is our best estimate of the impact of the specified interest rate scenarios, these estimates should not be viewed as forecasts. We adjust the fixed and floating interest rate mix of our interest rate sensitive assets and liabilities in response to changes in market conditions. Additionally, changes in the fair value of foreign currency derivatives and commodity derivatives are offset by changes in the cash flows of the underlying hedged foreign currency and commodity transactions.

	Shock-Test Result As of December 31,					
(in millions)	 2018	2017				
Change in Fair Value:						
Currency Derivatives ⁽¹⁾	\$ (426)	\$	(447)			
Change in Annual Interest Expense:						
Variable Rate Debt ⁽²⁾	\$ 58	\$	51			
Interest Rate Derivatives ⁽²⁾	\$ 47	\$	55			
Change in Annual Interest Income:						
Marketable Securities ⁽³⁾	\$ 1	\$	2			

⁽¹⁾ The potential change in fair value from a hypothetical 10% weakening of the U.S. Dollar against local currency exchange rates across all maturities.

(2) The potential change in annual interest expense resulting from a hypothetical 100 basis point increase in short-term interest rates, applied to our variable rate debt and swap instruments (excluding hedges of anticipated debt issuances).

(3) The potential change in interest income resulting from a hypothetical 100 basis point increase in short-term interest rates, applied to our variable rate investment holdings.

The sensitivity of our pension and postretirement benefit obligations to changes in interest rates is quantified in "Critical Accounting Policies and Estimates". The sensitivity in the fair value and interest income of our finance receivables due to changes in interest rates was not material as of December 31, 2018 and 2017.

Item 8. Financial Statements and Supplementary Data

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Report of Independent Registered Public Accounting Firm

To the Shareowners and Board of Directors of United Parcel Service, Inc. Atlanta, Georgia

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of United Parcel Service, Inc. and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, and cash flows, for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018 and 2017, and the results of an end to be three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 21, 2019, expressed an unqualified opinion on the Company's internal control over financial reporting.

Change in Accounting Principles

As discussed in Note 1 to the financial statements, the Company has changed its method of accounting for revenue from contracts with customers and the presentation of net periodic benefit costs due to the adoption of new accounting standards. These changes have been applied retrospectively to all periods presented.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte & Touche LLP

Atlanta, Georgia February 21, 2019

We have served as the Company's auditor since 1969.

CONSOLIDATED BALANCE SHEETS

(In millions)

Current income taxes receivable 940 1,573 Other current assets 1,277 1,303 Total Current Assets 16,210 15,718 Property, Plant and Equipment, Net 26,576 22,118 Godwill 3,811 3,872 Intangible Assets, Net 2,075 1,964 Investments and Restricted Cash 170 483 Deferred Income Tax Assets 1,033 1,153 Total Assets 1,033 1,153 Total Assets 5 0,016 \$ 45,574 Current Liabilities: 5 0,016 \$ 45,574 Current maturities of long-term debt and commercial paper \$ 2,805 \$ 4,011 Accounts payable 5,188 3,934 2,608 Self-insurance reserves 810 705 Accrued wages and withholdings 3,047 2,608 Self-insurance reserves 810 705 Other current liabilities 1,522 951 Total Current Liabilities 1,522 951 Total Current Liabilities 1,571 1,765<		Decem	ber 31,
Current Assets: 5 4,225 \$ 3,300 Marketable securities 810 749 Accounts receivable, net 8,958 8,773 Current income taxes receivable 940 1,573 Other current assets 1,277 1,303 Total Current Assets 16,210 15,718 Property, Plant and Equipment, Net 26,576 22,118 Goodwill 3,811 3,872 Intargible Assets, Net 2,075 1,964 Investments and Restricted Cash 170 483 Deferred Income Tax Assets 1,033 1,153 Total Assets 1,033 1,153 Current Liabilities: 2 5 9,010 \$ 45,574 Current naturities of long-term debt and commercial paper \$ 2,805 \$ 4,011 Accounts payable 5.188 3,934 Accore wages and withholdings 3,047 2,608 Self-insurance reserves 810 705 677 Other current Liabilities 1,522 951 Total Cur		2018	2017
Cash and cash equivalents \$ 4,225 \$ 3,320 Marketable securities 810 749 Accounts receivable, net 8958 8.773 Current income taxes receivable 940 1,573 Other current assets 1,277 1,303 Total Current Assets 16,210 15,718 Property, Plant and Equipment, Net 2,6,576 22,118 Goodwill 3,811 3,821 Intargible Assets, Net 1,075 1,964 Investments and Restricted Cash 1,013 1,153 Deferred Income Tax Assets 1,41 266 Other Non-Current Assets 1,033 1,153 Current tabuifities 1,033 1,513 Current maturities of Iong-term debt and commercial paper \$ 2,805 \$ 4,011 Accrued wages and withholdings 3,047 2,608 Self-insurance reserves 810 705 Accrued wages and withholdings 1,522 951 Total Current Liabilities 1,522 951 Total Current Liabilities 1,522 <t< th=""><th>ASSETS</th><th></th><th></th></t<>	ASSETS		
Marketable securities 810 749 Accounts receivable, net 8,958 8,773 Other current assets 1,277 1,303 Total Current Assets 16,210 15,713 Property, Plant and Equipment, Net 26,576 22,118 Goodwill 3,811 3,872 Intangible Assets, Net 2,075 1,964 Deferred Income Tax Assets 141 266 Other Non-Current Assets 1,033 1,153 Total Assets 5,50,016 \$ 45,574 Current Inaturities of Iong-term debt and commercial paper \$ 2,805 \$ 4,011 Accounts payable 5,188 3,934 Account group welfare and retirement plan contributions 715 677 Other current Liabilities 1,522 951 Total Current Liabilities 1,522 951 Current maturities of Iong-term debt and commercial paper \$ 2,805 \$ 4,011 Account group welfare and retirement plan contributions 715 677 Other current Liabilities 1,522 951 12,886			
Accounts receivable, net $8,958$ $8,773$ Current income taxes receivable940 $1,573$ Other current assets $1,277$ $1,303$ Total Current Assets $16,210$ $15,718$ Broperty, Plant and Equipment, Net $26,576$ $22,118$ Goodwill $3,811$ $3,872$ Intangible Assets, Net $2,075$ $1,964$ Investments and Restricted Cash 170 483 Deferred Income Tax Assets $1,033$ $1,153$ Total Assets $1,033$ $1,153$ Total Assets $1,033$ $1,153$ Total Assets $1,033$ $1,153$ Current Liabilities: $5,188$ $3,934$ Current maturities of long-term debt and commercial paper\$ 2,805\$ 4,011Accrued wages and withholdings $3,047$ $2,608$ Self-insurance reserves 810 705 Accrued wages and withholdings $1,522$ 951 Total Current Liabilities $1,619$ 756 Self-insurance Reserves $1,571$ $1,761$ Deferred Income Tax Liabilities $1,619$ 756 Self-insurance Reserves $1,571$ $1,761$ Deferred Income Tax Liabilities $1,619$ 756 Self-insurance Reserves $1,571$ $1,762$ Class A common stock (163 and 173 shares issued in 2018 and 2017) 7 7 C	1	\$ 4,225	· · ·
Current income taxes receivable 940 1,573 Other current assets 1,277 1,303 Total Current Assets 16,210 15,718 Property, Plant and Equipment, Net 26,576 22,118 Godwill 3,811 3,872 Intangible Assets, Net 2,075 1,964 Investments and Restricted Cash 170 483 Deferred Income Tax Assets 1,033 1,153 Total Assets 1,033 1,153 Total Assets 5 0,016 \$ 45,574 Current Liabilities: 5 0,016 \$ 45,574 Current maturities of long-term debt and commercial paper \$ 2,805 \$ 4,011 Accounts payable 5,188 3,934 2,608 Self-insurance reserves 810 705 Accrued wages and withholdings 3,047 2,608 Self-insurance reserves 810 705 Other current liabilities 1,522 951 Total Current Liabilities 1,522 951 Total Current Liabilities 1,571 1,765<	Marketable securities	810	749
Other current assets1,2771,303Total Current Assets16,21015,718Property, Plant and Equipment, Net26,57622,118Goodwill3,8113,872Intangible Assets, Net2,0751,964Investments and Restricted Cash170483Deferred Income Tax Assets141266Other Non-Current Assets1,0331,153Total Assets5 50,016\$ 45,574 LIABILITIES AND SHAREOWNERS' EQUITY Current Liabilities:Current I.iabilities:\$ 50,016\$ 45,574Current maturities of long-term debt and commercial paper\$ 2,805\$ 4,011Accounds gauge and withholdingsSelf-insurance reserves810705Accrued wages and withholdings715677Other current Liabilities1,522951Total Current Liabilities14,08712,2868Long-Term Debt19,93120,278Pension and Postretirement Benefit Obligations $8,347$ 7,061Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,2131,424Shareowners' Equity:22Class A common stock (696 and 687 shares issued in 2018 and 2017)77Additional paid-in capital——————Retained carmings8,0065,852Accumulated other comprehensive loss(4,994) </td <td>Accounts receivable, net</td> <td>8,958</td> <td>8,773</td>	Accounts receivable, net	8,958	8,773
Total Current Assets 16,210 15,718 Property, Plant and Equipment, Net 26,576 22,118 Goodwill 3,811 3,812 Intangible Assets, Net 2,075 1,964 Investments and Restricted Cash 170 483 Deferred Income Tax Assets 141 266 Other Non-Current Assets 1,033 1,153 Current Liabilities: \$ 50,016 \$ 45,574 Current Liabilities: 2,075 1,964 Current maturities of long-term debt and commercial paper \$ 2,805 \$ 4,011 Accound group welfare and retirement plan contributions 715 677 Other current Liabilities 1,522 951 Total Asset 19,931 20,278 Pension and Postretirement Benefit Obligations 8,347 7,061 Deferred Income Tax Liabilities 1,619 755 Class A common stock (163 and 173 shares issued in 2018 and 2017) 7 7 Class A common stock (163 and 173 shares issued in 2018 and 2017) 7 7 Class A common stock (163 and 173 shares issued in 2018 and 2017) <td></td> <td>940</td> <td>1,573</td>		940	1,573
Property, Plant and Equipment, Net $26,576$ $22,118$ Goodwill $3,811$ $3,872$ Intangible Assets, Net $2,075$ $1,964$ Investments and Restricted Cash 170 4833 Deferred Income Tax Assets 141 266 Other Non-Current Assets $1,033$ $1,153$ Total Assets $1,033$ $1,153$ Total Assets $1,033$ $1,153$ Total Assets $1,033$ $1,153$ Current Liabilities: $1,034$ $8,45,74$ Current Wages and withholdings $3,047$ $2,608$ Self-insurance reserves 810 705 Accrued wages and withholdings $3,047$ $2,608$ Self-insurance reserves 810 705 Accrued wages and withholdings $1,522$ 951 Total Current Liabilities $14,087$ $12,886$ Long-Term Debt $19,931$ $20,278$ Pension and Postretirement Benefit Obligations $8,347$ $7,061$ Deferred Income Tax Liabilities $1,619$ 756 Other Non-Current Liabilities $1,619$ 756 Class B common stock (696 and 687 shares issued in 2018 and 2017) 2 2 <td>Other current assets</td> <td>1,277</td> <td>1,303</td>	Other current assets	1,277	1,303
Goodwill 3,811 3,872 Intangible Assets, Net 2,075 1,964 Investments and Restricted Cash 170 483 Deferred Income Tax Assets 1,033 1,153 Total Assets 1,033 1,153 Current Assets 1,033 1,153 Current maturities of long-term debt and commercial paper \$ 2,805 \$ 4,011 Accounts payable 5,188 3,934 Accrued wages and withholdings 3,047 2,608 Self-insurance reserves 810 705 Other current liabilities 1,522 951 Total Current Liabilities 1,522 951 Total Current Liabilities 1,619 756 Long-Term Debt 19,931 20,278 Pension and Postretirement Benefit Obligations 8,347 7,061 Deferred Income Tax Liabilities 1,619 756 Self-Insurance Reserves 1,571 1,765 Other Non-Current Liabilities 1,424 1,804 Shareowners' Equity: 2 2 2	Total Current Assets	16,210	15,718
Intangible Assets, Net2,0751,964Investments and Restricted Cash170483Deferred Income Tax Assets141266Other Non-Current Assets1,0331,153Total Assets\$ 50,016\$ 45,574LIABILITIES AND SHAREOWNERS' EQUITYCurrent Liabilities:Current maturities of long-term debt and commercial paper\$ 2,805\$ 4,011Accounts payable5,1883,934Accrued wages and withholdings3,0472,608Self-insurance reserves810705Accrued group welfare and retirement plan contributions715677Other current Liabilities1,522951Total Current Liabilities1,619756Self-Insurance Reserves8,3477,061Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5131,619Class A common stock (163 and 173 shares issued in 2018 and 2017)22Class B common stock (696 and 687 shares issued in 2018 and 2017)77Activity of Controlling Interests3,027Deferred comprehensive loss(4,994)(4,867Deferred comprehensive loss3,021991Other current Liabilities33Colspan="2">Self-Insurance Reserves3Class B common stock (696 and 687 shares issued in 20	Property, Plant and Equipment, Net	26,576	22,118
Investments and Restricted Cash170483Deferred Income Tax Assets1,41266Other Non-Current Assets1,0331,153Total Assets\$ 50,016\$ 45,574LIABILITIES AND SHAREOWNERS' EQUITYCurrent Liabilities:Current Liabilities of long-term debt and commercial paper\$ 2,805\$ 4,011Accounts payable5,1883,934Accrued wages and withholdings3,0472,608Self-insurance reserves810705Accrued group welfare and retirement plan contributions715677Other current Liabilities1,522951Total Current Liabilities1,522951Total Current Liabilities1,619756Self-insurance reserves1,5711,766Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,761Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,766Other Non-Current Liabilities1,619756Self-Insurance Reserves1,5711,766Other Non-Current Liabilities1,2141,804Shareowners' Equity:Class A common stock (163 and 173 shares issued in 2018 and 2017)22Class B common stock (696 and 687 shares issued in 2018 and 2017)Additional paid-in capitalRetained earnings8,0065,8523,021Accurulated other comprehensive los	Goodwill	3,811	3,872
Deferred Income Tax Assets141266Other Non-Current Assets1,0331,153Total Assets\$ 50,016\$ 45,574LLABILITIES AND SHAREOWNERS' EQUITYCurrent Liabilities:Current maturities of long-term debt and commercial paper\$ 2,805\$ 4,011Accounts payable5,1883,934Accrued wages and witholdings3,0472,608Self-insurance reserves810705Accrued group welfare and retirement plan contributions715677Other current Liabilities1,522951Total Current Liabilities1,619756Pension and Postretirement Benefit Obligations8,3477,061Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,4241,804Shareowners' Equity:	Intangible Assets, Net	2,075	1,964
Other Non-Current Assets1,033 \$ 50,0161,153 \$ 45,574LIABILITIES AND SHAREOWNERS' EQUITYCurrent Liabilities:Current maturities of long-term debt and commercial paper\$ 2,805\$ 4,011Accrued wages and withholdings3,0472,608Self-insurance reserves810705Accrued group welfare and retirement plan contributions715677Other current Liabilities1,522951Total Current Liabilities14,08712,886Long-Term Debt19,93120,278Pension and Postretirement Benefit Obligations8,3477,061Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,4241,804Shareowners' Equity:22Class A common stock (163 and 173 shares issued in 2018 and 2017)77Additional paid-in capital——————Retained earnings8,0065,852Accumulated other comprehensive loss(4,994)(4,867Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)3021994Noncontrolling Interests3,0371,024Noncontrolling Interests1630Total Shareowners' Equity3,0371,024	Investments and Restricted Cash	170	483
Total Assets\$ 5,016\$ 45,574LIABILITIES AND SHAREOWNERS' EQUITYCurrent Liabilities:Current Liabilities:Current maturities of long-term debt and commercial paper\$ 2,805\$ 4,011Accounts payableAccrued wages and withholdings\$ 3,0472,608\$ Self-insurance reserves\$ 810Accrued group welfare and retirement plan contributions715Other current Liabilities1,522Total Current Liabilities12,886Long-Term Debt19,931Pension and Postretirement Benefit Obligations\$,347Deferred Income Tax Liabilities1,619Shareowners' Equity:7Class A common stock (163 and 173 shares issued in 2018 and 2017)2Class B common stock (696 and 687 shares issued in 2018 and 2017)7Class B common stock (163 and 173 shares issued in 2018 and 2017)32Class B common stock (164 and 173 shares issued in 2018 and 2017)32Class B common stock (164 and 173 shares issued in 2018 and 2017)32Class B common stock (164 and 173 shares issued in 2018 and 2017)3021Other comprehensive loss(4,994)Accumulated other comprehensive loss(4,994)Accumulated other comprehensive loss(4,994)Accumulated other comprehensive loss(302)Accumulated other comprehensive loss(4,994)Accumulated other controlling Interests3,021Actumulated other controlling Interests3,037 <t< td=""><td>Deferred Income Tax Assets</td><td>141</td><td>266</td></t<>	Deferred Income Tax Assets	141	266
LIABILITIES AND SHAREOWNERS' EQUITYCurrent Liabilities:Current maturities of long-term debt and commercial paper\$ 2,805\$ 4,011Accounts payable5,1883,934Accrued wages and withholdings3,0472,608Self-insurance reserves810705Accrued group welfare and retirement plan contributions715677Other current Liabilities1,522951Total Current Liabilities14,08712,886Long-Term Debt19,93120,278Pension and Postretirement Benefit Obligations8,3477,061Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,4241,804Shareowners' Equity:22Class A common stock (163 and 173 shares issued in 2018 and 2017)77Additional paid-in capital——Retained earnings8,0065,852Accumulated other comprehensive loss(4,994)(4,867Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)3,021994Noncontrolling Interests1630Total Shareowners' Equity3,0371,024	Other Non-Current Assets	1,033	1,153
Current Liabilities:Current maturities of long-term debt and commercial paper\$ 2,805\$ 4,011Accounts payable5,1883,934Accrued wages and withholdings3,0472,608Self-insurance reserves810705Accrued group welfare and retirement plan contributions715677Other current Liabilities14,08712,886Long-Term Debt19,93120,278Pension and Postretirement Benefit Obligations8,3477,061Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,4241,804Shareowners' Equity:Class A common stock (163 and 173 shares issued in 2018 and 2017)22Class A common stock (666 and 687 shares issued in 2018 and 2017)77Additional paid-in capital———Retained earnings8,0065,8523,021Accumulated other comprehensive loss(4,994)(4,867Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)3,021994Noncontrolling Interests3,021994Noncontrolling Interests1630Total Shareowners' Equity3,0371,024	Total Assets	\$ 50,016	\$ 45,574
Current maturities of long-term debt and commercial paper\$ 2,805\$ 4,011Accounts payable5,1883,934Accrued wages and withholdings3,0472,608Self-insurance reserves810705Accrued group welfare and retirement plan contributions715677Other current liabilities14,08712,286Total Current Liabilities14,08712,286Long-Term Debt19,93120,278Pension and Postretirement Benefit Obligations8,3477,061Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities22Class A common stock (163 and 173 shares issued in 2018 and 2017)77Additional paid-in capital——Metained earnings3,021944Necontrolling Interests3,021944Noncontrolling Interests1630Total Shareowners' Equity3,0371,024	LIABILITIES AND SHAREOWNERS' EQUITY		
Accounts payable5,1883,934Accrued wages and withholdings3,0472,608Self-insurance reserves810705Accrued group welfare and retirement plan contributions715677Other current liabilities1,522951Total Current Liabilities14,08712,886Long-Term Debt19,93120,278Pension and Postretirement Benefit Obligations8,3477,061Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,4241,804Shareowners' Equity:22Class A common stock (163 and 173 shares issued in 2018 and 2017)77Additional paid-in capital——Retained earnings8,0065,852Accumulated other comprehensive loss(4,994)(4,867)Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)(32)(37Total Equity for Controlling Interests3,021994Noncontrolling Interests1630Total Shareowners' Equity1630	Current Liabilities:		
Accrued wages and withholdings3,0472,608Self-insurance reserves810705Accrued group welfare and retirement plan contributions715677Other current liabilities1,522951Total Current Liabilities14,08712,886Long-Term Debt19,93120,278Pension and Postretirement Benefit Obligations8,3477,061Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,4241,804Shareowners' Equity:122Class A common stock (163 and 173 shares issued in 2018 and 2017)22Class B common stock (696 and 687 shares issued in 2018 and 2017)77Additional paid-in capital———Retained earnings8,0065,8523,021Accumulated other comprehensive loss(4,994)(4,867)Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)(32)(37Total Equity for Controlling Interests3,021994Noncontrolling Interests1630Total Shareowners' Equity1630	Current maturities of long-term debt and commercial paper	\$ 2,805	\$ 4,011
Self-insurance reserves810705Accrued group welfare and retirement plan contributions715677Other current liabilities1,522951Total Current Liabilities14,08712,886Long-Term Debt19,93120,278Pension and Postretirement Benefit Obligations8,3477,061Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,4241,804Shareowners' Equity:122Class A common stock (163 and 173 shares issued in 2018 and 2017)22Class B common stock (696 and 687 shares issued in 2018 and 2017)77Additional paid-in capital———Retained earnings8,0065,8523,006Accumulated other comprehensive loss(4,994)(4,867)Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)(32)(37)Total Equity for Controlling Interests3,021994Noncontrolling Interests1630Total Shareowners' Equity1630	Accounts payable	5,188	3,934
Accrued group welfare and retirement plan contributions715677Other current liabilities1,522951Total Current Liabilities14,08712,886Long-Term Debt19,93120,278Pension and Postretirement Benefit Obligations8,3477,061Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,4241,804Shareowners' Equity:1,4241,804Class A common stock (163 and 173 shares issued in 2018 and 2017)22Class B common stock (696 and 687 shares issued in 2018 and 2017)77Additional paid-in capital——Retained earnings8,0065,852Accumulated other comprehensive loss(4,994)(4,867)Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)(32)(37)Total Equity for Controlling Interests3,021994Noncontrolling Interests1630Total Shareowners' Equity3,0371,024	Accrued wages and withholdings	3,047	2,608
Other current liabilities1,522951Total Current Liabilities14,08712,886Long-Term Debt19,93120,278Pension and Postretirement Benefit Obligations8,3477,061Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,4241,804Shareowners' Equity:122Class A common stock (163 and 173 shares issued in 2018 and 2017)22Class B common stock (696 and 687 shares issued in 2018 and 2017)77Additional paid-in capital——Retained earnings8,0065,852Accumulated other comprehensive loss(4,994)(4,867)Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)3,021994Noncontrolling Interests3,0371,024	Self-insurance reserves	810	705
Total Current Liabilities14,08712,886Long-Term Debt19,93120,278Pension and Postretirement Benefit Obligations8,3477,061Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,4241,804Shareowners' Equity:22Class A common stock (163 and 173 shares issued in 2018 and 2017)22Class B common stock (696 and 687 shares issued in 2018 and 2017)77Additional paid-in capital——Retained earnings8,0065,852Accumulated other comprehensive loss(4,994)(4,867)Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)(32)(37)Total Equity for Controlling Interests3,021994Noncontrolling Interests1630Total Shareowners' Equity3,0371,024	Accrued group welfare and retirement plan contributions	715	677
Long-Term Debt19,93120,278Pension and Postretirement Benefit Obligations8,3477,061Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,4241,804Shareowners' Equity:22Class A common stock (163 and 173 shares issued in 2018 and 2017)22Class B common stock (696 and 687 shares issued in 2018 and 2017)77Additional paid-in capital——Retained earnings8,0065,852Accumulated other comprehensive loss(4,994)(4,867)Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)(32)(37)Total Equity for Controlling Interests1630Total Shareowners' Equity3,0371,024	Other current liabilities	1,522	951
Pension and Postretirement Benefit Obligations8,3477,061Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,4241,804Shareowners' Equity:122Class A common stock (163 and 173 shares issued in 2018 and 2017)22Class B common stock (696 and 687 shares issued in 2018 and 2017)77Additional paid-in capital——Retained earnings8,0065,852Accumulated other comprehensive loss(4,994)(4,867)Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)(32)(37)Total Equity for Controlling Interests3,021994Noncontrolling Interests1630Total Shareowners' Equity3,0371,024	Total Current Liabilities	14,087	12,886
Deferred Income Tax Liabilities1,619756Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,4241,804Shareowners' Equity:122Class A common stock (163 and 173 shares issued in 2018 and 2017)22Class B common stock (696 and 687 shares issued in 2018 and 2017)77Additional paid-in capital——Retained earnings8,0065,852Accumulated other comprehensive loss(4,994)(4,867)Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)3,021994Noncontrolling Interests1630Total Shareowners' Equity3,0371,024	Long-Term Debt	19,931	20,278
Self-Insurance Reserves1,5711,765Other Non-Current Liabilities1,4241,804Shareowners' Equity:122Class A common stock (163 and 173 shares issued in 2018 and 2017)22Class B common stock (696 and 687 shares issued in 2018 and 2017)77Additional paid-in capital——Retained earnings8,0065,852Accumulated other comprehensive loss(4,994)(4,867)Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)(32)(37)Total Equity for Controlling Interests1630Total Shareowners' Equity3,0371,024	Pension and Postretirement Benefit Obligations	8,347	7,061
Other Non-Current Liabilities1,4241,804Shareowners' Equity:Class A common stock (163 and 173 shares issued in 2018 and 2017)22Class B common stock (696 and 687 shares issued in 2018 and 2017)77Additional paid-in capital——Retained earnings8,0065,852Accumulated other comprehensive loss(4,994)(4,867)Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)(32)(37)Total Equity for Controlling Interests1630Total Shareowners' Equity3,0371,024	Deferred Income Tax Liabilities	1,619	756
Shareowners' Equity:2Class A common stock (163 and 173 shares issued in 2018 and 2017)2Class B common stock (696 and 687 shares issued in 2018 and 2017)7Additional paid-in capital—Retained earnings8,006Accumulated other comprehensive loss(4,994)Objective compensation obligations32Less: Treasury stock (1 share in 2018 and 2017)(32)Total Equity for Controlling Interests3,021Noncontrolling Interests163,0371,024	Self-Insurance Reserves	1,571	1,765
Class A common stock (163 and 173 shares issued in 2018 and 2017)22Class B common stock (696 and 687 shares issued in 2018 and 2017)77Additional paid-in capital——Retained earnings8,0065,852Accumulated other comprehensive loss(4,994)(4,867)Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)(32)(37)Total Equity for Controlling Interests3,021994Noncontrolling Interests1630Total Shareowners' Equity3,0371,024	Other Non-Current Liabilities	1,424	1,804
Class B common stock (696 and 687 shares issued in 2018 and 2017)77Additional paid-in capital——Retained earnings8,0065,852Accumulated other comprehensive loss(4,994)(4,867)Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)(32)(37)Total Equity for Controlling Interests3,021994Noncontrolling Interests1630Total Shareowners' Equity3,0371,024	Shareowners' Equity:		
Additional paid-in capital—Retained earnings8,006Accumulated other comprehensive loss(4,994)Observed compensation obligations323237Less: Treasury stock (1 share in 2018 and 2017)(32)Total Equity for Controlling Interests3,021Noncontrolling Interests16303,037Total Shareowners' Equity3,037	Class A common stock (163 and 173 shares issued in 2018 and 2017)	2	2
Retained earnings8,0065,852Accumulated other comprehensive loss(4,994)(4,867)Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)(32)(37)Total Equity for Controlling Interests3,021994Noncontrolling Interests1630Total Shareowners' Equity3,0371,024	Class B common stock (696 and 687 shares issued in 2018 and 2017)	7	7
Accumulated other comprehensive loss(4,994)(4,867)Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)(32)(37)Total Equity for Controlling Interests3,021994Noncontrolling Interests1630Total Shareowners' Equity3,0371,024	Additional paid-in capital	—	—
Deferred compensation obligations3237Less: Treasury stock (1 share in 2018 and 2017)(32)(37)Total Equity for Controlling Interests3,021994Noncontrolling Interests1630Total Shareowners' Equity3,0371,024	Retained earnings	8,006	5,852
Less: Treasury stock (1 share in 2018 and 2017)(32)(37)Total Equity for Controlling Interests3,021994Noncontrolling Interests1630Total Shareowners' Equity3,0371,024	Accumulated other comprehensive loss	(4,994)	(4,867)
Less: Treasury stock (1 share in 2018 and 2017)(32)(37)Total Equity for Controlling Interests3,021994Noncontrolling Interests1630Total Shareowners' Equity3,0371,024	Deferred compensation obligations	32	37
Total Equity for Controlling Interests3,021994Noncontrolling Interests1630Total Shareowners' Equity3,0371,024		(32)	(37)
Noncontrolling Interests1630Total Shareowners' Equity3,0371,024		3,021	
Total Shareowners' Equity3,0371,024		16	30
Total Liabilities and Shareowners' Equity\$ 50,016\$ 45,574	Total Shareowners' Equity	3,037	1,024
	Total Liabilities and Shareowners' Equity	\$ 50,016	\$ 45,574

See notes to consolidated financial statements.

UNITED PARCEL SERVICE, INC. AND SUBSIDIARIES STATEMENTS OF CONSOLIDATED INCOME (In millions, except per share amounts)

	Years	Years Ended December 31,					
	2018	2017	2016				
Revenue	\$ 71,861	\$ 66,585	\$ 61,610				
Operating Expenses:							
Compensation and benefits	37,235	34,577	32,534				
Repairs and maintenance	1,732	1,601	1,542				
Depreciation and amortization	2,207	2,282	2,224				
Purchased transportation	13,409	11,696	9,848				
Fuel	3,427	2,690	2,118				
Other occupancy	1,362	1,155	1,037				
Other expenses	5,465	5,055	4,619				
Total Operating Expenses	64,837	59,056	53,922				
Operating Profit	7,024	7,529	7,688				
Other Income and (Expense):							
Investment income (expense) and other	(400)	61	(2,186)				
Interest expense	(605)	(453)	(381)				
Total Other Income and (Expense)	(1,005)	(392)	(2,567)				
Income Before Income Taxes	6,019	7,137	5,121				
Income Tax Expense	1,228	2,232	1,699				
Net Income	\$ 4,791	\$ 4,905	\$ 3,422				
Basic Earnings Per Share	\$ 5.53	\$ 5.63	\$ 3.88				
Diluted Earnings Per Share	\$ 5.51	\$ 5.61	\$ 3.86				

STATEMENTS OF CONSOLIDATED COMPREHENSIVE INCOME (LOSS) (In millions)

	Years Ended December 31,							
		2018	2017		2016			
Net Income	\$	4,791	\$	4,905	\$	3,422		
Change in foreign currency translation adjustment, net of tax		(149)		86		(119)		
Change in unrealized gain (loss) on marketable securities, net of tax		—		(1)				
Change in unrealized gain (loss) on cash flow hedges, net of tax		485		(321)		(112)		
Change in unrecognized pension and postretirement benefit costs, net of tax		272		(148)		(712)		
Comprehensive Income (Loss)	\$	5,399	\$	4,521	\$	2,479		

See notes to consolidated financial statements.

