UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2019

Commission file number 1-812

UNITED TECHNOLOGIES CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**06-0570975**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
10 Farm Springs Road, Farmington, Connecticut	**06032**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (860) 728-7000

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock ($1 par value) (CUSIP 913017 10 9)	UTX	New York Stock Exchange
1.125% Notes due 2021 (CUSIP 913017 CD9)	UTX 21D	New York Stock Exchange
1.250% Notes due 2023 (CUSIP U91301 AD0)	UTX 23	New York Stock Exchange
1.150% Notes due 2024 (CUSIP 913017 CU1)	UTX 24A	New York Stock Exchange
1.875% Notes due 2026 (CUSIP 913017 CE7)	UTX 26	New York Stock Exchange
2.150% Notes due 2030 (CUSIP 913017 CV9)	UTX 30	New York Stock Exchange
Floating Rate Notes due 2020 (CUSIP 913017 CT4)	UTX 20B	New York Stock Exchange

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

Yes No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes ☐ No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes No ☐

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

Large Accelerated Filer	☒	Accelerated 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 Act).

Yes No

The aggregate market value of the voting Common Stock held by non-affiliates at June 30, 2019 was approximately $112,271,798,129, based on the New York Stock Exchange closing price for such shares on that date. For purposes of this calculation, the Registrant has assumed that its directors and executive officers are affiliates.

At January 31, 2020, there were 865,308,981 shares of Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Parts I, II and IV hereof incorporate by reference portions of the United Technologies Corporation 2019 Annual Report to Shareowners. Part III hereof incorporates by reference portions of the United Technologies Corporation Proxy Statement for the 2020 Annual Meeting of Shareowners.

UNITED TECHNOLOGIES CORPORATION
AND SUBSIDIARIES

Index to Annual Report
on Form 10-K for
Year Ended December 31, 2019

	Page
PART I	
Item 1. Business:	5
Cautionary Note Concerning Factors That May Affect Future Results	11
Item 1A. Risk Factors	13
Item 1B. Unresolved Staff Comments	23
Item 2. Properties	23
Item 3. Legal Proceedings	24
Item 4. Mine Safety Disclosures	25
PART II	
Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	25
Item 6. Selected Financial Data	25
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations	25
Item 7A. Quantitative and Qualitative Disclosures About Market Risk	25
Item 8. Financial Statements and Supplementary Data	26
Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	26
Item 9A. Controls and Procedures	26
Item 9B. Other Information	26
PART III	
Item 10. Directors, Executive Officers and Corporate Governance	28
Item 11. Executive Compensation	30
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	30
Item 13. Certain Relationships and Related Transactions, and Director Independence	30
Item 14. Principal Accounting Fees and Services	31
PART IV	
Item 15. Exhibits and Financial Statement Schedule	32
Item 16. Form 10-K Summary	37
SIGNATURES	38

UNITED TECHNOLOGIES CORPORATION

Annual Report on Form 10-K for
Year Ended December 31, 2019

Whenever reference is made in this Form 10-K to specific sections of United Technologies Corporation's 2019 Annual Report to Shareowners (2019 Annual Report), those sections are incorporated herein by reference and are included in Exhibit 13 to this Form 10-K. United Technologies Corporation and its subsidiaries' names, abbreviations thereof, logos, and product and service designators are all either the registered or unregistered trademarks or tradenames of United Technologies Corporation and its subsidiaries. Names, abbreviations of names, logos, and product and service designators of other companies are either the registered or unregistered trademarks or tradenames of their respective owners. As used herein, the terms "we," "us," "our," "the Company," or "UTC," unless the context otherwise requires, mean United Technologies Corporation and its subsidiaries. References to internet websites in this Form 10-K are provided for convenience only. Information available through these websites is not incorporated by reference into this Form 10-K.

PART I

Item 1. Business

General

United Technologies Corporation was incorporated in Delaware in 1934. UTC provides high technology products and services to the building systems and aerospace industries worldwide. Growth is attributable primarily to the internal development of our existing businesses and to acquisitions. The following description of our business should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our 2019 Annual Report, including the information contained therein under the heading "Business Overview."

Our operations for the periods presented herein are classified into four segments: Otis, Carrier, Pratt & Whitney, and Collins Aerospace Systems, with each segment comprised of groups of similar operating companies. References to each segment include the various operating companies established worldwide through which the operations for each segment are conducted.

Otis and Carrier (collectively referred to as the "commercial businesses") serve customers in the commercial, government, infrastructure and residential property sectors, and refrigeration and transport sectors worldwide. Pratt & Whitney and Collins Aerospace Systems (collectively referred to as the "aerospace businesses") primarily serve commercial and government customers in both the original equipment and aftermarket parts and services markets of the aerospace industry. For 2019, our commercial and industrial sales (generated principally by the commercial businesses) were approximately 41 percent of our consolidated sales, and our commercial and military aerospace sales (generated exclusively by our aerospace businesses) were approximately 42 percent and 17 percent, respectively, of our consolidated sales. International sales for 2019, including U.S. export sales, were 60 percent of our net sales.

On June 9, 2019, UTC entered into a merger agreement with Raytheon Company (Raytheon) providing for an all-stock merger of equals transaction. The Raytheon merger agreement provides, among other things, that each share of Raytheon common stock issued and outstanding immediately prior to the closing of the Raytheon merger (except for shares held by Raytheon as treasury stock) will be converted into the right to receive 2.3348 shares of UTC common stock. Upon the closing of the Raytheon merger, Raytheon will become a wholly-owned subsidiary of UTC, and UTC will change its name to Raytheon Technologies Corporation. On October 11, 2019, the shareowners of each of UTC and Raytheon approved the proposals necessary to complete the Raytheon merger. The Raytheon merger is expected to close early in the second quarter 2020 and is subject to customary closing conditions, including receipt of required regulatory approvals, as well as the completion of UTC's separation of its Otis and Carrier businesses (discussed below).

As has been previously disclosed, in November 2018, the Company announced its intention to separate into three independent companies. Following the separation transactions, the Company will operate as an aerospace company comprised of the Collins Aerospace Systems and Pratt & Whitney businesses, and Otis and Carrier will become separate independent companies. The proposed separation transactions are expected to be effected through spin-offs of Otis and Carrier that are intended to be tax-free for the Company's shareowners for U.S. federal income tax purposes, and are expected to be completed early in the second quarter of 2020. Separation of Otis and Carrier from UTC via spin-off transactions is subject to the satisfaction of customary conditions, including, among others, final approval by the Company's Board of Directors, receipt of tax rulings and a tax opinion from external counsel, the filing with the Securities and Exchange Commission (SEC) and effectiveness of Form 10 registration statements, and satisfactory completion of financing (subject to UTC's agreement to consummate the distributions pursuant to, and subject to the terms and conditions of, the Raytheon merger agreement).

This Form 10-K and our quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports are available free of charge through the Investors section of our Internet website (http://www.utc.com) under the heading "SEC Filings" as soon as reasonably practicable after these reports are electronically filed with, or furnished to, the SEC. In addition, the SEC maintains an Internet site (http://www.sec.gov) containing reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

Description of Business by Segment

Each segment's business, including its principal products and services and other material developments and information, is described below. Segment financial data for the years 2017 through 2019, including financial information about foreign and domestic operations and export sales, appears in Note 20 to the Consolidated Financial Statements in our 2019 Annual Report. Segment sales as discussed below include intercompany sales, which are ultimately eliminated within the "Eliminations and other" category as reflected in the segment financial data in Note 20 to the Consolidated Financial Statements in our 2019 Annual Report. Similarly, the total remaining performance obligation (RPO) discussed below includes intercompany RPO. See

Note 1 to the Consolidated Financial Statements in our 2019 Annual Report for further discussion of the accounting for RPO under Accounting Standards Codification (ASC) Topic 606: *Revenue from Contracts with Customers.*

Otis

Otis is the world's largest elevator and escalator manufacturing, installation and service company. Otis designs, manufactures, sells and installs a wide range of passenger and freight elevators, as well as escalators and moving walkways for residential and commercial buildings and infrastructure projects. In addition to new equipment, Otis performs maintenance and repair services for both its products and those of other manufacturers and provides modernization services to upgrade elevators and escalators. Otis serves customers in the commercial, residential and infrastructure property sectors around the world. Otis sells directly to the end customer and through sales representatives and distributors.

Sales generated by Otis' international operations were 73 percent of total Otis net sales in 2019 and 2018. Otis' RPO was $16.3 billion and $6.4 billion at December 31, 2019 and 2018, respectively. Of the total Otis RPO at December 31, 2019, approximately $8.7 billion is expected to be realized as sales in 2020.

Carrier

Carrier is a leading global provider of heating, ventilating, air conditioning (HVAC), refrigeration, fire and security solutions for residential, commercial, industrial and smart cold chain applications. Carrier provides a wide range of residential and building systems, including air conditioners, heating systems and controls, refrigeration, fire, flame, gas, smoke and carbon monoxide detection, portable fire extinguishers, fire suppression, intruder alarms, access control systems, video management systems and electronic controls. Carrier also provides a broad array of related building services, including audit, design, installation, system integration, repair, maintenance, and monitoring services.

Carrier sells its HVAC and refrigeration solutions directly to end customers, including building contractors and owners, transportation companies and retail stores, and through joint ventures, independent sales representatives, distributors, wholesalers and dealers. These products and services are sold under the Carrier name and other brand names. Carrier's security and fire safety products and services are used by governments, financial institutions, architects, building owners and developers, security and fire consultants, homeowners and other end-users requiring a high level of security and fire protection for their businesses and residences. Carrier provides its security and fire safety products and services under Chubb, Kidde and other brand names and sells directly to customers as well as through manufacturer's representatives, distributors, dealers, value-added resellers and retailers.

Demand for Carrier's HVAC products and services is seasonal and can be impacted by weather. Carrier regularly offers incentives and training, such as credits/discounts for offering promotional pricing and contract terms on its products, to its distribution partners to purchase and sell Carrier's products to ensure an adequate supply of Carrier's products.

Sales generated by Carrier's international operations, including U.S. export sales, were 52 percent and 54 percent of total Carrier net sales in 2019 and 2018, respectively. Carrier's RPO was $4.7 billion and $5.3 billion at December 31, 2019 and 2018, respectively. Of the total Carrier RPO at December 31, 2019, approximately $3 billion is expected to be realized as sales in 2020.

Pratt & Whitney

Pratt & Whitney is among the world's leading suppliers of aircraft engines for the commercial, military, business jet and general aviation markets. Pratt & Whitney provides fleet management services and aftermarket maintenance, repair and overhaul services. Pratt & Whitney designs, develops, produces and maintains families of large engines for wide- and narrow-body and large regional aircraft in the commercial market and for fighter, bomber, tanker and transport aircraft in the military market. Pratt & Whitney Canada (P&WC) is among the world's leading suppliers of engines powering general and business aviation, as well as regional airline, and utility airplanes, and helicopters. Pratt & Whitney and P&WC also produce, sell and service auxiliary power units for military and commercial aircraft.

The development of new engines and improvements to current production engines present important growth opportunities. In view of the risks and costs associated with developing new engines, Pratt & Whitney has entered into collaboration arrangements in which revenues, costs and risks are shared with third parties. At December 31, 2019, the interests of third-party participants in Pratt & Whitney-directed commercial jet engine programs ranged, in the aggregate per program, from approximately 13 percent to 49 percent. UTC holds a 61 percent program share interest in the IAE International Aero Engines AG (IAE) collaboration with MTU Aero Engines AG (MTU) and Japanese Aero Engines Corporation (JAEC). Pratt & Whitney also holds a 59 percent program share interest in the International Aero Engines, LLC (IAE LLC) collaboration with MTU and JAEC. Pratt & Whitney sells the PW1100G-JM engine for the Airbus A320neo family of aircraft and the PW1400G-

JM engine for the Irkut MC-21 aircraft through IAE LLC. In addition, Pratt & Whitney has interests in other engine programs, including a 50 percent ownership interest in Engine Alliance, LLC (EA), a joint venture with GE Aviation, which sells and provides maintenance services for the GP7000 engine for the Airbus A380 aircraft, which Airbus has announced it no longer intends to manufacture after 2021. Pratt & Whitney has entered into risk and revenue sharing arrangements with third parties for 40 percent of the products and 25 percent of the services that Pratt & Whitney is responsible for providing to the EA. Pratt & Whitney accounts for its interest in the EA joint venture under the equity method of accounting. See Note 1 to the Consolidated Financial Statements in our 2019 Annual Report for a description of our accounting for collaborative arrangements.

Pratt & Whitney produces the PW1000G Geared Turbofan engine family, the first of which, the PW1100G-JM, entered into service in January 2016. The PW1000G Geared Turbofan engine has demonstrated a significant reduction in fuel burn and noise levels and lower environmental emissions when compared to legacy engines. The PW1100G-JM engine is offered on the Airbus A320neo family of aircraft. PW1000G Geared Turbofan engine models also power the Airbus A220 passenger aircraft and Embraer’s E-Jet E2 family of aircraft. Additionally, PW1000G Geared Turbofan engine models have been selected to power the new Mitsubishi SpaceJet, and the new Irkut MC-21 passenger aircraft, which are scheduled to enter service in 2020 and 2021, respectively. As previously disclosed, Gulfstream announced the selection of the PW800 engine to exclusively power Gulfstream’s new G500 and G600 business jets. The Gulfstream G500 entered service in 2018, and the Gulfstream G600 entered service in 2019. P&WC's PW800 engine has also been selected to power the new Falcon 6X business jet by Dassault Aviation, which is scheduled to enter into service in 2022. Pratt & Whitney continues to enhance its programs through performance improvement measures and product base expansion. The success of these aircraft and engines is dependent upon many factors, including technological accomplishments, program execution, aircraft demand, and regulatory approval. As a result of these factors, as well as the level of success of aircraft program launches by aircraft manufacturers and other conditions, additional investment in these engine programs may be required.

Pratt & Whitney is under contract with the U.S. Government's F-35 Joint Program Office to produce and sustain the F135 engine to power the single-engine F-35 Lightning II aircraft (commonly known as the Joint Strike Fighter) being produced by Lockheed Martin. The two F135 propulsion system configurations for the F-35A, F-35B and F-35C jets are used by the U.S. Air Force, U.S. Marine Corps and U.S. Navy, respectively. F135 engines are also used on F-35 aircraft purchased by Joint Strike Fighter partner countries and foreign military sales countries. Pratt & Whitney is also under contract to build engines for the U.S. Air Force’s B-21 long-range strike bomber and for the development of next-generation adaptive engines for the U.S. Air Force.

Pratt & Whitney’s products are sold principally to aircraft manufacturers, airlines and other aircraft operators, aircraft leasing companies and the U.S. and foreign governments. Pratt & Whitney’s products and services must adhere to strict regulatory and market-driven safety and performance standards. The frequently changing nature of these standards, along with the long duration of aircraft engine development, production and support programs, creates uncertainty regarding engine program profitability. Sales to Airbus (Pratt & Whitney’s largest customer by sales) were 31 percent and 36 percent of total Pratt & Whitney segment sales in 2019 and 2018, respectively, before taking into account discounts or financial incentives offered to customers. Sales to the U.S. Government were approximately 27 percent and 23 percent of total Pratt & Whitney segment sales in 2019 and 2018, respectively.

Sales generated by Pratt & Whitney’s international operations, including U.S. export sales, were 64 percent and 63 percent of total Pratt & Whitney net sales in 2019 and 2018, respectively. At December 31, 2019, Pratt & Whitney’s RPO was $85.2 billion, including $13.1 billion of U.S. Government contracts and subcontracts. At December 31, 2018, Pratt & Whitney's RPO was $71.1 billion, including $10.0 billion of U.S. Government contracts and subcontracts. Of the total Pratt & Whitney RPO at December 31, 2019, approximately $14 billion is expected to be realized as sales in 2020. Pratt & Whitney’s RPO includes certain contracts for which actual costs may ultimately exceed total sales. See Note 1 to the Consolidated Financial Statements in our 2019 Annual Report for a description of our Revenue Recognition accounting policy which includes discussion of the accounting for long-term contracts and for further discussion on RPO under ASC Topic 606: *Revenue from Contracts with Customers.*

Collins Aerospace Systems

Collins Aerospace Systems is a leading global provider of technologically advanced aerospace products and aftermarket service solutions for aircraft manufacturers, airlines, regional, business and general aviation markets, as well as military and space operations. Collins Aerospace Systems’ product portfolio mainly includes electric power generation, power management and distribution systems, air data and aircraft sensing systems, engine control systems, intelligence, surveillance and reconnaissance systems, engine components, environmental control systems, fire and ice detection and protection systems, propeller systems, engine nacelle systems, including thrust reversers and mounting pylons, interior and exterior aircraft lighting, aircraft seating and cargo systems, actuation systems, landing systems, including landing gear and wheels and brakes, space

products and subsystems, integrated avionics systems, precision targeting, electronic warfare and range and training systems, flight controls, communications systems, navigation systems, oxygen systems, simulation and training systems, food and beverage preparation, storage and galley systems, lavatory and wastewater management systems. Collins Aerospace Systems also designs, produces and supports cabin interior, communications and aviation systems and products and provides information management services through voice and data communication networks and solutions worldwide. Aftermarket services include spare parts, overhaul and repair, engineering and technical support, training and fleet management solutions, and information management services.

Collins Aerospace Systems sells aerospace products and services to aircraft manufacturers, airlines and other aircraft operators, the U.S. and foreign governments, maintenance, repair and overhaul providers, and independent distributors. Collins Aerospace Systems' largest customers are Boeing and Airbus with a combined 27 percent and 31 percent of total Collins Aerospace Systems segment sales in 2019 and 2018, respectively. Sales to the U.S. Government were 18 percent and 19 percent of total Collins Aerospace Systems net sales in 2019 and 2018, respectively.

In 2019, Collins Aerospace Systems' products supported the first flight of the Royal Canadian Air Force Airbus C295, Embraer E175-E2, and the Optionally Piloted Black Hawk helicopter. In addition, we supported entry into service for the Gulfstream G600 and the Embraer E195-E2. Certifications were completed for the Embraer Praetor 500 and 600 and the United States Air Force's Modernized GPS User Equipment program.

Significant product development activity continues, including major systems for Boeing's 777X, T-7A, and VC-25B, the Mitsubishi SpaceJet, the Irkut MC-21, the Dassault 6X Falcon, the Leonardo AW249, and the COMAC C919. Other significant development work includes Iridium Next, HF Next, Tactical Combat Training Systems Increment II, NASA deep space exploration systems, distributed pulse oxygen system, and the FAA CLEEN II demonstrator.

Sales generated by Collins Aerospace Systems' international operations, including U.S. export sales, were 53 percent and 56 percent of total Collins Aerospace Systems segment sales in 2019 and 2018, respectively. At December 31, 2019, Collins Aerospace Systems' RPO was $29.5 billion, including $6.8 billion of U.S. Government contracts and subcontracts. At December 31, 2018, Collins Aerospace Systems' RPO was $26.6 billion, including $6.0 billion of U.S. Government contracts and subcontracts, and $10.7 billion of RPO related to the acquisition of Rockwell Collins. Of the total Collins Aerospace Systems RPO at December 31, 2019, approximately $12 billion is expected to be realized as sales in 2020. See Note 1 to the Consolidated Financial Statements in our 2019 Annual Report for a description of our Revenue Recognition accounting policy which includes discussion of the accounting for long-term contracts and for further discussion on RPO under ASC Topic 606: *Revenue from Contracts with Customers.*

Other Matters Relating to Our Business as a Whole

Competition and Other Factors Affecting Our Businesses

As worldwide businesses, our operations can be affected by a variety of economic, industry and other factors, including those described in this section, in "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our 2019 Annual Report, in Item 1, "Cautionary Note Concerning Factors That May Affect Future Results," and in Item 1A, "Risk Factors" in this Form 10-K. Each business unit is subject to significant competition from a large number of companies in the U.S. and other countries, and each competes on the basis of price, delivery schedule, product performance and service.

Our aerospace businesses are subject to substantial competition from various domestic and foreign manufacturers, customers and companies that obtain regulatory agency approval to manufacture spare parts, with foreign companies sometimes receiving government research and development assistance, marketing subsidies and other assistance for certain of their products beyond the assistance that may be available in the U.S. Customer selections of aircraft engines, components and systems can also have a significant impact on future sales of parts and services. In addition, the U.S. Government's and other governments' policies of purchasing parts from suppliers other than the original equipment manufacturer affect military spare parts sales. Significant elements of our aerospace businesses, such as spare parts sales for engines and aircraft in service, have short lead times. Therefore, RPO information may not be indicative of future demand. Additionally, our aerospace businesses' competitors may offer substantial discounts and other financial incentives, performance and operating cost guarantees, and participation in financing arrangements in an effort to compete for the aftermarket associated with these products. For information regarding customer financing commitments, participation in guarantees of customer financing arrangements and performance and operating cost guarantees, primarily related to Pratt & Whitney, see Notes 4 and 17 to the Consolidated Financial Statements in our 2019 Annual Report. Pratt & Whitney's major competitors in the sale of engines are GE Aviation, Honeywell, Safran Helicopter Engines, and CFM International.

U.S. Government Contracts

Contracting with the U.S. Government entails certain unique risks. U.S. Government contracts are subject to termination by the government, either for convenience or for default in the event of our failure to perform under the applicable contract. In the case of a termination for convenience, we would normally be entitled to reimbursement for our allowable costs incurred and termination costs. If terminated by the government as a result of our default, we could be liable for additional costs the government incurs in acquiring undelivered goods or services from another source and any other damages it suffers. Most of our U.S. Government sales are made under fixed-price contracts, while approximately $2.6 billion or 3 percent of our total sales for 2019 were made under cost-reimbursement type contracts.

Our contracts with the U.S. Government are also subject to audits. For further discussion of risks related to government contracting, including on-going litigation associated with U.S. Government audits, see Item 1A, "Risk Factors" and Item 3, "Legal Proceedings," in this Form 10-K and Note 18 to the Consolidated Financial Statements in our 2019 Annual Report.

Compliance with Environmental and Other Government Regulations

Our operations are subject to and affected by environmental regulation by federal, state and local authorities in the U.S. and regulatory authorities with jurisdiction over our foreign operations. We have incurred and will likely continue to incur liabilities under various government statutes for the cleanup of pollutants previously released into the environment. We do not anticipate that compliance with current provisions relating to the protection of the environment or that any payments we may be required to make for cleanup liabilities will have a material adverse effect upon our cash flows, competitive position, financial condition or results of operations. Environmental matters are further addressed in "Management’s Discussion and Analysis of Financial Condition and Results of Operations" and Notes 1 and 18 to the Consolidated Financial Statements in our 2019 Annual Report.

Most of the U.S. laws governing environmental matters include criminal provisions. If we were convicted of a violation of the federal Clean Air Act or Clean Water Act, the facility or facilities involved in the violation could be deemed ineligible to be used in performing any U.S. Government contract we are awarded until the Environmental Protection Agency thereafter certifies that the condition giving rise to the violation has been corrected.

In addition, we could be affected by future laws or regulations imposed in response to concerns over climate change. Changes in climate-related concerns, or in the regulation of such concerns, including greenhouse gas emissions, could subject us to additional costs and restrictions, including compliance costs and increased energy and raw materials costs.