UNITED PARCEL SERVICE, INC. AND SUBSIDIARIES STATEMENTS OF CONSOLIDATED CASH FLOWS (In millions)

		Years Ended December 3				
		2018	2017		2016	
Cash Flows From Operating Activities:						
Net income	\$	4,791	\$ 4,905	\$	3,422	
Adjustments to reconcile net income to net cash from operating activities:						
Depreciation and amortization		2,207	2,282		2,224	
Pension and postretirement benefit expense		2,242	1,643		3,725	
Pension and postretirement benefit contributions		(186)	(7,794)		(2,668	
Self-insurance reserves		(86)	—		(21)	
Deferred tax (benefit) expense		758	1,224		117	
Stock compensation expense		634	584		591	
Other (gains) losses		293	37		(198	
Changes in assets and liabilities, net of effects of business acquisitions:						
Accounts receivable		(421)	(1,022)		(704	
Other assets		754	(984)		5	
Accounts payable		1,034	599		460	
Accrued wages and withholdings		505	200		91	
Other liabilities		170	(243)		(546	
Other operating activities		16	48		(25	
Net cash from operating activities	_	12,711	1,479		6,473	
Cash Flows From Investing Activities:						
Capital expenditures		(6,283)	(5,227)		(2,965	
Proceeds from disposals of property, plant and equipment		37	24		88	
Purchases of marketable securities		(973)	(1,630)		(4,813	
Sales and maturities of marketable securities		886	1,990		5,724	
Net (increase) decrease in finance receivables		4	5		9	
Cash paid for business acquisitions, net of cash and cash equivalents acquired		(2)	(134)		(547	
Other investing activities		1	1		(59	
Net cash used in investing activities		(6,330)	(4,971)		(2,563	
Cash Flows From Financing Activities:						
Net change in short-term debt		63	(250)		(88	
Proceeds from long-term borrowings		1,202	12,016		5,927	
Repayments of long-term borrowings		(2,887)	(3,939)		(3,805	
Purchases of common stock		(1,011)	(1,813)		(2,678	
Issuances of common stock		240	247		245	
Dividends		(3,011)	(2,771)		(2,643	
Other financing activities		(288)	(203)		(98	
Net cash used in financing activities	_	(5,692)	3,287		(3,140	
Effect Of Exchange Rate Changes On Cash, Cash Equivalents and Restricted Cash	_	(91)	53		(21	
Net Increase (Decrease) In Cash, Cash Equivalents and Restricted Cash	_	598	(152)		749	
Cash, Cash Equivalents and Restricted Cash:			()			
Beginning of period		3,769	3,921		3,172	
End of period	\$	4,367	\$ 3,769	\$	3,921	
Cash Paid During The Period For:		.,		-	.,,,_1	
Interest (net of amount capitalized)	<u>\$</u> \$	595	\$ 428	\$	373	
	Ψ		\$ 1,559	\$	2,064	

See notes to consolidated financial statements.

NOTE 1. SUMMARY OF ACCOUNTING POLICIES

Basis of Financial Statements and Business Activities

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"), and include the accounts of United Parcel Service, Inc., and all of its consolidated subsidiaries (collectively "UPS" or the "Company"). All intercompany balances and transactions have been eliminated.

UPS concentrates its operations in the field of transportation services, primarily domestic and international letter and package delivery. Through our Supply Chain & Freight subsidiaries, we are also a global provider of specialized transportation, logistics and financial services.

Use of Estimates

The preparation of our consolidated financial statements requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities, the reported amounts of revenues and expenses and the disclosure of contingencies. Estimates have been prepared on the basis of the most current and best information, and actual results could differ materially from those estimates.

Revenue Recognition

U.S. Domestic and International Package Operations—Revenue is recognized over time as we perform the services in the contract.

Forwarding —Freight forwarding revenue and the expense related to the transportation of freight are recognized over time as we perform the services. Truckload brokerage revenue and related transportation costs are recognized over time as we perform the services. Customs brokerage revenue is recognized upon completing documents necessary for customs entry purposes.

Logistics —In our Logistics business we have a right to consideration from customers in an amount that corresponds directly with the value to the customers of our performance completed to date, and as such we recognize revenue in the amount to which we have a right to invoice the customer.

UPS Freight-Revenue is recognized over time as we perform the services in the contract.

In our transportation businesses, we utilize independent contractors and third-party carriers in the performance of some transportation services. U.S. GAAP requires us to evaluate whether our businesses themselves promise to transfer services to the customer (as the principal) or to arrange for services to be provided by another party (as the agent) using a control model. Based on our evaluation of the control model, we determined that all of our major businesses act as the principal rather than the agent within their revenue arrangements. Revenue and the associated purchased transportation costs are reported on a gross basis within our statements of consolidated income.

Financial Services—Income on loans and direct finance leases is recognized on the effective interest method. Accrual of interest income is suspended at the earlier of the time at which collection of an account becomes doubtful or the account becomes 90 days delinquent. Income on operating leases is recognized on the straight-line method over the terms of the underlying leases.

Refer to note 2 of our audited consolidated financial statements for further discussion of our revenue recognition policies.

Cash and Cash Equivalents

Cash and cash equivalents consist of highly liquid investments that are readily convertible into cash. We consider securities with maturities of three months or less, when purchased, to be cash equivalents. The carrying amount of these securities approximates fair value because of the short-term maturity of these instruments.

Investments

Marketable securities are either classified as trading or available-for-sale securities and are carried at fair value. Unrealized gains and losses on trading securities are reported as investment income (expense) and other on the statements of consolidated income. Unrealized gains and losses on available-for-sale securities are reported as accumulated other comprehensive income ("AOCI"), a separate component of shareowners' equity. The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization and accretion is included in investment income (expense) and other, along with interest and dividends. The cost of securities sold is based on the specific identification method; realized gains and losses resulting from such sales are included in investment income (expense) and other.

We periodically review our available-for-sale investments for indications of other-than-temporary impairment considering many factors, including the extent and duration to which a security's fair value has been less than its cost, overall economic and market conditions and the financial condition and specific prospects for the issuer. Impairment of available-for-sale securities results in a charge to income when a market decline below cost is other-than-temporary.

Accounts Receivable

Accounts receivable, net, include amounts billed and currently due from customers. The amounts due are stated at their net estimated realizable value. Losses on accounts receivable are recognized when they are incurred, which requires us to make our best estimate of the probable losses inherent in our customer receivables at each balance sheet date. These estimates require consideration of historical loss experience, adjusted for current conditions, trends in customer payment frequency and judgments about the probable effects of relevant observable data, including present economic conditions and the financial health of specific customers and market sectors. Our risk management process includes standards and policies for reviewing major account exposures and concentrations of risk.

Our total allowance for doubtful accounts as of December 31, 2018 and 2017 was \$94 and \$104 million, respectively. Our total provision for doubtful accounts charged to expense before recoveries during the years ended December 31, 2018, 2017 and 2016 was \$118, \$133 and \$116 million, respectively.

Inventories

Fuel and other materials and supplies inventories are recognized as inventory when purchased, and then charged to expense when used in our operations. Jet fuel, diesel and unleaded gasoline inventories are valued at the lower of average cost or market. Total inventories were \$421 and \$404 million as of December 31, 2018 and 2017, respectively, and are included in "other current assets" on the consolidated balance sheets.

Property, Plant and Equipment

Property, plant and equipment are carried at cost. We evaluate the useful lives of our property, plant and equipment based on our usage, maintenance and replacement policies, and taking into account physical and economic factors that may affect the useful lives of the assets. As part of our ongoing investment in transformation in 2018, we revised our estimates of useful lives for building improvements, vehicles and plant equipment based on our current assessment of these factors. In general, the change in estimate had the effect of lengthening the useful lives of building improvements, vehicles and plant equipment.

Depreciation and amortization are provided by the straight-line method over the estimated useful lives of the assets, which are as follows: Vehicles—6 to 15 years; Aircraft—12 to 30 years; Buildings—20 to 40 years; Leasehold Improvements —lesser of asset useful life or lease term; Plant Equipment—3 to 20 years; Technology Equipment—3 to 5 years. For substantially all of our aircraft, the costs of major airframe and engine overhauls, as well as routine maintenance and repairs, are charged to expense as incurred.

Interest incurred during the construction period of certain property, plant and equipment is capitalized until the underlying assets are placed in service, at which time amortization of the capitalized interest begins, straight-line, over the estimated useful lives of the related assets. Capitalized interest was \$97, \$49 and \$14 million for 2018, 2017, and 2016, respectively.

We review long-lived assets for impairment when circumstances indicate the carrying amount of an asset may not be recoverable based on the undiscounted future cash flows of the asset. If the carrying amount of the asset is determined not to be recoverable, a write-down to fair value is recorded. Fair values are determined based on quoted market values, discounted cash flows, or external appraisals, as appropriate. We review long-lived assets for impairment at the individual asset or the asset group level for which the lowest level of independent cash flows can be identified.

Goodwill and Intangible Assets

Costs of purchased businesses in excess of net identifiable assets acquired (goodwill), and indefinite-lived intangible assets are tested for impairment at least annually, unless changes in circumstances indicate an impairment may have occurred sooner. We are required to test goodwill on a "reporting unit" basis. A reporting unit is the operating segment unless, for businesses within that operating segment, discrete financial information is prepared and regularly reviewed by management, in which case such a component business is the reporting unit.

In assessing goodwill for impairment, we initially evaluate qualitative factors to determine if it is more likely than not that the fair value of a reporting unit is less than its carrying amount. We consider several factors, including macroeconomic conditions, industry and market conditions, overall financial performance of the reporting unit, changes in management, strategy or customers and relevant reporting unit-specific events such as a change in the carrying amount of net assets, a more likely than not expectation of selling or disposing all, or a portion, of a reporting unit, and the testing for recoverability of a significant asset group within a reporting unit. If this qualitative assessment results in a conclusion that it is more likely than not that the fair value of a reporting unit exceeds the carrying value, then no further testing is performed for that reporting unit.

If the qualitative assessment is not conclusive and it is necessary to calculate the fair value of a reporting unit, then we utilize a two-step process to test goodwill for impairment. First, a comparison of the fair value of the applicable reporting unit with the aggregate carrying value, including goodwill, is performed. If the carrying amount of a reporting unit exceeds its calculated fair value, then the second step is performed, and an impairment charge is recognized for the amount, if any, by which the carrying amount of goodwill exceeds its implied fair value. We primarily determine the fair value of our reporting units using a discounted cash flow model and supplement this with observable valuation multiples for comparable companies, as appropriate.

A trade name with a carrying value of \$200 million and licenses with a carrying value of \$5 million as of December 31, 2018 are considered to be indefinite-lived intangibles, and therefore are not amortized. Indefinite-lived intangible assets are reviewed for impairment at least annually. We determined that the income approach, specifically the relief from royalty method, is the most appropriate valuation method to estimate the fair value of the trade name. The estimated fair value of the trade name is compared to the carrying value of the asset. If the carrying value of the trade name exceeds its estimated fair value, an impairment charge is recognized for the amount by which the carrying amount of the asset exceeds its fair value.

Finite-lived intangible assets, including trademarks, licenses, patents, customer lists, non-compete agreements and franchise rights are amortized on a straight-line basis over the estimated useful lives of the assets, which range from 2 to 22 years. Capitalized software is generally amortized over 7 years.

Self-Insurance Accruals

We self-insure costs associated with workers' compensation claims, automobile liability, health and welfare and general business liabilities, up to certain limits. Insurance reserves are established for estimates of the loss that we will ultimately incur on reported claims, as well as estimates of claims that have been incurred but not yet reported. Recorded balances are based on reserve levels, which incorporate historical loss experience and judgments about the present and expected levels of cost per claim. Trends in actual experience are a significant factor in the determination of such reserves.

Workers' compensation, automobile liability and general liability insurance claims may take several years to completely settle. Consequently, actuarial estimates are required to project the ultimate cost that will be incurred to fully resolve the claims. A number of factors can affect the actual cost of a claim, including the length of time the claim remains open, trends in healthcare costs and the results of related litigation. Furthermore, claims may emerge in future years for events that occurred in a prior year at a rate that differs from previous actuarial projections. Changes in state legislation with respect to workers' compensation can affect the adequacy of our self-insurance accruals. All of these factors can result in revisions to prior actuarial projections and produce a material difference between estimated and actual operating results. Prior to 2017, outside actuarial studies are now performed quarterly as we believe this provides us with better quarterly estimates of our outstanding workers' compensation liability.

We sponsor a number of health and welfare insurance plans for our employees. These liabilities and related expenses are based on estimates of the number of employees and eligible dependents covered under the plans, anticipated medical usage by participants and overall trends in medical costs and inflation.

Pension and Postretirement Benefits

We incur certain employment-related expenses associated with pension and postretirement medical benefits. These pension and postretirement medical benefit costs for company-sponsored benefit plans are calculated using various actuarial assumptions and methodologies, including discount rates, expected returns on plan assets, healthcare cost trend rates, inflation, compensation increase rates, mortality rates and coordination of benefits with plans not sponsored by UPS. Actuarial assumptions are reviewed on an annual basis, unless circumstances require an interim remeasurement for any of our plans.

We recognize changes in the fair value of plan assets and net actuarial gains or losses in excess of a corridor (defined as 10% of the greater of the fair value of plan assets or the plans' projected benefit obligations) in pension expense annually at December 31st each year. The remaining components of pension expense, primarily service and interest costs and the expected return on plan assets, are recorded on a quarterly basis.

Effective July 1, 2016, the UPS Retirement Plan was closed to new non-union participants. For eligible employees hired after July 1, 2016, UPS contributes annually to a defined contribution plan. We recognize expense for the required contribution quarterly, and we recognize a liability for any contributions due and unpaid (included in "other current liabilities").

During June 2017, we amended the UPS Retirement Plan and Excess Coordinating Plan to cease accrual of additional benefits for future service for non-union participants effective January 1, 2023. We remeasured plan assets and pension benefit obligations for the affected pension plans as of June 30, 2017 to recognize the impact of this change.

We participate in a number of trustee-managed multiemployer pension and health and welfare plans for employees covered under collective bargaining agreements. Our contributions to these plans are determined in accordance with the respective collective bargaining agreements. We recognize expense for the contractually required contribution for each period, and we recognize a liability for any contributions due and unpaid (included in "other current liabilities").

Income Taxes

Income taxes are accounted for on an asset and liability approach that requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in our consolidated financial statements or tax returns. In estimating future tax consequences, we generally consider all expected future events other than proposed changes in the tax law or rates. Valuation allowances are provided if it is more likely than not that a deferred tax asset will not be realized.

We recognize liabilities for uncertain tax positions based on a two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. Once it is determined that the position meets the recognition threshold, the second step requires us to estimate and measure the largest amount of tax benefit that is more likely than not to be realized upon ultimate settlement. The difference between the amount of recognizable tax benefit and the total amount of tax benefit from positions filed or to be filed with the tax authorities is recorded as a liability for uncertain tax benefits. It is inherently difficult and subjective to estimate such amounts, as we have to determine the probability of various possible outcomes. We reevaluate uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in facts or circumstances, changes in tax law, effectively settled issues under audit and new audit activity. Such a change in recognition or measurement could result in the recognition of a tax benefit or an additional charge to the tax provision.

In January 2018, the Financial Accounting Standards Board ("FASB") released guidance on the accounting for tax on the Global Intangible Low-Taxed Income ("GILTI") provisions of the Tax Cuts and Jobs Act (the "Tax Act"). The GILTI provisions impose U.S. tax on certain foreign income in excess of a deemed return on tangible assets of foreign corporations. The guidance indicates that either accounting for deferred taxes related to GILTI inclusions or treating any taxes on GILTI inclusions as period costs are both acceptable methods subject to an accounting policy election. We elect to treat any potential GILTI inclusions as period costs.

Foreign Currency Translation and Remeasurement

We translate the results of operations of our foreign subsidiaries using average exchange rates during each period, whereas balance sheet accounts are translated using exchange rates at the end of each period. Balance sheet currency translation adjustments are recorded in AOCI. Pre-tax foreign currency transaction gains (losses) from remeasurement, net of hedging, included in investment income (expense) and other were \$(19), \$3 and \$5 million in 2018, 2017 and 2016, respectively.

Stock-Based Compensation

All share-based awards to employees are measured based on their fair values and expensed over the period during which an employee is required to provide service in exchange for the award (the vesting period), less estimated forfeitures. We issue employee share-based awards under the UPS Incentive Compensation Plan that are subject to specific vesting conditions; including service conditions, where the awards cliff vest or vest ratably over a three or five year period (the "nominal vesting period") or at the date the employee retires (as defined by the plan), if earlier. Compensation cost is generally recognized immediately for awards granted to retirement-eligible employees, or over the period from the grant date to the date retirement eligibility is achieved, if that is expected to occur during the nominal vesting period. We estimate forfeiture rates based on historical rates of forfeitures for awards with similar characteristics, historical rates of employee turnover and the nature and terms of the vesting conditions of the awards. We reevaluate our forfeiture rates on an annual basis.

Fair Value Measurements

Our financial assets and liabilities measured at fair value on a recurring basis have been categorized based upon a fair value hierarchy. Level 1 inputs utilize quoted prices in active markets for identical assets or liabilities. Level 2 inputs are based on other observable market data, such as quoted prices for similar assets and liabilities, and inputs other than quoted prices that are observable, such as interest rates and yield curves. Level 3 inputs are developed from unobservable data reflecting our own assumptions, and include situations where there is little or no market activity for the asset or liability.

Certain non-financial assets and liabilities are measured at fair value on a nonrecurring basis, including property, plant, and equipment, goodwill and intangible assets. These assets are not measured at fair value on a recurring basis; however, they are subject to fair value adjustments in certain circumstances, such as when there is evidence of an impairment. A general description of the valuation methodologies used for assets and liabilities measured at fair value, including the general classification of such assets and liabilities pursuant to the valuation hierarchy, is included in each footnote with fair value measurements present.

For acquisitions, we allocate the fair value of purchase consideration to the tangible assets acquired, liabilities assumed and intangible assets acquired based on their estimated fair values. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is recorded as goodwill. Such valuations require management to make significant estimates and assumptions, especially with respect to intangible assets. Significant estimates in valuing certain intangible assets include, but are not limited to, future expected cash flows from acquired customers, acquired technology and trade names from a market participant perspective, useful lives and discount rates. Management's estimates of fair value are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable and, as a result, actual results may differ from estimates. During the measurement period, which is one year from the acquisition date, we may record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Upon the conclusion of the measurement period, any subsequent adjustments are recorded to earnings.

Derivative Instruments

All financial derivative instruments are recorded on our consolidated balance sheets at fair value. Derivatives not designated as hedges must be adjusted to fair value through income. If a derivative is designated as a hedge, changes in its fair value that are considered to be effective, as defined, either (depending on the nature of the hedge) offset the change in fair value of the hedged assets, liabilities or firm commitments through income, or are recorded in AOCI until the hedged item is recorded in income. Any portion of a change in a hedge's fair value that is considered to be ineffective, or is excluded from the measurement of effectiveness, is recorded immediately in income.

Adoption of New Accounting Standards

In May 2014, the FASB issued an accounting standards update ("ASU") that changes the revenue recognition for companies that enter into contracts with customers to transfer goods or services ("*Revenue from Contracts with Customers"*). The standard is a comprehensive new revenue recognition model that requires revenue to be recognized in a manner depicting the transfer of goods or services to a customer at an amount that reflects the consideration expected to be received in exchange for those goods or services. The FASB has also issued a number of updates to this standard. Effective January 1, 2018, we adopted the requirements of this ASU using the full retrospective method. See note 2 for required disclosures pertaining to the new ASU.

In January 2016, the FASB issued an ASU which addresses certain aspects of the recognition, measurement, presentation and disclosure of financial instruments. We adopted this standard on January 1, 2018. This accounting standards update does not have a material impact on our consolidated financial position, results of operations or cash flows.

In March 2016, the FASB issued an ASU that simplifies the income tax accounting and cash flow presentation related to share-based compensation by requiring the recognition of all excess tax benefits and deficiencies directly on the income statement and classification as cash flows from operating activities on the statement of cash flows. This new guidance became effective for us in the first quarter of 2017 and we adopted the statements of consolidated cash flows and statements of consolidated income presentation on a prospective basis. The impact to income tax expense in the statements of consolidated income was a benefit of \$38 and \$71 million in 2018 and 2017, respectively. Additionally, we have elected to continue estimating forfeitures expected to occur to determine the amount of compensation cost to be recognized each period.

In August 2016, the FASB issued an ASU that addresses the classification and presentation of specific cash flow issues that resulted in diverse practices. The guidance also clarifies how the predominance principle should be applied when cash receipts and cash payments have aspects of more than one class of cash flows. The guidance was applied retrospectively. We adopted this standard on January 1, 2018. This standard did not have a material impact on our statements of consolidated cash flows.

In November 2016, the FASB issued an ASU that is intended to reduce diversity in practice by adding or clarifying guidance on classification and presentation of changes in restricted cash on the statement of cash flows ("*Restricted Cash"*). Effective January 1, 2018, we adopted the requirements of this ASU retrospectively. As a result of this update, restricted cash is included within cash and cash equivalents on our statements of consolidated cash flows.

In March 2017, the FASB issued an ASU to improve the presentation of net periodic pension cost and net periodic postretirement benefit cost ("*Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost"*). The update requires employers to report the current service cost component in the same line item as other compensation costs arising from services rendered by employees during the period. The other components of net benefit cost are required to be presented separately from service cost and outside of income from operations. Effective January 1, 2018, we adopted the requirements of this ASU retrospectively, as required. As a result of this update, the net amount of interest cost, prior service cost and expected return on plan assets is now presented as other income.

In May 2017, the FASB issued an ASU to provide clarity and reduce complexity on when to apply modification accounting to existing share-based payment awards. The guidance will be applied prospectively. We adopted this standard on January 1, 2018. This accounting standards update did not have a material impact on our consolidated financial position, results of operations or cash flows.

In February 2018, the FASB issued an ASU that allows a reclassification from accumulated other comprehensive income ("AOCI") to retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act (the "Tax Act"). Effective January 1, 2018, we early adopted this ASU and elected to reclassify the income tax effects of the Tax Act from AOCI to retained earnings. This resulted in a \$735 million increase to retained earnings and a \$735 million decrease to AOCI. Our current accounting policy for releasing income tax effects from other comprehensive income is based on a portfolio approach.

In August 2018, the FASB issued an ASU that modifies the disclosure requirements for employers that sponsor defined benefit pension and postretirement plans. The update eliminates the disclosures for amounts in AOCI expected to be recognized as components of net periodic cost over the next fiscal year and the effects of a one-percentage-point change in the assumed healthcare cost trend rate. The update adds disclosure requirements to include the weighted-average interest crediting rates for cash balance plans and a narrative description of the significant gains and losses related to changes in the benefit obligation for the period. We have early adopted this standard for the year ended 2018 with retrospective application. This accounting standards update did not have a material impact on our consolidated financial position, results of operations or cash flows.

We have recast our consolidated financial statements from amounts previously reported due to the adoption of new revenue recognition, pension and restricted cash standards. Impacted consolidated balance sheet line items, which reflect the adoption of the new ASUs, are as follows (in millions):

					Dece	ember 31, 2017			
	As previously reported		A	ljustments (a)	Adjustments (b)		Adjustments (c)		As Recast
Assets:									
Other current assets	\$	1,133	\$	170	\$		\$	_	\$ 1,303
Total current assets		15,548		170				_	15,718
Deferred income tax assets		265		1				_	266
Total Assets	\$	45,403	\$	171	\$		\$		\$ 45,574
Liabilities:									
Accounts payable	\$	3,872	\$	62	\$		\$	—	\$ 3,934
Accrued wages and withholdings		2,521		87					2,608
Other current liabilities ⁽¹⁾		905		29				—	934
Total current liabilities		12,708		178				_	12,886
Deferred income tax liabilities		757		(1)				—	756
Shareowners' Equity:									
Retained earnings		5,858		(6)		—		_	5,852
Total Shareowners' Equity		1,030		(6)					1,024
Total Liabilities and Shareowners' Equity	\$	45,403	\$	171	\$	_	\$		\$ 45,574

(1) The caption "Other current liabilities" was presented separately from "Hedge margin liabilities" of \$17 million in the Form 10-K at December 31, 2017.

These captions have been collapsed in the consolidated balance sheets as of December 31, 2018 and December 31, 2017 included within this Form 10-K.

(a) Recast to reflect the adoption of Revenue from Contracts with Customers.

(b) Recast to reflect the adoption of Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost.

The unaudited consolidated statements of operations, which reflects the adoption of the new ASUs, are as follows (in millions):

			Twelve mon	ths end	ed Decembe	er 31, 2016		
	As Previously Reported	ly Adjustments Adjustments (a) (b)				Adjustments (c)		As Recast
Revenue	\$ 60,900	5 \$	704	\$		\$ -	- \$	61,610
Operating Expenses:								
Compensation and benefits	34,770)			(2,236)		-	32,534
Repairs and maintenance	1,538	3	4				-	1,542
Depreciation and amortization	2,224	ļ				_	-	2,224
Purchased transportation	9,129)	719				-	9,848
Fuel	2,118	3	—				-	2,118
Other occupancy	1,03	7					-	1,037
Other expenses	4,62	3	(4)				-	4,619
Total Operating Expenses	55,439)	719		(2,236)	_	-	53,922
Operating Profit	5,46	7	(15)		2,236		-	7,688
Other Income and (Expense):								
Investment income (expense) and other	50)	_		(2,236)	_	-	(2,186)
Interest expense	(38))					-	(381)
Total Other Income and (Expense)	(33))	_		(2,236)		-	(2,567)
Income Before Income Taxes	5,130	5	(15)				-	5,121
Income Tax Expense (Benefit)	1,703	5	(6)		—			1,699
Net Income	\$ 3,43	\$	(9)	\$		\$ -	- \$	-)
Basic Earnings Per Share	\$ 3.89) \$	(0.01)	\$		\$ -	- \$	3.88
Diluted Earnings Per Share	\$ 3.87	7 \$	(0.01)	\$		\$	- \$	3.86

(a) Recast to reflect the adoption of *Revenue from Contracts with Customers*.

(b) Recast to reflect the adoption of Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost.

	Twelve months ended December 31, 2017												
	As Prev Repo		Adjı	istments (a)	Adjustr (b)		Adjustments (c)		As Recast				
Revenue	\$	65,872	\$	713	\$		\$	\$	66,585				
Operating Expenses:													
Compensation and benefits		34,588				(11)	—		34,577				
Repairs and maintenance		1,600		1					1,601				
Depreciation and amortization		2,282					—		2,282				
Purchased transportation		10,989		707			_		11,696				
Fuel		2,690		—			_		2,690				
Other occupancy		1,155		_			_		1,155				
Other expenses		5,039		16			_		5,055				
Total Operating Expenses		58,343		724		(11)			59,056				
Operating Profit		7,529		(11)		11			7,529				
Other Income and (Expense):								-					
Investment income (expense) and other		72				(11)	_		61				
Interest expense		(453)					—		(453)				
Total Other Income and (Expense)		(381)				(11)			(392)				
Income Before Income Taxes		7,148		(11)				-	7,137				
Income Tax Expense (Benefit)		2,238		(6)				_	2,232				
Net Income	\$	4,910	\$	(5)	\$		\$	\$	4,905				
Basic Earnings Per Share	\$	5.64	\$	(0.01)	\$		\$ —	\$	5.63				
Diluted Earnings Per Share	\$	5.61	\$		\$		\$	\$	5.61				

(a) Recast to reflect the adoption of *Revenue from Contracts with Customers*.

(b) Recast to reflect the adoption of Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost.

The unaudited impacted consolidated statement of cash flows line items, which reflect the adoption of the new ASUs, are as follows (in millions):

		Twelve Mo	onths	Ended Decemb	er 31, 2016		
	reviously eported	Adjustments (a)		djustments (b)	Adjustments (c)	1	As Recast
Net Income	\$ 3,431	\$ (9)	\$	_	\$	\$	3,422
Adjustments to reconcile net income to net cash from operating activities:							
Deferred tax (benefit) expense	123	(6))	_			117
Other assets	(14)	19					5
Accounts payable	461	(1))	_			460
Accrued wages and withholdings	109	(18))				91
Other liabilities	(561)	15		_			(546)
Cash flows from operating activities	6,473						6,473
Purchase of marketable securities	(4,816)				3		(4,813)
Net cash used in investing activities	(2,566)				3		(2,563)
Net decrease in cash, cash equivalents and restricted cash	746			_	3		749
Cash, cash equivalents and restricted cash at the beginning of period	2,730				442		3,172
Cash, cash equivalents and restricted cash at the end of period	\$ 3,476	\$	\$	_	\$ 445	\$	3,921
	 					-	

(a) Recast to reflect the adoption of Revenue from Contracts with Customers.

(b) Recast to reflect the adoption of Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost.

	Т	welve Mor	ths Ended	Decemb	er 31, 20)17		
As Previously Reported		Adjustments (a)		Adjustments (b)			A	s Recast
\$ 4,910	\$	(5)	\$		\$		\$	4,905
1,230		(6)						1,224
(982)		(2)						(984)
592		7		—		—		599
193		7						200
(241)		(2)						(243)
47		1						48
1,479				_				1,479
 (1,634)				_		4		(1,630)
(4,975)				_		4		(4,971)
(156)				_		4		(152)
3,476		_		_		445		3,921
\$ 3,320	\$		\$		\$	449	\$	3,769
Re	Reported \$ 4,910 1,230 (982) 592 193 (241) 47 1,479 (1,634) (4,975) (156) 3,476 1,476	As Previously Reported Adjus (1) \$ 4,910 \$ 1,230 \$ \$ 1,230 (982) \$ (982) 592 \$ 193 (241) \$ (1,634) \$ \$ (1,634) \$ \$ (156) \$ \$	As Previously Reported Adjustments (a) \$ 4,910 \$ (5) \$ 4,910 \$ (5) 1,230 (6) (982) (2) 592 7 193 7 (241) (2) 47 1 1,479 — (1,634) — (156) — 3,476 —	$\begin{tabular}{ c c c c c c } \hline As Previously Reported (a) & Adjustments (b) \\ \hline & Adjustments (a) & (b) \\ \hline & Adjustments (b) \\ \hline & (b) \\ \hline & (b) \\ \hline & (c) \hline & (c) \\ \hline & (c) \hline & (c) \\ \hline & (c) \hline & (c) \hline \hline & (c) \hline & (c) \hline \hline & (c) \hline \hline & (c) \hline & (c) \hline \hline \hline & (c) \hline \hline $	$\begin{tabular}{ c c c c c c c } \hline \hline Adjustments & Adjustments & (b) & (b) & (c) &$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Reported (a) (b) (c) \$ 4,910 \$ (5) \$ - \$ - 1,230 (6) - - (982) (2) - - (982) (2) - - 592 7 - - 193 7 - - (241) (2) - - (241) (2) - - (1,634) - - 4 (1,634) - - 4 (1,634) - - 4 (156) - - 4 3,476 - - 445	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$

(a) Recast to reflect the adoption of Revenue from Contracts with Customers.

(b) Recast to reflect the adoption of Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost.

(c) Recast to reflect the adoption of Restricted Cash.

Accounting Standards Issued But Not Yet Effective

In August 2017, the FASB issued an accounting standards update to enhance recognition of the economic results of hedging activities in the financial statements. In addition, this update makes certain targeted improvements to simplify the application of the hedge accounting guidance and increase transparency regarding the scope and results of hedging activities. The guidance will generally be applied prospectively and becomes effective for us in the first quarter of 2019, but early adoption is permitted. We are currently evaluating this update to determine the full impact of its adoption but do not expect this accounting standards update to have a material impact on our consolidated financial position, results of operations or cash flows.

In March 2017, the FASB issued an accounting standards update to require the premium on callable debt securities to be amortized to the earliest call date. The amortization period for callable debt securities purchased at a discount would not be impacted by the proposed update. Under current GAAP, premiums on callable debt securities are generally amortized over the contractual life of the security. Only in cases when an entity has a large number of similar securities is it allowed to consider estimates of principal prepayments. Amortization of the premium over the contractual life of the instrument can result in losses being recorded for the unamortized premium if the issuer exercises the call feature prior to maturity. The standard will be effective for us in the first quarter of 2019, but early adoption is permitted. We are currently evaluating this update to determine the full impact of its adoption but do not expect this accounting standards update to have a material impact on our consolidated financial position, results of operations or cash flows.

In January 2017, the FASB issued an accounting standards update to simplify the accounting for goodwill impairment. The update removes Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. The standard will be effective for us in the first quarter of 2020, but early adoption is permitted. We are currently evaluating this update to determine the full impact of its adoption but do not expect this accounting standards update to have a material impact on our consolidated financial position, results of operations or cash flows.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, which requires lessees to recognize a right-of-use asset and lease liability on their balance sheet for all leases with terms beyond twelve months. The new standard also requires enhanced disclosures that will provided more transparency and information to financial statement users about our lease portfolio. Although the distinction between operating and finance leases will continue to exist under the new standard, the recognition and measurement of expenses and cash flows will not change significantly from current treatment. For finance leases, lessees will continue to recognize interest expense on the lease liability using the effective yield method, while the right-of-use asset will be amortized on a straight-line basis. For operating leases, expense will be recognized on a straight-line basis, consistent with the previous standard.

We will adopt this ASU on January 1, 2019 using the modified retrospective approach and will not restate comparative periods. We are substantially complete with our implementation plan. We plan to elect the transition package of three practical expedients permitted within the standard. In accordance with the package of practical expedients, we will not reassess initial direct costs, lease classification, or whether our contracts contain or are leases. We also made an accounting policy election to not recognize right-of-use assets and liabilities for leases with a term of 12 months or less, unless the leases include options to renew or purchase the underlying asset that are reasonably certain to be exercised.

Based on our lease portfolio as of December 31, 2018, we plan to recognize an operating lease liability and related rightof-use asset on our balance sheet of approximately \$2.6 billion, which represents the present value of our future minimum lease payments related to operating leases, primarily related to leases of real estate and aircraft. We do not anticipate material changes to our income statement or our statement of cash flows.

NOTE 2. REVENUE RECOGNITION

Revenue Recognition

Substantially all of our revenues are from contracts associated with the pick-up, transportation and delivery of packages and freight (referred to hereafter as "transportation services"), whether carried out by or arranged by UPS, both domestically and internationally, which generally occurs over a short period of time. Additionally, we provide value-added logistics services to customers through our global network of company-owned and leased distribution centers and field stocking locations, both domestically and internationally.

Disaggregation of Revenue

 Year Ended December 31,					
2018		2017		2016	
\$ 7,618	\$	7,088	\$	6,752	
4,752		4,422		4,080	
31,223		29,251		27,452	
\$ 43,593	\$	40,761	\$	38,284	
\$ 2,874	\$	2,646	\$	2,441	
10,973		10,170		9,369	
595		526		536	
\$ 14,442	\$	13,342	\$	12,346	
\$ 6,580	\$	5,674	\$	4,873	
3,234		3,017		2,644	
3,218		3,000		2,737	
794		791		726	
\$ 13,826	\$	12,482	\$	10,980	
\$ 71,861	\$	66,585	\$	61,610	
\$ \$ \$ \$	\$ 7,618 4,752 31,223 \$ 43,593 \$ 43,593 \$ 10,973 595 \$ 14,442 \$ 6,580 3,234 3,218 794 \$ 13,826	2018 \$ 7,618 \$ 4,752 31,223 \$ 31,223 \$ 43,593 \$ \$ 43,593 \$ \$ \$ 2,874 \$ 10,973 \$ 2,874 \$ \$ \$ 2,874 \$ \$ \$ 2,874 \$ \$ \$ 2,874 \$ \$ \$ 2,874 \$ \$ \$ 2,874 \$ \$ \$ 2,874 \$ \$ \$ 3,973 \$ \$ \$ 6,580 \$ \$ \$ 6,580 \$ \$ \$ 3,218 \$ \$ \$ 13,826 \$ \$	2018 2017 \$ 7,618 \$ 7,088 4,752 4,422 31,223 29,251 \$ 43,593 \$ 40,761 \$ 2,874 \$ 2,646 10,973 10,170 595 526 \$ 14,442 \$ 13,342 \$ 6,580 \$ 5,674 3,234 3,017 3,218 3,000 794 791 \$ 13,826 \$ 12,482	2018 2017 \$ 7,618 \$ 7,088 \$ \$ 7,618 \$ 7,088 \$ 4,752 4,422 31,223 29,251 \$ 43,593 \$ 40,761 \$ \$ 2,874 \$ 2,646 \$ 10,973 10,170 \$ \$ 2,874 \$ 2,646 \$ 10,973 10,170 \$ \$ 2,874 \$ 2,646 \$ \$ 3,234 \$ 3,017 \$ \$ 6,580 \$ 5,674 \$ \$ 3,234 3,017 \$ 3,218 3,000 \$ \$ 13,826 \$ 12,482 \$	

We account for a contract when both parties have approved the contract and are committed to perform their obligations, the rights of the parties are identified, payment terms are identified, the contract has commercial substance and collectability of consideration is probable. See note 1 for the adoption of new accounting standards.

Performance Obligations

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer, and is the basis of revenue recognition in accordance with U.S. GAAP. To determine the proper revenue recognition method for contracts, we evaluate whether two or more contracts should be combined and accounted for as one single contract and whether the combined or single contract should be accounted for as more than one performance obligation. This evaluation requires judgment, and the decision to combine a group of contracts or separate the combined or single contract into multiple performance obligations could change the amount of revenue and profit recorded in a given period. For most of our contracts, the customer contracts with us to provide distinct services within a contract, such as transportation services. The vast majority of our contracts with customers for transportation services include only one performance obligation, the transportation services themselves. However, if a contract is separated into more than one performance obligation, we allocate the total transaction price to each performance obligation in an amount based on the estimated relative standalone selling prices of the promised goods or services underlying each performance obligation. We frequently sell standard transportation services with observable standalone sales prices. In these instances, the observable standalone sales are used to determine the standalone selling price.

In certain business units, such as Logistics, we sell customized, customer-specific solutions in which we provide a significant service of integrating a complex set of tasks and components into a single capability (even if that single capability results in the delivery of multiple units). Hence, the entire contract is accounted for as one performance obligation. In these cases we typically use the expected cost plus a margin approach to estimate the standalone selling price of each performance obligation.

Satisfaction of Performance Obligations

We generally recognize revenue over time as we perform the services in the contract because of the continuous transfer of control to the customer. Our customers receive the benefit of our services as the goods are transported from one location to another. Further, if we were unable to complete delivery to the final location, another entity would not need to reperform the transportation service already performed.

As control transfers over time, revenue is recognized based on the extent of progress towards completion of the performance obligation. The selection of the method to measure progress towards completion requires judgment and is based on the nature of the products or services to be provided. We use the cost-to-cost measure of progress for our package delivery contracts because it best depicts the transfer of control to the customer which occurs as we incur costs on our contracts. Under the cost-to-cost measure of progress, the extent of progress towards completion is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the performance obligation. Revenues, including ancillary or accessorial fees and reductions for estimated customer incentives, are recorded proportionally as costs are incurred. Costs to fulfill include labor and other direct costs and an allocation of indirect costs. For our freight and freight forwarding contracts, an output method of progress based on time-in-transit is utilized as the timing of costs incurred does not best depict the transfer of control to the customer. In our Logistics business we have a right to consideration from customers in an amount that corresponds directly with the value to the customers of our performance completed to date, and as such we recognize revenue in the amount to which we have a right to invoice the customer.

Variable Consideration

It is common for our contracts to contain customer incentives, guaranteed service refunds or other provisions that can either increase or decrease the transaction price. These variable amounts are generally awarded upon achievement of certain incentive tiers or performance metrics. We estimate variable consideration at the most likely amount to which we expect to be entitled. We include estimated amounts of revenue, which may be reduced by incentives or other contract provisions, in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. Our estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based on an assessment of anticipated customer spending and all information (historical, current and forecasted) that is reasonably available to us.

Contract Modifications

Contracts are often modified to account for changes in the rates we charge our customers or to add additional distinct services. We consider contract modifications to exist when the modification either creates new or changes the existing enforceable rights and obligations. Contract modifications that add additional distinct goods or services are treated as separate contracts. Contract modifications that do not add distinct goods or services typically change the price of existing services. These contract modifications will be accounted for prospectively as the remaining performance obligations are distinct.

Payment Terms

Under the typical payment terms of our customer contracts, the customer pays at periodic intervals (i.e., every 14 days, 30 days, 45 days, etc.) for shipments included on invoices received. Invoices are generated each week on the week-ending day, which is Saturday for the majority of our U.S. Domestic Package business, but could be another day depending on the business unit or the specific agreement with the customer. It is not customary business practice to extend payment terms past 90 days, and as such, we do not have a practice of including a significant financing component within our revenue contracts with customers.

Principal vs. Agent Considerations

In our transportation businesses, we utilize independent contractors and third-party carriers in the performance of some transportation services. U.S. GAAP requires us to evaluate whether our businesses themselves promise to transfer services to the customer (as the principal) or to arrange for services to be provided by another party (as the agent) using a control model. Based on our evaluation of the control model, we determined that all of our major businesses act as the principal rather than the agent within their revenue arrangements. This required a change in reporting for certain of our Supply Chain & Freight businesses where previously revenue was reported net of associated purchased transportation costs. Revenue and the associated purchased transportation costs are now both reported on a gross basis within our statements of consolidated income.

Contract Assets and Liabilities

Contract assets include billed and unbilled amounts resulting from in-transit packages, as we have an unconditional right to payment only once all performance obligations have been completed (i.e., packages have been delivered), and our right to payment is not solely based on the passage of time. Amounts may not exceed their net realizable value. Contract assets are generally classified as current and the full balance is converted each quarter based on the short-term nature of the transactions.

Contract liabilities consist of advance payments and billings in excess of revenue as well as deferred revenue. Advance payments and billings in excess of revenue represent payments received from our customers that will be earned over the contract term. Deferred revenue represents the amount of consideration due from customers related to in-transit shipments that has not yet been recognized as revenue based on our selected measure of progress. We classify advance payments and billings in excess of revenue as either current or long-term, depending on the period over which the advance payment will be earned. We classify deferred revenue as current based on the timing of when we expect to recognize revenue, which typically occurs within a short window after period-end. The full balance of deferred revenue is converted each quarter based on the short-term nature of the transactions. Our contract assets and liabilities are reported in a net position on a contract-by-contract basis at the end of each reporting period. In order to determine revenue recognized in the period from contract liabilities, we first allocate revenue to the individual contract liability balance outstanding at the beginning of the period until the revenue exceeds that deferred revenue balance.

Contract assets related to in-transit packages were \$234 and \$170 million at December 31, 2018 and 2017, respectively, net of deferred revenue related to in-transit packages of \$236 and \$174 million at December 31, 2018 and 2017, respectively. Contract assets are included within "Other current assets" in the consolidated balance sheets. Short-term contract liabilities related to advanced payments from customers were \$5 and \$31 million at December 31, 2018 and 2017, respectively. Short-term contract liabilities are included within "Other current liabilities" in the consolidated balance sheets. Long-term contract liabilities related to advanced payments from customers were \$26 million at December 31, 2018 and \$0 at December 31, 2017, respectively. Long-term contract liabilities are included within "Other Non-Current liabilities" in the consolidated balance sheets.

NOTE 3. INVESTMENTS AND RESTRICTED CASH

The following is a summary of marketable securities classified as trading and available-for-sale at December 31, 2018 and 2017 (in millions):

	Cost	Unrealized Gains	Unrealized Losses	Estimated Fair Value
2018	 			
Current trading marketable securities:				
Corporate debt securities	\$ 137	\$ —	\$ —	\$ 137
Equity securities	2	—	—	2
Total trading marketable securities	139			139
Current available-for-sale marketable securities:				
U.S. government and agency debt securities	297	1	(1)	297
Mortgage and asset-backed debt securities	82		(1)	81
Corporate debt securities	275	—	(2)	273
Non-U.S. government debt securities	20			20
Total available-for-sale marketable securities	674	1	(4)	671
Total current marketable securities	\$ 813	\$ 1	\$ (4)	\$ 810
	Cost	Unrealized Gains	Unrealized Losses	Estimated Fair Value
2017				

\$ 75	\$		\$ —	\$	75
77		16			93
152		16			168
286			(3)	283
86					86
201		1	(1)	201
2		—			2
9					9
584		1	(4)	581
\$ 736	\$	17	\$ (4) _\$	749
\$	77 152 286 86 201 2 9 584	77 152 286 86 201 2 9 584	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

⁽¹⁾ These investments are hedged with forward contracts that are not designated in hedging relationships. See note 15 for offsetting statement of consolidated income impact.

Total current marketable securities that were pledged as collateral for our self-insurance requirements had an estimated fair value of \$587 and \$579 million at December 31, 2018 and 2017, respectively.

There were no gross realized gains on sales of available-for-sale securities in 2018 or 2017. Gross realized gains on sales of available-for-sale securities totaled \$1 million in 2016. The gross realized losses on sales of available-for-sale securities totaled \$4, \$2 and \$1 million in 2018, 2017, and 2016, respectively.

There were no material impairment losses recognized on marketable securities during 2018, 2017 or 2016.

Investment Other-Than-Temporary Impairments

We have concluded that no material other-than-temporary impairment losses existed as of December 31, 2018. In making this determination, we considered the financial condition and prospects of the issuer, the magnitude of the losses compared with the investments' cost, the probability that we will be unable to collect all amounts due according to the contractual terms of the security, the credit rating of the security and our ability and intent to hold these investments until the anticipated recovery in market value occurs.

Unrealized Losses

The following table presents the age of gross unrealized losses and fair value by investment category for all securities in a loss position as of December 31, 2018 (in millions):

	Less Than 12 Months					2 Month	s or M	ore	Total				
	Fair	r Value		ealized osses	Fai	r Value		alized sses	Fair	r Value	Unreali Losse		
U.S. government and agency debt securities	\$	54	\$		\$	111	\$	(2)	\$	165	\$	(2)	
Mortgage and asset-backed debt securities		24				36		(1)		60		(1)	
Corporate debt securities		99		—		81		(2)		180		(2)	
Non-U.S. government debt securities		_		—		5		_		5		_	
Total marketable securities	\$	177	\$		\$	233	\$	(5)	\$	410	\$	(5)	

The unrealized losses for the corporate debt securities, mortgage and asset-backed debt securities and U.S. government and agency debt securities are primarily due to changes in market interest rates. We have both the intent and ability to hold the securities contained in the previous table for a time necessary to recover the cost basis.

Maturity Information

The amortized cost and estimated fair value of marketable securities at December 31, 2018, by contractual maturity, are shown below (in millions). Actual maturities may differ from contractual maturities because the issuers of the securities may have the right to prepay obligations without prepayment penalties.

	Cost	mated Value
Due in one year or less	\$ 268	\$ 267
Due after one year through three years	448	447
Due after three years through five years	22	22
Due after five years	73	72
	811	808
Equity securities	2	2
	\$ 813	\$ 810

Non-Current Investments and Restricted Cash

Investments and Restricted Cash are primarily associated with our self-insurance requirements. We entered into an escrow agreement with an insurance carrier to guarantee our self-insurance obligations. This agreement requires us to provide collateral to the insurance carrier, which is invested in money market funds and corporate and municipal bonds. Collateral provided is reflected in "Cash, Cash Equivalents and Restricted Cash" in the statements of consolidated cash flows. At December 31, 2018 and 2017, we had \$142 and \$449 million in self-insurance investments and restricted cash, respectively.

We held a \$19 million investment in a variable life insurance policy to fund benefits for the UPS Excess Coordinating Benefit Plan at December 31, 2018 and 2017, respectively. The quarterly change in investment fair value is recognized in "Investment income (expense) and other" on the statements of consolidated income. Additionally, we held escrowed cash related to the acquisition and disposition of certain assets, primarily real estate, of \$9 and \$15 million at December 31, 2018 and 2017, respectively.

The amounts described above are classified as "Non-current Investments and Restricted Cash" in the consolidated balance sheets.

A reconciliation of cash and cash equivalents and restricted cash from the consolidated balance sheets to the statements of consolidated cash flows in shown below (in millions):

	Decer	mber 31, 2018	Decer	mber 31, 2017	D	ecember 31, 2016
Cash and cash equivalents	\$	4,225	\$	3,320	\$	3,476
Restricted cash	\$	142	\$	449	\$	445
Total cash, cash equivalents and restricted cash	\$	4,367	\$	3,769	\$	3,921

Fair Value Measurements

Marketable securities utilizing Level 1 inputs include active exchange-traded equity securities and equity index funds, and most U.S. Government debt securities, as these securities all have quoted prices in active markets. Marketable securities utilizing Level 2 inputs include asset-backed securities, corporate bonds and municipal bonds. These securities are valued using market corroborated pricing, matrix pricing or other models that utilize observable inputs such as yield curves.

We maintain holdings in certain investment partnerships that are measured at fair value utilizing Level 3 inputs (classified as "other non-current investments" in the tables below, and as "other non-current assets" in the consolidated balance sheets). These partnership holdings do not have quoted prices, nor can they be valued using inputs based on observable market data. These investments are valued internally using a discounted cash flow model with two significant inputs: (1) the after-tax cash flow projections for each partnership, and (2) a risk-adjusted discount rate consistent with the duration of the expected cash flows for each partnership. The weighted-average discount rates used to value these investments were 8.16% and 7.56% as of December 31, 2018 and 2017, respectively. These inputs and the resulting fair values are updated on a quarterly basis.

The following table presents information about our investments measured at fair value on a recurring basis as of December 31, 2018 and 2017, and indicates the fair value hierarchy of the valuation techniques utilized to determine such fair value (in millions):

	Active for I	d Prices in e Markets Identical Assets Jevel 1)	0	gnificant Other bservable Inputs Level 2)	Und	gnificant observable Inputs Level 3)		Total
2018								
Marketable securities:								
U.S. government and agency debt securities	\$	297	\$	—	\$	—	\$	297
Mortgage and asset-backed debt securities		_		81		—		81
Corporate debt securities		—		410		—		410
Equity securities				2				2
Non-U.S. government debt securities		—		20		—		20
Total marketable securities		297		513				810
Other non-current investments		19		—		2		21
Total	\$	316	\$	513	\$	2	\$	831
	0							
	Active for I	d Prices in e Markets Identical Assets evel 1)	0	ficant Other bservable Inputs Level 2)	Uno	gnificant bservable Inputs Level 3)		Total
2017	Active for I	e Markets Identical Assets	0	bservable Inputs	Uno	bservable Inputs	_	Total
Marketable securities:	Active for I A (L	e Markets Identical Assets evel 1)	0 (bservable Inputs	Und (1	bservable Inputs	_	
Marketable securities: U.S. government and agency debt securities	Active for I	e Markets Identical Assets	0	bservable Inputs Level 2)	Uno	bservable Inputs	\$	283
Marketable securities: U.S. government and agency debt securities Mortgage and asset-backed debt securities	Active for I A (L	e Markets Identical Assets evel 1)	0 (bservable Inputs Level 2) — 86	Und (1	bservable Inputs	\$	283 86
Marketable securities: U.S. government and agency debt securities Mortgage and asset-backed debt securities Corporate debt securities	Active for I A (L	e Markets Identical Assets evel 1)	0 (bservable Inputs Level 2)	Und (1	bservable Inputs	\$	283 86 276
Marketable securities: U.S. government and agency debt securities Mortgage and asset-backed debt securities Corporate debt securities Equity securities	Active for I A (L	e Markets Identical Assets evel 1)	0 (bservable Inputs Level 2) — 86	Und (1	bservable Inputs	\$	283 86
Marketable securities: U.S. government and agency debt securities Mortgage and asset-backed debt securities Corporate debt securities	Active for I A (L	e Markets Identical Assets evel 1)	0 (bservable Inputs Level 2) –– 86 276	Und (1	bservable Inputs	\$	283 86 276
Marketable securities: U.S. government and agency debt securities Mortgage and asset-backed debt securities Corporate debt securities Equity securities	Active for I A (L	e Markets Identical Assets evel 1)	0 (bservable Inputs Level 2) 86 276 2	Und (1	bservable Inputs	\$	283 86 276 2
Marketable securities: U.S. government and agency debt securities Mortgage and asset-backed debt securities Corporate debt securities Equity securities Non-U.S. government debt securities	Active for I A (L	e Markets Identical Assets .evel 1) 283 — — — — — —	0 (bservable Inputs Level 2) 86 276 2	Und (1	bservable Inputs	\$	283 86 276 2 9
Marketable securities: U.S. government and agency debt securities Mortgage and asset-backed debt securities Corporate debt securities Equity securities Non-U.S. government debt securities Carbon credit investments	Active for I A (L	e Markets Identical Assets .evel 1) 283 — — — — 93	0 (beervable Inputs Level 2) 86 276 2 2 9 	Und (1	bservable Inputs	\$	283 86 276 2 9 93

There were no transfers of investments between Level 1 and Level 2 during the years ended December 31, 2018 and 2017.

NOTE 4. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment, including both owned assets as well as assets subject to capital leases, consists of the following as of December 31, 2018 and 2017 (in millions):

	 2018	 2017
Vehicles	\$ 9,820	\$ 9,365
Aircraft	17,499	16,248
Land	2,000	1,582
Buildings	4,808	4,035
Building and leasehold improvements	4,323	3,934
Plant equipment	11,833	9,387
Technology equipment	2,093	1,907
Equipment under operating leases		29
Construction-in-progress	2,112	2,239
	54,488	48,726
Less: Accumulated depreciation and amortization	(27,912)	(26,608)
	\$ 26,576	\$ 22,118

As part of our ongoing investment in transformation, in 2018 we made prospective revisions to our estimates of useful lives for building improvements, vehicles and plant equipment which in general had the effect of lengthening the useful lives of these categories. This resulted in a decrease in depreciation expense and an increase in operating income of \$286 million and an increase to net income of \$228 million or \$0.26 per share on a basic and diluted basis. Separately, capital investments in additional property, plant and equipment, net of disposals and fully-depreciated assets, resulted in an increase in depreciation expense of \$257 million and a decrease to net income of \$205 million or \$0.24 per share on a basic and diluted basis in 2018. Combining both impacts resulted in a net decrease of \$29 million to depreciation expense, and an increase to net income of \$23 million or \$0.03 per share on both a basic and diluted basis in 2018.

We continually monitor our aircraft fleet utilization in light of current and projected volume levels, aircraft fuel prices and other factors. Additionally, we monitor our other property, plant and equipment categories for any indicators that the carrying value of the assets may not be recoverable. No impairment charges on property, plant and equipment were recorded in 2018, 2017 or 2016.

NOTE 5. COMPANY - SPONSORED EMPLOYEE BENEFIT PLANS

We sponsor various retirement and pension plans, including defined benefit and defined contribution plans which cover our employees worldwide.

U.S. Pension Benefits

In the U.S. we maintain the following single-employer defined benefit pension plans: the UPS Retirement Plan, the UPS Pension Plan, the UPS/IBT Full-Time Employee Pension Plan and the UPS Excess Coordinating Benefit Plan, a non-qualified plan.

The UPS Retirement Plan is noncontributory and includes substantially all eligible employees of participating domestic subsidiaries who are not members of a collective bargaining unit, as well as certain employees covered by a collective bargaining agreement. This plan generally provides for retirement benefits based on average compensation levels earned by employees prior to retirement. Benefits payable under this plan are subject to maximum compensation limits and the annual benefit limits for a tax-qualified defined benefit plan as prescribed by the Internal Revenue Service ("IRS").

The UPS Pension Plan is noncontributory and includes certain eligible employees of participating domestic subsidiaries and members of collective bargaining units that elect to participate in the plan. This plan generally provides for retirement benefits based on service credits earned by employees prior to retirement.

The UPS/IBT Full-Time Employee Pension Plan is noncontributory and includes employees that were previously members of the Central States Pension Fund, a multiemployer pension plan, in addition to other eligible employees who are covered under certain collective bargaining agreements. This plan generally provides for retirement benefits based on service credits earned by employees prior to retirement.

The UPS Excess Coordinating Benefit Plan is a non-qualified plan that provides benefits to certain participants in the UPS Retirement Plan for amounts that exceed the benefit limits described above.

In the year ended December 31, 2017, we amended the UPS Retirement Plan and the UPS Excess Coordinating Benefit Plan to cease accruals of additional benefits for future service and compensation for non-union participants effective January 1, 2023. We remeasured plan assets and pension benefit obligations for the affected pension plans as of June 30, 2017, resulting in a net actuarial gain of \$569 million. This reflected a curtailment gain of \$1.525 billion resulting from the benefit plan changes that was partially offset by net actuarial losses of \$956 million, driven by a reduction of approximately 32 basis points in the discount rate compared to December 31, 2016, offset by actual asset returns approximately 275 basis points above our expected return as of the remeasurement date. The net curtailment gain reduced the actuarial losses were within the corridor (defined as 10% of the greater of the fair value of plan assets and the plan's projected benefit obligation), there was no impact to the statement of consolidated income as a result of this remeasurement.

The UPS Retirement Plan was closed to new non-union participants effective July 1, 2016. The Company amended the UPS 401(k) Savings Plan so that employees who previously would have been eligible for participation in the UPS Retirement Plan receive, in addition to current benefits under the UPS 401(k) Savings Plan, a UPS Retirement Contribution. For employees eligible to receive the Retirement Contribution, UPS will contribute 3% to 8% of eligible pay to the UPS 401(k) Savings Plan based on years of vesting service and business unit. Contributions will be made annually in cash to the accounts of participants.

During the fourth quarter of 2016, certain former U.S. employees were offered the option to receive a one-time payment of their vested pension benefit. Approximately 22,000 participants accepted this option, accelerating \$685 million in benefit payments during 2016 while reducing the number of participants who are due future payments from U.S. pension plans. As the cost of these settlements did not exceed the plans' service cost and interest cost for the year, the impact of the settlement was not recognized in earnings.

International Pension Benefits

We also sponsor various defined benefit plans covering certain of our international employees. The majority of our international obligations are for defined benefit plans in Canada and the United Kingdom. In addition, many of our international employees are covered by government-sponsored retirement and pension plans. We are not directly responsible for providing benefits to participants of government-sponsored plans.

U.S. Postretirement Medical Benefits

We also sponsor postretirement medical plans in the U.S. that provide healthcare benefits to our retirees who meet certain eligibility requirements and who are not otherwise covered by multiemployer plans. Generally, this includes employees with at least 10 years of service who have reached age 55 and employees who are eligible for postretirement medical benefits from a Company-sponsored plan pursuant to collective bargaining agreements. We have the right to modify or terminate certain of these plans. These benefits have been provided to certain retirees on a noncontributory basis; however, in many cases, retirees are required to contribute all or a portion of the total cost of the coverage.

Defined Contribution Plans

We also sponsor several defined contribution plans for all employees not covered under collective bargaining agreements, and for certain employees covered under collective bargaining agreements. The Company matches, in shares of UPS common stock or cash, a portion of the participating employees' contributions. Matching contributions charged to expense were \$127, \$119 and \$111 million for 2018, 2017 and 2016, respectively.

Effective June 23, 2017, the Company amended the UPS 401(k) Savings Plan so that non-union employees who currently participate in the UPS Retirement Plan will, in addition to current benefits under the UPS 401(k) Savings Plan, earn a UPS Retirement Contribution beginning January 1, 2023. UPS will contribute 5% to 8% of eligible compensation to the UPS 401(k) Savings Plan based on years of vesting service. The amendment also provides for transition contributions for certain participants. There was no impact to the statement of consolidated income for 2018 and 2017 as a result of this change.

As noted above, effective July 1, 2016, the UPS 401(k) Savings Plan was amended so that newly hired employees who previously would have been eligible for participation in the UPS Retirement Plan began receiving a UPS Retirement Contribution. Contributions associated with this amendment charged to expense were \$28, \$23 and \$4 million for 2018, 2017 and 2016 respectively.

Contributions are also made to defined contribution money purchase plans under certain collective bargaining agreements. Amounts charged to expense were \$92, \$91 and \$82 million for 2018, 2017 and 2016, respectively.