We conduct our businesses through subsidiaries and affiliates worldwide. Changes in legislation or government policies can affect our worldwide operations. For example, governmental regulation of refrigerants, energy efficiency standards and fire safety regulations are important to our Carrier businesses, and elevator safety codes are important to Otis' businesses, while government safety and performance regulations, restrictions on aircraft engine noise and emissions and government procurement practices can impact our aerospace businesses.

U.S. laws, regulations, orders, and other measures concerning the export or re-export of products, software, services and technology to, and other trade-related activities involving, non-U.S. countries and parties affect the operations of UTC and its affiliates.

For further discussion of risks related to environmental matters and other government regulations, see Item 1A, "Risk Factors" and Item 3, "Legal Proceedings," in this Form 10-K and Note 18 to the Consolidated Financial Statements in our 2019 Annual Report.

Intellectual Property and Raw Materials and Supplies

We maintain a portfolio of patents, trademarks, copyrights, trade secrets, licenses and franchises related to our businesses. While we believe we have taken reasonable measures to protect this portfolio, our efforts may not be sufficient. See Item 1A "Risk Factors" in this Form 10-K for further discussion of intellectual property matters.

We believe we have adequate sources for our purchases of materials, components, services and supplies used in our manufacturing. We work continuously with our supply base to ensure an adequate source of supply and to reduce costs. We pursue cost reductions through a number of mechanisms, including consolidating our purchases, reducing the number of suppliers, strategic global sourcing and competitions among potential suppliers. In some instances, we depend upon a single source of supply or participate in commodity markets that may be subject to allocations of limited supplies by suppliers. Like other users in the U.S., we are largely dependent upon foreign sources for certain raw materials, such as cobalt, tantalum, chromium, rhenium and nickel. We have a number of ongoing programs to manage this dependence and the accompanying risk, including long-term agreements and the conservation of materials through scrap reclamation and new manufacturing processes. We believe that our supply management practices are based on an appropriate balancing of the foreseeable risks and the costs of alternative practices. Although at times high prices for some raw materials important to our businesses (for example, steel,

copper, aluminum, titanium and nickel) have caused margin and cost pressures, we do not foresee near term unavailability of materials, components or supplies that would have a material adverse effect on our competitive position, results of operations, cash flows or financial condition. For further discussion of the possible effects of the cost and availability of raw materials on our business, including the risks associated with more restrictive trade policies in the U.S., and internationally, and other market risks such as the United Kingdom’s pending withdrawal from the European Union, see Item 1A, “Risk factors” and the section titled “Business Overview" in "Management’s Discussion and Analysis of Financial Condition and Results of Operations" in this Form 10-K and UTC’s 2019 Annual Report.

Employees and Employee Relations

At December 31, 2019, our total number of employees was approximately 243,200, of which approximately 64% percent are based outside the U.S. During 2019, we negotiated seven domestic collective bargaining agreements, the largest of which covered certain workers at Carrier's Collierville, Tennessee facility. In 2020, numerous collective bargaining agreements are subject to renegotiation, the largest of which covers certain workers at Carrier’s Indianapolis, Indiana and Collins Aerospace Systems' Chula Vista/Riverside, California facilities. Although some previous contract renegotiations have had a significant impact on our financial condition or results of operations in prior years, we do not anticipate that the renegotiation of these contracts in 2020 will have a material adverse effect on our competitive position, cash flows, financial condition or results of operations. For discussion of the effects of our restructuring actions on employment, see Item 1A, "Risk Factors" in this Form 10-K and under "Management’s Discussion and Analysis of Financial Condition and Results of Operations" and Note 13 to the Consolidated Financial Statements in our 2019 Annual Report.

For a discussion of other matters which may affect our competitive position, cash flows, financial condition or results of operations, including the risks of our international operations, see the further discussion under the headings "General" and "Description of Business by Segment" in this section, Item 1A, "Risk Factors" in this Form 10-K, and under "Management’s Discussion and Analysis of Financial Condition and Results of Operations" in our 2019 Annual Report.

Cautionary Note Concerning Factors That May Affect Future Results

This Form 10-K contains statements which, to the extent they are not statements of historical or present fact, constitute “forward-looking statements” under the securities laws. From time to time, oral or written forward-looking statements may also be included in other information released to the public. These forward-looking statements are intended to provide management’s current expectations or plans for our future operating and financial performance, based on assumptions currently believed to be valid. Forward-looking statements can be identified by the use of words such as “believe,” “expect,” “expectations,” “plans,” “strategy,” “prospects,” “estimate,” “project,” “target,” “anticipate,” “will,” “should,” “see,” “guidance,” “outlook,” “confident,” “on track” and other words of similar meaning. Forward-looking statements may include, among other things, statements relating to future sales, earnings, cash flow, results of operations, uses of cash, share repurchases, tax rates, R&D spend, other measures of financial performance, potential future plans, strategies or transactions, credit ratings and net indebtedness, other anticipated benefits of the Rockwell Acquisition, the proposed merger with Raytheon or the spin-offs by UTC of Otis and Carrier into separate independent companies (the “separation transactions”), including estimated synergies and customer cost savings resulting from the proposed merger with Raytheon, the expected timing of completion of the proposed merger with Raytheon and the separation transactions, estimated costs associated with such transactions and other statements that are not historical facts. All forward-looking statements involve risks, uncertainties and other factors that may cause actual results to differ materially from those expressed or implied in the forward-looking statements. For those statements, we claim the protection of the safe harbor for forward-looking statements contained in the U.S. Private Securities Litigation Reform Act of 1995. Such risks, uncertainties and other factors include, without limitation:

- the effect of economic conditions in the industries and markets in which we and Raytheon operate in the U.S. and globally and any changes therein, including financial market conditions, fluctuations in commodity prices, interest rates and foreign currency exchange rates, levels of end market demand in construction and in both the commercial and defense segments of the aerospace industry, levels of air travel, financial condition of commercial airlines, the impact of pandemic health issues, aviation safety concerns, weather conditions and natural disasters, the financial condition of our customers and suppliers, and the risks associated with U.S. government sales (including changes or shifts in defense spending due to budgetary constraints, spending cuts resulting from sequestration, a government shutdown, or otherwise, and uncertain funding of programs);
- challenges in the development, production, delivery, support, performance and realization of the anticipated benefits (including our expected returns under customer contracts) of advanced technologies and new products and services;
- the scope, nature, impact or timing of the proposed merger with Raytheon and the separation transactions and other merger, acquisition and divestiture activity, including among other things the integration of or with other businesses and realization of synergies and opportunities for growth and innovation and incurrence of related costs and expenses;
- future levels of indebtedness, including indebtedness that may be incurred in connection with the proposed merger with Raytheon and the separation transactions, and capital spending and research and development spending;
- future availability of credit and factors that may affect such availability, including credit market conditions and our capital structure;
- the timing and scope of future repurchases of our common stock, which may be suspended at any time due to various factors, including market conditions and the level of other investing activities and uses of cash, including in connection with the proposed merger with Raytheon;
- delays and disruption in delivery of materials and services from suppliers;
- company and customer-directed cost reduction efforts and restructuring costs and savings and other consequences thereof (including the potential termination of U.S. government contracts and performance under undefinitized contract awards and the potential inability to recover termination costs);
- new business and investment opportunities;
- the ability to realize the intended benefits of organizational changes;
- the anticipated benefits of diversification and balance of operations across product lines, regions and industries;
- the outcome of legal proceedings, investigations and other contingencies;
- pension plan assumptions and future contributions;
- the impact of the negotiation of collective bargaining agreements and labor disputes;
- the effect of changes in political conditions in the U.S. and other countries in which we and Raytheon and our businesses each operate, including the effect of changes in U.S. trade policies or the United Kingdom’s pending withdrawal from the European Union, on general market conditions, global trade policies and currency exchange rates in the near term and beyond;
- the effect of changes in tax (including U.S. tax reform enacted on December 22, 2017, which is commonly referred to as the Tax Cuts and Jobs Act of 2017), environmental, regulatory and other laws and regulations (including, among other things, export and import requirements such as the International Traffic in Arms Regulations and the Export Administration Regulations, anti-bribery and anti-corruption requirements, including the Foreign Corrupt Practices

Act, industrial cooperation agreement obligations, and procurement and other regulations) in the U.S. and other countries in which we, Raytheon and our businesses each operate;

- negative effects of the announcement or pendency of the proposed merger with Raytheon or the separation transactions on the market price of our and/or Raytheon's respective common stock and/or on our respective financial performance;
- the ability of UTC and Raytheon to receive the required regulatory approvals for the proposed merger (and the risk that such approvals may result in the imposition of conditions that could adversely affect the combined company or the expected benefits of the transaction) and to satisfy the other conditions to the closing of the merger on a timely basis or at all;
- the occurrence of events that may give rise to a right of one or both of UTC or Raytheon to terminate the merger agreement;
- risks relating to the value of our shares to be issued in the proposed merger with Raytheon, significant transaction costs and/or unknown liabilities;
- the possibility that the anticipated benefits from the proposed merger with Raytheon cannot be realized in full or at all or may take longer to realize than expected, including risks associated with third party contracts containing consent and/or other provisions that may be triggered by the proposed transaction;
- risks associated with merger-related litigation;
- the possibility that costs or difficulties related to the integration of UTC's and Raytheon's operations will be greater than expected;
- risks relating to completed merger, acquisition and divestiture activity, including UTC's integration of Rockwell Collins, including the risk that the integration may be more difficult, time-consuming or costly than expected or may not result in the achievement of estimated synergies within the contemplated time frame or at all;
- the ability of each of UTC, Raytheon, the companies resulting from the separation transactions and the combined company to retain and hire key personnel;
- the expected benefits and timing of the separation transactions, and the risk that conditions to the separation transactions will not be satisfied and/or that the separation transactions will not be completed within the expected time frame, on the expected terms or at all;
- the intended qualification of (i) the merger as a tax-free reorganization and (ii) the separation transactions as tax-free to UTC and UTC's shareowners, in each case, for U.S. federal income tax purposes;
- the possibility that any opinions, consents, approvals or rulings required in connection with the separation transactions will not be received or obtained within the expected time frame, on the expected terms or at all;
- expected financing transactions undertaken in connection with the proposed merger with Raytheon and the separation transactions and risks associated with additional indebtedness;
- the risk that dis-synergy costs, costs of restructuring transactions and other costs incurred in connection with the separation transactions will exceed our estimates; and
- the impact of the proposed merger and the separation transactions on the respective businesses of UTC and Raytheon and the risk that the separation transactions may be more difficult, time-consuming or costly than expected, including the impact on UTC's resources, systems, procedures and controls and the impact on relationships with customers, suppliers, employees and other business counterparties.

In addition, this Form 10-K includes important information as to risks, uncertainties and other factors that may cause actual results to differ materially from those expressed or implied in the forward-looking statements. See the "Notes to Consolidated Financial Statements" under the heading "Note 18: Contingent Liabilities," the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the headings "Business Overview," "Results of Operations," "Liquidity and Financial Condition," and "Critical Accounting Estimates," and the section titled "Risk Factors." This Form 10-K also includes important information as to these factors in the "Business" section under the headings "General," "Description of Business by Segment" and "Other Matters Relating to Our Business as a Whole," and in the "Legal Proceedings" section. Additional important information as to these factors is included in our 2019 Annual Report in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the headings "Restructuring Costs," "Environmental Matters" and "Governmental Matters" and in our Form S-4 Registration Statements (Registration No. 333-220883) and (Registration No. 333-232696) under the heading "Risk Factors." The forward-looking statements speak only as of the date of this report or, in the case of any document incorporated by reference, the date of that document. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law. Additional information as to factors that may cause actual results to differ materially from those expressed or implied in the forward-looking statements is disclosed from time to time in our other filings with the SEC.

Item 1A. Risk Factors

Our business, financial condition, operating results and cash flows can be impacted by the factors set forth below, any one of which could cause our actual results to vary materially from recent results or from our anticipated future results.

Our Global Growth May be Affected by Global Economic, Capital Market and Political Conditions.

Our business, financial condition, operating results and cash flows may be adversely affected by changes in global economic conditions and geopolitical risks, including credit market conditions, levels of consumer and business confidence, commodity prices, exchange rates, levels of government spending and deficits, trade policies, political conditions, actual or anticipated default on sovereign debt and other challenges that could affect the global economy. These economic conditions affect businesses such as ours in a number of ways. Tightening of credit in financial markets could adversely affect the ability of our customers and suppliers to obtain financing for significant purchases and operations, could result in a decrease in or cancellation of orders for our products and services, and impact the ability of our customers to make payments. Similarly, such tightening of credit may adversely affect our supplier base and increase the potential for one or more of our suppliers to experience financial distress or bankruptcy. Our global business is also adversely affected by decreases in the general level of economic activity, such as decreases in business and consumer spending, air travel, construction activity, the financial strength of airlines and business jet operators, and government procurement.

Our Financial Performance Is Dependent on the Conditions of the Construction and Aerospace Industries.

The results of our commercial businesses, which generated approximately 41 percent of our consolidated sales in 2019, are influenced by a number of external factors including fluctuations in residential and commercial construction activity, regulatory changes, interest rates, labor costs, foreign currency exchange rates, customer attrition, raw material and energy costs, global credit market conditions, and other global and political factors, including trade policies. A slowdown in building and remodeling activity can adversely affect the financial performance of Otis and Carrier. In addition, the financial performance of Carrier can be influenced by production and utilization of transport equipment and, particularly in its residential business, weather conditions.

The results of our commercial and military aerospace businesses, which generated approximately 59 percent of our consolidated sales in 2019, are directly tied to the economic conditions in the commercial aviation and defense industries, which are cyclical in nature. Capital spending and demand for aircraft engines, aerospace products and component aftermarket parts and services by commercial airlines, aircraft operators and aircraft manufacturers are influenced by a wide variety of factors, including current and predicted traffic levels, load factors, aircraft fuel prices, labor issues, airline profits, airline consolidation, bankruptcies, competition, the retirement of older aircraft, regulatory changes, terrorism and related safety concerns, general economic conditions, corporate profitability, cost reduction efforts and RPO levels. Any of these factors could reduce the sales and margins of our aerospace businesses. Other factors, including future terrorist actions, aviation safety concerns, pandemic health issues or major natural disasters, could also dramatically reduce the demand for air travel, which could negatively impact the sales and margins of our aerospace businesses. Additionally, because a substantial portion of product deliveries to commercial aerospace customers are scheduled for delivery beyond 2020, changes in economic conditions may cause customers to request that firm orders be rescheduled or canceled. At times, our aerospace businesses also enter into firm fixed-price or cost-share development contracts, which may require us to bear cost overruns related to unforeseen technical and design challenges that arise during the development and early production stages of the program. In addition, our aerospace businesses face intense competition from domestic and foreign manufacturers of new equipment and spare parts. Spare parts sales and aftermarket service trends are affected by similar factors, including usage, pricing, technological improvements, regulatory changes and the retirement of older aircraft. Furthermore, because of the lengthy research and development cycle involved in bringing products in these business segments to market, we cannot predict the economic conditions that will exist when any new product is ready to enter into service. A reduction in spending in the commercial aviation or defense industries could have a significant effect on the demand for our products, which could have a material adverse effect on our competitive position, results of operations, cash flows or financial condition. The defense industry is also affected by a changing U.S. and global political environment, continued pressure on U.S. and global defense spending, U.S. foreign policy and the level of activity in military flight operations. Should overall U.S. Government defense spending decline, it could result in significant reductions to revenue, cash flow, profit and RPO for our military businesses. One or more of the programs that we currently support or are currently pursuing could be phased-out, limited or terminated. Reductions in these existing programs, unless offset by other programs and opportunities, could have a material adverse effect on our competitive position, cash flows, results of operations or financial condition.

Our International Operations Subject Us to Economic Risk As Our Results of Operations May Be Adversely Affected by Changes in Foreign Currency Fluctuations, Economic Conditions, Trade Policies, and Changes in Local Government Regulation.

We conduct our business on a global basis, with approximately 60% percent of our 2019 total segment sales derived from international operations, including U.S. export sales. Changes in local and regional economic conditions, including fluctuations in exchange rates, may affect product demand and reported profits in our non-U.S. operations (especially the commercial businesses and P&WC), where transactions are generally denominated in local currencies. In addition, currency fluctuations may affect the prices we pay suppliers for materials used in our products. As a result, our operating margins also may be negatively impacted by worldwide currency fluctuations that result in higher costs for certain cross border transactions. Our financial statements are denominated in U.S. Dollars. Accordingly, fluctuations in exchange rates may also give rise to translation gains or losses when financial statements of non-U.S. operating units are translated into U.S. Dollars. Given that the majority of our sales are non-U.S. based, a strengthening of the U.S. Dollar against other major foreign currencies could adversely affect our results of operations.

The majority of sales in the aerospace businesses are transacted in U.S. Dollars, consistent with established industry practice, while the majority of costs at locations outside the U.S. are incurred in the applicable local currency (principally the Euro, the Canadian Dollar, the British Pound and the Polish Zloty). For operating units with U.S. Dollar sales and local currency costs, there is foreign currency exposure that could impact our results of operations depending on market changes in the exchange rate of the U.S. Dollar against the applicable foreign currencies. To manage certain exposures, we employ long-term hedging strategies associated with U.S. Dollar sales. See Notes 1 and 14 to the Consolidated Financial Statements in our 2019 Annual Report for further discussion of our hedging strategies.

Our international sales and operations are subject to risks associated with changes in local government laws, regulations and policies, including those related to tariffs and trade barriers, investments, taxation, exchange controls, capital controls, employment regulations, and repatriation of earnings. Government policies on international trade and investments such as import quotas, capital controls, taxes or tariffs, whether adopted by individual governments or regional trade blocs, can affect demand for our products and services, impact the competitive position of our products or prevent us from being able to manufacture or sell products in certain countries. The implementation of more restrictive trade policies, including the imposition of tariffs, or the renegotiation of existing trade agreements by the U.S. or by countries where we sell large quantities of products and services or procure supplies and other materials incorporated into our products, including in connection with the United Kingdom's pending withdrawal from the European Union, could negatively impact our business, results of operations and financial condition. For example, a government's adoption of "buy national" policies or retaliation by another government against such policies, such as tariffs, could have a negative impact on our results of operations. Our international sales and operations are also sensitive to changes in foreign national priorities, including government budgets, as well as to political and economic instability. International transactions may involve increased financial and legal risks due to differing legal systems and customs in foreign countries. For example, as a condition of sale or award of a contract, some international customers require us to agree to offset arrangements, which may include in-country purchases, manufacturing and financial support arrangements. The contract may provide for penalties in the event we fail to perform in accordance with the offset requirements.

In addition, as part of our globalization strategy, we have invested in certain countries, including Argentina, Brazil, China, India, Indonesia, Mexico, Poland, Russia, South Africa, Turkey, Ukraine and countries in the Middle East and Central Asia, that carry high levels of currency, political, compliance and economic risk. We expect that sales to these and other emerging markets will continue to account for a significant portion of our sales as our businesses evolve and as these and other developing nations and regions around the world increase their demand for our products. Emerging market operations can present many risks, including cultural differences (such as employment and business practices), volatility in gross domestic product, economic and government instability, the imposition of exchange and capital controls, and the risks associated with exporting components manufactured in those countries for incorporation into finished products completed in other countries. While these factors and their impact are difficult to predict, any one or more of them could have a material adverse effect on our competitive position, results of operations, cash flows or financial condition. Of note, in 2019 the U.S. Government suspended Turkey's participation in the F-35 Joint Strike Fighter program because Turkey accepted delivery of the Russian-built S-400 air and missile defense system. The U.S. has imposed, and may impose additional, sanctions on Turkey as a result of this or other political disputes. Turkish companies supply components, some of which are sole-sourced, to our aerospace businesses for commercial and military engines and aerospace products. Depending upon the scope and timing of U.S. sanctions on Turkey and potential reciprocal actions, if any, such sanctions or actions could impact our aerospace businesses' sources of supply and could have a material adverse effect on our results of operations, cash flows or financial condition.

We Use a Variety of Raw Materials, Supplier-Provided Parts, Components, Sub-Systems and Contract Manufacturing Services in Our Businesses, and Significant Shortages, Supplier Capacity Constraints, Supplier Production

Disruptions or Price Increases Could Increase Our Operating Costs and Adversely Impact the Competitive Positions of Our Products.

Our reliance on suppliers (including third-party manufacturing suppliers and logistics providers) and commodity markets to secure raw materials, parts, components and sub-systems used in our products exposes us to volatility in the prices and availability of these materials. In many instances, we depend upon a single source of supply, manufacturing, logistics support or assembly or participate in commodity markets that may be subject to allocations of limited supplies by suppliers. A disruption in deliveries from our suppliers, supplier capacity constraints, supplier production disruptions, supplier quality issues, closing or bankruptcy of our suppliers, price increases, or decreased availability of raw materials or commodities, could have a material adverse effect on our ability to meet our commitments to customers or increase our operating costs. We believe that our supply management and production practices are based on an appropriate balancing of the foreseeable risks and the costs of alternative practices. Nonetheless, price increases, supplier capacity constraints, supplier production disruptions or the unavailability of some raw materials may have a material adverse effect on our competitive position, results of operations, cash flows or financial condition.

We May Not Complete the Separation Transactions or Complete Them Within the Time Frame We Anticipate; The Separation Transactions May Present Difficulties That Could Have an Adverse Effect on Us and/or the Independent Businesses Resulting from the Separation, and/or Costs Associated with the Separation Transactions May Be Higher Than Anticipated; The Independent Businesses May Underperform Relative to Our Expectations; We May Not Realize Some or All of the Expected Benefits of the Separation Transactions.

In November 2018, we announced our intention to separate into three independent companies: (1) UTC, an aerospace company comprised of the Collins Aerospace Systems and Pratt & Whitney businesses, (2) Otis, and (3) Carrier. The proposed separations are expected to be effected through spin-offs by UTC of Otis and Carrier that are intended to be tax-free for the Company’s shareowners for U.S. federal income tax purposes. These separation transactions will be subject to UTC’s agreement to consummate the distributions pursuant to, and subject to the terms and conditions of, the Raytheon merger agreement discussed below, as well as the satisfaction of a number of customary conditions, including, among others, final approval by UTC’s Board of Directors, receipt of tax rulings and a tax opinion from external counsel, the filing with the SEC and effectiveness of Form 10 registration statements for Otis and Carrier and satisfactory completion of financing. Though UTC has agreed pursuant to, and subject to the terms and conditions of the Raytheon merger agreement, that UTC will consummate separation transactions, the failure to satisfy all of the required conditions could delay the completion of the separation transactions for a significant period of time or prevent them from occurring at all. Additionally, the separation transactions are complex in nature, and unanticipated developments or changes, including changes in law, the macroeconomic environment and market conditions or regulatory or political conditions may affect our ability to complete one or both of the separation transactions as currently expected, within the anticipated time frame or at all. Any changes to one or both of the separation transactions or delay in completing one or both of the separation transactions could cause us not to realize some or all of the expected benefits, or realize them on a different timeline than expected. In addition, the terms and conditions of the required regulatory authorizations and consents that are granted, if any, may impose requirements, limitations or costs, or place restrictions on the conduct of the independent companies or may materially delay the completion of one or both of the separation transactions. And, although we intend for the separation transactions to be tax-free to the Company’s shareowners for U.S. federal income tax purposes, there can be no assurance that the separation transactions will so qualify. If the separation transactions were ultimately determined to be taxable, we, the Company’s shareowners and/or the new independent companies would incur income tax liabilities that could be significant. Furthermore, if the separation transactions are completed, we cannot be assured that each separate company will be successful.