Net Periodic Benefit Cost

Information about net periodic benefit cost for the company-sponsored pension and postretirement defined benefit plans is as follows (in millions):

	U.S.	Pension Ber	nefits				tretiren al Benef						ationa Benef		
	2018	2017	2016	2	018	2	2017	2	2016	2	2018	2	017	2	2016
Net Periodic Benefit Cost:															
Service cost	\$ 1,661	\$ 1,543	\$ 1,412	\$	29	\$	29	\$	28	\$	62	\$	60	\$	49
Interest cost	1,799	1,813	1,828		104		112		124		45		40		41
Expected return on assets	(3,201)	(2,883)	(2,516)		(8)		(7)		(6)		(77)		(66)		(58)
Amortization of prior service cost	193	192	166		7		7		5		1		1		1
Actuarial (gain) loss	1,603	729	2,520		_		53		17		24		18		114
Curtailment and settlement loss							—		—				2		—
Net periodic benefit cost	\$ 2,055	\$1,394	\$ 3,410	\$	132	\$	194	\$	168	\$	55	\$	55	\$	147

Actuarial Assumptions

The table below provides the weighted-average actuarial assumptions used to determine the net periodic benefit cost.

	U.S. P	ension Bene	efits		Postretiremo dical Benefit		International Pension Benefits				
	2018	2017	2016	2018	2017	2016	2018	2017	2016		
Discount rate	3.84%	4.41%	4.86%	3.82%	4.23%	4.79%	2.78%	2.75%	3.51%		
Rate of compensation increase	4.25%	4.27%	4.29%	N/A	N/A	N/A	3.22%	3.17%	3.04%		
Expected return on assets	7.75%	8.75%	8.75%	7.20%	8.75%	8.75%	5.76%	5.65%	5.73%		
Cash balance interest credit rate	2.50%	2.91%	3.36%	N/A	N/A	N/A	3.07%	2.65%	3.00%		

The table below provides the weighted-average actuarial assumptions used to determine the benefit obligations of our plans.

	U.S. Pension	Benefits	U.S. Postret Medical B		Internat Pension B			
	2018	2017	2018	2017	2018	2017		
Discount rate	4.50%	3.84%	4.51%	3.82%	2.94%	2.78%		
Rate of compensation increase	4.25%	4.25%	N/A	N/A	3.24%	3.23%		
Cash balance interest credit rate	2.98%	2.50%	N/A	N/A	3.17%	3.07%		

A discount rate is used to determine the present value of our future benefit obligations. To determine the discount rate for our U.S. pension and postretirement benefit plans, we use a bond matching approach to select specific bonds that would satisfy our projected benefit payments. We believe the bond matching approach reflects the process we would employ to settle our pension and postretirement benefit obligations. For our international plans, the discount rate is determined by matching the expected cash flows of a sample plan of similar duration to a yield curve based on long-term, high quality fixed income debt instruments available as of the measurement date. These assumptions are updated each measurement date, which is typically annually.

As of December 31, 2018, the impact of each basis point change in the discount rate on the projected benefit obligation of the pension and postretirement medical benefit plans is as follows (in millions):

	Increase (Decrease) in the Projected Benefit Obligation							
	Pension Benefits	Postretirement Medical Benefits						
One basis point increase in discount rate	\$ (69)	\$ (2)						
One basis point decrease in discount rate	73	2						

The Society of Actuaries ("SOA") published mortality tables and improvement scales are used in developing the best estimate of mortality for U.S. plans. In October 2018, the SOA published an updated improvement scale which reduced expected mortality improvements from previously published scales. Based on our perspective of future longevity, we updated the mortality assumptions to incorporate this updated scale for purposes of measuring pension and other postretirement benefit obligations.

Assumptions for the expected return on plan assets are used to determine a component of net periodic benefit cost for the year. The assumption for our U.S. plans is developed using a long-term projection of returns for each asset class. Our asset allocation targets are reviewed and, if necessary, updated taking into consideration plan changes, funded status and actual performance. The expected return for each asset class is a function of passive, long-term capital market assumptions and excess returns generated from active management. The capital market assumptions used are provided by independent investment advisors, while excess return assumptions are supported by historical performance, fund mandates and investment expectations.

For plans outside the U.S., consideration is given to local market expectations of long-term returns. Strategic asset allocations are determined by plan based on the nature of liabilities and considering the demographic composition of the plan participants.

Actuarial Assumptions - Central States Pension Fund

UPS was a contributing employer to the Central States Pension Fund ("CSPF") until 2007 when we withdrew from the CSPF and fully funded our allocable share of unfunded vested benefits by paying a \$6.1 billion withdrawal liability. Under a collective bargaining agreement with the International Brotherhood of Teamsters ("IBT"), UPS agreed to provide coordinating benefits in the UPS/IBT Full Time Employee Pension Plan ("UPS/IBT Plan") for UPS participants whose last employer was UPS and who had not retired as of January 1, 2008 ("the UPS Transfer Group") in the event that benefits are lawfully reduced by the CSPF in the future consistent with the terms of our withdrawal agreement with the CSPF. Under our withdrawal agreement with the CSPF, benefits to the UPS Transfer Group cannot be reduced without our consent and can only be reduced in accordance with applicable law.

In December 2014, Congress passed the Multiemployer Pension Reform Act ("MPRA"). This change in law for the first time permitted multiemployer pension plans to reduce benefit payments to retirees, subject to specific guidelines in the statute and government approval. In September 2015, the CSPF submitted a proposed pension benefit reduction plan to the U.S. Department of the Treasury ("Treasury"). In May 2016, Treasury rejected the proposed plan submitted by the CSPF. In the first quarter of 2018, Congress established a Joint Select Committee to develop a recommendation to improve the solvency of multiemployer plans and the Pension Benefit Guaranty Corporation ("PBGC") before a November 30, 2018 deadline. While the Committee's efforts failed to meet its deadline, the Committee made significant progress towards finding solutions that will address the long term solvency of multiemployer pension plans. UPS will continue to work with all stakeholders, including legislators and regulators, to implement an acceptable solution.

The CSPF has said that it believes a legislative solution to its funded status is necessary or that it will become insolvent in 2025, and we expect that the CSPF will continue to explore options to avoid insolvency. Numerous factors could affect the CSPF's funded status and UPS's potential obligation to pay coordinating benefits under the UPS/IBT Plan. Any obligation to pay coordinating benefits will be subject to a number of significant uncertainties, including whether the CSPF submits a revised MPRA filing and the terms thereof, or whether it otherwise seeks federal government assistance, as well as the terms of any applicable legislation, the extent to which benefits are paid by the PBGC and our ability to successfully defend legal positions we may take in the future under the MPRA, including the suspension ordering provisions, our withdrawal agreement and other applicable law.

We account for the potential obligation to pay coordinating benefits to the UPS Transfer Group under Accounting Standards Codification Topic 715- Compensation- Retirement Benefits ("ASC 715"), which requires us to provide a best estimate of various actuarial assumptions, including the eventual outcome of this matter, in measuring our pension benefit obligation at the December 31st measurement date. While we currently believe the most likely outcome to this matter and the broader systemic problems facing multiemployer pension plans is intervention by the federal government, ASC 715 does not permit anticipation of changes in law in making a best estimate of pension liabilities.

As such, our best estimate of the next most likely outcome at the measurement date is that the CSPF submits and implements another benefit reduction plan under the MPRA during 2019. We believe any MPRA filing would be designed to forestall insolvency by reducing benefits to participants other than the UPS Transfer Group to the maximum extent permitted, and then reducing benefits to the UPS Transfer Group by a lesser amount.

We have evaluated this outcome using a deterministic cash flow projection, reflecting updated estimated CSPF cash flows and investment earnings, the lack of legislative action and the absence of a MPRA filing by the CSPF in 2018. As a result, at the December 31, 2018 measurement date, the best estimate of our projected benefit obligation increased by \$1.6 billion for coordinating benefits that may be required to be directly provided by the UPS/IBT Plan to the UPS Transfer Group.

The future value of this estimate will be influenced by the terms and timing of any MPRA filing, changes in our discount rate, rate of return on assets and other actuarial assumptions, presumed solvency of the PBGC, as well as potential solutions resulting from federal government intervention. Any such event may result in a decrease or an increase in the best estimate of our projected benefit obligation. If the uncertainties are not resolved, it is reasonably possible that our projected benefit obligation could increase by approximately \$2.4 billion, resulting in a total obligation for coordinating benefits of approximately \$4.0 billion as previously disclosed. If a future change in law occurs, it may be a significant event requiring an interim remeasurement of the UPS/IBT Plan at the date the law is enacted. We will continue to assess the impact of these uncertainties on our projected benefit obligation in accordance with ASC 715.

Other Actuarial Assumptions

Healthcare cost trends are used to project future postretirement medical benefits payable from our plans. For year-end 2018 U.S. plan obligations, future postretirement medical benefit costs were forecasted assuming an initial annual rate of increase of 6.0%, decreasing to 4.5% by the year 2022 and with consistent annual increases at that ultimate level thereafter.

Funded Status

The following table discloses the funded status of our plans and the amounts recognized in our consolidated balance sheets as of December 31st (in millions):

	U.S. Pension Benefits				U.S. Postretirement Medical Benefits					Interna Pension		
	2018 2017		2018		2017		2018			2017		
Funded Status:												
Fair value of plan assets	\$.	39,554	\$	41,932	\$	26	\$	183	\$	1,284	\$	1,333
Benefit obligation	(4	45,333)		(45,847)		(2,510)		(2,792)	((1,552)	((1,651)
Funded status recognized at December 31	\$	(5,779)	\$	(3,915)	\$	(2,484)	\$	(2,609)	\$	(268)	\$	(318)
Funded Status Recognized in our Balance Sheet:			_				_		_		_	
Other non-current assets	\$		\$	284	\$		\$		\$	35	\$	35
Other current liabilities		(20)		(18)		(195)		(77)		(4)		(5)
Pension and postretirement benefit obligations		(5,759)		(4,181)		(2,289)		(2,532)		(299)		(348)
Net liability at December 31	\$	(5,779)	\$	(3,915)	\$	(2,484)	\$	(2,609)	\$	(268)	\$	(318)
Amounts Recognized in AOCI:			_				_		_		_	
Unrecognized net prior service cost	\$	(1,018)	\$	(880)	\$	(21)	\$	(29)	\$	(14)	\$	(2)
Unrecognized net actuarial gain (loss)		(3,967)		(4,277)		(32)		(195)		(100)		(126)
Gross unrecognized cost at December 31		(4,985)		(5,157)		(53)		(224)		(114)		(128)
Deferred tax assets (liabilities) at December 31		1,205		1,840		13		69		28		31
Net unrecognized cost at December 31	\$	(3,780)	\$	(3,317)	\$	(40)	\$	(155)	\$	(86)	\$	(97)

The accumulated benefit obligation for our pension plans as of the measurement dates in 2018 and 2017 was \$45.704 and \$45.776 billion, respectively.

Benefit payments under the pension plans include \$23 and \$22 million paid from employer assets in 2018 and in 2017, respectively. Benefit payments (net of participant contributions) under the postretirement medical benefit plans include \$87 and \$93 million paid from employer assets in 2018 and 2017, respectively. Such benefit payments from employer assets are also categorized as employer contributions.

At December 31, 2018 and 2017, the projected benefit obligation, the accumulated benefit obligation and the fair value of plan assets for pension plans with benefit obligations in excess of plan assets were as follows (in millions):

	Exce	Projected Ben eeds the Fair V	efit O /alue	bligation of Plan Assets		enefit Obligation Value of Plan Assets		
		2018		2017	 2018		2017	
U.S. Pension Benefits:								
Projected benefit obligation	\$	45,333	\$	37,113	\$ 45,333	\$	37,113	
Accumulated benefit obligation		44,284		35,538	44,284		35,538	
Fair value of plan assets		39,554		32,914	39,554		32,914	
International Pension Benefits:								
Projected benefit obligation	\$	630	\$	1,138	\$ 630	\$	647	
Accumulated benefit obligation		539		992	539		549	
Fair value of plan assets		339		798	339		342	

The accumulated postretirement benefit obligation presented in the funded status table exceeds plan assets for all U.S. postretirement medical benefit plans.

Benefit Obligations and Fair Value of Plan Assets

The following table provides a reconciliation of the changes in the plans' benefit obligations and fair value of plan assets as of the respective measurement dates in each year (in millions).

	U.S. Pensio	U.S. Postretirement Medical Benefits					al				
	2018	2017	2018		2017		2018			2017	
Benefit Obligations:											
Projected benefit obligation at beginning of year	\$ 45,847	\$ 41,069	\$	2,792	\$	2,730	\$	1,651	\$	1,425	
Service cost	1,661	1,543		29		29		62		60	
Interest cost	1,799	1,813		104		112		45		40	
Gross benefits paid	(1,390)	(1,309)		(263)		(264)		(33)		(32)	
Plan participants' contributions	_	_		26		26		3		3	
Plan amendments ⁽¹⁾	331							13			
Actuarial (gain)/loss	(2,915)	4,256		(178)		159		(81)		26	
Foreign currency exchange rate changes								(110)		129	
Curtailments and settlements		(1,525)						(1)		(3)	
Other								3		3	
Projected benefit obligation at end of year	\$ 45,333	\$ 45,847	\$	2,510	\$	2,792	\$	1,552	\$	1,651	

⁽¹⁾ Resulting from a new Teamster national master agreement.

	U.S. Pensio	U.S. Postretirement Medical Benefits					Interna Pena Bena	sion		
	2018	2017	2018		2017		17 201		2018	
Fair Value of Plan Assets:										
Fair value of plan assets at beginning of year	\$ 41,932	\$ 31,215	\$	183	\$	15	\$	1,333	\$	1,092
Actual return on plan assets	(1,007)	4,717		(7)		(2)		(6)		96
Employer contributions	19	7,309		87		408		80		77
Plan participants' contributions	—			26		26		3		3
Gross benefits paid	(1,390)	(1,309)		(263)		(264)		(33)		(32)
Foreign currency exchange rate changes	—							(92)		100
Curtailments and settlements								(1)		(3)
Fair value of plan assets at end of year	\$ 39,554	\$ 41,932	\$	26	\$	183	\$	1,284	\$	1,333

2018 - \$3.174 billion pre-tax actuarial gain related to benefit obligation:

- *Discount Rates* (\$4.829 billion pre-tax gain): The weighted-average discount rate for our pension and postretirement medical plans increased from 3.81% at December 31, 2017 to 4.45% at December 31, 2018, primarily due to both an increase in U.S. treasury yields and an increase in credit spreads on AA-rated corporate bonds in 2018.
- *Coordinating benefits attributable to the Central States Pension Fund* (\$1.550 billion pre-tax loss): This represents our current best estimate of potential coordinating benefits that may be required to be paid related to the Central States Pension Fund.
- *Demographic and Assumption Changes* (\$105 million pre-tax loss): This represents the difference between actual and estimated participant data and demographic factors, including items such as healthcare cost trends, compensation rate increases and rates of termination, retirement and mortality.

2017 - \$4.441 billion pre-tax actuarial loss related to benefit obligation:

- *Discount Rates* (\$4.124 billion pre-tax loss): The weighted-average discount rate for our pension and postretirement medical plans decreased from 4.34% at December 31, 2016 to 3.81% at December 31, 2017, primarily due to both a decline in U.S. treasury yields and a decrease in credit spreads on AA-rated corporate bonds in 2017.
- *Demographic and Assumption Changes* (\$317 million pre-tax loss): This represents the difference between actual and estimated participant data and demographic factors, including items such as healthcare cost trends, compensation rate increases and rates of termination, retirement and mortality.

Pension and Postretirement Plan Assets

Under the governance of plan trustees, the investment committee establishes investment guidelines and strategies and regularly monitors the performance of investments and investment managers. The investment guidelines address items such as establishing appropriate governance provisions; defining investment objectives; determining strategic asset allocation; monitoring and reporting the investments on a regular basis; appointing/dismissing investment managers, custodians, consultants and advisors; risk management; determining/defining the mandates for investment managers; rebalancing of assets and determining investment restrictions/prohibited investments.

Pension assets are invested in accordance with applicable laws and regulations. The primary long-term investment objectives for pension assets are to: (1) provide for a reasonable amount of long-term growth of capital given prudent levels of risk exposure while minimizing permanent loss of capital; (2) generate investment results that meet or exceed the long-term rate of return assumption for the plans and (3) match the duration of the liabilities and assets of the plans to reduce the need for large employer contributions in the future. In furtherance of these objectives, investment managers are engaged to actively manage assets within the guidelines and strategies set forth by the Investment Committee. Active managers are monitored regularly and their performance is compared to applicable benchmarks.

Fair Value Measurements

Pension assets utilizing Level 1 inputs include equity investments, corporate debt instruments and U.S. government securities. Fair values were determined by closing prices for those securities traded on national stock exchanges, while securities traded in the over-the-counter market and listed securities for which no sale was reported on the valuation date are valued at the mean between the last reported bid and asked prices.

Level 2 assets include certain bonds that are valued based on yields currently available on comparable securities of other issues with similar credit ratings; mortgage-backed securities that are valued based on cash flow and yield models using acceptable modeling and pricing conventions; and certain investments that are pooled with other investments in a commingled fund. We value our investments in commingled funds by taking the percentage ownership of the underlying assets, each of which has a readily determinable fair value.

Fair value estimates for certain investments are based on unobservable inputs that are not corroborated by observable market data and are thus classified as Level 3.

Investments that do not have a readily determinable fair value, and which provide a net asset value ("NAV" or its equivalent) developed consistent with FASB measurement principles, are valued using NAV as a practical expedient. These investments are not classified in Levels 1, 2, or 3 of the fair value hierarchy but instead included in the subtotals within the tables shown below. Such investments include hedge funds, risk parity funds, real estate investments, private debt and private equity funds are valued using the reported NAV as of December 31st. Real estate investments, private debt and private debt and private equity funds are valued using fair values per the most recent partnership audited financial reports, and adjusted, as appropriate, for any lag between the date of the financial reports and December 31st. Due to the inherent limitations in obtaining a readily determinable fair value measurement for alternative investments, the fair values reported may differ from the values that would have been used had a ready market for the alternative investments existed. These investments are described further below:

• <u>Hedge Funds:</u> Plan assets are invested in hedge funds that pursue multiple strategies to diversify risk and reduce volatility. Most of these hedge funds allow redemptions either quarterly or semi-annually after a two to three month notice period, while others allow for redemption after only a brief notification period with no restriction on redemption frequency. No unfunded commitments existed with respect to hedge funds as of December 31, 2018.

- <u>Risk Parity Funds</u>: Plan assets are invested in risk parity strategies in order to provide diversification and balance risk/ return objectives. These strategies reflect a multi-asset class balanced risk approach generally consisting of equity, interest rates, credit and commodities. These funds allow for monthly redemptions with only a brief notification period. No unfunded commitments existed with respect to risk parity funds as of December 31, 2018.
- <u>Real Estate</u>, <u>Private Debt and Private Equity Funds</u>: Plan assets are invested in limited partnership interests in various private equity, private debt and real estate funds. Limited provision exists for the redemption of these interests by the limited partners that invest in these funds until the end of the term of the partnerships, typically ranging between 10 and 15 years from the date of inception. An active secondary market exists for similar partnership interests, although no particular value (discount or premium) can be guaranteed. At December 31, 2018, unfunded commitments to such limited partnerships totaling approximately \$2.090 billion are expected to be contributed over the remaining investment period, typically ranging between three and six years.
The fair values of U.S. and international pension and postretirement benefit plan assets by asset category as of December 31, 2018 are presented below (in millions), as well as the percentage that each category comprises of our total plan assets and the respective target allocations.

	Total Assets ⁽¹⁾	Level 1	Level 2	Level 3	Percentage of Plan Assets	Target Allocation
Asset Category (U.S. Plans):						
Cash and cash equivalents	\$ 157	\$ 108	\$ 49	\$ —	0.4%	1-5
Equity Securities:						
U.S. Large Cap	5,276	2,155	3,121			
U.S. Small Cap	542	386	156	—		
Emerging Markets	1,859	1,436	423			
Global Equity	2,320	2,056	264	—		
International Equity	3,670	2,189	1,481			
Total Equity Securities	13,667	8,222	5,445		34.5	25-55
Fixed Income Securities:						
U.S. Government Securities	12,295	11,922	373			
Corporate Bonds	4,303	_	4,301	2		
Global Bonds	55		55			
Municipal Bonds	16	_	16	_		
Total Fixed Income Securities	16,669	11,922	4,745	2	42.1	35-55
Other Investments:						
Hedge Funds	3,154	—	1,185	—	8.0	5-15
Private Equity	2,763	_	_	_	7.0	1-10
Private Debt	836	—	178		2.1	1-10
Real Estate	1,989	152	53	_	5.0	1-10
Structured Products ⁽²⁾	138	—	138	—	0.4	1-5
Risk Parity Funds	207	_	_	_	0.5	1-10
Total U.S. Plan Assets	\$39,580	\$ 20,404	\$11,793	\$ 2	100.0%	
Asset Category (International Plans):						
Cash and cash equivalents	\$ 45	\$ 4	\$ 41	—	3.5	1-10
Equity Securities:						
Local Markets Equity	171	—	171	—		
U.S. Equity	34	_	34	_		
Emerging Markets	33	33		_		
International / Global Equity	348	150	198	_		
Total Equity Securities	586	183	403		45.6	30-60
Fixed Income Securities:						
Local Government Bonds	102	24	78	_		
Corporate Bonds	195	54	141	_		
Global Bonds	27	27				
Total Fixed Income Securities	324	105	219		25.2	25-45
Other Investments:						
Real Estate	121	_	76	_	9.4	5-10
Other	208		191	4	16.3	1-20
Total International Plan Assets	\$ 1,284	\$ 292	\$ 930	\$ 4	100.0%	
Total Plan Assets	\$40,864	\$ 20,696	\$12,723	\$ 6		
0	. ,					

⁽¹⁾ Certain investments that are measured at fair value using the NAV per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy but are included in the category totals.

⁽²⁾ Represent mortgage and asset-backed securities.

The fair values of U.S. and international pension and postretirement benefit plan assets by asset category as of December 31, 2017 are presented below (in millions), as well as the percentage that each category comprises of our total plan assets and the respective target allocations.

	Total Assets ⁽¹⁾	Level 1	Level 2	Level 3	Percentage of Plan Assets	Target Allocation
Asset Category (U.S. Plans):						
Cash and cash equivalents ⁽²⁾	\$ 5,725	\$ 5,292	\$ 433	\$ —	13.6%	0-5
Equity Securities:						
U.S. Large Cap	5,924	3,121	2,803			
U.S. Small Cap	591	421	170	—		
Emerging Markets	2,101	1,669	432			
Global Equity	2,817	2,400	417	—		
International Equity	4,791	2,950	1,841	—		
Total Equity Securities	16,224	10,561	5,663	—	38.5	35-55
Fixed Income Securities:						
U.S. Government Securities	7,695	7,323	372	—		
Corporate Bonds	3,865	_	3,857	8		
Global Bonds	53		53	—		
Municipal Bonds	21		21			
Total Fixed Income Securities	11,634	7,323	4,303	8	27.6	25-35
Other Investments:						
Hedge Funds	2,910		1,031		6.9	5-15
Private Equity	2,107	_		_	5.0	1-10
Private Debt	953		237	_	2.3	1-10
Real Estate	2,031	157	139	_	4.8	1-10
Structured Products ⁽³⁾	172		172		0.4	0-5
Risk Parity Funds	359	_	_	_	0.9	1-10
Total U.S. Plan Assets	\$ 42,115	\$ 23,333	\$ 11,978	\$ 8	100.0%	
Asset Category (International Plans):		-	-			
Cash and cash equivalents	\$ 78	\$ 43	\$ 35	_	5.8	0-10
Equity Securities:						
Local Markets Equity	213		213	_		
U.S. Equity	30	_	30			
Emerging Markets	38	38				
International / Global Equity	356	166	190			
Total Equity Securities	637	204	433		47.7	30-60
Fixed Income Securities:	007	201	155		.,.,	50 00
Local Government Bonds	103	25	78			
Corporate Bonds	198	59	139			
Total Fixed Income Securities	301	84	217		22.6	25-50
Other Investments:	501	04	211		22.0	25 50
Real Estate	124		79		9.3	5-10
Other	124		184		14.6	0-20
Total International Plan Assets	\$ 1,333	\$ 331	\$ 948	<u> </u>	100.0%	0-20
Total Plan Assets	\$ 43,448	\$ 23,664	\$ 948	$\frac{3}{8}$	100.070	
I Utal I Tall ASSELS	\$ 45,448	\$ 23,004	\$ 12,920	<u>ه ک</u>		

(1) Certain investments that are measured at fair value using the NAV per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy but are included in the category totals.

⁽²⁾ Includes \$5 billion in contributions made in December 2017 that had not yet been invested according to the targeted allocations.

⁽³⁾ Represents mortgage and asset-backed securities.

The following table presents the changes in the Level 3 instruments measured on a recurring basis for the years ended December 31, 2018 and 2017 (in millions).

	porate onds	Othe	r	To	otal
Balance on January 1, 2017	\$ _	\$	_	\$	
Actual Return on Assets:					
Assets Held at End of Year					
Assets Sold During the Year					
Purchases	9				9
Sales	(1)				(1)
Transfers Into (Out of) Level 3	—		—		
Balance on December 31, 2017	\$ 8	\$		\$	8
Actual Return on Assets:					
Assets Held at End of Year			—		
Assets Sold During the Year	(7)				(7)
Purchases	11		9		20
Sales	(10)		(5)		(15)
Transfers Into (Out of) Level 3	—				
Balance on December 31, 2018	\$ 2	\$	4	\$	6

There were no UPS class A or B shares of common stock directly held in plan assets as of December 31, 2018 or December 31, 2017.

Expected Cash Flows

Information about expected cash flows for the pension and postretirement benefit plans is as follows (in millions):

	U.S. Pension Benefits		J.S. Postretirement Medical Benefits	International Pension Benefits	
Expected Employer Contributions:					
2019 to plan trusts	\$	2,000	\$ 192	\$	63
2019 to plan participants		20	74		5
Expected Benefit Payments:					
2019	\$	1,505	\$ 227	\$	29
2020		1,652	233		32
2021		1,788	227		36
2022		1,930	218		41
2023		2,075	209		46
2024 - 2028		12,550	912		319

Our funding policy for U.S. plans is to contribute amounts annually that are at least equal to the amounts required by applicable laws and regulations, or to directly fund payments to plan participants, as applicable. International plans will be funded in accordance with local regulations. Additional discretionary contributions may be made when deemed appropriate to meet the long-term obligations of the plans. Expected benefit payments for pensions will be primarily paid from plan trusts. Expected benefit payments for plan trusts and corporate assets.

NOTE 6. MULTIEMPLOYER EMPLOYEE BENEFIT PLANS

We contribute to a number of multiemployer defined benefit plans under the terms of collective bargaining agreements that cover our union-represented employees. These plans generally provide for retirement, death and/or termination benefits for eligible employees within the applicable collective bargaining units, based on specific eligibility/participation requirements, vesting periods and benefit formulas. The risks of participating in these multiemployer plans are different from single-employer plans in the following aspects:

- Assets contributed to a multiemployer plan by one employer may be used to provide benefits to employees of other participating employers.
- If we negotiate to cease participating in a multiemployer plan, we may be required to pay that plan an amount based on our allocable share of its underfunded status, referred to as a "withdrawal liability". However, cessation of participation in a multiemployer plan and subsequent payment of any withdrawal liability is subject to the collective bargaining process.
- If any of the multiemployer pension plans in which we participate enter critical status, and our contributions are not sufficient to satisfy any rehabilitation plan funding schedule, we could be required under the Pension Protection Act of 2006 to make additional surcharge contributions to the multiemployer pension plan in the amount of five to ten percent of the existing contributions required by our labor agreement. Such surcharges would cease upon the ratification of a new collective bargaining agreement, and could not recur unless a plan re-entered critical status at a later date.

The discussion that follows sets forth the financial impact on our results of operations and cash flows for the years ended December 31, 2018, 2017 and 2016, from our participation in multiemployer benefit plans. As part of the overall collective bargaining process for wage and benefit levels, we have agreed to contribute certain amounts to the multiemployer benefit plans during the contract period. The multiemployer benefit plans set benefit levels and are responsible for benefit delivery to participants. Future contribution amounts to multiemployer benefit plans are determined only through collective bargaining, and we have no additional legal or constructive obligation to increase contributions beyond the agreed-upon amounts (except potential surcharges under the Pension Protection Act of 2006 as described above).

The number of employees covered by our multiemployer pension plans has remained consistent over the past three years, and there have been no significant changes that affect the comparability of 2018, 2017 and 2016 contributions. We recognize expense for the contractually-required contribution for each period, and we recognize a liability for any contributions due and unpaid at the end of a reporting period.

Status of Collective Bargaining Agreements

As of December 31, 2018, we had approximately 283,000 employees employed under a national master agreement and various supplemental agreements with local unions affiliated with the Teamsters. These agreements expired on July 31, 2018. On October 5, 2018, the Teamsters declared that the tentative national master agreement for the U.S. Domestic Package business unit was considered ratified, and will be implemented as soon as five remaining local and supplemental agreements are negotiated and ratified. We remain in the process of negotiating and ratifying four of these local and supplemental agreements which, when ratified, will be retroactive to August 1, 2018. The UPS Freight business unit national master agreement was ratified on November 11, 2018.

We have approximately 2,800 pilots who are employed under a collective bargaining agreement with the Independent Pilots Association ("IPA"), which becomes amendable on September 1, 2021.

Our airline mechanics are covered by a collective bargaining agreement with Teamsters Local 2727. On February 8, 2019, the airline mechanics who are covered by this agreement voted to ratify a new contract which will become amendable November 1, 2023. In addition, approximately 3,100 of our auto and maintenance mechanics who are not employed under agreements with the Teamsters are employed under collective bargaining agreements with the International Association of Machinists and Aerospace Workers ("IAM") that will expire on July 31, 2019.

Multiemployer Pension Plans

The following table outlines our participation in multiemployer pension plans for the periods ended December 31, 2018, 2017 and 2016, and sets forth our calendar year contributions and accruals for each plan. The "EIN/Pension Plan Number" column provides the Employer Identification Number ("EIN") and the three-digit plan number. The most recent Pension Protection Act zone status available in 2018 and 2017 relates to the plans' two most recent fiscal year-ends. The zone status is based on information that we received from the plans' administrators and is certified by each plan's actuary. Plans certified in the red zone are generally less than 65% funded, plans certified in the orange zone are both less than 80% funded and have an accumulated funding deficiency or are expected to have a deficiency in any of the next six plan years, plans certified in the yellow zone are less than 80% funded, and plans certified in the green zone are at least 80% funded. The "FIP/RP Status Pending/Implemented" column indicates whether a financial improvement plan ("FIP") for yellow/orange zone plans, or a rehabilitation plan ("RP") for red zone plans, is either pending or has been implemented. As of December 31, 2018, all plans that have either a FIP or RP requirement have had the respective plan implemented.