Whether or not the separation transactions are completed, our businesses may face material challenges in connection with these transactions, including, without limitation:

- the diversion of management’s attention from ongoing business concerns and impact on the businesses of UTC (including Otis and Carrier) as a result of the devotion of management’s attention to the separation transactions;
- maintaining employee morale and retaining key management and other employees;
- retaining existing business and operational relationships, including with customers, suppliers, employees and other counterparties, and attracting new business and operational relationships;
- execution and related risks in connection with UTC, Otis and Carrier financing transactions undertaken in connection with the separation transactions;
- foreseen and unforeseen dis-synergy costs, costs of restructuring transactions (including taxes) and other significant costs and expenses; and

- potential negative reactions from the financial markets if we fail to complete the separation transactions as currently expected, within the anticipated time frame or at all.

Any of these factors could have a material adverse effect on our business, financial condition, results of operations, cash flows and/or the price of our common stock. In addition, if the separation transactions are completed, each of the separate companies will incur ongoing costs, including costs of operating as independent companies, that the separated businesses will no longer be able to share. Those costs may exceed our estimates or could diminish the benefits we expect to realize from the separation transactions.

If the Separation Transactions Are Completed, UTC and the Independent Businesses' Operational and Financial Profiles Will Change and Each Will Be a Less Diversified Company Than UTC as It Exists Today.

The separation transactions will result in UTC, Otis and Carrier being less diversified companies with more limited businesses concentrated in their respective industries. Of note, even if the combination with Raytheon is completed, UTC's businesses following the expected separation transactions will be significantly more reliant on three customers, namely Airbus, Boeing and the U.S. Government. As a result, each company may be more vulnerable to changing market conditions, which could have a material adverse effect on its business, financial condition and results of operations. In addition, the diversification of revenues, costs, and cash flows will diminish, such that each company's results of operations, cash flows, working capital, effective tax rate, and financing requirements may be subject to increased volatility and its ability to fund capital expenditures and investments, pay dividends and service debt may be diminished. It is anticipated that the effective tax rate for each separate company will differ from the UTC consolidated effective tax rate.

If the Separation Transactions Are Completed, There May Be Changes in Our Shareowner Base, Which May Cause the Price of Our Common Stock To Fluctuate.

Investors holding our common stock may hold our common stock because of a decision to invest in a company that operates in multiple markets with a diversified portfolio. If the separation transactions are completed, shares of our common stock will represent an investment in a business concentrated in the commercial aerospace and defense industry, and shares of the common stock of the new independent companies conducting the Otis and Carrier businesses will represent investments in businesses concentrated in their respective industries. These changes may not match some shareowners' investment strategies, which could cause them to sell their shares of our common stock or the common stock of the new independent companies, and excessive selling pressure could cause the market price to decrease following the consummation of the separation transactions. Additionally, we cannot predict whether the market value of our common stock and the common stock of each of the new independent companies after the separation transactions will be, in the aggregate, less than, equal to or greater than the market value of our common stock prior to the separation transactions.

We May Not Complete The Combination With Raytheon Or Complete The Combination Within The Time Frame We Anticipate; The Combined Business May Underperform Relative To Our Expectations; The Combination May Cause Our Financial Results To Differ From Our Expectations Or The Expectations Of The Investment Community; We May Not Be Able To Achieve Anticipated Cost Savings Or Other Anticipated Benefits.

The completion of the combination with Raytheon is subject to a number of conditions. The failure to satisfy all of the required conditions could delay the completion of the combination for a significant period of time or prevent it from occurring at all. Any delay in completing the combination could cause UTC not to realize some or all of the benefits that UTC expects to achieve if the combination is successfully completed within the expected timeframe, or could cause UTC to realize such benefits on a different timeline than expected. In addition, the terms and conditions of the required regulatory authorizations and consents for the combination that are granted, if any, may impose requirements, limitations or costs or place restrictions on the conduct of the combined company's business or may materially delay the completion of the combination. Moreover, the completion of the combination is subject to, among other conditions, the completion of the spin-offs of Otis and Carrier, which are themselves subject to a number of conditions (subject to UTC's agreement to consummate the distributions pursuant to, and subject to the terms and conditions of, the Raytheon merger agreement). Any delay in or prevention of the completion of the spin-offs could delay or prevent the completion of the combination.

The success of the combination will depend, in part, on the combined company's ability to successfully combine and integrate the businesses of UTC and Raytheon and realize the anticipated benefits, including synergies, cost savings, innovation opportunities and operational efficiencies, from the combination. If the combined company is unable to achieve these objectives within the anticipated time frame, or at all, the anticipated benefits may not be realized fully or at all, or may take longer to realize than expected, and the value of the combined company's common stock may decline.

The integration of the two companies may result in material challenges, including, without limitation:

- managing larger combined aerospace systems and defense businesses;
- maintaining employee morale and retaining key management and other employees;
- retaining existing business and operational relationships, including customers, suppliers and employees and other counterparties, as may be impacted by contracts containing consent and/or other provisions that may be triggered by the combination, and attracting new business and operational relationships;
- the possibility of faulty assumptions underlying expectations regarding the integration process;
- the possibility of significant costs involved in connection with completing the merger, including costs to achieve expected synergies;
- consolidating corporate and administrative infrastructures and eliminating duplicative operations;
- coordinating geographically separate organizations;
- unanticipated issues in integrating information technology, communications and other systems; and
- unforeseen expenses or delays associated with the combination.

We Engage in Acquisitions and Divestitures, and May Encounter Difficulties Integrating Acquired Businesses with, or Disposing of Divested Businesses From, Our Current Operations; Therefore, We May Not Realize the Anticipated Benefits of these Acquisitions and Divestitures.

We seek to grow through strategic acquisitions in addition to internal growth. In the past several years, we have made various acquisitions, including the acquisition of Rockwell Collins in November 2018, and have entered into joint ventures intended to complement and expand our businesses. We expect to continue to undertake such transactions in the future. Our due diligence reviews may not identify all of the material issues necessary to accurately estimate the cost and potential loss contingencies of a particular transaction, including potential exposure to regulatory sanctions resulting from an acquisition target’s previous activities. For example, we may incur unanticipated costs, expenses or other liabilities as a result of an acquisition target’s violation of applicable laws, such as the U.S. Foreign Corrupt Practices Act (FCPA) or similar anti-bribery and corruption laws in non-U.S. jurisdictions. We also may incur unanticipated costs or expenses, including post-closing asset impairment charges, expenses associated with eliminating duplicate facilities, litigation, and other liabilities. We also may encounter difficulties in integrating acquired businesses, including the Rockwell Collins businesses, with our operations, applying our internal controls processes to these acquired businesses, or in managing strategic investments. Additionally, we may not realize the degree or timing of benefits we anticipate when we first enter into a transaction. Any of the foregoing could adversely affect our business and results of operations. In addition, accounting requirements relating to business combinations, including the requirement to expense certain acquisition costs as incurred, may cause us to incur greater earnings volatility and generally lower earnings during periods in which we acquire new businesses. Furthermore, we make strategic divestitures from time to time. Our divestitures may result in continued financial exposure to the divested businesses, such as through guarantees or other financial arrangements, continued supply and services arrangements, or potential litigation, following the transaction. Under these arrangements, nonperformance by those divested businesses could result in obligations being imposed on us that could have a material adverse effect on our competitive position, cash flows, results of operations, or financial condition. The success of future acquisitions and divestitures will depend on the satisfaction of conditions precedent to, and consummation of, the pending transactions, the timing of consummation of these pending transactions, and the ability of the parties to secure any required regulatory approvals in a timely manner, among other things. We also enter into joint ventures in which we maintain significant influence, but do not control the businesses. Accordingly, our ability to apply our internal controls and compliance policies to these businesses is limited and can result in additional financial and reputational risks.

Our Debt Levels and Related Debt Service Obligations Could Have Negative Consequences; Our Ability to Access Debt May Be Affected by Our Increased Indebtedness, Changes in Global Capital Markets, Our Financial Performance or Outlook, the Expected Separation Transactions or Our Credit Ratings.

We have outstanding debt and other financial obligations and significant unused borrowing capacity. In connection with the Rockwell Collins acquisition, we issued $11 billion of aggregate principal notes and $7.8 billion of Rockwell Collins debt remained outstanding at the time of the closing of the acquisition. As expected, the completion of the acquisition resulted in a downgrade of UTC's long-term issuer credit ratings by one notch. Following the announcement of the expected separation transactions, one credit agency placed UTC's long-term issuer credit rating on negative outlook.

The expected separation transactions and the increased indebtedness of UTC in connection with the Rockwell Collins acquisition may have the effect of, among other things:

- requiring us to dedicate significant cash flow from operations to the payment of principal and interest on our debt or the payment of costs associated with the separation transactions, which will reduce funds we have available

for other purposes, such as acquisitions, reinvestment in our businesses, dividends and repurchases of our common stock;

- reducing our flexibility in planning for or reacting to changes in our business and market conditions;
- exposing us to interest rate risk at the time the outstanding debt is refinanced or on the portion of our debt obligations that are issued at variable rates; and
- further downgrades of our credit ratings resulting in increased borrowing costs.

We depend, in part, upon the issuance of debt to fund our operations. If we require additional funding in order to fund outstanding financing commitments or meet other business requirements, our market liquidity may not be sufficient. A number of factors could cause us to incur increased borrowing costs and to have greater difficulty accessing public and private markets for debt, including disruptions or declines in the global capital markets and/or a decline in our financial performance, outlook or credit ratings.

Quarterly Cash Dividends and Share Repurchases May Be Discontinued or Modified, Are Subject to a Number of Uncertainties and May Affect the Price of Our Common Stock.

Quarterly cash dividends and share repurchases under our share repurchase program constitute components of our capital allocation strategy, which we fund with operating free cash flow, borrowings and divestitures. However, we are not required to declare dividends or make any share repurchases under our share repurchase program. Dividends and share repurchases may be discontinued, accelerated, suspended or delayed at any time without prior notice. Even if not discontinued, the amount of such dividends and repurchases may be changed, including in connection with the separation transactions and the Raytheon merger, and the amount, timing and frequency of such dividends and repurchases may vary from historical practice or from the company’s stated expectations. Decisions with respect to dividends and share repurchases are subject to the discretion of our Board of Directors and will be based on a variety of factors. Important factors that could cause us to discontinue, limit, suspend, increase or delay our quarterly cash dividends or share repurchases include market conditions, the price of our common stock, the nature and timing of other investment opportunities, changes in our business strategy, the terms of our financing arrangements, our outlook as to the ability to obtain financing at attractive rates, the impact on our credit ratings and the availability of domestic cash. To help manage the cash flow and liquidity impact resulting from the Rockwell Collins acquisition and the proposed separation transactions, we have limited our share repurchases.Our ability to repurchase shares is also restricted by the Raytheon merger agreement.

The reduction or elimination of our cash dividend or share repurchase program could adversely affect the market price of our common stock. Additionally, there can be no assurance that any share repurchases will enhance shareholder value because the market price of our common stock may decline below the levels at which we repurchased shares of common stock. Although our share repurchase program is intended to enhance long-term shareholder value, short-term stock price fluctuations could reduce the program's effectiveness.

See Item 5, "Market for Registrants Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities" in this Form 10-K for a description of our share repurchase program and past share repurchases.

We Design, Manufacture and Service Products that Incorporate Advanced Technologies; The Introduction of New Products and Technologies Involves Risks and We May Not Realize the Degree or Timing of Benefits Initially Anticipated.

We seek to achieve growth through the design, development, production, sale and support of innovative products that incorporate advanced technologies. The product, program and service needs of our customers change and evolve regularly, and we invest substantial amounts in research and development efforts to pursue advancements in a wide range of technologies, products and services. Of particular note, Pratt & Whitney is currently producing and delivering the PW1000G Geared Turbofan engine to power various aircraft, including the A320neo family of aircraft. The level of orders received for the Geared Turbofan family of engines coupled with a requirement to achieve mature production levels in a very short time frame require significant additional manufacturing and supply chain capacity. If any of our production ramp-up efforts are delayed, if suppliers cannot timely deliver or perform to our standards, and/or if we identify or experience issues with in-service engines, we may not meet customers’ delivery schedules, which could result in material additional costs, including liquidated damages or other liabilities that could be assessed under existing contracts. Our ability to realize the anticipated benefits of our technological advancements depends on a variety of factors, including meeting development, production, certification and regulatory approval schedules; execution of internal and external performance plans; availability of supplier and internally produced parts and materials; performance of suppliers and subcontractors; availability of supplier and internal facility capacity to perform maintenance, repair and overhaul services on our products; hiring and training of qualified personnel; achieving cost and production efficiencies; identification of emerging technological trends in our target end-markets; validation of innovative technologies; the level

of customer interest in new technologies and products; and customer acceptance of products we manufacture or that incorporate technologies we develop. For example, our customers manufacture end products and larger aerospace systems that incorporate certain of our aerospace products. These systems and end products may also incorporate additional technologies manufactured by third parties and involve additional risks and uncertainties. As a result, the performance and market acceptance of these larger systems and end products could affect the level of customer interest and acceptance of our products in the marketplace.

Development efforts divert resources from other potential investments in our businesses, and these efforts may not lead to the development of new technologies or products on a timely basis or meet the needs of our customers as fully as competitive offerings. In addition, the markets for our products or products that incorporate our technologies may not develop or grow as we anticipate. We or our customers, suppliers or subcontractors may encounter difficulties in developing and producing new products and services, and may not realize the degree or timing of benefits initially anticipated or may otherwise suffer significant adverse financial consequences. Due to the design complexity of our products or those of our customers or third party manufacturers that incorporate our products into theirs or our customers products, we may experience delays in completing the development and introduction of new products or we may experience the suspension of production after these products enter into service due to safety concerns. Delays and/or suspension of production could result in increased development costs or deflect resources from other projects. In particular, we cannot predict with certainty whether, when and in what quantities our aerospace businesses will produce and sell aircraft engines, aircraft systems and components and other products currently in development, pending required certifications or after entry into service.

Our contracts are typically awarded on a competitive basis. Our bids are based upon, among other items, the cost to provide the products and services. To generate an acceptable return on our investment in these contracts, we must be able to accurately estimate our costs to provide the services and deliver the products and to be able to complete the contracts in a timely manner. If we fail to accurately estimate our costs or the time required to complete a contract, the profitability of our contracts may be materially and adversely affected. Some of our contracts provide for liquidated damages in the event that we are unable to perform and deliver in accordance with the contractual specifications and schedule. In addition, we may face customer directed cost reduction targets that could have a material adverse effect on the profitability of our contracts if theses targets are not achieved when required.

Furthermore, our competitors, including our customers, may develop competing technologies which gain market acceptance in advance of or instead of our products. The possibility also exists that our competitors or customers might develop new technologies or offerings that might cause our existing technologies and offerings to become obsolete. In addition, the possibility exists that competitors or customers will develop aftermarket services and aftermarket parts for our products which attract customers and adversely impact our return on investment on new products.

Any of the foregoing could have a material adverse effect on our competitive position, results of operations, cash flows or financial condition.

Our Business May Be Affected by Government Contracting Risks.

Most of our contracts with the U.S. Government are fixed price, which subjects us to the risk of reduced margins or losses if we are unable to achieve estimated costs, performance improvements, or efficiencies.

U.S. Government contracts are subject to termination by the government, either for convenience or for default. If terminated for convenience, we generally would be entitled to recover payment for work completed and certain termination costs. If terminated for default, the government would pay only for the work that has been accepted and could require us to pay the difference between the original contract price and the cost to re-procure the undelivered goods or services from another source as well as other damages resulting from the default.

We are now, and believe that in light of the current U.S. Government contracting environment we will continue to be, the subject of U.S. Government investigations relating to our U.S. Government contracts. Such U.S. Government investigations often take years to complete and could result in administrative, civil or criminal liabilities, including repayments, fines, treble and other damages, forfeitures, restitution or penalties, or could lead to suspension or debarment of U.S. Government contracting or of export privileges. For instance, if we or one of our business units were charged with wrongdoing in connection with a U.S. Government investigation (including fraud, or violation of certain environmental or export laws, as further described below), the U.S. Government could suspend us from bidding on or receiving awards of new U.S. Government contracts pending the completion of legal proceedings. If convicted or found liable, the U.S. Government could fine and debar us from new U.S. Government contracting for a period generally not to exceed three years and could void any contracts found to be tainted by fraud. We also could suffer reputational harm if allegations of impropriety were made against us, even if such allegations are later determined to be unsubstantiated.

Like many defense contractors, our contracts with the U.S. Government are subject to audit and we have received audit reports recommending the reduction of certain contract prices because, for example, cost or pricing data or cost accounting practices used to price and negotiate those contracts may not have conformed to government regulations. Some of these audit reports recommend that certain payments be repaid, delayed, or withheld, and may involve substantial amounts, which could, if the audit reports' theories were to prevail in litigation, increase the costs absorbed by our commercial engine business in the future. We have made voluntary refunds in those cases we believe appropriate, have settled some allegations and, in some cases, continue to negotiate and/or litigate. The Company may be, and has been, required to make payments into escrow of disputed liabilities while the related litigation is pending. If the litigation is resolved in the Company's favor, any such payments will be returned to the Company with interest.

Exports of Certain of Our Products Are Subject to Various Export Control and Sanctions Regulations and May Require Authorization From the U.S. Department of State, the U.S. Department of Commerce, the U.S. Department of the Treasury or Regulatory Agencies of Other Countries.

We must comply with various laws and regulations relating to the export of products, services and technology from the U.S. and other countries having jurisdiction over our operations. In the U.S., these laws include, among others, the Export Administration Regulations (EAR) administered by the U.S. Department of Commerce, the International Traffic in Arms Regulations (ITAR) administered by the U.S. Department of State and embargoes and sanctions regulations administered by the U.S. Department of the Treasury. Certain of our products, services and technologies have military or strategic applications and are on the U.S. Munitions List of the ITAR and the Commerce Control List of the EAR, or are otherwise subject to the EAR. In addition, U.S. foreign policy may restrict or prohibit our ability to engage in business dealings with certain individuals, entities or countries. As a result, our ability to export our products or services to certain countries or for particular end-uses or end-users may require authorization. Any failure by us or our customers or suppliers to comply with these laws and regulations could result in civil or criminal penalties, fines, seizure of our products, adverse publicity, restrictions on our ability to export our products, or the suspension or debarment from doing business with the U.S. Government. Moreover, any changes in export control or sanctions regulations may further restrict the export of our products or services, and the possibility of such changes requires constant monitoring to ensure we remain compliant. The length of time required by the licensing processes can vary, potentially delaying the shipment of products or performance of services and the recognition of the corresponding revenue. Any restrictions on the export of our products or product lines could have a material adverse effect on our competitive position, results of operations, cash flows or financial condition.

We Are Subject to Litigation, Environmental, Product Safety, Anti-Corruption and Other Legal and Compliance Risks.

We are subject to a variety of litigation and legal compliance risks. These risks relate to, among other things, product safety, personal injuries, intellectual property rights, contract-related claims, government contracts, taxes, environmental matters, competition laws and laws governing improper business practices. We or one of our businesses could be charged with wrongdoing as a result of such matters. If convicted or found liable, we could be subject to significant fines, penalties, repayments, or other damages (in certain cases, treble damages). As a global business, we are subject to complex laws and regulations in the U.S. and in other countries in which we operate. Those laws and regulations may be interpreted in different ways. They may also change from time to time, as may related interpretations and other guidance. Changes in laws or regulations could result in higher expenses. Uncertainty relating to laws or regulations may also affect how we conduct our operations and structure our investments and could limit our ability to enforce our rights. Changes in environmental and climate change laws or regulations, including laws relating to greenhouse gas emissions, could lead to new or additional investment in product designs and could increase environmental compliance expenditures. Changes in climate change concerns, or in the regulation of such concerns, including greenhouse gas emissions, could subject us to additional costs and restrictions, including increased energy and raw materials costs. Climate-related events also could disrupt our businesses and require us to incur additional costs.

At times we are involved in disputes with private parties over environmental issues, including litigation over the allocation of cleanup costs, alleged personal injuries and alleged property damage. Personal injury lawsuits may involve individual and purported class actions alleging that contaminants originating from our current or former products or operating facilities caused or contributed to medical conditions, including cancers incurred by employees, former employees, third-parties' employees or residents in the area, and environmental damage or diminution of real estate values. Even in litigation where we believe our liability is remote, there is a risk that a negative finding or decision in a matter involving multiple plaintiffs or a purported class action could have a material adverse effect on our competitive position, results of operations, cash flows or financial condition, in particular with respect to environmental claims in regions where we have, or previously had, significant operations.

Product recalls and product liability claims (including claims related to the safety or reliability of our products) also can result in significant costs, including fines, as well as negative publicity, management distraction and damage to our reputation that could reduce demand for our products and services.

In addition, the FCPA and other anti-bribery and corruption laws generally prohibit companies and their intermediaries from making improper payments to non-U.S. officials for the purpose of obtaining or retaining business. The FCPA applies to companies, individual directors, officers, employees and agents. U.S. companies also may be held liable for actions taken by strategic or local partners or representatives. The FCPA also imposes accounting standards and requirements on publicly traded U.S. corporations and their foreign affiliates, which are intended to prevent the diversion of corporate funds to the payment of bribes and other improper payments. Certain of our customer relationships outside of the U.S. are with governmental entities and are therefore subject to the FCPA and other anti-bribery and corruption laws. Our policies mandate compliance with these anti-bribery and corruption laws. Despite meaningful measures that we undertake to ensure lawful conduct, which include training and internal control policies, these measures may not always prevent violations of the FCPA or similar laws. We previously have been subject to regulatory investigations for alleged violations of anti-bribery laws, and could be subject to such investigations in the future, which could result in criminal and civil penalties, disgorgement, further changes or enhancements to our procedures, policies and controls, personnel changes or other remedial actions. Violations of these laws, or allegations of such violations, could disrupt our operations, cause reputational harm, involve significant management distraction and result in a material adverse effect on our competitive position, results of operations, cash flows or financial condition.

Cybersecurity and data privacy and protection laws and regulations are evolving and present increasing compliance challenges, which increase our costs, may affect our competitiveness, cause reputational harm, and expose us to substantial fines or other penalties.

For a description of current material legal proceedings and regulatory matters, see "Legal Proceedings" in in this Form 10-K and Note 18 to the Consolidated Financial Statements in our 2019 Annual Report.

Additional Tax Expense or Additional Tax Exposures Could Affect Our Future Profitability.

We are subject to income taxes in the United States and various international jurisdictions. Changes in tax laws and regulations, as well as changes and conflicts in related interpretations and other tax guidance could materially impact our tax receivables and liabilities and our deferred tax assets and deferred tax liabilities. Additionally, in the ordinary course of business we are subject to examinations by various tax authorities. In addition to ongoing examinations, there could be additional examinations launched in the future by governmental authorities in various jurisdictions, and existing examinations could be expanded. The global and diverse nature of our operations means that these risks will continue to exist and additional examinations, proceedings and contingencies will arise from time to time. Our competitive position, cash flows, results of operation or financial condition may be affected by the outcome of examinations, proceedings and other contingencies that cannot be predicted with certainty.

See "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the headings "Business Overview, ""Results of Operations - Income Taxes," and "Liquidity and Financial Condition" and Notes 1 and 11 to the Consolidated Financial Statements in our 2019 Annual Report for further discussion on income taxes and related contingencies, including our accounting and assessment of the effect of the Tax Cuts and Jobs Act of 2017(TCJA).

Our Defined Benefit Pension Plans are Subject to Financial Market Risk that Could Adversely Affect Our Results.

The performance of the financial markets and interest rates can impact our defined benefit pension plan expenses and funding obligations. Significant decreases in the discount rate or investment losses on plan assets may increase our funding obligations and adversely impact our financial results. See Note 12 to the Consolidated Financial Statements in our 2019 Annual Report for further discussion on pension plans and related obligations and contingencies.

We May Be Unable to Realize Expected Benefits From Our Cost Reduction and Restructuring Efforts and Our Profitability May Be Hurt or Our Business Otherwise Might Be Adversely Affected.

In order to operate more efficiently and control costs, we announce from time to time restructuring plans, which include workforce reductions, global facility consolidations and other cost reduction initiatives. These plans are intended to generate operating expense savings through reductions in direct and indirect expenses as well as improved efficiencies. We may undertake further workforce reductions or restructuring actions in the future. These types of cost reduction and restructuring activities are complex. If we do not successfully manage our current restructuring activities, or any future restructuring activities, expected efficiencies and benefits might be delayed or not realized, and our operations and business could be disrupted. Risks associated with these actions and other workforce management issues include unfavorable political responses to such actions, unforeseen delays in the implementation of anticipated workforce

reductions, additional unexpected costs, adverse effects on employee morale and the failure to meet operational targets due to the loss of employees or work stoppages, any of which may impair our ability to achieve anticipated cost reductions, or otherwise harm our business, or have a material adverse effect on our competitive position, results of operations, cash flows or financial condition.

Our Business and Financial Performance May Be Adversely Affected By Cyber-attacks on Information Technology Infrastructure and Products and Other Business Disruptions

Our business may be impacted by disruptions to our own or third-party information technology (IT) infrastructure, which could result from (among other causes) cyber-attacks on or failures of such infrastructure or compromises to its physical security, as well as from damaging weather or other acts of nature. Cyber-based risks, in particular, are evolving and include, but are not limited to, both attacks on our IT infrastructure and attacks on the IT infrastructure of third parties (both on premises and in the cloud) attempting to gain unauthorized access to our confidential or other proprietary information, classified information, or information relating to our employees, customers and other third parties. Cyber-based risks could also include attacks targeting the security, integrity and/or availability of the hardware, software and information installed, stored or transmitted in our products, including after the purchase of those products and when they are incorporated into third-party products, facilities or infrastructure. Such attacks could disrupt our systems or those of third parties, impact business operations, result in unauthorized release of confidential or otherwise protected information, and corrupt our data or that of third parties. We have experienced cyber-based attacks, and due to the evolving threat landscape, may continue to experience them going forward, potentially with more frequency. The threats we face vary from attacks common to most industries to more advanced and persistent, highly organized adversaries, including nation states, which target us and other defense contractors. We continue to make investments and adopt measures designed to enhance our protection, detection, response, and recovery capabilities, and to mitigate potential risks to our technology, products, services and operations from potential cyber-attacks. However, given the unpredictability, nature and scope of cyber-attacks, it is possible that potential vulnerabilities could go undetected for an extended period. We could potentially be subject to production downtimes, operational delays, other detrimental impacts on our operations or ability to provide products and services to our customers, the compromise of confidential or otherwise protected information, misappropriation, destruction or corruption of data, security breaches, other manipulation or improper use of our or third-party systems, networks or products, financial losses from remedial actions, loss of business, or potential liability, penalties, fines and/or damage to our reputation, any of which could have a material adverse effect on our competitive position, results of operations, cash flows or financial condition. Due to the evolving nature of such risks, the impact of any potential incident cannot be predicted.

We Depend On Our Intellectual Property, and Have Access to Certain Intellectual Property and Information of Our Customers and Suppliers; Infringement or Failure to Protect Our Intellectual Property Could Adversely Affect Our Future Growth and Success.

We rely on a combination of patents, trademarks, copyrights, trade secrets, nondisclosure agreements, information technology security systems, internal controls and compliance systems and other measures to protect our intellectual property. We also rely on nondisclosure agreements, information technology security systems and other measures to protect certain customer and supplier information and intellectual property that we have in our possession or to which we have access. Our efforts to protect intellectual property and proprietary rights may not be sufficient. We cannot be sure that our pending patent applications will result in the issuance of patents to us, that patents issued to or licensed by us in the past or in the future will not be challenged or circumvented by competitors, or that these patents will be found to be valid or sufficiently broad to preclude our competitors from introducing technologies similar to those covered by our patents and patent applications. Our ability to protect and enforce our intellectual property rights may be limited in certain countries outside the U.S. In addition, we may be the target of competitor or other third-party patent enforcement actions seeking substantial monetary damages or seeking to prevent our sale and marketing of certain of our products or services. Our competitive position also may be adversely impacted by limitations on our ability to obtain possession of, and ownership or necessary licenses concerning, data important to the development or provision of our products or service offerings, or by limitations on our ability to restrict the use by others of data related to our products or services. We may also be subject to disruptions, losses and liability resulting from various cybersecurity attacks or information technology failures, as described above. Any of these events or factors could have a material adverse effect on our competitive position, subject us to judgments, penalties and significant litigation costs or temporarily or permanently disrupt our sales and marketing of the affected products or services. Any of the foregoing could have a material adverse effect on our competitive position, results of operations, cash flows or financial condition.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We have properties in approximately 97 countries, with over 650 significant properties comprising approximately 96 million square feet of productive space. Approximately 57% of our significant properties are associated with our aerospace businesses and 43% are associated with our commercial businesses. Approximately 48% of our significant properties are leased, and 52% are owned. Approximately 51% of our significant properties are located in the United States.

Our fixed assets as of December 31, 2019 include manufacturing facilities and non-manufacturing facilities such as warehouses, and a substantial quantity of machinery and equipment, most of which are general purpose machinery and equipment using special jigs, tools and fixtures and in many instances having automatic control features and special adaptations. The facilities, warehouses, machinery and equipment in use as of December 31, 2019 are in good operating condition, are well-maintained and substantially all are generally in regular use.

Item 3. Legal Proceedings

Federal Securities Laws Litigation

On January 2, 2018, a purported shareowner filed a second amended complaint in the United States District Court for the Southern District of New York (the "District Court") under the federal securities laws against the Company and certain of its current and former executives (*Frankfurt-Trust Investment Luxemburg AG v. United Technologies Corporation et al.),* which further amends a previously disclosed complaint that was filed on May 10, 2017 In the second amended complaint, the plaintiff purports to represent a class of shareowners who purchased the Company's stock between December 11, 2014 and July 20, 2015. The second amended complaint alleges violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934, and Rule 10b-5 thereunder, related to alleged false and misleading statements and omissions of material fact made in connection with the Company's 2015 earnings expectations. On September 28, 2018, the District Court granted the defendants' motion to dismiss the case in its entirety. On October 25, 2018, the plaintiff filed a Notice of Appeal to the United States Court of Appeals for the Second Circuit (the "Court of Appeals"). On October 15, 2019, the Court of Appeals affirmed the District Court's decision. The plaintiff's deadline to file a petition for certiorari to the U.S. Supreme Court has expired, and the matter is now closed.

737 MAX Aircraft Litigation

Multiple lawsuits have been filed in U.S. courts relating to the October 29, 2018 Lion Air Flight 610 and the March 10, 2019 Ethiopian Airlines Flight 302 accidents. Collins Aerospace sold certain aircraft parts and systems to The Boeing Company for the 737 MAX aircraft involved in these accidents. Certain of our Collins Aerospace businesses have been named, along with other third parties, as parties in many of these lawsuits. We are also fully supporting all ongoing governmental investigations and inquiries relating to the accidents. We do not expect that the lawsuits or governmental investigations or inquiries will have a material adverse effect on our financial position, results of operations or cash flows.

Rockwell Collins' Voluntary Disclosure

In 2018, and before its acquisition by UTC, Rockwell Collins voluntarily disclosed to the United States Department of Justice (the "DOJ") and the SEC Division of Enforcement that it was conducting an internal investigation regarding meal, entertainment, and gift expenditures of B/E Aerospace sales employees that may not have complied with then-applicable company policy, as well as a potential conflict of interest involving a third party sales agent for B/E Aerospace in China. The internal investigation resulted from Rockwell Collins' post-acquisition compliance review of B/E Aerospace. On December 16, 2019, and January 16, 2020, the DOJ and SEC, respectively, notified UTC that they have closed their investigations of this matter.

In addition, we are subject to a number of other lawsuits, investigations and claims (some of which involve substantial amounts). For a discussion of contingencies related to certain other legal proceedings, see Note 18 to the Consolidated Financial Statements in our 2019 Annual Report. Except as indicated herein or in Note 18 to the Consolidated Financial Statements in our 2019 Annual Report, we do not believe that these matters will have a material adverse effect upon our competitive position, results of operations, cash flows or financial condition.

A further discussion of government contracts and related investigations, as well as a discussion of our environmental liabilities, can be found under the heading "Other Matters Relating to Our Business as a Whole – Compliance with Environmental and Other Government Regulations" in Item 1, "Business," and in Item 1A, "Risk Factors," in this Form 10-K.

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

UTC's common stock is listed on the New York Stock Exchange under the ticker symbol "UTX." There were approximately 30,010 registered shareholders at January 31, 2020.

The Performance Graph appearing in our 2019 Annual Report, filed as Exhibit 13 to this Form 10-K contains the following data relating to our common stock: cumulative total shareholder return and principal market. The information required by Item 5 with respect to securities authorized for issuance under equity compensation plans is incorporated herein by reference to Part III, Item 12 of this Form 10-K.

Issuer Purchases of Equity Securities

The following table provides information about our purchases during the quarter ended December 31, 2019 of equity securities that are registered by us pursuant to Section 12 of the Exchange Act.

2019	Total Number of Shares Purchased (000's)	Average Price Paid per Share	Total Number of Shares Purchased as Part of a Publicly Announced Program (000's)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Program (dollars in millions)
October 1 - October 31	92	$ 138.80	92	$ 1,839
November 1 - November 30	68	148.54	68	$ 1,829
December 1 - December 31	116	147.77	116	$ 1,812
Total	276	$ 144.99	276	

On October 14, 2015, our Board of Directors authorized a share repurchase program for up to $12 billion of our common stock, replacing the program announced on July 19, 2015. At December 31, 2019, the maximum dollar value of shares that may yet be purchased under this current program was $1,812 million. Under this program, shares may be purchased on the open market, in privately negotiated transactions, under accelerated share repurchase (ASR) programs and under plans complying with Rules 10b5-1 and 10b-18 under the Securities Exchange Act of 1934, as amended. We may also reacquire shares outside of the program from time to time in connection with the surrender of shares to cover taxes on vesting of restricted stock and as required under our employee savings plan. No shares were reacquired in transactions outside the program during the quarter ended December 31, 2019.

Item 6. Selected Financial Data

The Five-Year Summary appearing in our 2019 Annual Report, filed as Exhibit 13 to this Form 10-K, is incorporated herein by reference. See "Notes to Consolidated Financial Statements" in our 2019 Annual Report for a description of any accounting changes and acquisitions or dispositions of businesses materially affecting the comparability of the information reflected in the Five-Year Summary.

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

The information set forth in the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our 2019 Annual Report, filed as Exhibit 13 to this Form 10-K, is incorporated herein by reference.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

For information concerning market risk sensitive instruments, see discussion under the heading "Market Risk and Risk Management" in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our 2019 Annual Report, filed as Exhibit 13 to this Form 10-K, and under the headings "Foreign Exchange" and "Derivatives and Hedging Activity" in Note 1 and "Financial Instruments" in Note 14 to the Consolidated Financial Statements in our 2019 Annual Report, filed as Exhibit 13 to this Form 10-K.

Item 8. Financial Statements and Supplementary Data

The 2019 and 2018 Consolidated Balance Sheet, and other consolidated financial statements for the years ended 2019, 2018 and 2017, together with the report thereon of PricewaterhouseCoopers LLP dated February 6, 2020 in our 2019 Annual Report, filed as Exhibit 13 to this Form 10-K, are incorporated herein by reference. The 2019 and 2018 unaudited Selected Quarterly Financial Data appearing in our 2019 Annual Report, filed as Exhibit 13 to this Form 10-K, is incorporated herein by reference.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

As required by Rule 13a-15 under the Securities Exchange Act of 1934, as amended, we carried out an evaluation under the supervision and with the participation of our management, including the Chairman, President and Chief Executive Officer (CEO), the Acting Senior Vice President & Chief Financial Officer (CFO) and the Corporate Vice President, Controller (Controller), of the effectiveness of the design and operation of our disclosure controls and procedures. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives. Based upon our evaluation, our CEO, CFO and Controller concluded that our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the applicable rules and forms, and that it is accumulated and communicated to our management, including our CEO, CFO and Controller, as appropriate, to allow timely decisions regarding required disclosure.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. 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 reporting purposes in accordance with accounting principles generally accepted in the U.S. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Our management has assessed the effectiveness of our internal control over financial reporting as of December 31, 2019. In making its assessment, management has utilized the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in its 2013 Internal Control – Integrated Framework. Our management has concluded that based on its assessment, our internal control over financial reporting was effective as of December 31, 2019. The effectiveness of our internal control over financial reporting as of December 31, 2019 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in its report which appears in our 2019 Annual Report.

Item 9B. Other Information

On February 3, 2020, the Company entered into a letter agreement with Judith F. Marks, President and Chief Executive Officer of Otis, pursuant to which the terms of Ms. Marks's outstanding annual long-term incentive awards granted on November 1, 2017, January 2, 2018 and February 5, 2019 were modified to provide that, upon an involuntary termination of Ms. Marks's employment with Otis for reasons other than cause, such awards will be subject to the same treatment provided to retirement eligible participants. The letter agreement also provides that this involuntary termination treatment will apply to the 2020 annual long-term incentive awards granted to Ms. Marks.

The foregoing summary does not purport to be complete and is qualified in its entirety by reference to the full text of the letter agreement with Ms. Marks, which is filed herewith as Exhibit 10.40.

Section 13(r)(1)(D)Disclosures

The following activities are disclosed as required by Section 13(r)(1)(D) of the Securities Exchange Act of 1934, as amended (Exchange Act):

In the Company's Form 10-Q report for the quarterly period ended on June 30, 2019, the Company disclosed, under the heading "Other" in the "Business Overview" section of the "Management's Discussion and Analysis of Financial Condition and Results of Operations" activities as required by Section 13(r)(1)(D) of the Securities Exchange Act of 1934, as amended (Exchange Act). Such disclosure is incorporated herein by reference.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by Item 10 with respect to directors, the Audit Committee of the Board of Directors and audit committee financial experts is incorporated herein by reference to the sections of our Proxy Statement for the 2020 Annual Meeting of Shareowners titled "Election of Directors" (under the subheading "Nominees") and "Corporate Governance" (including under the subheading "Board Committees").

Information about our Executive Officers

The following persons are executive officers of United Technologies Corporation:

Name	Title	Other Business Experience Since 1/1/2015	Age as of 2/6/2020
Elizabeth B. Amato	Executive Vice President & Chief Human Resources Officer, United Technologies Corporation (since August 2012)	Senior Vice President, Human Resources and Organization, United Technologies Corporation	63
Robert J. Bailey	Corporate Vice President, Controller, United Technologies Corporation (since September 2016)	Vice President & Chief Financial Officer, Pratt & Whitney	55
Christopher T. Calio	President, Pratt & Whitney (since January 2020)	President, Commercial Engines, Pratt & Whitney; Executive Assistant to the President & CEO, United Technologies Corporation; Vice President & General Counsel, UTC Aerospace Systems	46
Michael R. Dumais	Executive Vice President, Operations & Strategy, United Technologies Corporation (since January 2017)	Senior Vice President, Strategic Planning, United Technologies Corporation; President, Power, Controls & Sensing Systems, UTC Aerospace Systems	53
Charles D. Gill	Executive Vice President & General Counsel, United Technologies Corporation (since 2007)	Senior Vice President and General Counsel, United Technologies Corporation	55
David L. Gitlin	President & Chief Executive Officer, Carrier (since June 2019)	President and Chief Operating Officer, Collins Aerospace Systems; President, UTC Aerospace Systems; President, Aircraft Systems, UTC Aerospace Systems	50
Gregory J. Hayes	Chairman (since September 2016), President and Chief Executive Officer, United Technologies Corporation (since November 2014)	Senior Vice President and Chief Financial Officer, United Technologies Corporation	59
Judith F. Marks	Chief Executive Officer (since June 2019) & President, Otis Elevator (since October 2017)	Chief Executive Officer, Dresser-Rand (a Siemens company); Chief Executive Officer, Siemens USA; Executive Vice President, Dresser-Rand; President and Chief Executive Officer, Siemens Government Technologies Inc.	56
Neil G. Mitchill, Jr.	Acting Senior Vice President & Chief Financial Officer (since November 2019)	Corporate Vice President, FP&A and Investor Relations, United Technologies Corporation; Vice President & Chief Financial Officer, Pratt & Whitney; Corporate Vice President, Controller, United Technologies Corporation; Corporate Vice President, Global Financial Services, United Technologies Corporation	44
Robert K. Ortberg	Chief Executive Officer, Collins Aerospace Systems (since November 2018)	Chairman, President and Chief Executive Officer of Rockwell Collins, Inc.	59
David R. Whitehouse	Corporate Vice President, Treasurer, United Technologies Corporation (since April 2015)	Vice President, Treasurer, United Technologies Corporation; Director, Capital Markets, United Technologies Corporation	53

All of the officers serve at the pleasure of the Board of Directors of United Technologies Corporation or the subsidiary designated.

Information concerning Section 16(a) compliance is incorporated herein by reference to the section of our Proxy Statement for the 2020 Annual Meeting of Shareowners titled "Other Important Information" under the heading "Section 16(a) Beneficial Ownership Reporting Compliance." We have adopted a code of ethics that applies to all our directors, officers, employees and representatives. This code is publicly available on our website at http://www.utc.com/How-We-Work/Ethics-And-Compliance/Pages/Default.aspx. Amendments to the code of ethics and any grant of a waiver from a provision of the code requiring disclosure under applicable SEC rules will be disclosed on our website. Our Corporate Governance Guidelines and the charters of our Board of Directors' Audit Committee, Compensation Committee, Finance Committee, and Governance and Public Policy Committee are available on our website at http://www.utc.com/Who-We-Are/Corporate-Governance/Pages/default.aspx. These materials may also be requested in print free of charge by writing to our Investor Relations Department at United Technologies Corporation, 10 Farm Springs Road, Investor Relations, Farmington, CT 06032.

Item 11. Executive Compensation

The information required by Item 11 is incorporated herein by reference to the sections of our Proxy Statement for the 2020 Annual Meeting of Shareowners titled "Executive Compensation," "Compensation of Directors" and "Report of the Compensation Committee."

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information relating to security ownership of certain beneficial owners and management is incorporated herein by reference to the section of our Proxy Statement for the 2020 Annual Meeting of Shareowners titled "Share Ownership."

Equity Compensation Plan Information

The following table provides information as of December 31, 2019 concerning Common Stock issuable under UTC's equity compensation plans.

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)		Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)	
Equity compensation plans approved by shareowners	16,197,000	(1)	$ 107.76	42,247,000	(3)
Equity compensation plans not approved by shareowners	252,000	(2)	N/A	N/A	

(1) Consists of the following issuable shares of Common Stock awarded under the United Technologies Corporation 2018 Long-Term Incentive Plan (the "2018 LTIP") and the United Technologies Corporation Long-Term Incentive Plan, as amended (together with the 2018 LTIP, the "LTIPs"): (i) shares of Common Stock issuable upon the exercise of outstanding non-qualified stock options; (ii) shares of Common Stock issuable upon the exercise of outstanding Stock Appreciation Rights (SARs); (iii) shares of Common Stock issuable pursuant to outstanding restricted stock unit and performance share unit awards, assuming performance at the target level (up to an additional 1,327,000 shares of Common Stock could be issued if performance goals are achieved above target), except for the 2017 performance share unit awards which reflect actual performance achieved; and (iv) shares of Common Stock issuable upon the settlement of outstanding deferred stock units and restricted stock units awarded under the United Technologies Corporation Board of Directors Deferred Stock Unit Plan, as amended and restated effective April 24, 2017. Under the LTIPs, each SAR referred to in clause (ii) is exercisable for a number of shares of Common Stock having a value equal to the increase in the market price of a share of such stock from the date the SAR was granted. For purposes of determining the total number of shares to be issued in respect of outstanding SARs as reflected in column (a) above, we have used the NYSE closing price for a share of Common Stock on December 31, 2019 of $149.76. The weighted-average exercise price of outstanding options, warrants and rights shown in column (b) takes into account only the shares identified in clauses (i) and (ii).

(2) Consists of shares of Common Stock issuable pursuant to outstanding restricted stock unit awards granted under the Rockwell Collins, Inc. 2015 Long-Term Incentive Plan that we assumed upon the acquisition of Rockwell Collins.

(3) Represents the maximum number of shares of Common Stock available to be awarded under the 2018 LTIP as of December 31, 2019. Performance share units and restricted stock units (Full Share Awards) will result in a reduction in the number of shares of Common Stock available for delivery under the 2018 LTIP in an amount equal to 4.03 times the number of shares to which the award corresponds. Stock options and stock appreciation rights do not constitute Full Share Awards and will result in a reduction in the number of shares of Common Stock available for delivery under the 2018 LTIP on a one-for-one basis.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by Item 13 is incorporated herein by reference to the sections of our Proxy Statement for the 2020 Annual Meeting of Shareowners titled "Corporate Governance" (under the subheading "Director Independence") and "Other Important Information" (under the subheading "Transactions with Related Persons").

Item 14. Principal Accounting Fees and Services

The information required by Item 14 is incorporated by reference to the section of our Proxy Statement for the 2020 Annual Meeting of Shareowners titled "Appoint an Independent Auditor for 2020," including the information provided in that section with regard to "Audit Fees," "Audit-Related Fees," "Tax Fees" and "All Other Fees."

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) Financial Statements, Financial Statement Schedules and Exhibits

1. Financial Statements (incorporated herein by reference to the 2019 Annual Report)

	Page Number in Annual Report
Report of Independent Registered Public Accounting Firm	31
Consolidated Statement of Operations for the three years ended December 31, 2019	33
Consolidated Statement of Comprehensive Income for the three years ended December 31, 2019	34
Consolidated Balance Sheet as of December 31, 2019 and 2018	35
Consolidated Statement of Cash Flows for the three years ended December 31, 2019	36
Consolidated Statement of Changes in Equity for the three years ended December 31, 2019	37
Notes to Consolidated Financial Statements	38
Selected Quarterly Financial Data (Unaudited)	87

2. Financial Statement Schedule for the three years ended December 31, 2019:

	Page Number in Form 10-K
SCHEDULE I—Report of Independent Registered Public Accounting Firm on Financial Statement Schedule	I
SCHEDULE II—Valuation and Qualifying Accounts	II

All other schedules are omitted because they are not applicable or the required information is shown in the financial statements or the notes thereto.