Our collectively-bargained contributions satisfy the requirements of all implemented FIPs and RPs and do not currently require the payment of any surcharges. In addition, minimum contributions outside of the agreed upon contractual rates are not required. For the plans detailed in the following table, the expiration date of the associated collective bargaining agreements was July 31, 2018, with the exception of the Automotive Industries Pension Plan and the IAM National Pension Fund / National Pension Plan which both have a July 31, 2019 expiration date. For those plans covered by the collective bargaining agreement that expired on July 31, 2018, we have accrued a liability for the estimated contributions (which are included in the following table) under our new collective bargaining agreement that has been approved, but not yet implemented. For all plans detailed in the following table, we provided more than 5% of the total plan contributions from all employers for 2018, 2017 and 2016 (as disclosed in the annual filing with the Department of Labor for each respective plan).

Certain plans have been aggregated in the "all other multiemployer pension plans" line in the following table, as the contributions to each of these individual plans are not material.

	EIN / Pension Plan	Pension Protection Act Zone Status		FIP / RP Status Pending /		n million ontributio Accruals	ons and	Surcharge	
Pension Fund	Number	2018	2017	Implemented	2018	2017	2016	Imposed	
Alaska Teamster-Employer Pension Plan	92-6003463-024	Red	Red	Yes/Implemented	\$ 5	\$ 5	\$ 5	No	
Automotive Industries Pension Plan	94-1133245-001	Red	Red	Yes/Implemented	5	5	4	No	
Central Pennsylvania Teamsters Defined Benefit Plan	23-6262789-001	Green	Green	No	44	40	38	No	
Eastern Shore Teamsters Pension Fund	52-0904953-001	Green	Green	No	6	5	5	No	
Employer-Teamsters Local Nos. 175 & 505 Pension Trust Fund	55-6021850-001	Red	Red	Yes/Implemented	13	12	11	No	
Hagerstown Motor Carriers and Teamsters Pension Fund	52-6045424-001	Red	Red	Yes/Implemented	9	8	7	No	
I.A.M. National Pension Fund / National Pension Plan	51-6031295-002	Green	Green	No	38	35	31	No	
International Brotherhood of Teamsters Union Local No. 710 Pension Fund	36-2377656-001	Green	Green	No	129	118	107	No	
Local 705, International Brotherhood of Teamsters Pension Plan	36-6492502-001	Yellow	Yellow	Yes/Implemented	104	93	88	No	
Local 804 I.B.T. & Local 447 I.A.M.—UPS Multiemployer Retirement Plan	51-6117726-001	Yellow	Yellow	Yes/Implemented	116	110	103	No	
Milwaukee Drivers Pension Trust Fund	39-6045229-001	Green	Green	No	42	38	36	No	
New England Teamsters & Trucking Industry Pension Fund	04-6372430-001	Red	Red	Yes/Implemented	121	114	114	No	
New York State Teamsters Conference Pension and Retirement Fund	16-6063585-074	Red	Red	Yes/Implemented	108	100	91	No	
Teamster Pension Fund of Philadelphia and Vicinity	23-1511735-001	Yellow	Yellow	Yes/Implemented	66	60	56	No	
Teamsters Joint Council No. 83 of Virginia Pension Fund	54-6097996-001	Green	Green	No	69	64	61	No	
Teamsters Local 639-Employers Pension Trust	53-0237142-001	Green	Green	No	61	55	51	No	
Teamsters Negotiated Pension Plan	43-6196083-001	Green	Green	No	34	32	31	No	
Truck Drivers and Helpers Local Union No. 355 Retirement Pension Plan	52-6043608-001	Green	Green	No	22	20	19	No	
United Parcel Service, Inc.—Local 177, I.B.T. Multiemployer Retirement Plan	13-1426500-419	Red	Red	Yes/Implemented	95	88	83	No	
Western Conference of Teamsters Pension Plan	91-6145047-001	Green	Green	No	868	772	694	No	
Western Pennsylvania Teamsters and Employers Pension Fund	25-6029946-001	Red	Red	Yes/Implemented	31	30	28	No	
All Other Multiemployer Pension Plans					56	66	56		
				Total Contributions	\$2,042	\$1,870	\$1,719		

Agreement with the New England Teamsters and Trucking Industry Pension Fund

In 2012, we reached an agreement with the New England Teamsters and Trucking Industry Pension Fund ("NETTI Fund"), a multiemployer pension plan in which UPS is a participant, to restructure the pension liabilities for approximately 10,200 UPS employees represented by the Teamsters. As of December 31, 2018 and 2017, we had \$852 and \$859 million, respectively, recognized in "Other non-current liabilities" as well as \$7 million as of December 31, 2018 and 2017 recorded in "other current liabilities" on our consolidated balance sheets representing the remaining balance of the NETTI Fund withdrawal liability. This liability is payable in equal monthly installments over a remaining term of approximately 44 years. Based on the borrowing rates currently available to the Company for long-term financing of a similar maturity, the fair value of the NETTI Fund withdrawal liability as of December 31, 2018 and 2017 was \$832 and \$921 million, respectively. We utilized Level 2 inputs in the fair value hierarchy of valuation techniques to determine the fair value of this liability.

Multiemployer Health and Welfare Plans

We also contribute to several multiemployer health and welfare plans that cover both active and retired employees. Healthcare benefits are provided to participants who meet certain eligibility requirements as covered under the applicable collective bargaining unit. The following table sets forth our calendar year plan contributions and accruals. For those plans covered by the collective bargaining agreement that expired on July 31, 2018, we have accrued a liability for the estimated contributions (which are included in the following table) under our new collective bargaining agreement that has been approved, but not yet implemented. Certain plans have been aggregated in the "all other multiemployer health and welfare plans" line in the table, as the contributions to each of these individual plans are not material.

	(in millions) UPS Contributions and A					Accruals		
Health and Welfare Fund		2018	2017	_	2016			
Central States, South East & South West Areas Health and Welfare Fund	\$	2,530	\$	2,366	\$	2,268		
Teamsters Western Region & Local 177 Health Care Plan		656		605		571		
Health & Welfare Insurance Fund Teamsters Local 653		8		7		6		
Bay Area Delivery Drivers		40		37		35		
Central Pennsylvania Teamsters Health & Pension Fund		29		27		25		
Delta Health Systems—East Bay Drayage Drivers		30		29		27		
Employer—Teamster Local Nos. 175 & 505		12		11		11		
General Teamsters Local 493 Health Services & Insurance Plan		6		5		5		
Joint Council #83 Health & Welfare Fund		40		37		33		
Local 191 Teamsters Health Fund		13		13		12		
Local 401 Teamsters Health & Welfare Fund		10		9		8		
Local 443 Transportation Health Services & Insurance Plan		6		5		5		
Local 804 Welfare Trust Fund		90		84		79		
Milwaukee Drivers Pension Trust Fund-Milwaukee Drivers Health and Welfare Trust Fund		43		38		36		
Montana Teamster Employers Trust		9		8		8		
New York State Teamsters Health & Hospital Fund		62		59		56		
North Coast Benefit Trust		12		11		8		
Northern California General Teamsters (DELTA)		153		132		116		
Northern New England Benefit Trust		54		50		47		
Oregon / Teamster Employers Trust		43		38		34		
Teamsters 170 Health & Welfare Fund		18		17		16		
Teamsters Benefit Trust		48		46		43		
Teamsters Local 251 Health & Insurance Plan		17		15		14		
Teamsters Local 404 Health & Insurance Plan		8		8		7		
Teamsters Local 638 Health Fund		48		43		40		
Teamsters Local 639—Employers Health & Pension Trust Funds		29		27		27		
Teamsters Local 671 Health Services & Insurance Plan		19		17		17		
Teamsters Union 25 Health Services & Insurance Plan		56		52		50		
Teamsters Union Local 677 Health Services & Insurance Plan		12		11		10		
Truck Drivers and Helpers Local 355 Baltimore Area Health & Welfare Fund		18		16		16		
Utah-Idaho Teamsters Security Fund		32		29		26		
Washington Teamsters Welfare Trust		57		52		47		
All Other Multiemployer Health and Welfare Plans		60		68		58		
Total Contributions	\$	4,268	\$	3,972	\$	3,761		

NOTE 7. GOODWILL AND INTANGIBLE ASSETS

The following table indicates the allocation of goodwill by segment (in millions):

	. Domestic Package	International Package	Supply Chain & Freight		С	onsolidated
Balance on January 1, 2017	\$ 715	\$ 407	\$	2,635	\$	3,757
Acquired		18		54		72
Currency / Other	—	10		33		43
Balance on December 31, 2017	\$ 715	\$ 435	\$	2,722	\$	3,872
Acquired	—	—		—		—
Currency / Other		(18)		(43)		(61)
Balance on December 31, 2018	\$ 715	\$ 417	\$	2,679	\$	3,811

2018 Goodwill Activity

The change in goodwill for both the Supply Chain & Freight and the International Package segments was due to immaterial purchase accounting adjustments and the impact of changes in the value of the U.S. Dollar on the translation of non-U.S. Dollar goodwill balances.

2017 Goodwill Activity

The goodwill acquired in the Supply Chain & Freight segment is primarily related to our January 2017 acquisition of Freightex Ltd. ("Freightex") and our November 2017 acquisition of STTAS Global Holdings, Inc ("Sandler & Travis Trade Advisory Services" or "STTAS"). The remaining goodwill acquired in the Supply Chain & Freight segment was related to other, smaller acquisitions immaterial to our consolidated financial position or results of operations.

The goodwill acquired in the International Package segment is related to our June 2017 acquisition of Eirpost Group Unlimited Company ("Nightline").

The remaining change in goodwill for both the Supply Chain & Freight and the International Package segments was due to immaterial purchase accounting adjustments and the impact of changes in the value of the U.S. Dollar on the translation of non-U.S. Dollar goodwill balances.

Goodwill Impairment

We completed our annual goodwill impairment valuation, as of July 1st, on a reporting unit basis. For the periods presented, no triggering events were identified that required an interim impairment test.

U.S. Domestic Package is our largest reporting segment. In our International Package reporting segment, we have the following reporting units: Europe, Asia, Americas and ISMEA (Indian Subcontinent, Middle East and Africa). In our Supply Chain & Freight segment we have the following reporting units: Forwarding, Logistics, UPS Mail Innovations, UPS Freight, The UPS Store, UPS Capital, Marken and Coyote.

In assessing our goodwill for impairment, we initially evaluate qualitative factors to determine if it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If the qualitative assessment is not conclusive and it is necessary to calculate the fair value of a reporting unit, then we utilize a two-step process to test goodwill for impairment. First, a comparison of the fair value of the applicable reporting unit with the aggregate carrying value, including goodwill, is performed. We primarily determine the fair value of our reporting units using a discounted cash flow model, and supplement this with observable valuation multiples for comparable companies, as applicable. If the carrying amount of a reporting unit exceeds the reporting unit's fair value, we perform the second step of the goodwill impairment test to determine the amount of impairment loss. The second step includes comparing the implied fair value of the affected reporting unit's goodwill with the carrying value of that goodwill.

In 2018, we utilized a qualitative assessment to determine that it was more likely than not that the reporting unit fair value exceeded the carrying value for our U.S. Domestic Package, Europe Package, Asia Package, Americas Package, ISMEA Package, Forwarding, Logistics, UPS Mail Innovations, The UPS Store and UPS Capital reporting units. For the remaining reporting units owned at the annual goodwill impairment testing date, we utilized the two-step process to test goodwill for impairment. We did not have any goodwill impairment charges in 2018, 2017 or 2016. Cumulatively, our Supply Chain & Freight segment has recorded \$622 million of goodwill impairment charges, while our International and U.S. Domestic Package segments have not recorded any goodwill impairment charges.

Intangible Assets

The following is a summary of intangible assets at December 31, 2018 and 2017 (in millions):

	Carrying mount	Accumulated Amortization			et Carrying Value	Weighted- Average Amortization Period (in years)
December 31, 2018						
Capitalized software	\$ 3,693	\$	(2,478)	\$	1,215	6.9
Licenses	117		(36)		81	3.9
Franchise rights	145		(105)		40	20.0
Customer relationships	736		(217)		519	10.5
Trade name	200				200	N/A
Trademarks, patents and other	52		(31)		20	5.8
Total Intangible Assets	\$ 4,943	\$	(2,867)	\$	2,075	7.7
December 31, 2017	 					
Capitalized software	\$ 3,273	\$	(2,310)	\$	963	
Licenses	114		(10)		104	
Franchise rights	144		(97)		47	
Customer relationships	776		(160)		616	
Trade name	200				200	
Trademarks, patents and other	71		(37)		34	
Total Intangible Assets	\$ 4,578	\$	(2,614)	\$	1,964	

A trade name and licenses with a carrying value of \$200 and \$5 million, respectively, as of December 31, 2018 are deemed to be indefinite-lived intangible assets, and therefore are not amortized. Impairment tests for indefinite-lived intangible assets are performed on an annual basis. All of our other recorded intangible assets are deemed to be finite-lived intangibles, and are thus amortized over their estimated useful lives. Impairment tests for these intangible assets are only performed when a triggering event occurs that may indicate that the carrying value of the intangible may not be recoverable. There was a \$12 and \$7 million impairment of finite-lived intangible assets in 2018 and 2017, respectively.

Amortization of intangible assets was \$339, \$287 and \$321 million during 2018, 2017 and 2016, respectively. Expected amortization of finite-lived intangible assets recorded as of December 31, 2018 for the next five years is as follows (in millions): 2019—\$432; 2020—\$380; 2021—\$312; 2022—\$249; 2023—\$199. Amortization expense in future periods will be affected by business acquisitions, software development, licensing agreements, franchise rights purchases and other factors.

NOTE 8. DEBT AND FINANCING ARRANGEMENTS

The following table sets forth the principal amount, maturity or range of maturities, as well as the carrying value of our debt obligations, as of December 31, 2018 and 2017 (in millions). The carrying value of these debt obligations can differ from the principal amount due to the impact of unamortized discounts or premiums and valuation adjustments resulting from interest rate swap hedging relationships.

Facility notes and bonds320		Carryin	
Fixed-rate senior notes: 750 5.125% senior notes 1,000 3.125% senior notes 1,000 2.050% senior notes 700 2.050% senior notes 1,000 2.350% senior notes 1,000 2.350% senior notes 1,000 2.350% senior notes 1,000 2.350% senior notes 1,000 2.800% senior notes 500 2.400% senior notes 500 3.050% senior notes 1,000 6.200% senior notes 1,000 6.200% senior notes 1,000 6.200% senior notes 500 3.050% senior notes 1,500 4.875% senior notes 500 3.400% senior notes 500 3.750% senior notes 1,150 Floating-rate senior notes 400 Floating-rate senior notes 1,042 8.375% debentures 276 Pound Sterling Notes 577 Euro Senior Notes 803 5.500% notes 577 Euro Senior notes 573 1.000% senior notes 573 1.000% seni	Maturity	2018	2017
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Capital lease obligations534Facility notes and bonds320Other debt13	2024	548	593
Facility notes and bonds 320 Other debt 13	2019 - 3005	534	500
Other debt 13	2019 3005 2029 - 2045	320	319
	2029 - 2043 2019 - 2022	13	19
	2017 - 2022	22,736	24,289
Less: current maturities		(2,805)	(4,011)
Long-term debt		\$ 19,931	\$ 20,278

Commercial Paper

We are authorized to borrow up to \$10.0 billion under a U.S. commercial paper program and \notin 5.0 billion (in a variety of currencies) under a European commercial paper program. We had the following amounts outstanding under these programs as of December 31, 2018: \$1.968 billion with an average interest rate of 2.34% and \notin 606 million (\$694 million) with an average interest rate of -0.37%. The amount of commercial paper outstanding under these programs in 2019 is expected to fluctuate.

Debt Classification

We have classified our 5.125% senior notes due April 2019 with a principal balance of \$1.0 billion as long term based on our intent and ability to refinance the debt as of December 31, 2018. We have classified certain floating-rate senior notes that are putable by the note holders as long-term debt, due to our intent and ability to refinance the debt if the put option is exercised by the note holders.

Fixed-Rate Senior Notes

We have completed several offerings of fixed-rate senior notes. All of the notes pay interest semi-annually, and allow for redemption of the notes by UPS at any time by paying the greater of the principal amount or a "make-whole" amount, plus accrued interest. We subsequently entered into interest rate swaps on several of these notes, which effectively converted the fixed interest rates on the notes to variable LIBOR-based interest rates. The average interest rate payable on these notes, including the impact of the interest rate swaps, for 2018 and 2017, respectively, were as follows:

	Pr	Principal					
	•	Value	Maturity	2018	2017		
1.125% senior notes	\$	375	2017	%	1.51%		
5.50% senior notes		750	2018	3.63%	3.45%		
5.125% senior notes		1,000	2019	3.99%	2.98%		
3.125% senior notes		1,500	2021	2.32%	1.34%		
2.45% senior notes		1,000	2022	2.77%	1.78%		

On January 15, 2018, our \$750 million 5.500% senior notes matured and were repaid in full.

8.375% Debentures

The 8.375% debentures consist of two separate tranches, as follows:

- \$276 million of the debentures have a maturity of April 1, 2030. These debentures have an 8.375% interest rate until April 1, 2020, and, thereafter, the interest rate will be 7.62% for the final 10 years. These debentures are redeemable in whole or in part at our option at any time. The redemption price is equal to the greater of 100% of the principal amount and accrued interest, or the sum of the present values of the remaining scheduled payout of principal and interest thereon discounted to the date of redemption (at a benchmark treasury yield plus five basis points) plus accrued interest.
- \$424 million of the debentures have a maturity of April 1, 2020. These debentures are not subject to redemption prior to maturity.

Interest is payable semi-annually in April and October for both tranches and neither tranche is subject to sinking fund requirements. We subsequently entered into interest rate swaps on the 2020 debentures, which effectively converted the fixed interest rates on the debentures to variable LIBOR-based interest rates. The average interest rate payable on the 2020 debentures, including the impact of the interest rate swaps, for 2018 and 2017 was 6.93% and 5.95%, respectively.

Floating-Rate Senior Notes

The floating-rate senior notes with principal amounts totaling \$1.042 billion, bear interest at either one or three-month LIBOR, less a spread ranging from 30 to 45 basis points. The average interest rate for 2018 and 2017 was 1.76% and 0.74%, respectively. These notes are callable at various times after 30 years at a stated percentage of par value, and putable by the note holders at various times after one year at a stated percentage of par value. The notes have maturities ranging from 2049 through 2067. We classified the floating-rate senior notes that are putable by the note holder as a long-term liability, due to our intent and ability to refinance the debt if the put option is exercised by the note holder.

The remaining three floating-rate senior notes in the principal amounts of \$350, \$400 and \$500 million, bear interest at three-month LIBOR, plus a spread ranging from 15 to 45 basis points. The average interest rate for 2018 and 2017 was 2.50% and 0.5%, respectively. These notes are not callable. The notes have maturities ranging from 2021 through 2023. We classified the floating-rate senior notes that are putable by the note holder as a long-term liability, due to our intent and ability to refinance the debt if the put option is exercised by the note holder.

Capital Lease Obligations

We have certain property, plant and equipment subject to capital leases. Some of the obligations associated with these capital leases have been legally defeased. The recorded value of our property, plant and equipment subject to capital leases is as follows as of December 31 (in millions):

	2018		 2017
Aircraft	\$	2,291	\$ 2,291
Buildings		265	285
Vehicles, plant equipment, technology equipment and other		22	70
Accumulated amortization		(924)	(990)
Property, plant and equipment subject to capital leases	\$	1,654	\$ 1,656

These capital lease obligations have principal payments due at various dates from 2019 through 3005.

Facility Notes and Bonds

We have entered into agreements with certain municipalities to finance the construction of, or improvements to, facilities that support our U.S. Domestic Package and Supply Chain & Freight operations in the United States. These facilities are located around airport properties in Louisville, Kentucky; Dallas, Texas; and Philadelphia, Pennsylvania. Under these arrangements, we enter into a lease or loan agreement that covers the debt service obligations on the bonds issued by the municipalities, as follows:

- Bonds with a principal balance of \$149 million issued by the Louisville Regional Airport Authority associated with our Worldport facility in Louisville, Kentucky. The bonds, which are due in January 2029, bear interest at a variable rate, and the average interest rates for 2018 and 2017 were 1.43% and 0.83%, respectively.
- Bonds with a principal balance of \$42 million and due in November 2036 issued by the Louisville Regional Airport Authority associated with our air freight facility in Louisville, Kentucky. The bonds bear interest at a variable rate, and the average interest rates for 2018 and 2017 were 1.39% and 0.80%, respectively.
- Bonds with a principal balance of \$29 million issued by the Dallas / Fort Worth International Airport Facility Improvement Corporation associated with our Dallas, Texas airport facilities. The bonds are due in May 2032 and bear interest at a variable rate, however the variable cash flows on the obligation have been swapped to a fixed 5.11%.
- Bonds with a principal balance of \$100 million issued by the Delaware County, Pennsylvania Industrial Development Authority associated with our Philadelphia, Pennsylvania airport facilities. These bonds, which are due September 2045, bear interest at a variable rate. The average interest rate for 2018 and 2017 was 1.35% and 0.78%, respectively.

Pound Sterling Notes

The Pound Sterling notes consist of two separate tranches, as follows:

- Notes with a principal amount of £66 million accrue interest at a 5.50% fixed rate, and are due in February 2031. These notes are not callable.
- Notes with a principal amount of £455 million accrue interest at a 5.125% fixed rate, and are due in February 2050. These notes are callable at our option at a redemption price equal to the greater of 100% of the principal amount and accrued interest, or the sum of the present values of the remaining scheduled payout of principal and interest thereon discounted to the date of redemption at a benchmark U.K. government bond yield plus 15 basis points and accrued interest.

Canadian Dollar Senior Notes

The Canadian Dollar senior notes consist of a single series a follows:

• Notes in the principal amount of C\$750 million, which bear interest at a 2.125% fixed interest rate and mature in May 2024. Interest on the notes is payable semi-annually beginning November 2017. The notes are callable at our option, in whole or in part at the Government of Canada yield plus 21.5 basis points, and on or after the par call date, at par value.

Euro Senior Notes

The Euro senior notes consist of four separate issuances, as follows:

- Notes in the principal amount of €500 million accrue interest at a 1% fixed rate and are due in November 2028. Interest is payable annually on the notes, commencing in November 2017. These notes are callable at our option at a redemption price equal to the greater of 100% of the principal amounts, or the sum of the present values of the remaining scheduled payments of principal and interest thereon discounted to the date of redemption at a benchmark comparable German government bond yield plus 15 basis points and accrued interest.
- Notes with a principal amount of €500 million accrue interest at a variable rate equal to three-month EURIBOR plus 43 basis points and are due in July 2020. Interest is payable quarterly on the notes, commencing in April 2016. These notes are not callable. The senior notes bear interest at a variable rate, and the average interest rates for 2018 and 2017 were 0.11% and 0.10%, respectively.
- Notes with a principal amount of €700 million accrue interest at a 1.625% fixed rate and are due in November 2025. Interest is payable annually on the notes, commencing in November 2016. These notes are callable at our option at a redemption price equal to the greater of 100% of the principal amount, or the sum of the present values of the remaining scheduled payout of principal and interest thereon discounted to the date of redemption at a benchmark German government bond yield plus 20 basis points and accrued interest.
- Notes with principal amounts of €700 million and €500 million accrue interest at a 0.375% and 1.500% fixed rates, respectively, and are due in November 2023 and November 2032, respectively. Interest on these notes is payable annually, beginning in November 2018. The notes are callable at our option at a redemption price equal to the greater of 100% of the principal amount, or the sum of the present values of the remaining scheduled payments of principal and interest thereon discounted to the date of redemption at a benchmark comparable government bond yield plus 10 and 20 basis points, respectively, and accrued interest.

Contractual Commitments

We lease certain aircraft, facilities, land, equipment and vehicles under operating leases, which expire at various dates through 2066. Certain of the leases contain escalation clauses and renewal or purchase options. Rent expense related to our operating leases was \$959, \$804 and \$686 million for 2018, 2017 and 2016, respectively.

The following table sets forth the aggregate minimum lease payments under capital and operating leases, the aggregate annual principal payments due under our long-term debt and the aggregate amounts expected to be spent for purchase commitments (in millions).

Year	Capital Leases		Operating Leases		Debt Principal		Purchase Commitments	
2019	\$	158	\$	578	\$	3,667	\$	3,686
2020		95		477		998		1,732
2021		42		399		2,551		1,150
2022		39		325		2,000		383
2023		36		262		2,303		22
After 2023		293		926		10,830		8
Total	\$	663	\$	2,967	\$	22,349	\$	6,981
Less: imputed interest		(129)						
Present value of minimum capitalized lease payments		534						
Less: current portion		(140)						
Long-term capitalized lease obligations	\$	394						

As of December 31, 2018, we had outstanding letters of credit totaling approximately \$1.256 billion issued in connection with our self-insurance reserves and other routine business requirements. We also issue surety bonds as an alternative to letters of credit in certain instances, and as of December 31, 2018, we had \$1.031 billion of surety bonds written.

Sources of Credit

We maintain two credit agreements with a consortium of banks. One of these agreements provides revolving credit facilities of \$3.0 billion, and expires on December 10, 2019. Generally, amounts outstanding under this facility bear interest at a periodic fixed rate equal to LIBOR for the applicable interest period and currency denomination, plus an applicable margin. Alternatively, a fluctuating rate of interest equal to the highest of (1) JPMorgan Chase Bank's publicly announced prime rate; (2) the Federal Funds effective rate plus 0.50%; and (3) LIBOR for a one month interest period plus 1.00%, plus an applicable margin, may be used at our discretion. In each case, the applicable margin for advances bearing interest based on LIBOR is a percentage determined by quotations from Markit Group Ltd. for our 1-year credit default swap spread, subject to a minimum rate of 0.10% and a maximum rate of 0.75%. The applicable margin for advances bearing interest based on the prime rate is 1.00% below the applicable margin for LIBOR advances (but not lower than 0.00%). We are also able to request advances under this facility based on competitive bids for the applicable interest rate. There were no amounts outstanding under this facility as of December 31, 2018.

The second agreement provides revolving credit facilities of \$3.0 billion, and expires on March 24, 2022. Generally, amounts outstanding under this facility bear interest at a periodic fixed rate equal to LIBOR for the applicable interest period and currency denomination, plus an applicable margin. Alternatively, a fluctuating rate of interest equal to the highest of (1) JPMorgan Chase Bank's publicly announced prime rate, (2) the Federal Funds effective rate plus 0.50%; and (3) LIBOR for a one month interest period plus 1.00%, plus an applicable margin, may be used at our discretion. In each case, the applicable margin for advances bearing interest based on LIBOR is a percentage determined by quotations from Markit Group Ltd. for our 1-year credit default swap spread, interpolated for a period from the date of determination of such credit default swap spread in connection with a new interest period until the latest maturity date of this facility then in effect (but not less than a period of one year). The minimum applicable margin rate is 0.10% and the maximum applicable margin rate is 0.75% per annum. The applicable margin for advances bearing interest based on the prime rate is 1.00% below the applicable margin for LIBOR advances (but not less than 0.00%). We are also able to request advances under this facility based on competitive bids. There were no amounts outstanding under this facility as of December 31, 2018.

Debt Covenants

Our existing debt instruments and credit facilities subject us to certain financial covenants. As of December 31, 2018 and for all prior periods presented, we have satisfied these financial covenants. These covenants limit the amount of secured indebtedness that we may incur, and limit the amount of attributable debt in sale-leaseback transactions, to 10% of net tangible assets. As of December 31, 2018, 10% of net tangible assets is equivalent to \$3.004 billion; however, we have no covered sale-leaseback transactions or secured indebtedness outstanding. We do not expect these covenants to have a material impact on our financial condition or liquidity.

Fair Value of Debt

Based on the borrowing rates currently available to the Company for long-term debt with similar terms and maturities, the fair value of long-term debt, including current maturities, is approximately \$23.293 and \$25.206 billion as of December 31, 2018 and 2017, respectively. We utilized Level 2 inputs in the fair value hierarchy of valuation techniques to determine the fair value of all of our debt instruments.

NOTE 9. LEGAL PROCEEDINGS AND CONTINGENCIES

We are involved in a number of judicial proceedings and other matters arising from the conduct of our business activities.

Although there can be no assurance as to the ultimate outcome, we have generally denied, or believe we have a meritorious defense and will deny, liability in all pending matters, including (except as otherwise noted herein) the matters described below, and we intend to defend vigorously each matter. We accrue for legal claims when, and to the extent that, amounts associated with the claims become probable and can be reasonably estimated. The actual costs of resolving legal claims may be substantially higher or lower than the amounts accrued for those claims.

For those matters as to which we are not able to estimate a possible loss or range of loss, we are not able to determine whether the loss will have a material adverse effect on our business, financial condition or results of operations or liquidity. For matters in this category, we have indicated in the descriptions that follow the reasons that we are unable to estimate the possible loss or range of loss.

Judicial Proceedings

In February 2015, the State and City of New York filed suit against UPS in the U.S. District Court for the Southern District of New York, arising from alleged shipments of cigarettes to New York State and City residents. The complaint asserted claims under various federal and state laws. The complaint also included a claim that UPS violated the Assurance of Discontinuance it entered into with the New York Attorney General in 2005 concerning cigarette deliveries. On March 24, 2017, the District Court issued an opinion and order finding liability against UPS on each of the plaintiffs' causes of action. On May 25, 2017, the District Court issued a corrected opinion and order on liability and an order awarding the plaintiffs damages of \$9.4 million and penalties of \$237.6 million. An accrual of \$9.4 million with respect to the damages awarded by the court is included on our consolidated balance sheets at December 31, 2018. We estimate that the amount of losses could be up to \$247 million, plus interest; however, the amount of penalties ultimately payable, if any, is subject to a variety of complex factors and potential outcomes that remain to be determined in future legal proceedings. Consequently, we are unable to reasonably estimate a likely amount of loss within that range. We strongly disagree with the District Court's analysis and conclusions, and have appealed to the United States Court of Appeals for the Second Circuit. The briefing is now complete and oral argument has been scheduled for the first quarter of 2019.

We are a defendant in a number of lawsuits filed in state and federal courts containing various class action allegations under state wage-and-hour laws. Except as described below, we do not believe that any loss associated with any matter would have a material adverse effect on our financial condition, results of operations or liquidity. Hughes v. UPS Supply Chain Solutions, Inc., and United Parcel Service, Inc. has been certified as a class action in Kentucky state court. In this action, Plaintiffs allege that they were not properly compensated for time entering and exiting security checkpoints and getting to their work areas at UPS's facilities. Plaintiffs seek compensatory damages, liquidated damages, attorneys' fees, and interest. We have denied any liability and intend to vigorously defend ourselves in this case. There are multiple factors that prevent us from being able to estimate the amount of loss, if any, that may result from this matter, including: (1) we are vigorously defending ourselves and believe that we have a number of meritorious legal defenses; and (2) there are unresolved questions of law and fact that could be important to the ultimate resolution of this matter. Accordingly, at this time, we are not able to estimate a possible loss or range of loss that may result from this matter or to determine whether such loss, if any, would have a material adverse effect on our financial condition, results of operations or liquidity.

Other Matters

In October 2015, the Department of Justice ("DOJ") informed us of an industry-wide inquiry into the transportation of mail under the United States Postal Service ("USPS") International Commercial Air contracts. In October 2017, we received a Civil Investigative Demand seeking certain information relating to our contracts. The DOJ has indicated it is investigating potential violations of the False Claims Act or other statutes. We are cooperating with the DOJ. We are unable to predict what action, if any, might be taken in the future by any government authorities as a result of their investigation. Accordingly, at this time, we are not able to estimate a possible loss or range of loss that may result from this matter or to determine whether such loss, if any, would have a material adverse effect on our financial condition, results of operations or liquidity.

In August 2016, Spain's National Markets and Competition Commission ("CNMC") announced an investigation into 10 companies in the commercial delivery and parcel industry, including UPS, related to alleged nonaggression agreements to allocate customers. In May 2017, UPS received a Statement of Objections issued by the CNMC. In July 2017, UPS received a Proposed Decision from the CNMC. On March 8, 2018 the CNMC adopted a final decision, finding an infringement and imposing a fine on UPS of \in 19.2 million. UPS has appealed the decision and in September 2018, obtained a suspension of the implementation of the decision (including payment of the fine). The appeal is pending. There are multiple factors that prevent us from being able to estimate the amount of loss, if any, that may result from this matter, including: (1) we are vigorously defending ourselves and believe that we have a number of meritorious legal defenses; and (2) there are unresolved questions of law and fact that could be important to the ultimate resolution of this matter. Accordingly, at this time, we are not able to estimate a possible loss or range of loss that may result from this matter or to determine whether such loss, if any, would have a material adverse effect on our financial condition, results of operations or liquidity.

In February 2018, the Turkish Competition Authority ("Authority") opened an investigation into nine companies (including UPS) in the small package industry related to alleged customer allocations in violation of Turkish competition law. In April 2018, the Authority consolidated this investigation with two other investigations involving similar allegations. The consolidated investigation involves over 30 companies. The investigation is in its early stages. There are multiple factors that prevented us from being able to estimate the amount of loss, if any, that may result from this matter including: (1) we are vigorously defending ourselves and believe that we have a number of meritorious legal defenses; and (2) there are unresolved questions of law and fact that could be important to the ultimate resolution of this matter. Accordingly, at this time we are not able to estimate a possible loss or range of loss that may result from this matter or to determine whether such loss, if any, would have a material adverse effect on our financial condition, results of operation or liquidity.

We are a party in various other matters that arose in the normal course of business. We do not believe that the eventual resolution of these other matters (either individually or in the aggregate), including any reasonably possible losses in excess of current accruals, will have a material adverse effect on our financial condition, results of operations or liquidity.

NOTE 10. SHAREOWNERS' EQUITY

Capital Stock, Additional Paid-In Capital and Retained Earnings

We maintain two classes of common stock, which are distinguished from each other by their respective voting rights. Class A shares of UPS are entitled to 10 votes per share, whereas class B shares are entitled to one vote per share. Class A shares are primarily held by UPS employees and retirees, as well as trusts and descendants of the Company's founders, and these shares are fully convertible into class B shares at any time. Class B shares are publicly traded on the New York Stock Exchange ("NYSE") under the symbol "UPS". Class A and B shares both have a \$0.01 par value, and as of December 31, 2018, there were 4.6 billion class A shares and 5.6 billion class B shares authorized to be issued. Additionally, there are 200 million preferred shares authorized to be issued, with a par value of \$0.01 per share; as of December 31, 2018, no preferred shares had been issued.

The following is a rollforward of our common stock, additional paid-in capital and retained earnings accounts (in millions, except per share amounts):

	2018			20	17		201	6	
	Shares]	Dollars	Shares	Dollars		Shares	I	Dollars
Class A Common Stock:									
Balance at beginning of year	173	\$	2	180	\$	2	194	\$	2
Common stock purchases	(3)			(4)			(4)		—
Stock award plans	3			4			5		
Common stock issuances	4		—	3			2		
Conversions of class A to class B common stock	(14)			(10)			(17)		
Class A shares issued at end of year	163	\$	2	173	\$	2	180	\$	2
Class B Common Stock:		_			_			_	
Balance at beginning of year	687	\$	7	689	\$	7	693	\$	7
Common stock purchases	(5)			(12)			(21)		
Conversions of class A to class B common stock	14			10			17		
Class B shares issued at end of year	696	\$	7	687	\$	7	689	\$	7
Additional Paid-In Capital:					_			_	
Balance at beginning of year		\$			\$			\$	
Stock award plans			419			396			541
Common stock purchases			(859)			(813)			(898)
Common stock issuances			406			363			303
Option premiums received (paid)			34			54			54
Balance at end of year		\$			\$			\$	—
Retained Earnings:		_			_			_	
Balance at beginning of year		\$	5,852		\$	4,880		\$	6,011
Net income attributable to controlling interests			4,791			4,905			3,422
Dividends (\$3.64, \$3.32, and \$3.12 per share)			(3,189)			(2,928)			(2,771)
Common stock purchases			(141)			(1,003)			(1,782)
Reclassification from AOCI pursuant to the early adoption of ASU 2018-02			735			_			
Other		\$	(42)		\$	(2)		\$	
Balance at end of year		\$	8,006		\$	5,852		\$	4,880

For the years ended December 31, 2018, 2017 and 2016, we repurchased a total of 8.9, 16.1 and 25.2 million shares of class A and class B common stock for \$1.000, \$1.816 and \$2.680 billion, respectively (\$1.011, \$1.813 and \$2.678 billion in repurchases for 2018, 2017 and 2016, respectively, are reported on the cash flow statement due to the timing of settlements). In May 2016, the Board of Directors approved a new share repurchase authorization of \$8.0 billion, which replaced an authorization previously announced in 2013. This new share repurchase authorization has no expiration date. As of December 31, 2018, we had \$3.339 billion of this share repurchase authorization remaining.

From time to time, we enter into share repurchase programs with large financial institutions to assist in our buyback of company stock. These programs allow us to repurchase our shares at a price below the weighted average UPS share price for a given period. During the fourth quarter of 2016, we entered into an accelerated share repurchase program, which allowed us to repurchase \$300 million of shares (2.6 million shares). The program was completed in December 2016.

In order to lower the average cost of acquiring shares in our ongoing share repurchase program, we periodically enter into structured repurchase agreements involving the use of capped call options for the purchase of UPS class B shares. We pay a fixed sum of cash upon execution of each agreement in exchange for the right to receive either a pre-determined amount of cash or stock. Upon expiration of each agreement, if the closing market price of our common stock is above the pre-determined price, we will have our initial investment returned with a premium in either cash or shares (at our election). If the closing market price of our common stock is at or below the pre-determined price, we will receive the number of shares specified in the agreement. We received net premiums of \$34 million during 2018 and \$54 million during both 2017 and 2016, related to entering into and settling capped call options for the purchase of class B shares. As of December 31, 2018, we had outstanding options for the purchase of 0.2 million shares with an average strike price of \$95.60 per share that will settle in the first quarter of 2019.

Accumulated Other Comprehensive Income (Loss)

We recognize activity in AOCI for unrealized holding gains and losses on available-for-sale securities, foreign currency translation adjustments, unrealized gains and losses from derivatives that qualify as hedges of cash flows and unrecognized pension and postretirement benefit costs. Additionally, effective January 1, 2018, we early adopted an ASU that allows a reclassification from AOCI to retained earnings for stranded tax effects resulting from the Tax Act (see note 1 for further information). The activity in AOCI is as follows (in millions):

	2018		 2017		2016
Foreign Currency Translation Gain (Loss), Net of Tax:					
Balance at beginning of year	\$	(930)	\$ (1,016)	\$	(897)
Translation adjustment (net of tax effect of \$37, \$(161) and \$32)		(149)	86		(119)
Reclassification to retained earnings pursuant to the early adoption of ASU 2018-02		(47)	 		
Balance at end of year		(1,126)	(930)		(1,016)
Unrealized Gain (Loss) on Marketable Securities, Net of Tax:					
Balance at beginning of year		(2)	(1)		(1)
Current period changes in fair value (net of tax effect of \$(1), \$(1) and \$0)		(3)	(2)		
Reclassification to earnings (net of tax effect of \$1, \$1 and \$0)		3	1		
Balance at end of year		(2)	(2)		(1)
Unrealized Gain (Loss) on Cash Flow Hedges, Net of Tax:					
Balance at beginning of year		(366)	(45)		67
Current period changes in fair value (net of tax effect of \$135, \$(190) and \$75)		429	(316)		124
Reclassification to retained earnings pursuant to the early adoption of ASU 2018-02		(79)			
Reclassification to earnings (net of tax effect of \$18, \$(3) and \$(142))		56	(5)		(236)
Balance at end of year		40	(366)		(45)
Unrecognized Pension and Postretirement Benefit Costs, Net of Tax:					
Balance at beginning of year	\$	(3,569)	\$ (3,421)	\$	(2,709)
Reclassification to earnings (net of tax effect of \$439, \$269 and \$1,040)		1,389	731		1,783
Reclassification to retained earnings pursuant to the early adoption of ASU 2018-02		(609)			_
Net actuarial gain (loss) and prior service cost resulting from remeasurements of plan assets and liabilities (net of tax effect of \$(355), \$(180) and \$(1,460))		(1,117)	(879)		(2,495)
Balance at end of year		(3,906)	(3,569)		(3,421)
Accumulated other comprehensive income (loss) at end of year		(4,994)	(4,867)		(4,483)

Detail of the gains (losses) reclassified from AOCI to the statements of consolidated income for the years ended December 31, 2018, 2017 and 2016 is as follows (in millions):

Twelve Months Ended December 31:	Reclassified from AOCI		2016 Amount Reclassified from AOCI	Affected Line Item in the Income Statement
Unrealized Gain (Loss) on Marketable Securitie	s:			
Realized gain (loss) on sale of securities	(4)	(2)	_	Investment income (expense) and other
Income tax (expense) benefit	1	1	_	Income tax expense
Impact on net income	(3)	(1)		Net income
Unrealized Gain (Loss) on Cash Flow Hedges:				
Interest rate contracts	(24)	(27)	(26)	Interest expense
Foreign exchange contracts	(50)	35	404	Revenue
Income tax (expense) benefit	18	(3)	(142)	Income tax expense
Impact on net income	(56)	5	236	Net income
Unrecognized Pension and Postretirement Benef	it Costs:			
Prior service costs	(201)	(200)	(172)	Investment income (expense) and other
Remeasurement of benefit obligation	(1,627)	(800)	(2,651)	Investment income (expense) and other
Income tax (expense) benefit	439	269	1,040	Income tax expense
Impact on net income	(1,389)	(731)	(1,783)	Net income
Total amount reclassified for the period	\$ (1,448)	\$ (727)	\$ (1,547)	Net income

Deferred Compensation Obligations and Treasury Stock

We maintain a deferred compensation plan whereby certain employees were previously able to elect to defer the gains on stock option exercises by deferring the shares received upon exercise into a rabbi trust. The shares held in this trust are classified as treasury stock, and the liability to participating employees is classified as "deferred compensation obligations" in the shareowners' equity section of the consolidated balance sheets. The number of shares needed to settle the liability for deferred compensation obligations is included in the denominator in both the basic and diluted earnings per share calculations. Employees are generally no longer able to defer the gains from stock options exercised subsequent to December 31, 2004.

Activity in the deferred compensation program for the years ended December 31, 2018, 2017 and 2016 is as follows (in millions):

	2018			2017			2016			
	Shares	es Dollars		Shares	Dollars		Shares E		Dollars	
Deferred Compensation Obligations:										
Balance at beginning of year		\$	37		\$	45		\$	51	
Reinvested dividends			2			2			3	
Benefit payments			(7)			(10)			(9)	
Balance at end of year		\$	32		\$	37		\$	45	
Treasury Stock:										
Balance at beginning of year	(1)	\$	(37)	(1)	\$	(45)	(1)	\$	(51)	
Reinvested dividends			(2)			(2)			(3)	
Benefit payments	—		7	—		10	—		9	
Balance at end of year	(1)	\$	(32)	(1)	\$	(37)	(1)	\$	(45)	

Noncontrolling Interests

We have noncontrolling interests in certain consolidated subsidiaries in our International Package and Supply Chain & Freight segments. Noncontrolling interests decreased \$14 million and increased \$6 million for the years ended December 31, 2018 and 2017, respectively.

NOTE 11. STOCK - BASED COMPENSATION

The UPS Incentive Compensation Plan permits the grant of non-qualified and incentive stock options, stock appreciation rights, restricted stock and stock units, and restricted performance shares and units to eligible employees. Shares authorized for issuance under the Incentive Compensation Plan were 26 million. Each share issued pursuant to restricted stock units and restricted performance units (collectively referred to as "Restricted Units"), stock options and other permitted awards will reduce the share reserve by one share. We had 20 million shares available to be issued under the Incentive Compensation Plan as of December 31, 2018.

The primary compensation programs offered under the UPS Incentive Compensation Plan include the UPS Management Incentive Award program, the Coyote Restricted Stock Award, the UPS Long-Term Incentive Performance Award program and the UPS Stock Option program. These awards are discussed in the following paragraphs. The total expense recognized in our income statement under all stock compensation award programs was \$634, \$584 and \$591 million during 2018, 2017 and 2016, respectively. The associated income tax benefit recognized in our statements of consolidated income was \$186, \$227 and \$219 million during 2018, 2017 and 2016, respectively. The cash income tax benefit received from the exercise of stock options and the lapsing of Restricted Units was \$175, \$276 and \$207 million during 2018, 2017 and 2016, respectively.

Management Incentive Award Program ("MIP")

Non-executive management earning the right to receive the Management Incentive Award are determined annually by the Salary Committee, which is comprised of executive officers of UPS. Awards granted to executive officers are determined annually by the Compensation Committee of the UPS Board of Directors. Our Management Incentive Award program provides, with certain exceptions, that one-half to two-thirds of the annual Management Incentive Award will be made in Restricted Units (depending upon the level of management involved). The other one-third to one-half of the award is electable in the form of cash or unrestricted shares of class A common stock, and is fully vested at the time of grant.

Upon vesting, Restricted Units result in the issuance of the equivalent number of UPS class A common shares after required tax withholdings. Except in the case of death, Restricted Units granted for our Management Incentive Award vest over a five-year period with approximately 20% of the award vesting at each anniversary date of the grant. The entire grant (less estimated forfeitures) is expensed on a straight-line basis over the requisite service period (except in the case of death, disability or retirement, in which case immediate expensing occurs). All Restricted Units granted are subject to early cancellation or vesting under certain conditions. Dividends earned on Restricted Units are reinvested in additional Restricted Units at each dividend payable date.

Coyote Restricted Stock Award

In August 2015 we acquired Coyote, a U.S.-based truckload brokerage company. During the third quarter of 2015, we granted Restricted Units to eligible Coyote management employees. The vesting of Restricted Units granted under this award varies between one and four years with an equal number of restricted units vesting at each anniversary date (except in the case of death, in which case immediate vesting occurs). The entire grant is expensed on a straight-line basis over the requisite service period (except in the case of death or disability, in which case immediate expensing occurs).

As of December 31, 2018, we had the following Restricted Units outstanding, including reinvested dividends, that were granted under our Management Incentive Award program and the Coyote Restricted Stock Award:

	Shares (in thousands)	Weighted-Average Grant Date Fair Value		Weighted-Average Remaining Contractual Term (in years)		Aggregate Int Value (in mill	
Nonvested at January 1, 2018	10,471	\$	99.16				
Vested	(5,197)		97.33				
Granted	4,734		110.95				
Reinvested Dividends	352		N/A				
Forfeited / Expired	(221)		104.74				
Nonvested at December 31, 2018	10,139	\$	104.47	1	.41	\$	989
Restricted Units Expected to Vest	10,029	\$	104.52	1	.40	\$	978

The fair value of each Restricted Unit is the NYSE closing price of class B common stock on the date of grant. The weighted-average grant date fair value of Restricted Units granted during 2018, 2017 and 2016 was \$110.95, \$105.62 and \$97.04, respectively. The total fair value of Restricted Units vested was \$596, \$534 and \$445 million in 2018, 2017 and 2016, respectively. As of December 31, 2018, there was \$495 million of total unrecognized compensation cost related to nonvested Restricted Units. That cost is expected to be recognized over a weighted-average period of three years and two months.

Long-Term Incentive Performance Award Program

We award Restricted Units in conjunction with our Long-Term Incentive Performance Award program to certain eligible employees. Performance targets are equally-weighted among consolidated operating return on invested capital, growth in currency-constant consolidated revenue and total shareowner return relative ("RTSR") to a peer group of companies. The Restricted Units granted under this award vest at the end of a three-year period (except in the case of death, in which case immediate vesting occurs on a prorated basis. In the case of disability and retirement, vesting occurs at the end of the three-year period on a prorated basis). The number of Restricted Units earned will be based on the percentage achievement of the performance targets set forth on the grant date. The range of percentage achievement can vary from 0% to 200% of the target award.

For the two-thirds of the award related to consolidated operating return on invested capital and growth in currencyconstant consolidated revenue, we recognize the grant date fair value of these units (less estimated forfeitures) as compensation expense ratably over the vesting period, based on the number of awards expected to be earned. The remaining one-third of the award related to RTSR is valued using a Monte Carlo model. This portion of the award is recognized as compensation expense (less estimated forfeitures) ratably over the vesting period.

The weighted-average assumptions used, by year, and the calculated weighted-average fair values of the RTSR portion of the grants, are as follows:

	2018	2017	2016
Risk-free interest rate	2.61%	1.46%	1.00%
Expected volatility	16.51%	16.59%	16.46%
Weighted-average fair value of units granted	\$ 137.57 \$	119.29	\$ 136.18
Share payout	123.47%	113.55%	129.08%

There is no expected dividend yield as units earn dividend equivalents.

As of December 31, 2018, we had the following Restricted Units outstanding, including reinvested dividends, that were granted under our Long-Term Incentive Performance Award program:

	Shares (in thousands)	W	/eighted-Average Grant Date Fair Value	Weighted-Average Remaining Contractual Term (in years)	ţ	Aggregate Int Value (in mill	
Nonvested at January 1, 2018	1,787	\$	105.58				
Vested	(912)		105.60				
Granted	957		111.42				
Reinvested Dividends	79		N/A				
Forfeited / Expired	(210)		107.98				
Nonvested at December 31, 2018	1,701	\$	108.63	1.4	19	\$	166
Restricted Units Expected to Vest	1,631	\$	108.64	1.5	50	\$	159

The fair value of each Restricted Unit is the NYSE closing price of class B common stock on the date of grant. The weighted-average grant date fair value of Restricted Units granted during 2018, 2017 and 2016 was \$111.42, \$105.65 and \$105.50, respectively. The total fair value of Restricted Units vested was \$97, \$71 and \$13 million in 2018, 2017 and 2016, respectively. As of December 31, 2018, there was \$102 million of total unrecognized compensation cost related to nonvested Restricted Units. That cost is expected to be recognized over a weighted-average period of one year and nine months.

Non-qualified Stock Options

We maintain fixed stock option plans, under which options are granted to purchase shares of UPS class A common stock. Stock options granted in connection with the UPS Incentive Compensation Plan must have an exercise price at least equal to the NYSE closing price of UPS class B common stock on the date the option is granted.

Executive officers and certain senior managers receive a non-qualified stock option grant annually, in which the value granted is determined as a percentage of salary. Options granted generally vest over a five-year period with approximately 20% of the award vesting at each anniversary date of the grant. All options granted are subject to earlier cancellation or vesting under certain conditions. The options granted will expire ten years after the date of the grant. Option holders may exercise their options via the tender of cash or class A common stock and new class A shares are issued upon exercise.

The following is an analysis of options to purchase shares of class A common stock issued and outstanding:

	Shares (in thousands)	Shares Exercise Contractual Te		Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrins Value (in million	
Outstanding at January 1, 2018	1,291	\$	91.58			
Exercised	(178)		84.79			
Granted	279		106.38			
Forfeited / Expired	(8)		104.87			
Outstanding at December 31, 2018	1,384	\$	95.36	6.28	\$	9
Options Vested and Expected to Vest	1,384	\$	95.36	6.28	\$	9
Exercisable at December 31, 2018	857	\$	89.36	5.05	\$	9

The fair value of each option grant is estimated using the Black-Scholes option pricing model. The weighted-average assumptions used, by year, and the calculated weighted-average fair values of options, are as follows:

	2	2018	2017	2016
Expected dividend yield		2.93%	2.89%	2.95%
Risk-free interest rate		2.84%	2.15%	1.62%
Expected life in years		7.5	7.5	7.5
Expected volatility		16.72%	17.81%	22.40%
Weighted-average fair value of options granted	\$	15.23 \$	14.70	\$ 16.46

Expected volatilities are based on the historical returns on our stock and the implied volatility of our publicly-traded options. The expected dividend yield is based on the recent historical dividend yields for our stock, taking into account changes in dividend policy. The risk-free interest rate is based on the term structure of interest rates at the time of the option grant. The expected life represents an estimate of the period of time options are expected to remain outstanding, and we have relied upon a combination of the observed exercise behavior of our prior grants with similar characteristics, the vesting schedule of the grants and an index of peer companies with similar grant characteristics in estimating this variable.

We received cash of \$12, \$41 and \$72 million during 2018, 2017 and 2016, respectively, from option holders resulting from the exercise of stock options. The total intrinsic value of options exercised during 2018, 2017 and 2016 was \$6, \$22 and \$24 million, respectively. As of December 31, 2018, there was \$2 million of total unrecognized compensation cost related to nonvested options. That cost is expected to be recognized over a weighted-average period of three years and six months.

The following table summarizes information about stock options outstanding and exercisable at December 31, 2018:

		Options Outstanding		Options Exercisable					
Exercise Price Range	Shares (in thousands)			Shares (in thousands)		ghted-Average Exercise Price			
\$55.01 - \$70.00	116	0.88	\$ 61.94	116	\$	61.94			
\$70.01 - \$80.00	168	2.81	75.79	168		75.79			
\$80.01 - \$90.00	104	4.17	82.89	104		82.89			
\$90.01 - \$110.00	996	7.72	103.88	469		102.49			
	1,384	6.28	\$ 95.36	857	\$	89.36			

Discounted Employee Stock Purchase Plan

We maintain an employee stock purchase plan for all eligible employees. Under this plan, shares of UPS class A common stock may be purchased at quarterly intervals at 95% of the NYSE closing price of UPS class B common stock on the last day of each quarterly period. Employees purchased 0.9 million shares at average prices of \$105.53, \$108.98 and \$99.27 per share during 2018, 2017 and 2016, respectively. This plan is not considered to be compensatory, and therefore no compensation cost is measured for the employees' purchase rights.

NOTE 12. SEGMENT AND GEOGRAPHIC INFORMATION

We report our operations in three segments: U.S. Domestic Package operations, International Package operations and Supply Chain & Freight operations. Package operations represent our most significant business and are broken down into regional operations around the world. Regional operations managers are responsible for both domestic and export products within their geographic area.

U.S. Domestic Package

Domestic Package operations include the time-definite delivery of letters, documents and packages throughout the United States.

International Package

International Package operations include delivery to more than 220 countries and territories worldwide, including shipments wholly outside the United States, as well as shipments with either origin or destination outside the United States. Our International Package reporting segment includes the operations of our Europe, Asia, Americas and ISMEA operating segments.

Supply Chain & Freight

Supply Chain & Freight includes our Forwarding, Logistics, Coyote, Marken, UPS Mail Innovations, UPS Freight and other aggregated business units. Our Forwarding, Logistics and UPS Mail Innovations units provide services in more than 200 countries and territories worldwide and include international air and ocean freight forwarding, customs brokerage, distribution and post-sales services, mail and consulting services. UPS Freight offers a variety of LTL and TL services to customers in North America. Coyote offers truckload brokerage services primarily in the United States. Marken is a global provider of supply chain solutions to the life sciences industry. Other aggregated business units within this segment include The UPS Store and UPS Capital.

In evaluating financial performance, we focus on operating profit as a segment's measure of profit or loss. Operating profit is before investment income (expense) and other, interest expense and income taxes. The accounting policies of the segments are the same as those described in the "Items Affecting Comparability" section of Management's Discussion and Analysis, with certain expenses allocated between the segments using activity-based costing methods. Unallocated assets are comprised primarily of cash, marketable securities and certain investment partnerships. In 2018, we changed the segment allocation methodology for certain shared assets. All prior periods have been recast to reflect this change in methodology.

Segment information for the years ended December 31, 2018, 2017 and 2016 is as follows (in millions):

	2018		2017		2016
Revenue:					
U.S. Domestic Package	\$ 43,593	\$	40,761	\$	38,284
International Package	14,442		13,342		12,346
Supply Chain & Freight	13,826		12,482		10,980
Consolidated	\$ 71,861	\$	66,585	\$	61,610
Operating Profit:	 				
U.S. Domestic Package	\$ 3,643	\$	4,303	\$	4,628
International Package	2,529		2,429		2,417
Supply Chain & Freight	852		797		643
Consolidated	\$ 7,024	\$	7,529	\$	7,688
Assets:	 				
U.S. Domestic Package	\$ 28,216	\$	25,449	\$	22,299
International Package	12,070		10,361		9,219
Supply Chain & Freight	8,411		8,267		7,841
Unallocated	1,319		1,497		1,186
Consolidated	\$ 50,016	\$	45,574	\$	40,545
Depreciation and Amortization Expense:	 				
U.S. Domestic Package	\$ 1,375	\$	1,479	\$	1,482
International Package	526		509		488
Supply Chain & Freight	306		294		254
Consolidated	\$ 2,207	\$	2,282	\$	2,224
		_		_	

Revenue by product type for the years ended December 31, 2018, 2017 and 2016 is as follows (in millions):

	2018	3 2017		2016
U.S. Domestic Package:				
Next Day Air	\$ 7,618	\$	7,088	\$ 6,752
Deferred	4,752		4,422	4,080
Ground	31,223		29,251	27,452
Total U.S. Domestic Package	43,593		40,761	38,284
International Package:				
Domestic	2,874		2,646	2,441
Export	10,973		10,170	9,369
Cargo	595		526	536
Total International Package	14,442		13,342	 12,346
Supply Chain & Freight:				
Forwarding	6,580		5,674	4,873
Logistics	3,234		3,017	2,644
Freight	3,218		3,000	2,737
Other	794		791	726
Total Supply Chain & Freight	 13,826		12,482	10,980
Consolidated	\$ 71,861	\$	66,585	\$ 61,610

Geographic information for the years ended December 31, 2018, 2017 and 2016 is as follows (in millions):

	2018		8 2017		2017		2016
United States:							
Revenue	\$ 56,115	\$	52,080	\$	48,434		
Long-lived assets	\$ 24,918	\$	21,141	\$	18,761		
International:							
Revenue	\$ 15,746	\$	14,505	\$	13,176		
Long-lived assets	\$ 8,577	\$	7,966	\$	6,700		
Consolidated:							
Revenue	\$ 71,861	\$	66,585	\$	61,610		
Long-lived assets	\$ 33,495	\$	29,107	\$	25,461		

Long-lived assets include property, plant and equipment, pension and postretirement benefit assets, long-term investments, goodwill and intangible assets.

No countries outside of the United States, nor any individual customers, provided 10% or more of consolidated revenue for the years ended December 31, 2018, 2017 or 2016.

NOTE 13. INCOME TAXES

The income tax expense (benefit) for the years ended December 31, 2018, 2017 and 2016 consists of the following (in millions):

	2018		2018 2		2017		2016
Current:							
U.S. Federal	\$	89	\$	671	\$ 1,338		
U.S. State and Local		7		49	67		
Non-U.S.		374		288	177		
Total Current		470		1,008	1,582		
Deferred:							
U.S. Federal		668		1,115	98		
U.S. State and Local		75		118	30		
Non-U.S.		15		(9)	(11)		
Total Deferred		758		1,224	117		
Total Income Tax Expense	\$	1,228	\$	2,232	\$ 1,699		

Income before income taxes includes the following components (in millions):

	2018	2017	2016	
United States	\$ 4,307	\$ 5,987	\$	4,307
Non-U.S.	1,712	1,150		814
Total Income Before Income Taxes:	\$ 6,019	\$ 7,137	\$	5,121

A reconciliation of the statutory federal income tax rate to the effective income tax rate for the years ended December 31, 2018, 2017 and 2016 consists of the following:

	2018	2017	2016
Statutory U.S. federal income tax rate	21.0%	35.0%	35.0%
U.S. state and local income taxes (net of federal benefit)	1.4	1.5	1.5
Non-U.S. tax rate differential	0.2	(2.0)	(2.4)
U.S. federal tax credits	(1.1)	(1.8)	(1.2)
Income tax benefit from the Tax Cuts and Jobs Act and other non-U.S. tax law changes	_	(3.6)	_
Defined benefit plans mark-to-market charge tax rate differential ⁽¹⁾		1.5	
Other	(1.1)	0.7	0.3
Effective income tax rate	20.4%	31.3%	33.2%

⁽¹⁾ Impact of applying Tax Act corporate rate enacted of 21% versus 35%

Our effective tax rate is affected by recurring factors, such as statutory tax rates in the jurisdictions in which we operate and the relative amounts of taxable income we earn in those jurisdictions. It is also affected by discrete items that may occur in any given year, but may not be consistent from year to year.

Our effective tax rate decreased to 20.4% in 2018, compared with 31.3% in 2017 and 33.2% in 2016, primarily due to the effects of the aforementioned recurring factors and the following discrete tax items.

Tax Cuts and Jobs Act

On December 22, 2017, the United States enacted into law the Tax Act. The Tax Act made broad and complex changes to the U.S. tax code, including a permanent corporate rate reduction to 21% and a transition to a territorial international system effective in 2018. The Tax Act includes provisions that affected 2017, including: (1) requiring a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries ("Transition Tax") that is payable over eight years; (2) requiring a remeasurement of all U.S. deferred tax assets and liabilities to the newly enacted corporate tax rate of 21% and (3) providing for additional first-year depreciation that allows full expensing of qualified property placed into service after September 27, 2017.