3. Exhibits:

The following list of exhibits includes exhibits submitted with this Form 10-K as filed with the SEC and those incorporated by reference to other filings.

Exhibit Number	
2.1	Agreement and Plan of Merger, dated as of September 4, 2017, by and among United Technologies Corporation, Riveter Merger Sub Corp. and Rockwell Collins, Inc., incorporated by reference to UTC's Current Report on Form 8-K (Commission file number 1-812) filed with the SEC on September 6, 2017.
2.2	Agreement and Plan of Merger, dated as of June 9, 2019, by and among United Technologies Corporation, Light Merger Sub Corp. and Raytheon Company, incorporated by reference to UTC's Current Report on Form 8-K (Commission file number 1-812) filed with the SEC on June 10, 2019.
3(i)	Restated Certificate of Incorporation, restated as of April 25, 2016, incorporated by reference to Exhibit 3.1 to UTC's Current Report on Form 8-K (Commission file number 1-812) filed with the SEC on April 25, 2016.
3(ii)	Bylaws as amended and restated effective January 3, 2020, incorporated by reference to Exhibit 3.2 to UTC's Current Report on Form 8-K (Commission file number 1-812) filed with the SEC on January 3, 2020.
4.1	Amended and Restated Indenture, dated as of May 1, 2001, between UTC and The Bank of New York, as trustee, incorporated by reference to Exhibit 4(a) to UTC's Registration Statement on Form S-3 (Commission file number 333-60276) filed with the SEC on May 4, 2001. UTC hereby agrees to furnish to the Commission upon request a copy of each other instrument defining the rights of holders of long-term debt of UTC and its consolidated subsidiaries and any unconsolidated subsidiaries.
4.2	Description of Securities.*
10.1	United Technologies Corporation Annual Executive Incentive Compensation Plan, incorporated by reference to Exhibit A to UTC's Proxy Statement for the 1975 Annual Meeting of Shareowners, Amendment No. 1 thereto, effective January 1, 1995, incorporated by reference to Exhibit 10.2 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 1995, and Amendment No. 2 thereto, effective January 1, 2009, incorporated by reference to Exhibit 10.1 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2008.
10.2	United Technologies Corporation Pension Preservation Plan, as amended and restated, effective December 31, 2009, incorporated by reference to Exhibit 10.3 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2009.
10.3	United Technologies Corporation Senior Executive Severance Plan, incorporated by reference to Exhibit 10(vi) to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 1992, as amended by Amendment thereto, effective December 10, 2003, incorporated by reference to Exhibit 10.4 of UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2003, and Amendment thereto, effective June 11, 2008 incorporated by reference to Exhibit 10.4 of UTC's Quarterly Report on Form 10-Q (Commission file number 1-812) for the quarterly period ended June 30, 2008, and Amendment thereto, effective February 10, 2011, incorporated by reference to Exhibit 10.4 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2010.
10.4	United Technologies Corporation Deferred Compensation Plan, as amended and restated, effective January 1, 2011, incorporated by reference to Exhibit 10.1 of UTC's Quarterly Report on Form 10-Q (Commission file number 1-812) for the quarterly period ended June 30, 2018.
10.5	United Technologies Corporation Executive Leadership Group Program, as amended and restated, effective October 15, 2013, incorporated by reference to Exhibit 10.11 to UTC's Quarterly Report on Form 10-Q (Commission file number 1-812) for the quarterly period ended September 30, 2013; and United Technologies Executive Leadership Group Program, effective April 1, 2019.*

10.6	Schedule of Terms for Restricted Share Unit Retention Awards relating to the United Technologies Corporation Executive Leadership Group Program (referred to above in Exhibit 10.6), incorporated by reference to Exhibit 10.12 to UTC's Quarterly Report on Form 10-Q (Commission file number 1-812) for the quarterly period ended September 30, 2013; and Schedule of Terms of Restricted Share Unit Retention Awards relating to the United Technologies Leadership Group Program, effective April 1, 2019 (referred to above in Exhibit 10.5).*
10.7	Form of Award Agreement for Restricted Share Unit Retention Awards relating to the United Technologies Corporation Executive Leadership Group Program (referred to above in Exhibit 10.6), incorporated by reference to Exhibit 10.13 to UTC's Quarterly Report on Form 10-Q (Commission file number 1-812) for the quarterly period ended September 30, 2013; and Form of Award Agreement for Restricted Share Unit Retention Awards relating to the United Technologies Leadership Group Program, effective April 1, 2019 (referred to above in Exhibit 10.5).*
10.8	United Technologies Corporation Board of Directors Deferred Stock Unit Plan, as Amended and Restated, effective as of April 29, 2019, incorporated by reference to Exhibit 10.8 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2018.
10.9	Retainer Payment Election Form for United Technologies Corporation Board of Directors Deferred Stock Unit Plan (referred to above in Exhibit 10.8), incorporated by reference to Exhibit 10.9 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2018.
10.10	Form of Deferred Restricted Stock Unit Award relating to the United Technologies Corporation Board of Directors Deferred Stock Unit Plan (referred to above in Exhibit 10.8), incorporated by reference to Exhibit 10.10 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2018. .
10.11	United Technologies Corporation Long-Term Incentive Plan, as amended and restated effective April 28, 2014 incorporated by reference to Exhibit 10.1 to UTC's Current Report on Form 8-K (Commission file number 1-812) filed with the SEC on May 2, 2014, as further amended by Amendment No. 1, effective as of February 5, 2016, incorporated by reference to Exhibit 10.12 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2015.
10.12	Schedule of Terms for restricted stock awards relating to the United Technologies Corporation Long-Term Incentive Plan (referred to above in Exhibit 10.11) (Rev. January 2016), incorporated by reference to Exhibit 10.13 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2015.
10.13	Schedule of Terms for non-qualified stock option awards relating to the United Technologies Corporation Long-Term Incentive Plan (referred to above in Exhibit 10.11) (Rev. January 2016), incorporated by reference to Exhibit 10.15 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2015.
10.14	Form of Award Agreement for non-qualified stock option awards relating to the United Technologies Corporation Long-Term Incentive Plan (referred to above in Exhibit 10.11), incorporated by reference to Exhibit 10.15 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2016.
10.15	Schedule of Terms for performance share unit awards relating to the United Technologies Corporation Long-Term Incentive Plan (referred to above in Exhibit 10.11) (Rev. January 2016), incorporated by reference to Exhibit 10.17 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2015.
10.16	Schedule of Terms for stock appreciation rights awards relating to the United Technologies Corporation 2005 Long-Term Incentive Plan (referred to above in Exhibit 10.11) (Rev. January 2016), incorporated by reference to Exhibit 10.18 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2015.
10.17	Form of Award Agreement for restricted stock unit, performance share unit and stock appreciation rights awards relating to the United Technologies Corporation Long-Term Incentive Plan (referred to above in Exhibit 10.11), incorporated by reference to Exhibit 10.18 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2016.
10.18	United Technologies Corporation LTIP Performance Share Unit Deferral Plan, relating to the Long-Term Incentive Plan (referred to above in Exhibit 10.12), incorporated by reference to Exhibit 10.36 of UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2008.

10.19	United Technologies Corporation International Deferred Compensation Replacement Plan, effective January 1, 2005, incorporated by reference to Exhibit 10.35 of UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2008.
10.20	United Technologies Corporation Company Automatic Contribution Excess Plan executed July 16, 2018 (amended and restated as of January 1, 2010), incorporated by reference to Exhibit 10.2 to UTC's Quarterly Report on Form 10-Q (Commission file number 1-812) for the quarterly period ended June 30, 2018.
10.21	United Technologies Corporation Savings Restoration Plan executed July 16, 2018 (amended and restated as of January 1, 2011), incorporated by reference to Exhibit 10.3 to UTC's Quarterly Report on Form 10-Q (Commission file number 1-812) for the quarterly period ended June 30, 2018.
10.22	UTC 2018 Long-Term Incentive Plan, incorporated by reference to Exhibit 10.1 to UTC's Current Report on Form 8-K (Commission file number 1-812) filed with the SEC on May 3, 2018.
10.23	Schedule of Terms for restricted stock unit award relating to the United Technologies Corporation 2018 Long-Term Incentive Plan (referred to above in Exhibit 10.22), incorporated by reference to Exhibit 10.23 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2018.
10.24	Schedule of Terms for stock appreciation rights award relating to the United Technologies Corporation 2018 Long-Term Incentive Plan (referred to above in Exhibit 10.22), incorporated by reference to Exhibit 10.24 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2018.
10.25	Schedule of Terms for performance share unit award relating to the United Technologies Corporation 2018 Long-Term Incentive Plan (referred to above in Exhibit 10.22), incorporated by reference to Exhibit 10.25 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2018.
10.26	Rockwell Collins' 2015 Long-Term Incentives Plan, incorporated by reference to Appendix B to Rockwell Collins' Notice and Proxy Statement (Commission file number 0001-16445) dated December 17, 2014.
10.27	Form of Performance Share Agreement under Rockwell Collins' 2015 Long-Term Incentives Plan (referred to above in Exhibit 10.26), incorporated by reference to Exhibit 10-a-1 to Rockwell Collins' Quarterly Report on Form 10-Q (Commission file number 0001-16445) for the quarterly period ended December 31, 2017.
10.28	Form of Restricted Stock Unit Agreement under Rockwell Collins' 2015 Long-Term Incentives Plan (referred to above in Exhibit 10.26), incorporated by reference to Exhibit 10-a-2 to Rockwell Collins' Quarterly Report on Form 10-Q (Commission file number 0001-16445) for the quarterly period ended December 31, 2017.
10.29	Compensation Recovery Policy acknowledgment and agreement, incorporated by reference to Exhibit 10-c-1 to Rockwell Collins' Quarterly Report on Form 10-Q (Commission file number 0001-16445) for the quarterly period ended December 31, 2012.
10.30	Rockwell Collins' Deferred Compensation Plan, as amended, incorporated by referenced to Exhibit 10-f-2 to Rockwell Collins' Annual Report on Form 10-K (Commission file number 0001-16445) for the fiscal year ended September 30, 2007; Amendment No. 1 to Rockwell Collins' Deferred Compensation Plan, as amended, incorporated by reference to Exhibit 10-f-2 to Rockwell Collins' Annual Report on Form 10-K/A (Commission file number 0001-16445) for the fiscal year ended September 30, 2018.
10.31	Rockwell Collins' 2005 Deferred Compensation Plan, as amended and restated as of June 27, 2017, incorporated by reference to Exhibit 10-f-1 to Rockwell Collins' Quarterly Report on Form 10-Q (Commission file number 0001-16445) for the quarterly period ended June 30, 2017; Amendment No. 1 to Rockwell Collins' 2005 Deferred Compensation Plan, incorporated by reference to Exhibit 10-f-1 to Rockwell Collins' Quarterly Report on Form 10-Q (Commission file number 0001-16445) for the quarterly period ended December 31, 2017; Amendment No. 2 to Rockwell Collins' 2005 Deferred Compensation Plan, as amended, incorporated by reference to Exhibit 10-f-6 to Rockwell Collins' Annual Report on Form 10-K/A (Commission file number 0001-16445) for the fiscal year ended September 30, 2018.
10.32	Rockwell Collins' Non-Qualified Savings Plan, as amended, incorporated by referenced to Exhibit 10-g-2 to Rockwell Collins' Annual Report on Form 10-K (Commission file number 0001-16445) for the fiscal year ended September 30, 2007; Amendment No. 1 to Rockwell Collins' Non-Qualified Savings Plan, incorporated by reference to Exhibit 10-g-2 Rockwell Collins' Annual Report on Form 10-K/A (Commission file number 0001-16445) for the fiscal year ended September 30, 2018.

10.33	Rockwell Collins' 2005 Non-Qualified Retirement Savings Plan, as amended and restated as of July 17, 2018, incorporated by referenced to Exhibit 10-g-6 to Rockwell Collins' Annual Report on Form 10-K/A (Commission file number 0001-16445) for the fiscal year ended September 30, 2018.
10.34	Rockwell Collins' 2005 Non-Qualified Pension Plan, as amended, incorporated by reference to Exhibit 10-h-1 to Rockwell Collins' Quarterly Report on Form 10-Q (Commission file number 0001-16445) for the quarterly period ended June 30, 2012; Amendment No. 1 to Rockwell Collins' Non-Qualified Pension Plan, as amended, incorporated by reference to Exhibit 10-h-1 to Rockwell Collins' Quarterly Report on Form 10-Q (Commission file number 0001-16445) for the quarterly period ended December 31, 2015; Amendment No. 2 to Rockwell Collins' 2005 Non-Qualified Pension Plan, as amended, incorporated by reference to Exhibit 10-h-3 to Rockwell Collins' Annual Report on Form 10-K/A (Commission file number 0001-16445) for the fiscal year ended September 30, 2018.
10.35	Rockwell Collins' Master Trust, as amended, incorporated by reference to Exhibit 10-i-2 to Rockwell Collins' Annual Report on Form 10-K (Commission file number 0001-16445) for the fiscal year ended September 30, 2007; Amendment No. 1 to Rockwell Collins' Master Trust, as amended, incorporated by reference to Exhibit 10-i-2 to Rockwell Collins' Annual Report on Form 10-K/A (Commission file number 0001-16445) for the fiscal year ended September 30, 2018; Amendment No. 2 to Rockwell Collins' Master Trust, as amended; and Amendment No.3 to Rockwell Collins' Master Trust, as amended, incorporated by reference to Exhibit 10.35 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2018.
10.36	Rockwell Collins' Short-term Relocation Benefit to Rockwell Collin's CEO, CFO and two other executive officers, incorporated by reference to Exhibit 10-e-1 to Rockwell Collins' Quarterly Report on Form 10-Q (Commission file number 0001-16445) for the quarterly period ended March 31, 2018; Description of the Extension to the Short-Term Relocation Benefit for the Company's CEO, CFO and two other executive officers, incorporated by referenced to Exhibit 10-j-2 to Rockwell Collins' Annual Report on Form 10-K/A (Commission file number 0001-16445) for the fiscal year ended September 30, 2018.
10.37	Compensation & Covenants Agreement between United Technologies Corporation and Robert K. Ortberg, effective as of November 26, 2018 , incorporated by reference to Exhibit 10.37 to UTC's Annual Report on Form 10-K (Commission file number 1-812) for the fiscal year ended December 31, 2018.
10.38	Employment Agreement, dated as of June 9, 2019, by and between United Technologies Corporation and Gregory J. Hayes, incorporated by reference to Exhibit 10.1 UTC's Current Report on Form 8-K (Commission file number 1-812) filed with the SEC on June 10, 2019.
10.39	United Technologies Corporation Merger Severance Plan for Corporate Office Executives and Other Key Employees, incorporated by reference to Exhibit 10.1 of UTC's Quarterly Report on Form 10-Q (Commission file number 1-812) for the quarterly period ended June 30, 2019.
10.40	Amendment dated February 3, 2020, to the terms of certain awards granted under UTC's Long Term Incentive Plans Amendment dated February 3, 2020, to the terms of certain awards granted under UTC's Long Term Incentive Plans referred to above in Exhibit 10.11 and 10.22, by and between, United Technologies Corporation and Judy Marks.* to above in Exhibit 10.11 and 10.22, by and between, United Technologies Corporation and Judy Marks.*
13	Excerpts from UTC's 2019 Annual Report to Shareowners for the year ended December 31, 2019.*
14	Code of Ethics. The UTC Code of Ethics may be accessed via UTC's website at http://www.utc.com/How-We-Work/Ethics-And-Compliance/Pages/Default.aspx.
21	Subsidiaries of the Registrant.* of the Registrant.*
23	Consent of PricewaterhouseCoopers LLP.*
24	Powers of Attorney of Lloyd J. Austin III,John V. Faraci, Jean-Pierre Garnier, Christopher J. Kearney, Ellen J. Kullman, Marshall O. Larsen, Harold W. McGraw III, Margaret L. O'Sullivan, Denise L. Ramos, Fredric G. Reynolds and Brian C. Rogers.*
31.1	Rule 13a-14(a)/15d-14(a) Certification.*
31.2	Rule 13a-14(a)/15d-14(a) Certification.*
31.3	Rule 13a-14(a)/15d-14(a) Certification.*
32	Section 1350 Certifications.*

101.INS	Inline XBRL Instance Document.* (File name: utx-20191231.xml)
101.SCH	Inline XBRL Taxonomy Extension Schema Document.* (File name: utx-20191231.xsd)
101.CAL	Inline XBRL Taxonomy Calculation Linkbase Document.* (File name: utx-20191231_cal.xml)
101.DEF	Inline XBRL Taxonomy Definition Linkbase Document.* File name: : utx-20191231_def.xml)
101.LAB	Inline XBRL Taxonomy Label Linkbase Document.* (File name: utx-20191231_lab.xml)
101.PRE	Inline XBRL Taxonomy Presentation Linkbase Document.* (File name: utx-20191231_pre.xml)
104	Cover Page Interactive Data File - the cover page XBRL tags are embedded within the Inline XBRL document.

Notes to Exhibits List:

* Submitted electronically herewith.

Exhibits 10.1 through 10.40 are contracts, arrangements or compensatory plans filed as exhibits pursuant to Item 15(b) of the requirements for Form 10-K reports.

Attached as Exhibit 101 to this report are the following formatted in XBRL (Extensible Business Reporting Language): (i) Consolidated Statement of Operations for the three years ended December 31, 2019, (ii) Consolidated Statement of Comprehensive Income for the three years ended December 31, 2019, (iii) Consolidated Balance Sheet as of December 31, 2019 and 2018, (iv) Consolidated Statement of Cash Flows for the three years ended December 31, 2019, (v) Consolidated Statement of Changes in Equity for the three years ended December 31, 2019, (vi) Notes to Consolidated Financial Statements, and (vii) Financial Schedule of Valuation and Qualifying Accounts.

Item 16. Form 10-K Summary

None.

SIGNATURES

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

UNITED TECHNOLOGIES CORPORATION
(Registrant)

By: /s/ NEIL G. MITCHILL, JR.

Neil G. Mitchill, Jr.
Acting Senior Vice President & Chief Financial Officer

By: /s/ ROBERT J. BAILEY

Robert J. Bailey
Corporate Vice President, Controller

Date: February 6, 2020

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/ GREGORY J. HAYES **(Gregory J. Hayes)**	Director, Chairman, President and Chief Executive Officer (Principal Executive Officer)	February 6, 2020
/s/ NEIL G. MITCHILL, JR. **(Neil G. Mitchill, Jr.)**	Acting Senior Vice President & Chief Financial Officer (Principal Financial Officer)	February 6, 2020
/s/ ROBERT J. BAILEY **(Robert J. Bailey)**	Corporate Vice President, Controller (Principal Accounting Officer)	February 6, 2020
/s/ LLOYD J. AUSTIN III * **(Lloyd J. Austin III)**	Director	
(Diane M. Bryant)	Director	
/s/ JOHN V. FARACI * **(John V. Faraci)**	Director	
/s/ JEAN-PIERRE GARNIER * **(Jean-Pierre Garnier)**	Director	
/s/ CHRISTOPHER J. KEARNEY * **(Christopher J. Kearney)**	Director	
/s/ ELLEN J. KULLMAN * **(Ellen J. Kullman)**	Director	
/s/ MARSHALL O. LARSEN * **(Marshall O. Larsen)**	Director	
/s/ HAROLD W. MCGRAW III * **(Harold W. McGraw III)**	Director	
/s/ MARGARET L. O'SULLIVAN * **(Margaret L. O'Sullivan)**	Director	
/s/ DENISE L. RAMOS * **(Denise L. Ramos)**	Director	
/s/ FREDRIC G. REYNOLDS * **(Fredric G. Reynolds)**	Director	
/s/ BRIAN C. ROGERS * **(Brian C. Rogers)**	Director	

*By: /s/ CHARLES D. GILL

Charles D. Gill
Executive Vice President &
General Counsel, as Attorney-in-Fact

Date: February 6, 2020

SCHEDULE I

Report of Independent Registered Public Accounting Firm on
Financial Statement Schedule

To the Shareowners and Board of Directors of United Technologies Corporation

Our audits of the consolidated financial statements referred to in our report dated February 6, 2020 appearing in the 2019 Annual Report to Shareowners of United Technologies Corporation (which report and consolidated financial statements are incorporated by reference in this Annual Report on Form 10-K) also included an audit of the financial statement schedule listed in Item 15(a)(2) of this Form 10-K. In our opinion, this financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

/s/ PricewaterhouseCoopers LLP
Hartford, Connecticut
February 6, 2020

SCHEDULE II

UNITED TECHNOLOGIES CORPORATION AND SUBSIDIARIES
Valuation and Qualifying Accounts
Three years ended December 31, 2019
(Millions of Dollars)

Allowances for Doubtful Accounts and Other Customer Financing Activity:		
Balance, December 31, 2016	$	467
Provision charged to income		88
Doubtful accounts written off (net)		(82)
Other adjustments		(17)
Balance, December 31, 2017		456
Provision charged to income		54
Doubtful accounts written off (net)		(37)
Other adjustments		15
Balance, December 31, 2018		488
Provision charged to income		**84**
Doubtful accounts written off (net)		**(113)**
Other adjustments		**(70)**
Balance, December 31, 2019	**$**	**389**
Future Income Tax Benefits—Valuation allowance:		
Balance, December 31, 2016	$	545
Additions charged to income tax expense		45
Additions charged to goodwill, due to acquisitions		—
Reductions credited to income tax expense		(29)
Other adjustments		21
Balance, December 31, 2017		582
Additions charged to income tax expense		61
Additions charged to goodwill, due to acquisitions		25
Reductions credited to income tax expense		(25)
Other adjustments		(38)
Balance, December 31, 2018		605
Additions charged to income tax expense		**117**
Additions charged to goodwill, due to acquisitions		**2**
Reductions credited to income tax expense		**(15)**
Other adjustments		**(93)**
Balance, December 31, 2019	**$**	**616**

Exhibit 4.2

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

As of the date of the Annual Report on Form 10-K of which this exhibit is a part, United Technologies Corporation (the "Company," "UTC," "we," "us," and "our") has 7 classes of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"): (1) our common stock, $1 par value per share; (2) our 1.125% Notes due 2021 (the "notes due 2021"); (3) our 1.250% Notes due 2023 (the "notes due 2023"); (4) our 1.150% Notes due 2024 (the "notes due 2024"); (5) our 1.875% Notes due 2026 (the "notes due 2026"); (6) our 2.150% Notes due 2030 (the "notes due 2030"); and (7) our Floating Rate Notes due 2020 (the "floating rate notes", and together with the notes due 2021, the notes due 2023, the notes due 2024, the notes due 2026, and the notes due 2030, the "Notes").

Common Stock

The following briefly summarizes certain terms of UTC's common stock. This summary does not describe every aspect of our common stock and is subject, and is qualified in its entirety by reference, to all the provisions of our restated certificate of incorporation and our restated bylaws.

UTC's common stock is listed on the New York Stock Exchange under the symbol "UTX."

Holders of common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders. For the purpose of electing directors, holders of common stock do not have cumulative voting rights. At each annual meeting of stockholders, the entire board of directors is elected for a term of one year.