In late December 2017, the SEC staff issued Staff Accounting Bulletin ("SAB") 118, which provided guidance on accounting for the tax effects of the Tax Act. SAB 118 provides a measurement period that should not extend beyond one year from the Tax Act enactment date for companies to complete the related accounting under U.S. GAAP. We recorded a \$272 million provisional benefit inclusive of our Transition Tax liability, the change in our indefinite reinvestment assertion for certain foreign subsidiaries and the remeasurement of our U.S. net deferred tax liabilities for the year ended December 31, 2017. During the fourth quarter of 2018, we completed our accounting for the Tax Act based on the current regulatory guidance available at the end of the SAB 118 measurement period and recorded no material net adjustments to our provisional estimate.

The Tax Act also enacted provisions that took effect in 2018 including but not limited to: (1) a provision that imposes U.S. tax on certain foreign subsidiary income known as GILTI, (2) a new deduction for Foreign-Derived Intangible Income ("FDII"), (3) additional limitations on tax deductions for expenses such as interest and executive compensation, and (4) a new minimum tax based on certain payments from a U.S. company to foreign related parties known as the Base Erosion and Anti-Abuse Tax ("BEAT").

We included the impact of each of the newly effective Tax Act provisions in our computation of the 2018 income tax expense. Throughout 2018, the U.S. Department of the Treasury and Internal Revenue Service issued preliminary regulatory guidance clarifying certain provisions of the Tax Act, and we anticipate additional regulatory guidance and technical clarifications during 2019. When additional guidance is issued, we will recognize the related tax impact in the quarter of enactment.

2018 Discrete Items

The decrease in our effective tax rate was primarily due to the impact of the Tax Act which reduced the U.S. federal corporate income tax rate from 35% to 21% effective January 1, 2018.

In the fourth quarter of 2018, we recognized an income tax benefit of \$390 million related to pre-tax mark-to-market losses of \$1.627 billion on our pension and postretirement defined benefit plans. This income tax benefit was generated at a higher average tax rate than the 2018 U.S. federal statutory tax rate because it included the effect of U.S. state and local and foreign taxes.

We recorded pre-tax transformation strategy costs of \$360 million during the year ended December 31, 2018. As a result, we recorded an additional income tax benefit of \$87 million. This income tax benefit was generated at a higher average tax rate than the 2018 U.S. federal statutory tax rate due to the effect of U.S. state and local and foreign taxes.

The recognition of excess tax benefits and deficiencies related to share-based compensation in income tax expense resulted in a net tax benefit of \$38 million and reduced our effective tax rate by 0.6% during the year ended December 31, 2018.

Other factors that impacted our 2018 effective tax rate include favorable resolutions of uncertain tax positions, favorable U.S. state and local tax law changes, favorable tax provisions enacted in the Bipartisan Budget Act of 2018 and discrete tax credits associated with the filing of our 2017 U.S. federal income tax return.

2017 Discrete Items

In addition to the impact of the Tax Act described above, the following discrete items were recorded during the year ended December 31, 2017.

In the fourth quarter of 2017, we recognized an income tax benefit of \$193 million related to pre-tax mark-to-market losses of \$800 million on our pension and postretirement defined benefit plans. This income tax benefit was generated at a lower average tax rate than the 2017 U.S. federal statutory tax rate due to future tax rate changes enacted by the Tax Act and differences between U.S. and foreign statutory rates, which was partially offset by the effect of U.S. state and local taxes.

In the fourth quarter of 2017, tax law changes were enacted in certain non-U.S. jurisdictions in which we operate. As a result, we recorded a decrease to our foreign net deferred tax assets of \$14 million with a corresponding net increase to deferred tax expense of \$14 million for the year ended December 31, 2017.

In the first quarter of 2017, we adopted a new accounting standard that requires the recognition of excess tax benefits related to share-based compensation in income tax expense, which resulted in tax benefits for the year ended December 31, 2017 of \$71 million and reduced our effective tax rate by 1.0%.

2016 Discrete Items

In the fourth quarter of 2016, we recognized an income tax benefit of \$978 million related to pre-tax mark-to-market losses of \$2.651 billion on our pension and postretirement defined benefit plans. This income tax benefit was generated at a higher average tax rate than the U.S. federal statutory tax rate because it included the effect of U.S. state and local taxes.

Other Items

Beginning in 2012, we were granted a tax incentive for certain of our non-U.S. operations, which is effective through December 31, 2021. The tax incentive is conditional upon our meeting specific employment and investment thresholds. The impact of this tax incentive decreased non-U.S. tax expense by \$27 million (\$0.03 per share), \$24 million (\$0.03 per share) and \$21 million (\$0.02 per share) for 2018, 2017, and 2016, respectively.

Deferred income tax assets and liabilities are comprised of the following at December 31, 2018 and 2017 (in millions):

	2018	2017
Fixed assets and capitalized software	\$ (4,010)	\$ (3,288)
Other	(493)	(532)
Deferred tax liabilities	(4,503)	(3,820)
Pension and postretirement benefits	1,743	1,877
Loss and credit carryforwards	298	323
Insurance reserves	437	449
Stock compensation	189	182
Accrued employee compensation	274	266
Other	196	359
Deferred tax assets	3,137	3,456
Deferred tax assets valuation allowance	(112)	(126)
Deferred tax asset (net of valuation allowance)	3,025	3,330
Net deferred tax asset (liability)	\$ (1,478)	\$ (490)
Amounts recognized in the consolidated balance sheets:		
Deferred tax assets	\$ 141	\$ 266
Deferred tax liabilities	 (1,619)	 (756)
Net deferred tax asset (liability)	\$ (1,478)	\$ (490)

The valuation allowance changed by \$(14), \$(33) and \$(38) million during the years ended December 31, 2018, 2017 and 2016, respectively.

We have a U.S. federal capital loss carryforward of \$31 million as of December 31, 2018, \$30 million of which expires on December 31, 2021, and the remainder of which expires on December 31, 2022. In addition, we have U.S. state and local operating loss and credit carryforwards as follows (in millions):

	2	018	2017
U.S. state and local operating loss carryforwards	\$	1,014	\$ 1,215
U.S. state and local credit carryforwards	\$	80	\$ 83

The U.S. state and local operating loss carryforwards and credits can be carried forward for periods ranging from one year to indefinitely. We also have non-U.S. loss carryforwards of \$706 million as of December 31, 2018, the majority of which may be carried forward indefinitely. As indicated in the table above, we have established a valuation allowance for certain non-U.S. and state carryforwards due to the uncertainty resulting from a lack of previous taxable income within the applicable tax jurisdictions.

Undistributed earnings and profits ("E&P") of our foreign subsidiaries amounted to \$6.583 billion at December 31, 2018. As a result of the Tax Act, during the year ended December 31, 2017, we changed our indefinite reinvestment assertion with respect to the earnings of certain foreign subsidiaries. For all other foreign subsidiaries, we continue to assert that these earnings are indefinitely reinvested. \$1.458 billion of the undistributed E&P of our foreign subsidiaries is considered to be indefinitely reinvested and, accordingly, no deferred income taxes have been provided thereon. Upon distribution of those earnings in the form of dividends or otherwise, we would be subject to U.S. state and local taxes and withholding taxes payable in various jurisdictions. Determination of the amount of unrecognized deferred income tax liability is not practicable because of the complexities associated with its hypothetical calculation.

The following table summarizes the activity related to our uncertain tax positions (in millions):

	Tax	Interest	Penalties
Balance at January 1, 2016	\$ 148	\$ 53	\$ 6
Additions for tax positions of the current year	17		
Additions for tax positions of prior years	20	10	
Reductions for tax positions of prior years for:			
Changes based on facts and circumstances	(41)	(13)	
Settlements during the period		_	
Lapses of applicable statute of limitations	—	—	
Balance at December 31, 2016	144	50	6
Additions for tax positions of the current year	16		
Additions for tax positions of prior years	33	14	3
Reductions for tax positions of prior years for:			
Changes based on facts and circumstances	(24)	(18)	
Settlements during the period	(6)	(3)	
Lapses of applicable statute of limitations	(3)		
Balance at December 31, 2017	160	43	9
Additions for tax positions of the current year	47		1
Additions for tax positions of prior years	7	10	
Reductions for tax positions of prior years for:			
Changes based on facts and circumstances	(43)	(8)	(5)
Settlements during the period	(1)	(1)	
Lapses of applicable statute of limitations	(3)		—
Balance at December 31, 2018	\$ 167	\$ 44	\$ 5

The total amount of gross uncertain tax positions as of December 31, 2018, 2017 and 2016 that, if recognized, would affect the effective tax rate was \$165, \$159 and \$142 million, respectively. Our continuing policy is to recognize interest and penalties associated with income tax matters as a component of income tax expense.

We file income tax returns in the U.S. federal jurisdiction, most U.S. state and local jurisdictions, and many non-U.S. jurisdictions. We have substantially resolved all U.S. federal income tax matters for tax years prior to 2015.

A number of years may elapse before an uncertain tax position is audited and ultimately settled. It is difficult to predict the ultimate outcome or the timing of resolution for uncertain tax positions. It is reasonably possible that the liability for uncertain tax positions could significantly increase or decrease within the next twelve months. Items that may cause changes to uncertain tax positions include the timing of interest deductions and the allocation of income and expense between tax jurisdictions. These changes could result from the settlement of ongoing litigation, the completion of ongoing examinations, the expiration of the statute of limitations, additional regulatory guidance on the Tax Act or other unforeseen circumstances. At this time, an estimate of the range of the reasonably possible change cannot be made.

NOTE 14. EARNINGS PER SHARE

The earnings per share amounts are the same for class A and class B common shares as the holders of each class are legally entitled to equal per share distributions whether through dividends or in liquidation.

The following table sets forth the computation of basic and diluted earnings per share (in millions, except per share amounts):

	2018		2017		2016
Numerator:					
Net income attributable to common shareowners	\$	4,791	\$	4,905	\$ 3,422
Denominator:					
Weighted-average shares		860		865	878
Deferred compensation obligations		1		1	1
Vested portion of restricted shares		5		5	4
Denominator for basic earnings per share		866		871	883
Effect of Dilutive Securities:					
Restricted performance units		4		3	3
Stock options		_		1	1
Denominator for diluted earnings per share		870		875	887
Basic Earnings Per Share	\$	5.53	\$	5.63	\$ 3.88
Diluted Earnings Per Share	\$	5.51	\$	5.61	\$ 3.86

Diluted earnings per share for the years ended December 31, 2018, 2017 and 2016 exclude the effect of 0.2, 0.1 and 0.2 million shares, respectively, of common stock that may be issued upon the exercise of employee stock options because such effect would be antidilutive.

NOTE 15. DERIVATIVE INSTRUMENTS AND RISK MANAGEMENT

Risk Management Policies

Changes in fuel prices, interest rates and foreign exchange rates impact our results of operations. These exposures are actively monitored by management. To manage the impact of these exposures, we enter into a variety of derivative financial instruments. Our objective is to manage, where it is deemed appropriate to do so, fluctuations in earnings and cash flows associated with changes in foreign currency rates, commodity prices and interest rates. It is our policy and practice to use derivative financial instruments only to the extent necessary to manage exposures. As we use price sensitive instruments to hedge a certain portion of our existing and anticipated transactions, we expect that any loss in value for those instruments generally would be offset by increases in the value of those hedged transactions. We do not hold or issue derivative financial instruments for trading or speculative purposes.

Credit Risk Management

The forward contracts, swaps and options discussed below contain an element of risk that the counterparties may be unable to meet the terms of the agreements; however we seek to minimize such risk exposures for these instruments by limiting the counterparties to banks and financial institutions that meet established credit guidelines and by monitoring counterparty credit risk to prevent concentrations of credit risk with any single counterparty.

We have agreements with all of our active counterparties (covering the majority of our derivative positions) containing early termination rights and/or zero threshold bilateral collateral provisions whereby cash is required based on the net fair value of derivatives associated with those counterparties.

At December 31, 2018 and 2017, we held cash collateral of \$325 and \$17 million, respectively, under these agreements; this collateral is included in "Cash and cash equivalents" on the consolidated balance sheets and its use by UPS is not restricted. At December 31, 2018 and 2017, \$0 and \$174 million, respectively, of additional collateral was required to be posted with our counterparties.

Events such as a counterparty credit rating downgrade (depending on the ultimate rating level) could also allow us to take additional protective measures such as the early termination of trades. The amount of collateral required would be determined by the net fair value of the associated derivatives with each counterparty. We have not historically incurred, and do not expect to incur in the future, any losses as a result of counterparty default. At December 31, 2018, there were no instruments in a net liability position that were not covered by the zero threshold bilateral collateral provisions.

Accounting Policy for Derivative Instruments

We recognize all derivative instruments as assets or liabilities on the consolidated balance sheets at fair value. The accounting for changes in the fair value of a derivative instrument depends on whether it has been designated and qualifies as part of a hedging relationship and, further, on the type of hedging relationship. For those derivative instruments that are designated and qualify as hedging instruments, a company must designate the derivative, based upon the exposure being hedged, as a cash flow hedge, a fair value hedge or a hedge of a net investment in a foreign operation.

A cash flow hedge refers to hedging the exposure to variability in expected future cash flows that is attributable to a particular risk. For derivative instruments that are designated and qualify as a cash flow hedge, the effective portion of the gain or loss on the derivative instrument is reported as a component of AOCI, and reclassified into earnings in the same period during which the hedged transaction affects earnings. The remaining gain or loss on the derivative instrument in excess of the cumulative change in the present value of future cash flows of the hedged item, or hedge components excluded from the assessment of effectiveness, are recognized in the statements of consolidated income during the current period.

A fair value hedge refers to hedging the exposure to changes in the fair value of an existing asset or liability on the consolidated balance sheets that is attributable to a particular risk. For derivative instruments that are designated and qualify as a fair value hedge, the gain or loss on the derivative instrument is recognized in the statements of consolidated income during the current period, as well as the offsetting gain or loss on the hedged item.

A net investment hedge refers to the use of cross currency swaps, forward contracts or foreign currency denominated debt to hedge portions of our net investments in foreign operations. For hedges that meet the effectiveness requirements, the net gains or losses attributable to changes in spot exchange rates are recorded in the foreign currency translation adjustment within AOCI. The remainder of the change in value of such instruments is recorded in earnings.

Types of Hedges

Commodity Risk Management

Currently, the fuel surcharges that we apply to our domestic and, international package and LTL services are the primary means of reducing the risk of adverse fuel price changes on our business. In order to mitigate the impact of fuel surcharges imposed on us by outside carriers, we regularly adjust the rates we charge for our freight brokerage, inter-modal and truckload services. We periodically enter into derivative contracts on energy commodity products to manage the price risk associated with forecasted transactions involving refined fuels, principally jet-A, diesel and unleaded gasoline. The objective of the hedges is to reduce the variability of cash flows, due to changing fuel prices, associated with the forecasted transactions involving those products. We normally designate and account for these contracts as cash flow hedges of the underlying forecasted transactions involving these fuel products and, therefore, the resulting gains and losses from these hedges are recognized as a component of fuel expense or revenue when the underlying transactions occur.

Foreign Currency Risk Management

To protect against the reduction in value of forecasted foreign currency cash flows from our international package business, we maintain a foreign currency cash flow hedging program. Our most significant foreign currency exposures relate to the Euro, British Pound Sterling, Canadian Dollar, Chinese Renminbi and Hong Kong Dollar. We hedge portions of our forecasted revenue denominated in foreign currencies with option and forward contracts. We normally designated and account for these contracts as cash flow hedges of anticipated foreign currency denominated revenue and, therefore, the resulting gains and losses from these hedges are recognized as a component of international package revenue when the underlying sales transactions occur.

We also hedge portions of our anticipated cash settlements of intercompany transactions and interest payments on certain debt subject to foreign currency remeasurement using foreign currency forward contracts. We normally designate and account for these contracts as cash flow hedges of forecasted foreign currency denominated transactions; therefore the resulting gains and losses from these hedges are recognized as a component of investment income (expense) and other when the underlying transactions are subject to currency remeasurement.

We hedge our net investment in certain foreign operations with foreign currency denominated debt instruments. The use of foreign denominated debt as the hedging instrument allows the debt to be remeasured to foreign currency translation adjustment within AOCI to offset the translation risk from those investments. Any ineffective portion of net investment hedging is recognized as a component of investment income (expense) and other. Balances in the cumulative translation adjustment accounts remain until the sale or complete liquidation of the foreign entity.

Interest Rate Risk Management

Our indebtedness under our various financing arrangements creates interest rate risk. We use a combination of derivative instruments as part of our program to manage the fixed and floating interest rate mix of our total debt portfolio and related overall cost of borrowing. The notional amount, interest payment date and maturity date of the swaps match the terms of the associated debt being hedged. Interest rate swaps allow us to maintain a target range of floating-rate debt within our capital structure.

We have designated and account for the majority of our interest rate swaps that convert fixed-rate interest payments into floating-rate interest payments as hedges of the fair value of the associated debt instruments. Therefore, the gains and losses resulting from fair value adjustments to the interest rate swaps and fair value adjustments to the associated debt instruments are recorded to interest expense in the period in which the gains and losses occur. We have designated and account for interest rate swaps that convert floating-rate interest payments into fixed-rate interest payments as cash flow hedges of the forecasted payment obligations. The gains and losses resulting from fair value adjustments to the interest rate swaps are recorded to AOCI.

We periodically hedge the forecasted fixed-coupon interest payments associated with anticipated debt offerings by, using forward starting interest rate swaps, interest rate locks or similar derivatives. These agreements effectively lock a portion of our interest rate exposure between the time the agreement is entered into and the date when the debt offering is completed, thereby mitigating the impact of interest rate changes on future interest expense. These derivatives are settled commensurate with the issuance of the debt, and any gain or loss upon settlement is amortized as an adjustment to the effective interest yield on the debt.

Outstanding Positions

The notional amounts of our outstanding derivative positions were as follows as of December 31, 2018 and 2017 (in millions):

		2018	2017
Currency Hedges:			
Euro	EUR	4,924	4,942
British Pound Sterling	GBP	2,037	1,736
Canadian Dollar	CAD	1,443	1,259
Hong Kong Dollar	HKD	3,642	
Mexican Peso	MXN		169
Singapore Dollar	SGD	20	11
Interest Rate Hedges:			
Fixed to Floating Interest Rate Swaps	USD	4,674	5,424
Floating to Fixed Interest Rate Swaps	USD	778	778
Investment Market Price Hedges:			
Marketable Securities	EUR	_	64

As of December 31, 2018, we had no outstanding commodity hedge positions.

Balance Sheet Recognition

The following table indicates the location on the consolidated balance sheets where our derivative assets and liabilities have been recognized, and the related fair values of those derivatives as of December 31, 2018 and 2017 (in millions). The table is segregated between those derivative instruments that qualify and are designated as hedging instruments and those that are not, as well as by type of contract and whether the derivative is in an asset or liability position.

We have master netting arrangements with substantially all of our counterparties giving us the right of offset for our derivative positions. However, we have not elected to offset the fair value positions of the derivative contracts recorded on our consolidated balance sheets. The columns labeled "Net Amounts if Right of Offset had been Applied" indicate the potential net fair value positions by type of contract and location on the consolidated balance sheets had we elected to apply the right of offset.

	Gross Amounts Presented in Consolidated Balance Sheets					Net Amounts if Right of Offset had been Applied					
Asset Derivatives	Balance Sheet Location		2018	2017			2018		2018		2017
Derivatives Designated As Hedges:											
Foreign exchange contracts	Other current assets	\$	90	\$	2	\$	83	\$	_		
Interest rate contracts	Other current assets		1		1		1		1		
Foreign exchange contracts	Other non-current assets		230		1		215				
Interest rate contracts	Other non-current assets		14		59		6		43		
Derivatives Not Designated As Hedges:											
Foreign exchange contracts	Other current assets		7		18		5		17		
Foreign exchange contracts	Other non-current assets		1				1				
Interest rate contracts	Other non-current assets		18		26		18		26		
Total Asset Derivatives		\$	361	\$	107	\$	329	\$	87		

		Gross Amounts Presented in Consolidated Balance Sheets					ints if Right of I been Applied								
Liability Derivatives	Balance Sheet Location	2018		2018		2017		2017		.8 2017		2017 2018		2018 2017	
Derivatives Designated As Hedges:															
Foreign exchange contracts	Other current liabilities	\$	7	\$	93	\$		\$	91						
Interest rate contracts	Other current liabilities														
Foreign exchange contracts	Other non-current liabilities		15		194				193						
Interest rate contracts	Other non-current liabilities		41		28		33		12						
Derivatives Not Designated As Hedges:															
Foreign exchange contracts	Other current liabilities		3		1		1		—						
Investment market price contracts	Other current liabilities		_		16		_		16						
Foreign exchange contracts	Other non-current liabilities		1				1		—						
Total Liability Derivatives		\$	67	\$	332	\$	35	\$	312						

Income Statement and AOCI Recognition

The following table indicates the amount of gains and losses that have been recognized in AOCI within "unrealized gain (loss) on cash flow hedges" for the years ended December 31, 2018 and 2017 for those derivatives designated as cash flow hedges (in millions):

	Amou	nt of Gain (Loss) F Derivative (Effe	Recogniz ective Po	ed in AOCI on ortion)	
Derivative Instruments in Cash Flow Hedging Relationships	Flow Hedging Relationships 2018				
Interest rate contracts	\$	1	\$		
Foreign exchange contracts		563		(506)	
Total	\$	564	\$	(506)	

As of December 31, 2018, \$84 million of pre-tax gains related to cash flow hedges that are currently deferred in AOCI are expected to be reclassified to income over the 12 month period ended December 31, 2019. The actual amounts that will be reclassified to income over the next 12 months will vary from this amount as a result of changes in market conditions. The maximum term over which we are hedging exposures to the variability of cash flow is 14 years.

The amount of ineffectiveness recognized in income on derivative instruments designated in cash flow hedging relationships was immaterial for the years ended December 31, 2018, 2017 and 2016.

The following table indicates the amount of gains and losses that have been recognized in AOCI within "foreign currency translation gain (loss)" for the years ended December 31, 2018 and 2017 for those instruments designated as net investment hedges (in millions):

	Amou	t of Gain (Loss) Recognized in AOCI on Debt (Effective Portion)			
Non-derivative Instruments in Net Investment Hedging Relationships		2018		2017	
Foreign denominated debt	\$	211	\$	(428)	
Total	\$	211	\$	(428)	

The amount of ineffectiveness recognized in income on non-derivative instruments designated in net investment hedging relationships was immaterial for the years ended December 31, 2018, 2017 and 2016.

The following table indicates the amount and location in the statements of consolidated income in which derivative gains and losses, as well as the associated gains and losses on the underlying exposure, have been recognized for those derivatives designated as fair value hedges for the years ended December 31, 2018 and 2017 (in millions):

	Location of Gain (Loss) Recognized in	Amount of Gain (Loss Recognized in Income				Hedged Items in Fair Value Hedging	Location of Gain (Loss) Recognized in	Amount of Gain (Loss) Recognized in Income			
	Income		2018		2017	Relationships	Income	2018		2017	
Interest rate contracts	Interest Expense	\$	(57)	\$	(84)	Fixed-Rate Debt and Capital Leases	Interest Expense	\$	57	\$	84

Additionally, we maintain some interest rate swaps, foreign exchange currency forwards and investment market price forward contracts that are not designated as hedges. These interest rate swap contracts are intended to provide an economic hedge of portions of our outstanding debt. These foreign exchange forward contracts are intended to provide an economic offset to foreign currency remeasurement and settlement risks for certain assets and liabilities in our consolidated balance sheets. These investment market price forward contracts are intended to provide an economic offset in market price forward contracts are intended to provide an economic offset in market price forward contracts are intended to provide an economic offset to fair value fluctuations of certain investments in marketable securities.

We also periodically terminate interest rate swaps and foreign exchange currency options by entering into offsetting swap and foreign currency positions with different counterparties. As part of this process, we de-designate our original swap and foreign exchange currency contracts. These transactions provide an economic offset that effectively eliminates the effects of changes in market valuation.

The following is a summary of the amounts recorded in the statements of consolidated income related to fair value changes and settlements of these foreign currency forwards, interest rate swaps, investment market price and commodity contracts not designated as hedges for the years ended December 31, 2018 and 2017 (in millions):

Derivative Instruments Not Designated in	Location of Gain (Loss) Recognized		Amount of Gain (Loss) Recognized in Income						
Hedging Relationships	in Income		2018	2017					
Foreign exchange contracts	Investment income (expense) and other	\$	(102) \$	60					
Investment market price contracts	Investment income (expense) and other		16	(5)					
Interest rate contracts	Interest Expense		(9)	(9)					
Total		\$	(95) \$	46					
UNITED PARCEL SERVICE, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Fair Value Measurements

Our foreign currency, interest rate and investment market price derivatives are largely comprised of over-the-counter derivatives, which are primarily valued using pricing models that rely on market observable inputs such as yield curves, currency exchange rates and commodity forward prices, and therefore are classified as Level 2. The fair values of our derivative assets and liabilities as of December 31, 2018 and 2017 by hedge type are as follows (in millions):

	Active Ma for Identical A	Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Significant Observable Unobservable Inputs Inputs (Level 2) (Level 3)		Total			
2018									
Assets:									
Foreign Exchange Contracts	\$	—	\$	328	\$	—	\$	32	28
Interest Rate Contracts				33				,	33
Total	\$	_	\$	361	\$		\$	3	61
Liabilities:									—
Foreign Exchange Contracts	\$	—	\$	25	\$	—	\$	Í	25
Investment Market Price Contracts		_		_					_
Interest Rate Contracts				42		—			42
Total	\$		\$	67	\$		\$		67
		Quoted Prices in Active Markets for Identical Assets (Level 1)							
	Active Ma for Identical A	arkets Assets	Ö Obs Iı	nificant Other ervable nputs evel 2)	Unol I	gnificant bservable (nputs Level 3)		Total	
2017	Active Ma for Identical A	arkets Assets	Ö Obs Iı	Other ervable 1puts	Unol I	bservable Inputs		Total	
Assets:	Active Ma for Identical (Level	arkets Assets	Ö Obs Iı (L	Other ervable nputs evel 2)	Unol I (L	bservable Inputs	_		
Assets: Foreign Exchange Contracts	Active Ma for Identical A	arkets Assets	Ö Obs Iı	Other ervable 1puts	Unol I	bservable Inputs	\$		21
Assets: Foreign Exchange Contracts Interest Rate Contracts	Active Ma for Identical (Level	arkets Assets	Ö Obs Iı (L	Other ervable nputs evel 2)	Unol I (L	bservable Inputs	\$		21 86
Assets: Foreign Exchange Contracts Interest Rate Contracts Total	Active Ma for Identical (Level	arkets Assets	Ö Obs Iı (L	Other ervable iputs evel 2) 21	Unol I (L	bservable Inputs	\$,	
Assets: Foreign Exchange Contracts Interest Rate Contracts	Active Ma for Identical (Level	arkets Assets	C Obs In (L \$	Other ervable aputs evel 2) 21 86	Unol I (L	bservable Inputs		,	86
Assets: Foreign Exchange Contracts Interest Rate Contracts Total Liabilities: Foreign Exchange Contracts	Active Ma for Identical (Level	arkets Assets	C Obs In (L \$	Other ervable aputs evel 2) 21 86	Unol I (L	bservable Inputs		1	86
Assets: Foreign Exchange Contracts Interest Rate Contracts Total Liabilities:	Active Ma for Identical A (Level \$ 	arkets Assets	\$	21 86 107	Unol I (L \$ \$	bservable Inputs	\$	10	86 07
Assets: Foreign Exchange Contracts Interest Rate Contracts Total Liabilities: Foreign Exchange Contracts	Active Ma for Identical A (Level \$ 	arkets Assets	\$	Other ervable pputs evel 2) 21 86 107 288	Unol I (L \$ \$	bservable Inputs	\$	10	86 07 88

UNITED PARCEL SERVICE, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 16. TRANSFORMATION STRATEGY

In the first quarter of 2018, we launched the first phase of a multi-year, enterprise-wide transformation strategy to modernize our business and operations and enhance quality and efficiency. Over the next few years additional transformation phases will be implemented. The program includes investments impacting global direct and indirect operating costs, as well as changes in processes and technology.

During the year ended December 31, 2018 we recorded pre-tax charges of \$360 million that reflect costs and other benefits of \$262 million of primarily voluntary severance included within "Compensation and benefits" on the statements of consolidated income, and other costs of \$98 million recorded to total other expenses. The after-tax transformation strategy costs totaled \$273 million. The income tax effects of the transformation strategy costs are calculated by multiplying the amount of the adjustments by the statutory tax rates applicable in each tax jurisdiction. There were no comparable costs for the twelve months of 2017.

NOTE 17. QUARTERLY INFORMATION (UNAUDITED)

Our revenue, segment operating profit, net income, basic and diluted earnings per share on a quarterly basis are presented below (in millions, except per share amounts):

	First	Quarter	Second Quarter		Third (Quarter	Fourth Quarter	
	2018	2017	2018	2017	2018	2017	2018	2017
Revenue:								
U.S. Domestic Package	\$10,227	\$ 9,536	\$10,354	\$ 9,741	\$10,437	\$ 9,651	\$12,575	\$11,833
International Package	3,533	3,074	3,602	3,171	3,478	3,376	3,829	3,721
Supply Chain & Freight	3,353	2,900	3,500	3,015	3,529	3,146	3,444	3,421
Total revenue	17,113	15,510	17,456	15,927	17,444	16,173	19,848	18,975
Operating Profit:								
U.S. Domestic Package	756	950	939	1,255	949	1,011	999	1,087
International Package	594	518	618	570	536	606	781	735
Supply Chain & Freight	170	149	216	212	242	195	224	241
Total operating profit	1,520	1,617	1,773	2,037	1,727	1,812	2,004	2,063
Total Other Income and (Expense)	\$ 141	\$ 93	\$ 153	\$ 82	\$ 162	\$ 125	\$ (1,461)	\$ (692)
Net Income	\$ 1,345	\$ 1,166	\$ 1,485	\$ 1,384	\$ 1,508	\$ 1,259	\$ 453	\$ 1,096
Net Income Per Share:								
Basic	\$ 1.55	\$ 1.33	\$ 1.71	\$ 1.59	\$ 1.74	\$ 1.45	\$ 0.52	\$ 1.26
Diluted	\$ 1.55	\$ 1.33	\$ 1.71	\$ 1.58	\$ 1.73	\$ 1.44	\$ 0.52	\$ 1.26

This table reflects the impact of the adoption of new accounting standards in 2018. Refer to note 1 to the audited consolidated financial statements.

Operating profit for the quarter ended June 30, 2018 was impacted by \$263 million of transformation strategy costs, which includes voluntary retirement plan severance costs of \$192 million and other costs of \$71 million. These costs were allocated between the U.S. Domestic Package segment (\$196 million), International Package segment (\$36 million) and Supply Chain & Freight segment (\$31 million). The transformation strategy costs reduced second quarter net income by \$200 million, and basic and diluted earnings per share by \$0.24 and \$0.23, respectively.

Operating profit for the quarter ended September 30, 2018 was impacted by \$97 million of transformation strategy costs. These costs were allocated between the U.S. Domestic Package segment (\$39 million), International Package segment (\$40 million) and Supply Chain & Freight segment (\$18 million). The transformation strategy costs reduced third quarter net income by \$73 million, and basic and diluted earnings per share by \$0.09.

Other income and (expense) for the quarter ended December 31, 2018 was impacted by a mark-to-market loss of \$1.627 billion on our pension and postretirement benefit plans related to the remeasurement of plan assets and liabilities recognized outside of a 10% corridor. This loss reduced net income by \$1.237 billion and basic and diluted earnings per share by \$1.43 and \$1.42, respectively.

UNITED PARCEL SERVICE, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Other income and (expense) for the quarter ended December 31, 2017 was impacted by a mark-to-market loss of \$800 million on our pension and postretirement benefit plans related to the remeasurement of plan assets and liabilities recognized outside of a 10% corridor. Net income for the quarter ended December 31, 2017 includes an income tax benefit of \$258 million attributable to the 2017 Tax Act. These items reduced fourth quarter net income by \$349 million and basic and diluted earnings per share by \$0.41 and \$0.40, respectively.

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:

As of the end of the period covered by this report, management, including our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the design and operation of our disclosure controls and procedures. Based upon, and as of the date of, the evaluation, our Chief Executive Officer and Chief Financial Officer concluded that the disclosure controls and procedures were effective to ensure that information required to be disclosed in the reports we file and submit under the Exchange Act is recorded, processed, summarized and reported as and when required and is accumulated and communicated to our management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control:

There were no changes in the Company's internal control over financial reporting during the quarter ended December 31, 2018 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Management's Report on Internal Control Over Financial Reporting:

UPS management is responsible for establishing and maintaining adequate internal control over financial reporting for United Parcel Service, Inc. and its subsidiaries (the "Company"). Based on the criteria for effective internal control over financial reporting established in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, management has assessed the Company's internal control over financial reporting as effective as of December 31, 2018. The independent registered public accounting firm of Deloitte & Touche LLP, as auditors of the consolidated balance sheets of United Parcel Service, Inc. and its subsidiaries as of December 31, 2018 and the related statements of consolidated income, consolidated comprehensive income and consolidated cash flows for the year ended December 31, 2018, has issued an attestation report on the Company's internal control over financial reporting, which is included herein.

Report of Independent Registered Public Accounting Firm

To the Shareowners and Board of Directors of United Parcel Service, Inc. Atlanta, Georgia

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of United Parcel Service, Inc. and subsidiaries (the "Company") as of December 31, 2018, 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 Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated financial statements as of and for the year ended December 31, 2018 of the Company and our report dated February 21, 2019, expressed an unqualified opinion on those financial statements and included an explanatory paragraph regarding the Company's adoption of new accounting standards.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

/s/ Deloitte & Touche LLP

Atlanta, Georgia February 21, 2019

Item 9B. *Other Information*

None.

PART III

Item 10. *Directors, Executive Officers and Corporate Governance* Executive Officers of the Registrant

Name and Office	Age	Principal Occupation and Employment For the Last Five Years
David P. Abney Chairman and Chief Executive Officer	63	Chief Executive Officer (2014 - present), Chairman (2016 - present) Senior Vice President and Chief Operating Officer (2007 - 2014).
James J. Barber, Jr. Senior Vice President and President, Chief Operating Officer	58	Chief Operating Officer (2018 - present) President, UPS International (2013 - 2018), Chief Operating Officer, UPS Europe, Middle East and Africa (2010 - 2013).
Norman M. Brothers, Jr. Senior Vice President, General Counsel and Corporate Secretary	51	Senior Vice President, General Counsel and Corporate Secretary (2016 - present), Corporate Legal Department Manager (2014 - 2016), Vice President, Corporate Legal (2004 - 2014).
Nando Cesarone Senior Vice President and President, UPS International	47	President, UPS International (2018 - present), Europe Region Manager (2016 - 2018), Asia Pacific Region Manager (2013 - 2016).
Philippe Gilbert Senior Vice President and President, UPS Supply Chain Solutions	54	President, Supply Chain Solutions (2019 - present), Regional CEO of the Americas, DB Schenker Logistics (2015 - 2018), Regional CEO for West Europe, DB Schenker Logistics (2013 - 2015).
Kate M. Gutmann Senior Vice President, Chief Sales and Solutions Officer	50	Chief Sales and Solutions Officer; Senior Vice President The UPS Store and UPS Capital (2017 - present), Senior Vice President, Worldwide Sales and Solutions (2014 - 2017), President, Worldwide Sales (2011 - 2014).
Teri P. McClure Senior Vice President, Chief Human Resources Officer, Labor Relations	55	Chief Human Resources Officer and Senior Vice President, Labor (2016 - present), Chief Legal, Communications and Human Resources Officer (2015 - 2016), Senior Vice President of Legal, Compliance and Public Affairs, General Counsel and Corporate Secretary (2006 - 2014).
Richard N. Peretz Senior Vice President, Chief Financial Officer and Treasurer	57	Chief Financial Officer (2015 - present), Corporate Controller and Treasurer (2014 - 2015), Corporate Controller (2013 - 2015), Vice President of Corporate Finance and Accounting (2008 - 2013).
Juan R. Perez Senior Vice President, Chief Information Officer	52	Chief Information Officer and Engineering Officer (2017 - present), Chief Information Officer (2016 - 2017), Vice President, Information Services (2011 - 2016).
Scott A. Price Senior Vice President, Chief Transformation Officer	56	Chief Strategy Transformation Officer (2017 - present), Walmart International Executive Vice President of Global Leverage - Walmart International, Walmart Stores, Inc. (2017 - 2017), Chief Administrative Officer and Executive Vice President - Walmart International, Walmart Store Inc. (2016 - 2017), Chief Executive Officer and President of Walmart Asia Pte. Ltd (2014 - 2016).
Kevin Warren Senior Vice President, Chief Marketing Officer	56	Chief Marketing Officer (2018 - present), Executive Vice-President and Chief Commercial Officer, Xerox Corp (2017 - 2018), President, Commercial Business Group, Xerox Corp. (2016 - 2017), President, Industrial, Retail and Hospitality Business Group, Xerox Corp. (2015 - 2016), President of Strategic Growth Initiatives, Xerox Corp. (2014 - 2015).
George Willis Senior Vice President and President, United States Operations	54	President, U.S. Operations (2018 - present), President, West Region (2015 - 2018), U.K., Ireland, and Nordics District Manager (2013 - 2015).

Information about our directors is presented under the caption "Our Board of Directors" in our definitive proxy statement for the Annual Meeting of Shareowners to be held on May 9, 2019 (the "Proxy Statement") and is incorporated herein by reference.

Information about our Audit Committee is presented under the caption "Our Board of Directors - Committees of the Board of Directors" and "Audit Committee Matters" in our Proxy Statement and is incorporated herein by reference.

Information about our Code of Business Conduct is presented under the caption "Where You Can Find More Information" in Part I, Item 1 of this report.

Information about our compliance with Section 16 of the Exchange Act of 1934, as amended, is presented under the caption "Ownership of Our Securities - Section 16(a) Beneficial Ownership Reporting Compliance" in our Proxy Statement and is incorporated herein by reference.

Item 11. Executive Compensation

Information about our board and executive compensation is presented under the captions "Our Board of Directors -Director Compensation" and "Executive Compensation" in our Proxy Statement and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information about security ownership is presented under the caption "Ownership of Our Securities - Securities Ownership of Certain Beneficial Owners and Management" in our Proxy Statement and is incorporated herein by reference.

Information about our equity compensation plans is presented under the caption "Executive Compensation - Equity Compensation Plans" in our Proxy Statement and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Information about transactions with related persons is presented under the caption "Corporate Governance - Conflicts of Interest and Related Person Transactions" in our Proxy Statement and is incorporated herein by reference.

Information about director independence is presented under the caption "Corporate Governance - Director Independence" in our Proxy Statement and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

Information about aggregate fees billed to us by our principal accountant is presented under the caption "Audit Committee Matters - Principal Accounting Firm Fees" in our Proxy Statement and is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

- (a) Documents filed as a part of this report:
 - 1. Financial Statements.

See Item 8 for the financial statements filed with this report.

2. Financial Statement Schedules.

None.

3. Exhibits.

See the Exhibit Index below for a list of the exhibits incorporated by reference into or filed with this report.

(b) Exhibits Required To Be Filed

See Item 15(a)1 above

(c) Financial Statement Schedules Required To Be Filed

See Item 15(a) 2 above

Item 16. Form 10-K Summary

None

EXHIBIT INDEX

Exhibit No.		Description
3.1		Restated Certificate of Incorporation of United Parcel Service, Inc. (incorporated by reference to Exhibit 3.3 to Form 8-K filed on May 12, 2010).
3.2		Amended and Restated Bylaws of United Parcel Service, Inc. as of November 17, 2017 (incorporated by reference to Exhibit 3.1 to Form 8-K, filed on November 17, 2017).
4.1		Indenture relating to 8 3/8% Debentures due April 1, 2020 (incorporated by reference to Exhibit 4(c) to Registration Statement No. 33-32481, filed on December 7, 1989)(1).
4.2		Indenture dated as of December 18, 1997 (incorporated by reference to Exhibit T-3C to Form T-3, filed on December 18, 1997) (1).
4.3	_	Indenture dated as of January 26, 1999 (incorporated by reference to Exhibit 4.1 to Pre-Effective Amendment No. 1 to Form S-3 (No. 333-08369), filed on January 26, 1999) (1).
4.4		Form of First Supplemental Indenture to Indenture dated as of January 26, 1999 (incorporated by reference to Exhibit 4.2 to Post-Effective Amendment No. 1 to Form S-3 (No. 333-08369-01), filed on March 15, 2000).
4.5		Second Supplemental Indenture dated as of September 21, 2001 to Indenture dated as of January 26, 1999 (incorporated by reference to Exhibit 4 to Form 10-Q for the quarter ended September 30, 2001).
4.6		Indenture dated as of August 26, 2003 (incorporated by reference to Exhibit 4.1 to Form S-3 (No. 333-108272), filed on August 27, 2003).
4.7		First Supplemental Indenture dated as of November 15, 2013 to Indenture dated as of August 26, 2003 (incorporated by reference to Exhibit 4.2 to Form S-3ASR (No. 333-192369), filed on November 15, 2013).
4.8		Second Supplemental Indenture dated as of May 18, 2017 (incorporated by reference to Exhibit 4.1 to Form 8-K, filed on May 18, 2017).
4.9	_	Form of 6.20% Senior Notes due January 15, 2038 (incorporated by reference to Exhibit 4.3 to Form 8-K, filed on January 15, 2008).
4.10		Form of 5.125% Senior Notes due April 1, 2019 (incorporated by reference to Exhibit 4.2 to Form 8-K, filed on March 24, 2009).
4.11	_	Form of 3.125% Senior Notes due January 15, 2021 (incorporated by reference to Exhibit 4.1 to Form 8-K, filed on November 12, 2010).
4.12		Form of 4.875% Senior Notes due November 15, 2040 (incorporated by reference to Exhibit 4.2 to Form 8-K, filed on November 12, 2010).
4.13		Form of 2.450% Senior Notes due October 1, 2022 (incorporated by reference to Exhibit 4.2 to Form 8-K, filed on September 27, 2012).
4.14	_	Form of 3.625% Senior Notes due October 1, 2042 (incorporated by reference to Exhibit 4.3 to Form 8-K, filed on September 27, 2012).
4.15	_	Form of Floating Rate Senior Notes due December 15, 2064 (incorporated by reference to Exhibit 4.1 to Form 8-K, filed on December 15, 2014).
4.16		Form of Floating Rate Senior Notes due September 15, 2065 (incorporated by reference to Exhibit 4.1 to Form 8-K, filed on September 17, 2015).
4.17	_	Form of Floating Rate Senior Notes due July 15, 2020 (incorporated by reference to Exhibit 4.1 to Form 8-K, filed on November 20, 2015).
4.18		Form of 1.625% Senior Notes due November 15, 2025 (incorporated by reference to Exhibit 4.2 to Form 8-K, filed on November 20, 2015).
4.19		Form of Floating Rate Senior Notes due March 15, 2066 (incorporated by reference to Exhibit 4.1 to Form 8-K, filed on April 1, 2016).
4.20		Form of 2.40% Senior Notes Due November 2026 (incorporated by reference to Exhibit 4.2 to Form 8-K, filed on October 25, 2016).

4.21		Form of 3.40% Senior Notes Due November 2046 (incorporated by reference to Exhibit 4.3 to Form 8-K, filed on October 25, 2016).
4.22		Form of 1.00% Senior Notes Due November 2028 (incorporated by reference to Exhibit 4.1 to Form 8-K, filed on October 25, 2016).
4.23		Form of Floating Rate Senior Notes due March 15, 2067 (incorporated by reference to Exhibit 4.1 to Form 8-K, filed on March 31, 2017).
4.24	—	Form of Floating Rate Senior Notes due May 16, 2022 (incorporated by reference to Exhibit 4.1 to Form 8-K, filed on May 16, 2017).
4.25		Form of 2.350% Senior Notes due May 16, 2022 (incorporated by reference to Exhibit 4.2 to Form 8-K, filed on May 16, 2017).
4.26	—	Form of 2.125% Senior Notes due May 21, 2024 (incorporated by reference to Exhibit 4.2 to Form 8-K, filed on May 18, 2017).
4.27	—	Form of 0.375% Senior Notes due November 15, 2023 (incorporated by reference to Exhibit 4.1 to Form 8-K, filed on November 13, 2017).
4.28		Form of 1.500% Senior Notes due November 15, 2032 (incorporated by reference to Exhibit 4.2 to Form 8-K, filed on November 13, 2017).
4.29	—	Form of Floating Rate Senior Notes due April 1, 2021 (incorporated by reference to Exhibit 4.1 to Form 8-K, filed on November 14, 2017).
4.30		Form of Floating Rate Senior Notes due April 1, 2023 (incorporated by reference to Exhibit 4.2 to Form 8-K, filed on November 14, 2017).
4.31	—	Form of 2.050% Senior Notes due April 1, 2021 (incorporated by reference to Exhibit 4.3 to Form 8-K, filed on November 14, 2017).
4.32	—	Form of 2.500% Senior Notes due April 1, 2023 (incorporated by reference to Exhibit 4.4 to Form 8-K, filed on November 14, 2017).
4.33		Form of 2.800% Senior Notes due November 15, 2024 (incorporated by reference to Exhibit 4.5 to Form 8-K, filed on November 14, 2017).
4.34	—	Form of 3.050% Senior Notes due November 15, 2027 (incorporated by reference to Exhibit 4.6 to Form 8-K, filed on November 14, 2017).
4.35		Form of 3.750% Senior Notes due November 15, 2047 (incorporated by reference to Exhibit 4.7 to Form 8-K, filed on November 14, 2017).
4.36		Form of Floating Rate Senior Notes due November 15, 2067 (incorporated by reference to Exhibit 4.8 to Form 8-K, filed on November 14, 2017).
10.1		UPS Retirement Plan Amendment and Restatement Effective January 1, 2014 (incorporated by reference to Exhibit 10.1 to From 10-K for the year ended December 31, 2014).*
10.1(a)	—	Amendment No. 1 to UPS Retirement Plan, as Amended and Restated, effective as of June 30, 2016 (incorporated by reference to Exhibit 10.1 to Form 10-Q for the quarter ended June 30, 2016).*
10.1(b)		Amendment Four to the Amended and Restated UPS Retirement Plan effective June 23, 2017 (incorporated by reference to Exhibit 10.2 to Form 8-K, filed on June 27, 2017).*
10.2		UPS 401(k) Savings Plan, Amendment and Restatement effective as of January 1, 2017 (incorporated by reference to Exhibit 10.1 to Form 8-K, filed on June 27, 2017).*
10.3		UPS Restoration Savings Plan effective January 1, 2017 (incorporated by reference to Exhibit 10.3 to Form 8-K filed on June 27, 2017).*
10.4	—	Amendment One to the Amended and Restated UPS Excess Coordinating Benefit Plan effective June 23, 2017 (incorporated by reference to Exhibit 10.4 to Form 8-K filed on June 27, 2017).*
10.4(a)		UPS Excess Coordinating Benefit Plan, as Amended and Restated, effective as of January 1, 2012 (incorporated by reference to Exhibit 10.5 to the Form 10-K for the year ended December 31, 2012).*

10.5	 <u>United Parcel Service, Inc. 2012 Omnibus Incentive Compensation Plan (incorporated by reference to Annex A to</u> the Definitive Proxy Statement, filed on March 12, 2012).*
10.5(a)	 Form of Long-Term Incentive Performance Award Agreement (incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q for the quarter ended March 31, 2011).*
10.5(b)	— Form of Non-Management Director Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q for the quarter ended March 31, 2010).*
10.5(c)	 <u>UPS Management Incentive Program Terms and Conditions effective as of January 1, 2011 (incorporated by</u> reference to Exhibit 10.10(3) to the Form 10-K) for the year ended December 31, 2010).*
10.5(d)	— UPS Stock Option Program Terms and Conditions effective as of January 1, 2012 (incorporated by reference to Exhibit 10.7(4) to the Form 10-K for the year ended December 31, 2011).*
10.5(e)	 <u>UPS Long-Term Incentive Performance Program Terms and Conditions effective as of January 1, 2012</u> (incorporated by reference to Exhibit 10.7(5) to the Form 10-K for the year ended December 31, 2011).*
10.6	— Form of UPS Deferred Compensation Plan as Amended and Restated effective January 1, 2012 .*
10.6(a)	 <u>Amendment No. 1 to Amended and Restated UPS Deferred Compensation Plan (incorporated by reference to Exhibit 10.7(1) to the Form 10-K for the year ended December 31, 2012).*</u>
10.7	 <u>2015 Omnibus Incentive Compensation Plan (incorporated by reference to Annex A to the Definitive Proxy</u> <u>Statement filed on March 24, 2015).*</u>
10.8	 <u>2018 Omnibus Incentive Compensation Plan (incorporated by reference to Annex A to the Definitive Proxy</u> <u>Statement filed on March 16, 2018).*</u>
10.8(a)	— UPS Management Incentive Program Amended and Restated Terms and Conditions effective November 8, 2018.*
10.8(b)	— UPS Stock Option Program Amended and Restated Terms and Conditions effective November 8, 2018.*
10.8(c)	UPS Long-Term Incentive Performance Program Amended and Restated Terms and Conditions effective as of November 8, 2018.*
10.9	- Employment offer letter agreement between the Company and Scott Price, dated November 28, 2017.*
10.10	- Form of Protective Covenant Agreement between the Company and Scott Price.*
10.11	— Employment offer letter agreement between the Company and Kevin Warren, dated May 5, 2018.*
10.12	— Form of Protective Covenant Agreement between the Company and Kevin Warren.*
21	— <u>Subsidiaries</u>
23	— <u>Consent of Deloitte & Touche LLP.</u>
31.1	 <u>Certificate of the Chief Executive Officer Pursuant to Rule 13a-14(a)</u>, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	 <u>Certificate of the Chief Financial Officer Pursuant to Rule 13a-14(a)</u>, as adopted pursuant to Section 302 of the <u>Sarbanes-Oxley Act of 2002</u>.
32.1	 <u>Certification of the Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906</u> of the Sarbanes-Oxley Act of 2002.
32.2	 <u>Certification of the Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906</u> of the Sarbanes-Oxley Act of 2002.
101	— The following financial information from the Annual Report on Form 10-K for the year ended December 31, 2018, formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Income, (iii) the Consolidated Statements of Comprehensive Income (Loss), (iv) the Consolidated Statements of Cash Flows and (v) the Notes to the Consolidated Financial Statements.

⁽¹⁾ Filed in paper format.

^{*} Management contract or compensatory plan or arrangement.

SIGNATURES

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

UNITED PARCEL SERVICE, INC. (REGISTRANT)

By: /s/ DAVID P. ABNEY

David P. Abney

Chairman and Chief Executive Officer

Date: February 21, 2019

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/ DAVID P. ABNEY	Chairman, Chief Executive Officer and Director	February 21, 2019
David P. Abney	(Principal Executive Officer)	
/S/ RODNEY C. ADKINS	Director	February 21, 2019
Rodney C. Adkins		
/s/ MICHAEL J. BURNS	Director	February 21, 2019
Michael J. Burns		
/S/ WILLIAM R. JOHNSON	Director	February 21, 2019
William R. Johnson		
/s/ Dr. CANDACE KENDLE	Director	February 21, 2019
Candace Kendle		
/s/ ANN M. LIVERMORE	Director	February 21, 2019
Ann M. Livermore		
/s/ RUDY H.P. MARKHAM	Director	February 21, 2019
Rudy H. P. Markham		
/s/ FRANCK J. MOISON	Director	February 21, 2019
Franck J. Moison		
/S/ RICHARD N. PERETZ	Senior Vice President, Chief Financial Officer and Treasurer	February 21, 2019
Richard N. Peretz	(Principal Financial and Accounting Officer)	
/S/ CLARK T. RANDT, JR.	Director	February 21, 2019
Clark T. Randt, Jr.		
/s/ CHRISTIANA SMITH SHI	Director	February 21, 2019
Christiana Smith Shi		
/s/ JOHN T. STANKEY	Director	February 21, 2019
John T. Stankey		
/S/ CAROL B. TOMÉ	Director	February 21, 2019
Carol B. Tomé		
/S/ KEVIN M. WARSH	Director	February 21, 2019
Kevin M. Warsh		

Demen

2016 \$ 38,497 \$ 38,536

\$40,545

978 \$41,523 \$39,521

\$40,030 8.7% 12.7%

340 6,623

			\$ 4,905 \$ 3,422 \$ 4,840 \$ 3,0 800 2,651 118 1,0		
	2018	2017	2016	2015	2014
Reported / GAAP	\$ 4,791	\$ 4,905	\$ 3,422	\$ 4,840	\$ 3,034
Defined Benefit Plans Mark-to-Market Charge	1,627	800	2,651	118	1,062
Health & Welfare Plan Charges	-	-	-	-	1,102
Transformation Strategy	360				
Income Tax Expense (Benefit) from the Items Above	(477)	(193)	(978)	(39)	(807)
Income Tax Benefit from the Tax Cuts and Jobs Act and other non-U.S. tax					
law change	-	(258)	-	-	-
Adjusted	\$ 6,301	\$ 5,254	\$ 5,095	\$ 4,919	\$ 4,391

		0	perating Pro	ofit	
	2018	2017	2016	2015	2014
Reported / GAAP	\$ 7,024	\$ 7,529	\$ 7,688	\$ 7,243	\$ 6,770
Transformation Strategy	360	-	-	-	-
Health & Welfare Plan Charges	-	-	-	-	1,102
Adjusted	\$ 7,384	\$ 7,529	\$ 7,688	\$ 7,243	\$ 7,872

	Operating Profit							
	U.S. Dom	stic Package	Internatio	nal Package	Supply Cha	nain & Freight		
	2018	2017	2018	2017	2018	2017		
Reported / GAAP	\$ 3,643	\$ 4,303	\$ 2,529	\$ 2,429	\$ 852	\$ 797		
Transformation Strategy	235	-	76	-	49	-		
Adjusted	\$ 3,878	\$ 4,303	\$ 2,605	\$ 2,429	\$ 901	\$ 797		
Currency Adjustment		-	10	375	5	2		
Adjusted Currency Neutral	\$ 3,878	\$ 4,303	\$ 2,615	\$ 2,804	\$ 906	\$ 799		

	Revenue					
	U.S. Domestic Package		International Package		Supply Chain & Freight	
	2018	2017	2018	2017	2018	2017
Reported / GAAP	\$43,593	\$ 40,761	\$ 14,442	\$ 13,342	\$13,826	\$ 12,482
Currency Adjustment	-	-	(147)	325	(39)	(10)
Currency Neutral	\$43,593	\$40,761	\$14,295	\$13,667	\$13,787	\$ 12,472

	R	Return on Asse		
	2018	2017		
Beginning Balance (Reported / GAAP)	\$45,574	\$40,545		
Beginning Balance (Adjusted)	\$46,025	\$41,523		
Ending Balance (Reported / GAAP)	\$ 50,016	\$45,574		
Unrecognized Pension and Postretirement Benefit Costs (Net of Tax)		-		
Long-Term U.S. Deferred Tax Assets	477	451		
Adjusted Ending Balance	\$ 50,493	\$46,025	_	
Average Reported Balance ((Reported Beginning + Reported Ending) / 2)	\$47,795	\$43,060	-	
Average Adjusted Balance ((Adjusted Beginning + Adjusted Ending) / 2)	\$48,259	\$43,774	1	
Return on Reported Balance (Reported Net Income / Average Reported Balance)	10.0%	11.4%		
Return on Adjusted Balance (Adjusted Net Income / Average Adjusted Balance)	13.1%	12.0%		
		ed Capital aditures		
	20	018		
Reported / GAAP	\$	6,283		

	20
Reported / GAAP	\$
Principal Repayments of Capital Lease Obligations	
Adjusted	\$

Note: The adjustments denoted in the tables above are further described in our annual reports on Form 10-K for the years ended December 31, 2018, 2017, 2016, 2015, and 2014, as well as in the historical financial schedules on our investor relations website.

Note: We supplement the reporting of our financial information determined under Generally Accepted Accounting Principles ("GAAP") with certain non-GAAP financial measures, including net income, earnings per share, operating profit, operating margin, capital expenditures and return on assets adjusted for the non-comparable items listed in the tables above. We believe these adjusted measures provide meaningful information to assist investors and analysts in understanding our financial results and assessing our prospects for future performance. We believe these adjusted financial measures are important indicators of our recurring results of operations because they exclude items that may not be indicative of, or are unrelated to, our core operating results, and provide a better baseline for analyzing trends in our underlying businesses.

2018	2017	2016	2015	2014
\$ 5.51	\$ 5.61	\$ 3.86	\$ 5.34	\$ 3.28
1.87	0.90	2.98	0.13	1.15
-	-	-	-	1.19
0.41	-	-	-	-
(0.55)	(0.22)	(1.10)	(0.04)	(0.87)
-	(0.29)	-		-
\$ 7.24	\$ 6.00	\$ 5.74	\$ 5.43	\$ 4.75

	Op	erating Marg	gin	
2018	2017	2016	2015	2014
9.8%	11.3%	12.5%	12.2%	11.4%
0.5%	0.0%	0.0%	0.0%	0.0%
0.0%	0.0%	0.0%	0.0%	1.9%
10.3%	11.3%	12.5%	12.2%	13.3%

		Operatin	g Margin		
U.S. Domesti	c Package	International	Package	Supply Chain	& Freight
2018	2017	2018	2017	2018	2017
8.4%	10.6%	17.5%	18.2%	6.2%	6.4%
0.5%	0.0%	0.5%	0.0%	0.4%	0.0%
8.9%	10.6%	18.0%	18.2%	6.5%	6.4%

Curre	ncy Neutral I	Revenue	
	2018		
	Currency	2017	
	Neutral	As Reported	% Change
International Package	\$14,295	\$13,342	7.1%

Adjusted	Shareowner	rs' Equity
2018	2017	2016
\$ 1,024	\$ 430	\$ 2,501
\$ 4,593	\$ 3,851	\$ 5,210
\$ 3,037	\$ 1,024	\$ 430
3,906	3,569	3,421
-	-	-
\$ 6.943	\$ 4,593	\$ 3.851

INVESTOR INFORMATION

Our annual meeting of shareowners will be held at 8 a.m. on May 9, 2019, at the Hotel DuPont, 11th and Market Street, Wilmington, DE. Shareowners of record as of March 11, 2019, are entitled to vote at the meeting.

INVESTOR RELATIONS

You can contact our Investor Relations Department at:

UPS 55 Glenlake Parkway, NE Atlanta, GA 30328-3474 800.877.1503 or 404.828.6059 investors.ups.com

EXCHANGE LISTING

Our Class B common stock is listed on the New York Stock Exchange under the symbol "UPS".

TRANSFER AGENT AND REGISTRAR

Computershare

Send notices of address changes or questions regarding account status, stock transfer, lost certificates, or dividend payments to:

Regular Mail: UPS c/o Computershare PO Box 505002 Louisville, KY 40233-5002

or:

Expedited Delivery: UPS c/o Computershare 462 South 4th Street, Suite 1600 Louisville, KY 40202

FORM 10-K

Our Annual Report on Form 10-K for the year ended December 31, 2018 forms a part of this UPS 2018 Annual Report. If you would like an additional copy of our Form 10-K, you can access it through the Investor Relations website at www.investors.ups.com or at the Securities and Exchange Commission website, sec.gov. The Form 10-K also is available free of charge by calling, contacting via the website, or writing to the Investor Relations Department.

UPS SHAREOWNER SERVICES

Convenient access 24 hours a day, seven days a week.

Class A Common Shareowners www.computershare.com/ups 888.663.8325

Class B Common Shareowners www.computershare.com/ups 800.758.4674

Calls from outside the United States: 201.680.6612 TDD for hearing impaired: 800.231.5469 TDD for non-U.S. shareowners: 201.680.6610

DIRECT STOCK PURCHASE PLAN

To make an initial purchase of UPS Class B common stock online, visit www.computershare.com/Investor and go to "Invest Now". Follow the instructions provided to search for Investment Plans and access the Enrollment Wizard.

Current Class B shareowners can enroll in the plan online by accessing their accounts through www.computershare.com/ups or by calling 800.758.4674.

DIVIDEND REINVESTMENT PLAN

To reinvest dividends in additional UPS shares:

Class A and B Shareowners www.computershare.com/ups

ONLINE ACCESS TO SHAREOWNER ACCOUNT MATERIALS

Enroll in E-Communications, a self-service program that provides electronic notification and secure access to shareowner communications. To enroll, access your account at www.computershare.com/ups. After accessing your account select the "View Account" link to manage your holdings. Then click on "My Profile," select "Update" under "Communications" and follow the enrollment instructions.

UPS WEBSITES

Investor Relationsinvestors.ups.com
UPS Corporate ups.com
Sustainability/ Corporate Responsibility sustainability.ups.com
Services and Solutionsups.com/businesssolutions



55 Glenlake Parkway, NE, Atlanta, GA 30328-3474 www.ups.com

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