Holders of common stock are entitled to share equally in the dividends, if any, that may be declared by the board of directors out of funds that are legally available to pay dividends, but only after payment of any dividends required to be paid on outstanding preferred stock. Upon any voluntary or involuntary liquidation, dissolution or winding up of UTC, the holders of common stock will be entitled to share ratably in all assets of UTC remaining after we pay:

- all of our debts and other liabilities; and
- any amounts we may owe to the holders of our preferred stock.

Holders of common stock do not have any preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of common stock are subject to the rights of the holders of any series of preferred stock that we have designated and issued or that we may designate and issue in the future.

Delaware law and our restated bylaws permit us to issue uncertificated shares of common stock. However, holders of uncertificated shares of our common stock may request certificates representing their ownership of common stock.

At each annual meeting of stockholders, the entire board of directors is elected for a term of one year. UTC's restated bylaws provide that the board of directors may, from time to time, designate the number of directors; however, the number may not be less than 8 nor more than 19. Vacancies on the board resulting from an increase in the number of directors may generally be filled by a vote of the majority of the directors then in office, even if less than a quorum.

UTC's restated certificate of incorporation includes provisions eliminating the personal liability of our directors for monetary damages resulting from breaches of their fiduciary duty to the extent permitted by Delaware law. The restated bylaws include provisions indemnifying our directors and officers to the fullest extent permitted by Delaware law, including under circumstances in which indemnification is otherwise discretionary. The restated bylaws additionally include provisions permitting the Chief Executive Officer or the General Counsel and the Chief Financial Officer acting together to reimburse the expenses of our current and former employees, agents and fiduciaries in advance of the final disposition of any such proceeding.

UTC's restated bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election of directors, other than nominations made by or at the direction of UTC's board of directors. Eligible stockholders may include their own director nominees in UTC's proxy materials under the circumstances set forth in the bylaws. Generally, a stockholder or a group of up to 20 stockholders, who has maintained continuous qualifying ownership of at least 3% of UTC's outstanding common stock for at least three years, may include director nominees constituting up to 20% of the board of directors in the proxy materials for an annual meeting of stockholders if such stockholder or group of stockholders complies with the other requirements set forth in the proxy access provision. In addition, special meetings of stockholders may be called by the board of directors, the chairman of the board of directors, the Chief Executive Officer or by the Secretary at the valid written request of shareholders of record who own, or are acting on behalf of one or more beneficial owners, who own at least 15% of UTC's outstanding common stock of and in accordance with the other specific requirements in the special meeting provisions of the bylaws..

UTC's restated bylaws include an exclusive forum provision. This provision provides that, unless UTC consents in writing to the selection of an alternative forum, the sole and exclusive forum for various types of suits will be a state court located within the State of Delaware (or, if no state court located within the State of Delaware has jurisdiction, the federal district court for the District of Delaware). Such suits include (1) any derivative action or proceeding brought on behalf of UTC, (2) any action asserting a claim of breach of a fiduciary duty owed by any director or officer or other employee of UTC to the company or to UTC's stockholders, (3) any action asserting a claim against UTC or any director or officer or other employee of UTC arising pursuant to any provision of the DGCL or UTC's certificate of incorporation or bylaws (as either may be amended from time to time) or (4) any action asserting a claim against UTC or any

director or officer or other employee of UTC governed by the internal affairs doctrine. Under UTC's restated bylaws, to the fullest extent permitted by law, this exclusive forum provision applies to state and federal law claims, including claims under the federal securities laws, including the Securities Act and the Exchange Act, although stockholders will not be deemed to have waived UTC's compliance with the federal securities laws and the rules and regulations thereunder. The enforceability of similar choice of forum provisions in other companies' bylaws has been challenged in legal proceedings, and it is possible that, in connection with claims arising under federal securities laws or otherwise, a court could find the exclusive forum provision contained in UTC's restated bylaws to be inapplicable or unenforceable.

The restated certificate of incorporation contains a "fair price" provision, providing that certain business combinations with any interested stockholder or affiliate of an interested stockholder may not be consummated without the affirmative vote of at least 80% of the votes entitled to be cast by the holders of the then-outstanding shares of capital stock of UTC entitled to vote generally in the election of directors, voting as a single class. The term "interested stockholder," as defined in the restated certificate of incorporation, generally means a person who owns at least 10% of the voting power of UTC's voting stock.

The business combinations to which the fair price provision applies include:

- a merger or consolidation with an interested stockholder;
- the sale or other disposition of assets having a fair market value of $25,000,000 or more to an interested stockholder;
- the issuance or transfer of securities having an aggregate fair market value of $25,000,000 or more by UTC or any subsidiary of UTC to an interested stockholder;
- the adoption of a plan of liquidation or dissolution proposed by or on behalf of an interested stockholder; and
- any reclassification of securities, recapitalization or other transaction which increases, directly or indirectly, the proportionate share holdings of an interested stockholder.

The affirmative vote of the holders of at least 80% of the voting power of voting stock of UTC is required to amend or repeal the fair price provision or adopt any provision inconsistent with it.

Under Delaware law, the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage.

Certain of the provisions of UTC's restated certificate of incorporation and restated bylaws discussed above could discourage the acquisition of control of a substantial block of our stock or a proxy contest. These provisions could also have the effect of discouraging a third party from making a tender offer or otherwise attempting to obtain control of UTC, even though an attempt to obtain control of UTC might be beneficial to UTC and its stockholders.

Section 203 of the Delaware General Corporation Law (the “DGCL”), under certain circumstances, may make it more difficult for a person who is an “Interested Stockholder,” as defined in Section 203, to effect various business combinations with a corporation for a three-year period. Under Delaware law, a corporation’s certificate of incorporation or bylaws may exclude a corporation from the restrictions imposed by Section 203. However, UTC’s restated certificate of incorporation and restated bylaws do not exclude us from these restrictions, and these restrictions apply to us.

Description of Debt Securities

The following briefly summarizes certain general terms and provisions of the Notes, which are governed by the indenture, dated as of May 1, 2001, as amended and restated, between UTC and The Bank of New York Mellon Trust Company, N.A., successor to The Bank of New York, which acts as trustee, as it may be supplemented by an officers' certificate issued pursuant thereto or a supplemental indenture entered into by UTC and the trustee pursuant thereto from time to time. This summary does not describe every aspect of our Notes and is subject, and is qualified in its entirety by reference, to the indenture as supplemented.

General

The Notes are debt securities. Each series of debt securities will constitute direct unsecured obligations of UTC. The debt securities indebtedness of UTC.

Indenture Provisions Relating to the Possible Issuance of One or More Series of Debt Securities

The debt securities are our direct unsecured general obligations. The indenture allows us to issue either unsubordinated or junior subordinated debt securities from time to time under the indenture or an indenture governing junior subordinated debt securities, as applicable, without limitation as to amount. We may issue debt securities in one or more series with the same or different terms (Section 301). There may be more than one trustee under the indenture, each with respect to one or more different series of debt securities. If there is more than one trustee under the indenture, the powers and trust obligations of each trustee will extend only to the one or more series of debt securities for which it is trustee. The effect of the provisions contemplating that at a particular time there might be more than one trustee acting is that, in that event, those debt securities (whether of one or more than one series) for which each trustee is acting would be treated as if issued under a separate indenture.

The Indenture Does Not Limit UTC's Indebtedness, Prevent Dividends or Generally Prevent Highly Leveraged Transactions

The indentures do not

- limit the amount of unsecured indebtedness which UTC or any subsidiary may incur; or
- limit the payment of dividends by UTC or its acquisition of any of its equity securities.

When we say "subsidiary," we mean any corporation of which at the time of determination UTC, directly and/or indirectly through one or more subsidiaries, owns more than 50% of the shares of voting stock (Section 101).

Except as may be included in a supplemental indenture to the indenture covering a specific series of offered debt securities and described in the applicable prospectus supplement and except for the covenants described below under "—Liens," "—Sales and Leasebacks" and "—Restriction

on Merger and Sales of Assets," there are no covenants or any other provisions which may afford holders of debt securities protection in the event of a highly leveraged transaction which may or may not result in a change of control of UTC.

Restriction on Merger and Sales of Assets

Under the indenture, UTC may not consolidate with or merge into any other corporation, or convey, lease or transfer its properties and assets substantially as an entirety to any person, unless all three of the following conditions are satisfied:

- immediately after the transaction, no event of default (or event which with notice or lapse of time, or both, would be an event of default) with respect to the debt securities will have happened and be continuing;
- the corporation formed by the consolidation or into which UTC is merged or the person which will have received the transfer or lease of UTC's properties and assets will assume UTC's obligation for the due and punctual payment of the principal, premium, if any, and interest (including all additional amounts, if any, payable as contemplated by Section 1010 of the indenture) on the debt securities and the performance and observance of every covenant to be performed by UTC under the indenture, and will be organized under the laws of the United States of America, one of the States thereof or the District of Columbia; and
- UTC has delivered to the trustee an officer's certificate and opinion of counsel, each stating that the transaction complies with these conditions (Section 801).

In addition, with respect to the debt securities, if any principal property of UTC or of any wholly-owned domestic manufacturing subsidiary, or any shares of stock or debt of any wholly-owned domestic manufacturing subsidiary, would become subject to any lien, the debt securities outstanding will be secured, as to that principal property, equally and ratably with or prior to, the debt which upon the transaction would become secured by the lien unless UTC or the wholly-owned domestic manufacturing subsidiary could create the lien under the indenture without equally and ratably securing the unsubordinated debt securities. For the purpose of providing the equal and ratable security referred to in the preceding sentence, the outstanding principal amount of original issue discount securities and indexed securities will mean that amount which would at the time of providing the security be due and payable pursuant to Section 502 of the indenture and the terms of the original issue discount securities and indexed securities upon their acceleration, and the extent of the equal and ratable security will be adjusted, to the extent permitted by law, as and when this amount changes over time pursuant to the terms of such original issue discount securities and indexed securities (Sections 502 and 803). See "-Events of Default" for further information about acceleration of original issue discount securities and indexed securities.

In the event of any transaction other than a lease described in and complying with the four conditions listed in the immediately preceding paragraph, UTC would be discharged from all obligations and covenants under the indenture and the debt securities, and could be dissolved and liquidated (Section 802).

Defeasance and Covenant Defeasance

The indenture provides that, if the provisions of Article Fourteen are made applicable without modification to the debt securities of or within any series and any related coupons pursuant to Section 301 of the indenture, UTC may elect either "defeasance" or "covenant defeasance" as described below:

- "defeasance" means that UTC may elect to defease and be discharged from any and all obligations with respect to the debt securities and any related coupons, except for the obligation to pay additional amounts, if any, upon the occurrence of specified events of tax, assessment or governmental charge with respect to payments on the debt securities and the obligations to register the transfer or exchange of the debt securities and any related coupons, to replace temporary or mutilated, destroyed, lost or stolen debt securities and any related coupons, to maintain an office or agency in respect of the debt securities and any related coupons and to hold moneys for payment in trust;
- "covenant defeasance" means that UTC may elect to be released from its obligations with respect to the debt securities and any related coupons that are described under "-Liens" and "-Sales and Leasebacks," or, if provided pursuant to Section 301 of the indenture, its obligations with respect to any other covenant, and any omission to comply with these obligations will not constitute a default or an event of default with respect to the debt securities and any related coupons.

To elect either defeasance or covenant defeasance under either indenture, UTC must irrevocably deposit with the trustee or another qualifying trustee, in trust, an amount in such currency, currencies or currency units in which the applicable debt securities are payable, or government obligations (as defined below), which through the payment of principal and interest in accordance with the terms of the government obligations will provide money in an amount sufficient to pay the principal, premium, if any, and interest on the outstanding debt securities and any related coupons, and any mandatory sinking fund or analogous payments on them, on the scheduled due dates for them.

This amount must be deposited in the currency, currencies or currency unit in which the debt securities and any related coupons are then specified as payable at stated maturity, and/or government obligations applicable to the debt securities and any related coupons. This applicability will be determined on the basis of the currency or currency unit in which the debt securities are then specified as payable at stated maturity. If so specified in any applicable prospectus supplement, a trust of this kind may only be established if, among other things, UTC has delivered to the applicable trustee an opinion of counsel (as specified in the indenture) to the effect that the holders of the debt securities and any related coupons will not recognize income, gain or loss for United States federal income tax purposes as a result of the defeasance or covenant defeasance and will be subject to United States federal income tax on the same amounts, in the same manner and at the same times as would have been the case if the defeasance or covenant defeasance had not occurred. In the case of defeasance, the opinion of counsel must refer to and be based upon a ruling of the Internal Revenue Service or a change in

applicable United States federal income tax law occurring after April 1, 1990 pursuant to the indenture.

Unless otherwise specified in any applicable prospectus supplement, "government obligations" means securities which are:

- direct obligations of the government which issued the currency in which the debt securities are payable; or
- obligations of a person controlled or supervised by and acting as an agency or instrumentality of the government which issued the currency in which the debt securities of the applicable series are payable, the payment of which is unconditionally guaranteed by that government, which, in either case, are full faith and credit obligations of that government payable in that currency and are not callable or redeemable at the option of the issuer of the obligations and will also include specified depository receipts issued by a bank or trust company as custodian with respect to any government obligation of this kind (Section 101 and Article Fourteen).

Unless otherwise provided in any applicable prospectus supplement, if, after UTC has deposited funds and/or government obligations to effect defeasance with respect to any debt securities:

- the holder of a debt security is entitled to, and does, elect pursuant to the terms of the debt security to receive payment in a currency or currency unit other than that in which the deposit has been made in respect of the debt security; or
- the currency or currency unit in which the deposit has been made in respect of the debt security ceases to be used by its government of issuance;

then the indebtedness represented by the debt security and any related coupons will be deemed to have been, and will be, fully discharged and satisfied through the payment of the principal, premium, if any, and interest, if any, on the debt security as they become due out of the proceeds yielded by converting the amount so deposited in respect of the debt security into the currency or currency unit in which the debt security becomes payable as a result of the holder's election or the government's cessation of usage based on the applicable market exchange rate (as defined in the prospectus supplement relating to the debt security) for that currency or currency unit in effect on the second business day prior to each payment date, except that with respect to a cessation of usage of the currency or currency unit by its government of issuance which results in current exchange rates no longer being available, the conversion will be based on the applicable market exchange rate for the currency or currency unit (as nearly as possible) in effect at the time of cessation (Section 1405). Unless otherwise provided in any applicable prospectus supplement, all payments of principal, premium, if any, and interest, if any, on any debt security that is payable in a foreign currency or currency unit that ceases to be used by its government of issuance will be made in U.S. dollars (Section 312).

If UTC effects covenant defeasance with respect to any debt securities and any related coupons and the debt securities and any related coupons are declared due and payable because of the occurrence of any event of default other than the event of default described in the third bullet

point under “-Events of Default” with respect to Sections 1008 and 1009 of the indenture (which sections would no longer be applicable to the debt securities or any related coupons) or described in the third or fifth bullet point under “-Events of Default” with respect to any other covenant with respect to which there has been defeasance, the amount of cash and the amounts of principal and interest payable on the government obligations on deposit with the trustee will be sufficient to pay amounts due on the debt securities and any related coupons at the time of their stated maturity but may not be sufficient to pay amounts due on the debt securities and any related coupons at the time of the acceleration resulting from the event of default. However, UTC would remain liable to make payment of the amounts due at the time of acceleration.

The applicable prospectus supplement may further describe the provisions, if any, permitting defeasance or covenant defeasance, including any modifications to the provisions described above, with respect to the debt securities of or within a particular series and any related coupons.

Modification and Waiver

Under the indenture, modifications and amendments may be made by UTC and the trustee, with the consent of the holders of not less than a majority in aggregate principal amount of outstanding debt securities which are affected by the modification or amendment. However, the consent of the holder of each debt security affected by the modification or amendment is required for any modification or amendment that would, among other things:

- change the stated maturity of principal of, or any installment of interest or premium, if any, on, or change the obligation of UTC to pay any additional amounts as contemplated by Section 1010 of the indenture on, any security;
- reduce the principal amount of, or the rate of interest on, or any premium payable on redemption of, any security, or reduce the amount of principal of an original issue discount security that would be due and payable upon declaration of acceleration of the maturity of the original issue discount security or would be provable in bankruptcy;
- change the place of payment where, or the coin, currency, currencies, currency unit or composite currency in which payment of principal, premium, if any, or interest on any security is payable;
- impair the right to institute suit for the enforcement of any payment on or with respect to any security;
- reduce the above stated percentage of holders of debt securities necessary to modify or amend the indenture or to consent to any waiver under the indenture; or
- modify the foregoing requirements or the provisions of the indenture related to waiver of certain covenants or waiver of past defaults (Section 902).

The indenture permits the holders of at least a majority in aggregate principal amount of outstanding debt securities to waive compliance by UTC with some of the restrictions described under “-Restriction on Merger and Sales of Assets” and compliance with specified other covenants of UTC contained in the indenture (Section 1011), including, in the case of the indenture, the restrictions described under “-Liens” and “-Sales and Leasebacks.”

The indenture contains provisions for convening meetings of the holders of debt securities of a series if debt securities of that series are issuable as bearer securities (Section 1501). A meeting may be called at any time by the trustee, and also, upon request, by UTC or the holders of at least 10% in principal amount of the debt securities of that series outstanding. If a meeting is called, notice must be given as provided in the applicable indenture (Section 1502). Except for any consent which must be given by the holder of each debt security affected by a modification or amendment of the indenture, as described above, any resolution presented at a meeting or adjourned meeting at which a quorum is present may be adopted by the affirmative vote of the holders of a majority in principal amount of the debt securities of that series; provided, however, that any resolution with respect to any consent or waiver which may be given by the holders of not less than a specified percentage in principal amount of the debt securities of a series may be adopted at a meeting or adjourned meeting at which a quorum is present only by the affirmative vote of that specified percentage in principal amount of the debt securities of that series; and provided, further, that any resolution with respect to any request, demand, authorization, direction, notice, consent, waiver or other action which may be made, given or taken by the holders of a specified percentage, which is less than a majority in principal amount of debt securities of a series may be adopted at a meeting or adjourned meeting duly reconvened at which a quorum is present by the affirmative vote of the holders of that specified percentage in principal amount of the debt securities of that series. Any resolution passed or decision taken at any meeting of holders of debt securities of any series duly held in accordance with the indenture will be binding on all holders of debt securities of that series and the related coupons. The quorum at any meeting called to adopt a resolution, and at any reconvened meeting, will be persons holding or representing a majority in principal amount of the debt securities of a series. However, if any action is to be taken at the meeting with respect to a consent or waiver which may be given by the holders of not less than a specified percentage in principal amount of the debt securities of a series, the persons holding or representing that specified percentage in principal amount of the debt securities of the series will constitute a quorum (Section 1504).

Events of Default

The indenture defines an “event of default” with respect to any series of debt securities as being any one of the following events:

- default in the payment of any interest upon any debt security of the series and any related coupon when due, continued for 30 days;
- default in the payment of the principal of, or premium, if any, on a debt security of the series at its maturity;
- default in the performance of any other covenant of UTC in the indenture, continued for 60 days after written notice as provided in the indenture, other than a covenant included in the indenture solely for the benefit of series of debt securities other than the series in question or a covenant default the performance of which would be covered by the fifth bullet point below;
- certain specified events in bankruptcy, insolvency or reorganization; and
- any other event of default provided with respect to debt securities of the series.

No event of default provided with respect to a particular series of debt securities, except as to events described in the third and fourth bullet points above, necessarily constitutes an event of default with respect to any other series of debt securities (Section 501).

If an event of default described in the first, second or fifth bullet point above with respect to debt securities of any series at the time outstanding occurs and is continuing, then the trustee or the holders of not less than 25% in principal amount of the outstanding debt securities of that series may declare the principal amount of all of the debt securities of that series to be due and payable immediately, or, if the debt securities of that series are original issue discount securities or indexed securities, the trustee or the same minimum number of holders may declare the portion of the principal amount that is specified in the terms of that series to be due and payable immediately. If an event of default described in the third or fourth bullet point above occurs and is continuing, then the trustee or the holders of not less than 25% in principal amount of all the debt securities then outstanding may declare the principal amount of all of the outstanding debt securities to be due and payable immediately, or, if any indenture securities are original issue discount securities or indexed securities, the trustee or the same minimum number of holders may declare the portion of the principal amount that is specified in the terms of that series to be due and payable immediately. However, at any time after a declaration of acceleration with respect to outstanding debt securities of a series (or of all outstanding debt securities, as the case may be) has been made, but before a judgment or decree for payment of the money has been obtained by the trustee as provided in the indenture, the holders of a majority in principal amount of outstanding debt securities of that series or of all outstanding debt securities, as the case may be, may, subject to specified conditions, rescind and annul the acceleration if all events of default, other than the nonpayment of accelerated principal or specified portion of accelerated principal, with respect to outstanding debt securities of the series or of all outstanding debt securities, as the case may be, have been cured or waived as provided in the indenture (Section 502). The indenture also provides that the holders of not less than a majority in principal amount of the outstanding debt securities of a series or of all outstanding debt securities, as the case may be, may, subject to specified limitations, waive any past default and its consequences (Section 513). The prospectus supplement relating to any series of debt securities which are original issue discount securities or indexed securities will describe the particular provisions relating to acceleration of a portion of the principal amount of the original issue discount securities or indexed securities upon the occurrence and continuation of an event of default.

In case an event of default with respect to the debt securities of a series has occurred and is continuing, the trustee will be obligated to exercise those rights and powers vested in it by the indenture with respect to the series that a prudent person would exercise and to use the same degree of care and skill in their exercise as a prudent person would use under the circumstances in the conduct of his or her own affairs (Section 601).

Subject to the provisions of the indenture relating to the duties of the trustee in case an event of default occurs and is continuing, the trustee is under no obligation to exercise any of the rights or powers under the indenture at the request, order or direction of any of the holders unless the holders have offered to the trustee reasonable security or indemnity (Section 603). Subject to these provisions for the indemnification of the trustee and specified limitations contained in the

indenture, the holders of a majority in principal amount of the outstanding debt securities of a series or of all outstanding debt securities, as the case may be, will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee (Section 512).

UTC will be required to furnish to the applicable trustee annually a statement as to the fulfillment by UTC of all of its obligations under the indenture (Section 1004).

Governing Law

The indenture and the debt securities will be governed and construed in accordance with the law of the State of New York.

Trustee

Under the indenture, the trustee may resign or be removed with respect to one or more series of debt securities and a successor trustee may be appointed to act with respect to the series (Section 610). If two or more persons are acting as trustee with respect to different series of debt securities, each trustee will be a trustee of a trust under the indenture separate and apart from the trust administered by any other trustee (Section 611), and any action described herein to be taken by the "trustee" may then be taken by each trustee with respect to, and only with respect to, the one or more series of debt securities for which it is trustee.

Liens

Under the indenture, so long as any debt securities are outstanding:

- UTC will not itself, and will not permit any wholly-owned domestic manufacturing subsidiary to, create, incur, issue or assume any debt secured by any lien on any principal property owned by UTC or any wholly-owned domestic manufacturing subsidiary; and
- UTC will not itself, and will not permit any subsidiary to, create, incur, issue or assume any debt secured by any lien on any shares of stock or debt of any wholly-owned domestic manufacturing subsidiary.

When we say "wholly-owned domestic manufacturing subsidiary" we mean any subsidiary of which, at the time of determination, UTC directly and/or indirectly owns all of the outstanding capital stock (other than directors' qualifying shares) and which, at the time of determination, is primarily engaged in manufacturing, except a subsidiary:

- which neither transacts any substantial portion of its business nor regularly maintains any substantial portion of its fixed assets within the United States; or
- which is engaged primarily in the finance business including, without limitation, financing the operations of, or the purchase of products which are products of or incorporate products of, UTC and/or its subsidiaries; or

- which is primarily engaged in ownership and development of real estate, construction of buildings, or related activities, or a combination of the foregoing (Section 101).

When we say "debt," we mean notes, bonds, debentures or other similar evidence of indebtedness for money borrowed (Section 1008).

When we say "liens," we mean pledges, mortgages, liens, encumbrances and other security interests (Section 1008).

When we say "principal property," we mean any manufacturing plant or warehouse, together with the land upon which it is erected and fixtures constituting a part of the manufacturing plant or warehouse, owned by UTC or any wholly-owned domestic manufacturing subsidiary and located in the United States, the gross book value (without deduction of any reserve for depreciation) of which on the date as of which the determination is being made is an amount which exceeds 1% of consolidated net tangible assets, other than any manufacturing plant or warehouse or any portion of the manufacturing plant or warehouse or any fixture:
• which is financed by industrial development bonds; or
• which, in the opinion of the board of directors of UTC, is not of material importance to the total business conducted by UTC and its subsidiaries, taken as a whole (Section 101).

However, any of the actions described in the first two bullet points under "-Liens" above may be taken if

- the debt securities are equally and ratably secured; or
- the aggregate principal amount of the secured debt then outstanding plus the attributable debt of UTC and its wholly-owned domestic manufacturing subsidiaries in respect of sale and leaseback transactions described below involving principal properties entered into after the date when UTC first issues securities pursuant to the indenture, other than transactions that are permitted as described in the second bullet point under "-Sales and Leasebacks," would not exceed 10% of consolidated net tangible assets.

When we say "attributable debt," we mean, as to any particular lease under which any person is at the time liable for a term of more than 12 months, at any date as of which the amount of attributable debt is to be determined, the total net amount of rent required to be paid by the person under the lease during the remaining term of the lease (excluding any subsequent renewal or other extension options held by the lessee and excluding amounts on account of maintenance and repairs, services, taxes and similar charges, and contingent rents), discounted from the respective due dates of the payments under the lease to the date of determination at the rate of 15% per annum, compounded monthly (Section 101).

When we say "consolidated net tangible assets," we mean the total amount of assets (less applicable reserves and other properly deductible items) after deducting:

- all current liabilities, excluding any current liabilities which are by their terms extendible or renewable at the option of the obligor on the liabilities to a time more than 12 months after the time as of which the amount of current liabilities is being computed; and

- all goodwill, trade names, trademarks, patents, unamortized debt discount and expense and other like intangibles, all as set forth on the most recent balance sheet of UTC and its subsidiaries and computed in accordance with accounting principles generally accepted in the United States of America (Section 101).

This restriction on liens will not apply to debt secured by permitted liens. Therefore, for purposes of this restriction, debt secured by permitted liens will be excluded in computing secured debt. Permitted liens include:

- liens existing as of the date when UTC first issued securities pursuant to the indenture;
- liens existing on any property of or shares of stock or debt of any corporation at the time it became or becomes a wholly-owned domestic manufacturing subsidiary, or arising after that time (a) otherwise than in connection with the borrowing of money arranged after the corporation became a wholly-owned domestic manufacturing subsidiary and (b) pursuant to contractual commitments entered into before the corporation became a wholly-owned domestic manufacturing subsidiary;
- liens on property (including shares of stock or debt of a wholly-owned domestic manufacturing subsidiary) existing at the time of acquisition and certain purchase money or similar liens;
- liens to secure specified exploration, drilling, development, operation, construction, alteration, repair or improvement costs;
- liens securing debt owing by a subsidiary to UTC or to a wholly- owned domestic manufacturing subsidiary;
- liens in connection with government contracts, including the assignment of moneys due or to become due on government contracts;
- materialmen’s, carriers’, mechanics’, workmen’s, repairmen’s or other like liens arising in the ordinary course of business and which are not overdue or which are being contested in good faith in appropriate proceedings;
- liens arising from any judgment, decree or order of any court or in connection with legal proceedings or actions at law or in equity; and
- certain extensions, substitutions, replacements or renewals of the foregoing.

In addition, production payments and other financial arrangements with regard to oil, gas and mineral properties are not deemed to involve liens securing debt (Section 1008).

Sales and Leasebacks

So long as any debt securities are outstanding under the indenture, UTC will not, and will not permit any wholly-owned domestic manufacturing subsidiary to, enter into any sale and leaseback transaction after the date when UTC first issued securities pursuant to the indenture, covering any principal property, which was or is owned or leased by UTC or a wholly-owned domestic manufacturing subsidiary and which has been or is to be sold or transferred more than 120 days after the completion of construction and commencement of full operation of that principal property.

However, a sale and leaseback transaction of this kind will not be prohibited if:

- attributable debt of UTC and its wholly-owned domestic manufacturing subsidiaries in respect of the sale and leaseback transaction and all other sale and leaseback transactions entered into after the date when UTC first issued securities pursuant to the indenture (other than sale and leaseback transactions that are permitted as described in the next bullet point), plus the aggregate principal amount of debt secured by liens on principal properties then outstanding (not otherwise permitted or excepted) without equally and ratably securing the debt securities, would not exceed 10% of the consolidated net tangible assets;
- an amount equal to the greater of the net proceeds of the sale or transfer or the fair market value of the principal property sold or transferred (as determined by UTC) is applied within 120 days to the voluntary retirement of the debt securities or other indebtedness of UTC (other than indebtedness subordinated to the debt securities) or indebtedness of a wholly-owned domestic manufacturing subsidiary, for money borrowed, maturing more than 12 months after the voluntary retirement;
- the lease is for a temporary period not exceeding three years; or
- the lease is with UTC or another wholly-owned domestic manufacturing subsidiary (Section 1009).

Notes Due 2021

The following briefly summarizes certain terms of the notes due 2021. This summary does not describe every aspect of the notes due 2021 and is subject, and is qualified in its entirety by reference, to the prospectus supplement of UTC, dated as of February 17, 2016 and the definitive documents related to such notes.

General

We have issued the notes due 2021 in an initial aggregate principal amount of €950,000,000. The notes due 2021 will mature on December 15, 2021.

The notes due 2021 have been issued in book-entry form. See "Book-Entry, Delivery and Form." We issued the notes due 2021 only in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof.

The notes due 2021 are listed on the New York Stock Exchange under the symbol "UTX 21D." We have no obligation to maintain such listing, and we may delist the notes due 2021 at any time.

We may, without the consent of the holders of notes due 2021, issue additional notes of such series under the indenture having the same ranking and the same interest rate, maturity and other terms as the notes due 2021; *provided* that any such additional notes of such series that are not fungible with the notes due 2021 offered under the prospectus supplement dated as of February 17, 2016 for U.S. federal income tax purposes will have a separate CUSIP, ISIN and other identifying number than the notes due 2021 issued thereunder. Any such additional notes due 2021 will, together with the notes due 2021 offered by the same prospectus supplement, constitute a single series of notes under the indenture.

Interest

The notes due 2021 will bear interest at the annual rate of 1.125% and will accrue interest from February 22, 2016, or from the most recent date to which interest has been paid or duly provided for.

Interest will be payable on the notes due 2021 annually in arrears on December 15 of each year and on the maturity date, beginning on December 15, 2016 (each, a "fixed rate interest payment date"), to the persons in whose names such notes due 2021 are registered on the record date; *provided*, *however*, that interest payable on the maturity date or any relevant redemption date will be payable to the persons to whom the principal of such notes is payable. Interest on notes due 2021 will be computed on the basis of the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid (or February 22, 2016 if no interest has been paid), to but excluding the next fixed rate interest payment date. This payment convention is referred to as ACTUAL/

ACTUAL (ICMA) as defined in the rulebook of the International Capital Market Association. If the date on which a payment of interest or principal on the notes due 2021 is scheduled to be paid is not a business day, then that interest or principal will be paid on the next succeeding business day, and no further interest will accrue as a result of such delay.

A "business day" is each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions are authorized or obligated by law or executive order to be closed in New York City or London and which is a day on which the Trans-European Automated Real-time Gross Settlement Express Transfer system (the "TARGET2 system"), or any successor thereto, operates.

A "record date" is the close of business on the date that is fifteen calendar days prior to the date on which interest is scheduled to be paid, regardless of whether such date is a business day; *provided* that if any of the notes due 2021 are held by a securities depositary in book-entry form, the record date for such notes will be the close of business on the business day (for this purpose a day on which Clearstream and Euroclear are open for business) immediately preceding the date on which interest is scheduled to be paid.

Issuance in Euro

Payments of principal, interest and Additional Amounts, if any, in respect of the notes due 2021 will be payable in euro. If the euro is unavailable to us due to the imposition of exchange controls or other circumstances beyond our control (including the dissolution of the euro) or if the euro is no longer being used by the then member states of the European Monetary Union that have adopted the euro as their currency or for the settlement of transactions by public institutions of or within the international banking community, then all payments in respect of the applicable notes will be made in U.S. dollars until the euro is again available to us or so used. The amount payable on any date in euro will be converted into U.S. dollars at the rate mandated by the U.S. Federal Reserve Board as of the close of business on the second business day prior to the relevant payment date or, in the event the U.S. Federal Reserve Board has not mandated a rate of conversion, on the basis of the then most recent U.S. dollar/euro exchange rate available on or prior to the second business day prior to the relevant payment date as determined by us in our sole discretion. Any payment in respect of the notes so made in U.S. dollars will not constitute an event of default under the notes or the indenture governing the notes. Neither the trustee nor the paying agent shall have any responsibility for any calculation or conversion in connection with the foregoing.

Investors will be subject to foreign exchange risks as to payments of principal, interest and Additional Amounts, if any, that may have important economic and tax consequences to them.

Optional Redemption

The notes due 2021 will be redeemable, in whole or in part, at our option at any time. The Company may redeem the notes due 2021 on any date prior to September 15, 2021 at a redemption price in euro equal to the greater of:

(a) 100% of the principal amount of notes due 2021 to be redeemed; or
(b) the sum of the present values of the remaining scheduled payments of principal and interest on the notes due 2021 to be redeemed as described below, discounted to the redemption date on an annual basis (ACTUAL/ACTUAL (ICMA)) at the applicable Comparable Government Bond Rate (as defined below), plus 25 basis points.

In every such case, the redemption price will also include interest accrued to, but excluding, the date of redemption on the principal balance of notes due 2021 being redeemed.

In addition, at any time on or after September 15, 2021, the Company may redeem some or all of the notes due 2021 at its option at a redemption price equal to 100% of the principal amount of the notes due 2021 to be redeemed, plus, in every such case, interest accrued to, but excluding, the date of redemption on the principal balance of notes due 2021 being redeemed.

In any case, the principal amount of a note remaining outstanding after a redemption in part shall be €100,000 or an integral multiple of €1,000 in excess thereof.

For purposes of the optional redemption provisions of notes due 2021, the following terms will be applicable:

"Comparable Government Bond" means, in relation to any Comparable Government Bond Rate calculation, at the discretion of an independent investment bank selected by us, a German federal government bond whose maturity is closest to the maturity of the notes due 2021 to be redeemed, or if such independent investment bank in its discretion determines that such similar bond is not in issue, such other German federal government bond as such independent investment bank may, with the advice of three brokers of, and/or market makers in, German federal government bonds selected by us, determine to be appropriate for determining the Comparable Government Bond Rate.

"Comparable Government Bond Rate" means, with respect to any redemption date, the price, expressed as a percentage (rounded to three decimal places, with 0.0005 being rounded upwards), at which the gross redemption yield on the notes due 2021 to be redeemed, if they were to be purchased at such price on the third business day prior to the redemption date, would be equal to the gross redemption yield on such business day of the Comparable Government Bond (as defined above) on the basis of the middle market price of the Comparable Government Bond prevailing at 11:00 a.m. (London time) on such business day as determined by an independent investment bank selected by us.

General Information Regarding Optional Redemption

We will mail or electronically deliver, according to the procedures of the applicable depositary, notice (with a copy to the trustee and the paying agent) of any optional redemption to the registered holder of the notes due 2021 being redeemed not less than 30 days and not more than 60 days before the redemption date. The notice of redemption will identify, among other things,

the redemption date, the redemption price (or if not then ascertainable, the manner of calculation thereof) and that on the redemption date, the redemption price will become due and payable and that notes called for redemption will cease to accrue interest on and after the redemption date (unless there is a default on payment of the redemption price). Prior to any redemption date, we will deposit with the paying agent or the trustee money sufficient to pay the redemption price of the notes to be redeemed on that date. If we redeem less than all of the notes due 2021, the trustee will choose notes due 2021 to be redeemed by any method that it deems fair and appropriate; *provided* that if the notes due 2021 are represented by one or more global notes, beneficial interests in the notes due 2021 will be selected for redemption by Euroclear and Clearstream in accordance with their respective standard procedures therefor.

The notes due 2021 are also subject to redemption if certain events occur involving United States taxation. See "—Redemption for Tax Reasons."

Additional Amounts

All payments of principal and interest in respect of the notes due 2021 by us or a paying agent on our behalf will be made free and clear of, and without deduction or withholding for or on account of, any present or future taxes, duties, assessments or other similar governmental charges imposed or levied by the United States or any political subdivision or taxing authority of or in the United States (collectively, "Taxes"), unless such withholding or deduction is required by law.

In the event such withholding or deduction for Taxes is required by law, subject to the limitations described below, we will pay to any non-U.S. holder or any foreign partnership such additional amounts ("Additional Amounts") as may be necessary to ensure that the net amount received by such person, after withholding or deduction for such Taxes, will be equal to the amount such person would have received in the absence of such withholding or deduction.

However, no Additional Amounts shall be payable with respect to any Taxes if such Taxes are imposed or levied for reasons unrelated to the holder's or beneficial owner's ownership or disposition of notes, nor shall Additional Amounts be payable for or on account of:

(a) any Taxes which would not have been so imposed, withheld or deducted but for:

(1) the existence of any present or former connection between the holder or beneficial owner (or between a fiduciary, settlor, beneficiary, member or shareholder or other equity owner of, or a person having a power over, such holder or beneficial owner, if such holder or beneficial owner is an estate, a trust, a limited liability company, a partnership, a corporation or other entity) and the United States, including, without limitation, such holder or beneficial owner (or such fiduciary, settlor, beneficiary, member, shareholder or other equity owner or person having such a power) being or having been a citizen or resident or treated as a resident of the United States, being or having been engaged in a trade or business in the United States, being or having been present in the United States, or having or having had a permanent establishment in the United States;

(2) the failure of the holder or beneficial owner to comply with any applicable certification, information, documentation or other reporting requirement, if compliance is

required under the tax laws and regulations of the United States or any political subdivision or taxing authority of or in the United States to establish entitlement to a partial or complete exemption from such Taxes (including, but not limited to, the requirement to provide Internal Revenue Service Form W-8BEN, Form W-8BEN-E, Form W-8ECI, Form W-8IMY (and related documentation) or any subsequent versions thereof or successor thereto); or

(3) the holder's or beneficial owner's present or former status as a personal holding company or a foreign personal holding company with respect to the United States, as a controlled foreign corporation with respect to the United States, as a passive foreign investment company with respect to the United States, as a foreign tax exempt organization with respect to the United States or as a corporation that accumulates earnings to avoid United States federal income tax;

(b) any Taxes which would not have been imposed, withheld or deducted but for the failure of the holder or beneficial owner to meet the requirements (including the certification requirements) of Section 871(h) or Section 881(c) of the Internal Revenue Code of 1986, as amended (the "Code");

(c) any Taxes which would not have been imposed, withheld or deducted but for the presentation by the holder or beneficial owner of such note for payment on a date more than 30 days after the date on which such payment became due and payable or the date on which payment of the note due 2021 is duly provided for and notice is given to holders, whichever occurs later, except to the extent that the holder or beneficial owner would have been entitled to such Additional Amounts on presenting such note on any date during such 30-day period;

(d) any estate, inheritance, gift, sales, excise, transfer, personal property, wealth or similar Taxes;

(e) any Taxes which are payable other than by withholding or deduction from a payment on such note;

(f) any Taxes which are imposed, withheld or deducted with respect to, or payable by, a holder that is not the beneficial owner of the note, or a portion of the note, or that is a fiduciary, partnership, limited liability company or other similar entity, but only to the extent that a beneficial owner, a beneficiary or settlor with respect to such fiduciary or member of such partnership, limited liability company or similar entity would not have been entitled to the payment of an Additional Amount had such beneficial owner, settlor, beneficiary or member received directly its beneficial or distributive share of the payment;

(g) any Taxes required to be withheld or deducted by any paying agent from any payment on any note, if such payment can be made without such withholding or deduction by at least one other paying agent;

(h) any Taxes imposed, withheld or deducted under Sections 1471 through 1474 of the Code (or any amended or successor provisions), any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such sections of the Code;

(i) any Taxes that would not have been imposed, withheld or deducted but for a change in any law, treaty, regulation, or administrative or judicial interpretation that becomes effective after the applicable payment becomes due or is duly provided for, whichever occurs later; or

(j) any combination of items (a), (b), (c), (d), (e), (f), (g), (h) and (i).

Any Additional Amounts paid on the notes due 2021 will be paid in euro.

For purposes of this section, the acquisition, ownership, enforcement, or holding of or the receipt of any payment with respect to a note alone will not constitute a connection (1) between the holder or beneficial owner and the United States or (2) between a fiduciary, settlor, beneficiary, member or shareholder or other equity owner of, or a person having a power over, such holder or beneficial owner if such holder or beneficial owner is an estate, a trust, a limited liability company, a partnership, a corporation or other entity and the United States.

Except as specifically provided under this section "Additional Amounts," we will not be required to make any payment with respect to any tax, duty, assessment or other governmental charge imposed by any government or any political subdivision or taxing authority.

If we are required to pay Additional Amounts with respect to the notes due 2021, we will notify the trustee and paying agent pursuant to an officers' certificate that specifies the Additional Amounts payable and when the Additional Amounts are payable. If the trustee and the paying agent do not receive such an officers' certificate from us, the trustee and paying agent may rely on the absence of such an officers' certificate in assuming that no such Additional Amounts are payable.

Redemption for Tax Reasons

We may redeem the notes due 2021 at our option, in whole but not in part, at a redemption price equal to 100% of the principal amount of the notes due 2021 to be redeemed, together with any accrued and unpaid interest on the notes to be redeemed to, but excluding, the redemption date, at any time, if:

(i) we have or will become obliged to pay Additional Amounts with respect to the notes due 2021 as a result of any change in, or amendment to, the laws, regulations, treaties, or rulings of the United States or any political subdivision of or in the United States or any taxing authority thereof or therein affecting taxation, or any change in, or amendment to, the application, official interpretation, administration or enforcement of such laws, regulations, treaties or rulings (including a holding by a court of competent jurisdiction in the United States), which change or amendment is enacted, adopted, announced or becomes effective on or after the date of the applicable prospectus supplement; or
(ii) on or after the date of the applicable prospectus supplement, any action is taken by a taxing authority of, or any action has been brought in a court of competent jurisdiction in, the United States or any political subdivision of or in the United States or any taxing authority thereof or therein, including any of those actions specified in clause (i) above, whether or not such action was taken or brought with respect to us, or there is any change, amendment, clarification, application or interpretation of such laws, regulations, treaties or rulings, which in any such case, will result in a material probability that we will be required to pay Additional Amounts with respect to the notes due 2021 (it being understood that such material probability will be deemed to result if the written opinion of independent tax counsel described in clause (b) below to such effect is delivered to the trustee and the paying agent).

Notice of any such redemption will be mailed, or delivered electronically if held by any depositary in accordance with such depositary's customary procedures, at least 30 days but not more than 60 days before the redemption date to each registered holder of the notes due 2021 to be redeemed; *provided*, *however*, that the notice of redemption shall not be given earlier than 90 days before the earliest date on which we would be obligated to pay such Additional Amounts if a payment in respect of the notes to be redeemed was then due.

Prior to the mailing or delivery of any notice of redemption pursuant to this section "Redemption for Tax Reasons," we will deliver to the trustee and the paying agent:
(a) a certificate signed by one of our officers stating that we are entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to our right to so redeem have occurred, and
(b) a written opinion of independent tax counsel of nationally recognized standing to the effect that we have or will become obligated to pay such Additional Amounts as a result of a change or amendment described in clause (i) above or that there is a material probability that we will be required to pay Additional Amounts as a result of an action, change, amendment, clarification, application or interpretation described in clause (ii) above, as the case may be.

Such notice, once delivered by us will be irrevocable.

Resignation and Removal of the Trustee

The trustee may resign at any time by giving written notice to us.

The trustee may also be removed with respect to the notes due 2021 by act of the holders of a majority in principal amount of the then outstanding notes due 2021.

No resignation or removal of the trustee and no appointment of a successor trustee will become effective until the acceptance of appointment by a successor trustee in accordance with the requirements of the indenture.

Under certain circumstances, we may appoint a successor trustee.

We will provide you with notice of any resignation, removal or appointment of the trustee.

Notices

Notices to holders of notes due 2021 are to be given by mail to the addresses of the holders as they may appear in the security register.

Title

UTC, the trustee, and any agent of either, may treat the person or entity in whose name the notes due 2021 are registered as the owner of those notes for the purpose of receiving payments on

such notes (subject to the provisions of the indenture) and for all other purposes whatsoever, whether or not such notes may be overdue, and irrespective of notice to the contrary.

Governing Law

The notes due 2021 are governed by and construed in accordance with the laws of the State of New York.

The Trustee, Securities Registrar, Paying Agent and Calculation Agent

The trustee and securities registrar under the indenture is The Bank of New York Mellon Trust Company, N.A. The Bank of New York Mellon (London Branch) has been appointed by the Company to act as paying agent. The trustee maintains various banking and trust relationships with us and some of our affiliates. We may vary or terminate the appointment of any paying agent, securities registrar or calculation agent, or appoint additional or other such agents or approve any change in the office through which any such agent acts.

The trustee is under no obligation to exercise any of the rights or powers vested in it by the indenture at the request or direction of any of the holders of the notes due 2021 pursuant to the indenture, unless such holders shall have offered to the trustee reasonable security or indemnity against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction.

Book-Entry, Delivery and Form

We issued the notes due 2021 in the form of one or more global notes (the "global notes") in definitive, fully registered, book-entry form without coupons. The global notes will be deposited with a common depositary (and registered in the name of its nominee) for, and in respect of interests held through, Clearstream Banking, société anonyme, which we refer to as "Clearstream," or Euroclear Bank S.A./N.V., which we refer to as "Euroclear." Except as described herein, certificates will not be issued in exchange for beneficial interests in the global notes.

Except as set forth below, the global notes may be transferred, in whole and not in part, only to a common depositary for Clearstream and Euroclear or its nominee. No link is expected to be established among The Depository Trust Company and Clearstream or Euroclear in connection with the issuance of the notes.

Beneficial interests in the global notes will be represented through book-entry accounts of financial institutions acting on behalf of beneficial owners as direct and indirect participants in Clearstream or Euroclear. Those beneficial interests will be in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof. Should certificates be issued to individual holders of the notes due 2021, a holder of notes due 2021 who, as a result of trading or otherwise, holds a principal amount of notes due 2021 that is less than the minimum denomination would be required to purchase an additional principal amount of notes due 2021

such that its holding of notes due 2021 amounts to the minimum specified denomination. Investors may hold interests in the global notes through Clearstream or Euroclear either directly if they are participants in such systems or indirectly through organizations that are participants in such systems.

Except as set forth in the indenture, owners of beneficial interests in the global notes will not be entitled to have notes registered in their names, and will not receive or be entitled to receive physical delivery of notes in definitive form. Except as provided below, beneficial owners will not be considered the owners or holders of the notes under the indenture. Accordingly, each beneficial owner must rely on the procedures of the clearing systems and, if such person is not a participant of the clearing systems, on the procedures of the participant through which such person owns its interest, to exercise any rights of a holder under the indenture. Under existing industry practices, if we request any action of holders or a beneficial owner desires to give or take any action which a holder is entitled to give or take under the indenture, the clearing systems would authorize their participants holding the relevant beneficial interests to give or take action and the participants would authorize beneficial owners owning through the participants to give or take such action or would otherwise act upon the instructions of beneficial owners. Conveyance of notices and other communications by the clearing systems to their participants, by the participants to indirect participants and by the participants and indirect participants to beneficial owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Persons who are not Euroclear or Clearstream participants may beneficially own notes held by the common depositary for Euroclear and Clearstream only through direct or indirect participants in Euroclear and Clearstream.

We understand that Clearstream is incorporated under the laws of Luxembourg as a professional depositary. Clearstream holds securities for its participants and facilitates the clearance and settlement of securities transactions between its participants through electronic book-entry changes in accounts of its participants, thereby eliminating the need for physical movement of certificates. Clearstream provides to its participants, among other things, services for safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Clearstream interfaces with domestic markets in several countries. As a professional depositary, Clearstream is subject to regulation by the Luxembourg Commission for the Supervision of the Financial Sector. Clearstream participants are recognized financial institutions around the world, including underwriters, securities brokers and dealers, banks, trust companies, clearing corporations and other organizations and may include the underwriters. Indirect access to Clearstream is also available to others, such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a Clearstream participant either directly or indirectly.

We understand that Euroclear was created in 1968 to hold securities for participants of Euroclear and to clear and settle transactions between Euroclear participants through simultaneous electronic book-entry delivery against payment, thereby eliminating the need for physical movement of certificates and any risk from lack of simultaneous transfers of securities and cash. Euroclear provides various other services, including securities lending and borrowing and

interfaces with domestic markets in several countries. Euroclear is operated by Euroclear Bank S.A./N.V., which we refer to as the "Euroclear Operator," under contract with Euroclear Clearance Systems S.C., a Belgian cooperative corporation, which we refer to as the "Cooperative." All operations are conducted by the Euroclear Operator, and all Euroclear securities clearance accounts and Euroclear cash accounts are accounts with the Euroclear Operator, not the Cooperative. The Cooperative establishes policy for Euroclear on behalf of Euroclear participants. Euroclear participants include banks (including central banks), securities brokers and dealers, and other professional financial intermediaries and may include the underwriters. Indirect access to Euroclear is also available to other firms that clear through or maintain a custodial relationship with a Euroclear participant, either directly or indirectly.

We understand that the Euroclear Operator is licensed by the Belgian Banking and Finance Commission to carry out banking activities on a global basis. As a Belgian bank, it is regulated and examined by the Belgian Banking and Finance Commission.

Securities clearance accounts and cash accounts with the Euroclear Operator are governed by the Terms and Conditions Governing Use of Euroclear and the related Operating Procedures of the Euroclear System, and applicable Belgian law (collectively, the "Terms and Conditions"). The Terms and Conditions govern transfers of securities and cash within Euroclear, withdrawals of securities and cash from Euroclear, and receipts of payments with respect to securities in Euroclear. All securities in Euroclear are held on a fungible basis without attribution of specific certificates to specific securities clearance accounts. The Euroclear Operator acts under the Terms and Conditions only on behalf of Euroclear participants and has no record of or relationship with persons holding through Euroclear participants.

We have provided the descriptions of the operations and procedures of Clearstream and Euroclear in this prospectus supplement solely as a matter of convenience, and we make no representation or warranty of any kind with respect to these operations and procedures. These operations and procedures are solely within the control of those organizations and are subject to change by them from time to time. None of us, the underwriters, the trustee or the paying agent takes any responsibility for these operations or procedures, and you are urged to contact Clearstream and Euroclear or their participants directly to discuss these matters.

We, the trustee, the paying agent and the registrar will not have any responsibility or liability for any aspect of the records relating to or payments made on account of notes by Clearstream or Euroclear, or for maintaining, supervising or reviewing any records of those organizations relating to the notes.

So long as Euroclear or Clearstream or their nominee or their common depositary is the registered holder of the global notes, Euroclear, Clearstream or such nominee, as the case may be, will be considered the sole owner or holder of the notes represented by such global notes for all purposes under the indenture and the notes. Payments of principal, interest and Additional Amounts, if any, in respect of the global notes will be made to Euroclear, Clearstream or such nominee, as the case may be, as registered holder thereof.

Distributions of principal, interest and Additional Amounts, if any, with respect to the global notes will be credited in euro to the extent received by Euroclear or Clearstream to the cash

accounts of Euroclear or Clearstream customers in accordance with the relevant system's rules and procedures.

Because Euroclear and Clearstream can only act on behalf of participants, who in turn act on behalf of indirect participants, the ability of a person having an interest in the global notes to pledge such interest to persons or entities which do not participate in the relevant clearing system, or otherwise take actions in respect of such interest, may be affected by the lack of a physical certificate in respect of such interest.

Initial settlement for the notes will be made in immediately available funds. Secondary market trading between Clearstream and/or Euroclear participants will occur in the ordinary way in accordance with the applicable rules and operating procedures of Clearstream and Euroclear, as applicable, and will be settled using the procedures applicable to conventional Eurobonds in immediately available funds.

You should be aware that investors will only be able to make and receive deliveries, payments and other communications involving the notes through the Clearstream and Euroclear systems on days when those systems are open for business. Those systems may not be open for business on days when banks, brokers and other institutions are open for business in the United States.

In addition, because of time-zone differences, there may be problems with completing transactions involving the Clearstream and Euroclear systems on the same business day as in the United States. U.S. investors who wish to transfer their interests in the notes, or to make or receive a payment or delivery of the notes, on a particular day, may find that the transactions will not be performed until the next business day in Luxembourg or Brussels, depending on whether the Clearstream or Euroclear system is used.

Because the purchaser determines the place of delivery, it is important to establish at the time of trading of any notes where both the purchaser's and seller's accounts are located to ensure that settlement can be made on the desired date.

Secondary market sales of book-entry interests in the notes held through Clearstream or Euroclear to purchasers of book-entry interests in a global note through Clearstream or Euroclear will be conducted in accordance with the normal rules and operating procedures of Clearstream and Euroclear and will be settled using the procedures applicable to conventional eurobonds in same-day funds.

We have obtained the information in this section concerning Clearstream and Euroclear and the book-entry system and procedures from sources that we believe to be reliable, but neither we nor the underwriters take any responsibility for the accuracy of this information.

In a few special situations described below, the book-entry system for the notes will terminate and interests in the global notes will be exchanged for definitive notes in registered form. You must consult your bank, broker or other financial institution to find out how to have your interests in the notes transferred to your name, so that you will be a direct holder.

The special situations for termination of the book-entry system for the notes due 2021 are:

- the depositary for any of the notes represented by a registered global note notifies us that it is unwilling or unable to continue as depositary and we are unable to find a qualified replacement for such depositary within 90 days;
- we in our sole discretion determine to allow that global note to be exchangeable for definitive notes in registered form; or
- any event has occurred and is continuing, which after notice or lapse of time, would become an event of default with respect to the notes.

Notes due 2023

The following briefly summarizes certain terms of the notes due 2023. This summary does not describe every aspect of the notes due 2023 and is subject, and is qualified in its entirety by reference, to the prospectus supplement of UTC, dated as of May 22, 2015 and the definitive documents related to such notes.

General

We have issued the notes due 2023 in an initial aggregate principal amount of €750,000,000. The notes due 2023 will mature on May 22, 2023. We issued the notes due 2023 only in book-entry form, in denominations of €100,000 and integral multiples of €1,000 in excess thereof.

The notes due 2023 are listed on the New York Stock Exchange under the symbol "UTX 23." We have no obligation to maintain such listing, and we may delist the notes due 2023 at any time.

The notes due 2023 will bear interest at the annual rate of 1.250% and will accrue interest from May 22, 2015, or from the most recent date to which interest has been paid or duly provided for.

Interest will be payable annually in arrears on May 22 of each year, beginning on May 22, 2016, to persons in whose names the notes due 2023 are registered at, if the notes due 2023 are in definitive form, the close of business on the preceding May 7 (whether or not a business day), or, if the notes due 2023 are represented by one or more global securities, the close of business on the business day (for this purpose a day on which Clearstream and Euroclear are open for business) immediately preceding the interest payment date. Interest on the notes due 2023 will be computed on the basis of the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on the notes due 2023 (or May 22, 2015 if no interest has been paid on the notes due 2023), to but excluding the next scheduled interest payment date. This payment convention is referred to as ACTUAL/ACTUAL (ICMA) as defined in the rulebook of the International Capital Market Association. If the date on which a payment of interest or principal on the notes due 2023 is scheduled to be paid is not a business day, then that interest or principal will be paid on the next succeeding business day, and no further interest will accrue as a result of such delay.

A "business day" is each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions are authorized or obligated by law or executive order to be closed in New York City or London and, for any place of payment outside of New York City or London, in such place of payment, and which is a day on which the Trans-European Automated Real-time Gross Settlement Express Transfer system (the TARGET2 system), or any successor thereto, operates.

Payments of principal, interest and Additional Amounts, if any, in respect of the notes due 2023 will be payable in euro. If the euro is unavailable to us due to the imposition of exchange controls or other circumstances beyond our control (including the dissolution of the euro) or if the euro is no longer being used by the then member states of the European Monetary Union that have adopted the euro as their currency or for the settlement of transactions by public institutions of or within the international banking community, then all payments in respect of the applicable notes due 2023 will be made in U.S. dollars until the euro is again available to us or so used. The amount payable on any date in euro will be converted into U.S. dollars at the rate mandated by the U.S. Federal Reserve Board as of the close of business on the second business day prior to the relevant payment date or, in the event the U.S. Federal Reserve Board has not mandated a rate of conversion, on the basis of the then most recent U.S. dollar/euro exchange rate available on or prior to the second business day prior to the relevant payment date as determined by us in our sole discretion. Any payment in respect of the notes due 2023 so made in U.S. dollars will not constitute an event of default under the notes due 2023 or the indenture governing the notes due 2023. Neither the trustee nor the paying agent shall have any responsibility for any calculation or conversion in connection with the foregoing.

Investors will be subject to foreign exchange risks as to payments of principal, interest and Additional Amounts, if any, that may have important economic and tax consequences to them.

We may redeem some or all of the notes due 2023 at any time, at the redemption prices discussed below.

In some circumstances, we may elect to discharge our obligations on the notes due 2023 through defeasance or covenant defeasance. See "Description of Debt Securities—Defeasance and Covenant Defeasance" for more information about how we may do this.

We may, without the consent of the holders of the notes due 2023, issue additional notes due 2023 under the indenture having the same ranking and the same interest rate, maturity and other terms as the notes due 2023; *provided* that any such additional notes due 2023 that are not fungible with the notes due 2023 issued under the prospectus supplement dated as of May 22, 2015 for U.S. federal income tax purposes will have a separate CUSIP, ISIN and other identifying number than the notes due 2023 offered thereunder. Any such additional notes due 2023 will, together with the notes due 2023 offered by same the prospectus supplement, constitute a single series of notes due 2023 under the indenture.

Notices or demands to or upon UTC in respect of the notes due 2023 may be addressed to our principal executive offices.

Optional Redemption of the Notes due 2023

The notes due 2023 will be redeemable, in whole or in part, at our option at any time. The Company may redeem the notes due 2023 on any date prior to February 22, 2023 (three months prior to the maturity date of the notes due 2023) at a redemption price in euro equal to the greater of:

(a) 100% of the principal amount of the notes due 2023 to be redeemed; or
(b) the sum of the present values of the remaining scheduled payments of principal and interest on the notes due 2023 to be redeemed as described below, discounted to the redemption date on an annual basis (ACTUAL/ACTUAL (ICMA)) at the applicable Comparable Government Bond Rate (as defined below), plus 15 basis points.

In every such case, the redemption price will also include interest accrued to, but excluding, the date of redemption on the principal balance of the notes due 2023 being redeemed.

In addition, at any time on or after February 22, 2023 (three months prior to the maturity date of the notes due 2023), the Company may redeem some or all of the notes due 2023 at its option at a redemption price equal to 100% of the principal amount of the notes due 2023 to be redeemed, plus, in every such case, interest accrued to, but excluding, the date of redemption on the principal balance of the notes due 2023 being redeemed.

In any case, the principal amount of a note remaining outstanding after a redemption in part shall be €100,000 or an integral multiple of €1,000 in excess thereof.

For purposes of the optional redemption provisions of the notes due 2023, the following terms will be applicable:

"Comparable Government Bond" means, in relation to any Comparable Government Bond Rate calculation, at the discretion of an independent investment bank selected by us, a German federal government bond whose maturity is closest to the maturity of the notes due 2023 to be redeemed, or if such independent investment bank in its discretion determines that such similar bond is not in issue, such other German federal government bond as such independent investment bank may, with the advice of three brokers of, and/or market makers in, German federal government bonds selected by us, determine to be appropriate for determining the Comparable Government Bond Rate.

"Comparable Government Bond Rate" means, with respect to any redemption date, the price, expressed as a percentage (rounded to three decimal places, with 0.0005 being rounded upwards), at which the gross redemption yield on the notes due 2023 to be redeemed, if they were to be purchased at such price on the third business day prior to the redemption date, would be equal to the gross redemption yield on such business day of the Comparable Government Bond (as defined above) on the basis of the middle market price of the Comparable Government Bond prevailing at 11:00 a.m. (London time) on such business day as determined by an independent investment bank selected by us.

General Information Regarding Optional Redemption

We will mail or electronically deliver, according to the procedures of the applicable depositary, notice (with a copy to the trustee and the paying agent) of any optional redemption to the registered holder of notes due 2023 being redeemed not less than 30 days and not more than 60 days before the redemption date. The notice of redemption will identify, among other things, the

redemption date, the redemption price (or if not then ascertainable, the manner of calculation thereof) and that on the redemption date, the redemption price will become due and payable and that notes due 2023 called for redemption will cease to accrue interest on and after the redemption date (unless there is a default on payment of the redemption price). Prior to any redemption date, we will deposit with The Bank of New York Mellon, London branch (or its successor), in its capacity as paying agent (the "paying agent"), or the trustee, money sufficient to pay the redemption price of the notes due 2023 to be redeemed on that date. If we redeem less than all of the notes due 2023, the trustee will choose the notes due 2023 to be redeemed by any method that it deems fair and appropriate; provided that if the notes due 2023 are represented by one or more global notes due 2023, beneficial interests in the notes due 2023 will be selected for redemption by Euroclear and Clearstream in accordance with their respective standard procedures therefor.

The notes due 2023 are also subject to redemption if certain events occur involving United States taxation. See "—Redemption for Tax Reasons."

Additional Amounts

All payments of principal and interest in respect of the notes due 2023 by us or a paying agent on our behalf will be made free and clear of, and without deduction or withholding for or on account of, any present or future taxes, duties, assessments or other similar governmental charges imposed or levied by the United States or any political subdivision or taxing authority of or in the United States (collectively, "Taxes"), unless such withholding or deduction is required by law.

In the event such withholding or deduction for Taxes is required by law, subject to the limitations described below, we will pay to any non-U.S. holder or any foreign partnership such additional amounts ("Additional Amounts") as may be necessary to ensure that the net amount received by such person, after withholding or deduction for such Taxes, will be equal to the amount such person would have received in the absence of such withholding or deduction.

However, no Additional Amounts shall be payable with respect to any Taxes if such Taxes are imposed or levied for reasons unrelated to the holder's or beneficial owner's ownership or disposition of notes due 2023, nor shall Additional Amounts be payable for or on account of:

(a) any Taxes which would not have been so imposed, withheld or deducted but for:

(1) the existence of any present or former connection between the holder or beneficial owner (or between a fiduciary, settlor, beneficiary, member or shareholder or other equity owner of, or a person having a power over, such holder or beneficial owner, if such holder or beneficial owner is an estate, a trust, a limited liability company, a partnership, a corporation or other entity) and the United States, including, without limitation, such holder or beneficial owner (or such fiduciary, settlor, beneficiary, member, shareholder or other equity owner or person having such a power) being or having been a citizen or resident or treated as a resident of the United States, being or having been engaged in a trade or business in the United States, being or having been present in the United States, or having or having had a permanent establishment in the United States;

(2) the failure of the holder or beneficial owner to comply with any applicable certification, information, documentation or other reporting requirement, if compliance is required under the tax laws and regulations of the United States or any political subdivision or taxing authority of or in the United States to establish entitlement to a partial or complete exemption from such Taxes (including, but not limited to, the requirement to provide Internal Revenue Service Form W-8BEN, Form W-8BEN-E, Form W-8ECI, Form W-8IMY (and related documentation) or any subsequent versions thereof or successor thereto);

(3) the holder's or beneficial owner's present or former status as a personal holding company or a foreign personal holding company with respect to the United States, as a controlled foreign corporation with respect to the United States, as a passive foreign investment company with respect to the United States, as a foreign tax exempt organization with respect to the United States or as a corporation that accumulates earnings to avoid United States federal income tax;

(b) any Taxes which would not have been imposed, withheld or deducted but for the failure of the holder or beneficial owner to meet the requirements (including the certification requirements) of Section 871(h) or Section 881(c) of the Internal Revenue Code of 1986, as amended (the "Code");

(c) any Taxes which would not have been imposed, withheld or deducted but for the presentation by the holder or beneficial owner of such note for payment on a date more than 30 days after the date on which such payment became due and payable or the date on which payment of the note due 2023 is duly provided for and notice is given to holders, whichever occurs later, except to the extent that the holder or beneficial owner would have been entitled to such Additional Amounts on presenting such note on any date during such 30-day period;

(d) any estate, inheritance, gift, sales, excise, transfer, personal property, wealth or similar Taxes;

(e) any Taxes which are payable otherwise than by withholding or deduction from a payment on such note;

(f) any Taxes which are imposed, withheld or deducted with respect to, or payable by, a holder that is not the beneficial owner of the note, or a portion of the note, or that is a fiduciary, partnership, limited liability company or other similar entity, but only to the extent that a beneficial owner, a beneficiary or settlor with respect to such fiduciary or member of such partnership, limited liability company or similar entity would not have been entitled to the payment of an Additional Amount had such beneficial owner, settlor, beneficiary or member received directly its beneficial or distributive share of the payment;

(g) any Taxes required to be withheld or deducted by any paying agent from any payment on any note, if such payment can be made without such withholding or deduction by at least one other paying agent;

(h) any Taxes required to be withheld or deducted where such withholding or deduction is imposed pursuant to European Council Directive 2003/48/EC on the taxation of savings income, or any law implementing or complying with, or introduced in order to conform to, such European Council Directive;

(i) any Taxes imposed, withheld or deducted under Sections 1471 through 1474 of the Code (or any amended or successor provisions), any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code or any fiscal or

regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such sections of the Code;
(j) any Taxes that would not have been imposed, withheld or deducted but for a change in any law, treaty, regulation, or administrative or judicial interpretation that becomes effective more than 15 days after the applicable payment becomes due or is duly provided for, whichever occurs later; or
(k) any combination of items (a), (b), (c), (d), (e), (f), (g), (h), (i) and (j).

Any Additional Amounts paid on the notes due 2023 will be paid in euro.

For purposes of this section, the acquisition, ownership, enforcement, or holding of or the receipt of any payment with respect to a note will not constitute a connection (1) between the holder or beneficial owner and the United States or (2) between a fiduciary, settlor, beneficiary, member or shareholder or other equity owner of, or a person having a power over, such holder or beneficial owner if such holder or beneficial owner is an estate, a trust, a limited liability company, a partnership, a corporation or other entity and the United States.

Except as specifically provided under this section "Additional Amounts," we will not be required to make any payment with respect to any tax, duty, assessment or other governmental charge imposed by any government or any political subdivision or taxing authority.

If we are required to pay Additional Amounts with respect to the notes due 2023, we will notify the trustee and paying agent pursuant to an officers' certificate that specifies the Additional Amounts payable and when the Additional Amounts are payable. If the trustee and the paying agent do not receive such an officers' certificate from us, the trustee and paying agent may rely on the absence of such an officers' certificate in assuming that no such Additional Amounts are payable.

We will initially appoint the trustee at its corporate trust office as transfer agent and registrar for the notes due 2023. The Bank of New York Mellon, London Branch, will initially act as paying agent for the notes due 2023. We may vary or terminate the appointment of any paying agent or transfer agent, or appoint additional or other such agents or approve any change in the office through which any such agent acts, provided, however, that, to the extent permitted by law, we will maintain a paying agent that will not require withholding or deduction of tax pursuant to European Council Directive 2003/48/EC on the taxation of savings income or any law implementing or complying with, or introduced in order to conform to, such European Council Directive.

Redemption for Tax Reasons

We may redeem the notes due 2023 at our option, in whole but not in part, at a redemption price equal to 100% of the principal amount of the notes due 2023 to be redeemed, together with any accrued and unpaid interest on the notes due 2023 to be redeemed to, but excluding, the redemption date, at any time, if:

(i) we have or will become obliged to pay Additional Amounts with respect to the notes due 2023 as a result of any change in, or amendment to, the laws, regulations, treaties, or rulings of the United States or any political subdivision of or in the United States or any taxing authority thereof or therein affecting taxation, or any change in, or amendment to, the application, official interpretation, administration or enforcement of such laws, regulations, treaties or rulings (including a holding by a court of competent jurisdiction in the United States), which change or amendment is enacted, adopted, announced or becomes effective on or after the date of the applicable prospectus supplement; or
(ii) on or after the date of the applicable prospectus supplement, any action is taken by a taxing authority of, or any action has been brought in a court of competent jurisdiction in, the United States or any political subdivision of or in the United States or any taxing authority thereof or therein, including any of those actions specified in clause (i) above, whether or not such action was taken or brought with respect to us, or there is any change, amendment, clarification, application or interpretation of such laws, regulations, treaties or rulings, which in any such case, will result in a material probability that we will be required to pay Additional Amounts with respect to the notes due 2023 (it being understood that such material probability will be deemed to result if the written opinion of independent tax counsel described in clause (b) below to such effect is delivered to the trustee and the paying agent).

Notice of any such redemption will be mailed, or delivered electronically if held by any depositary in accordance with such depositary's customary procedures, at least 30 days but not more than 60 days before the redemption date to each registered holder of the notes due 2023 to be redeemed; provided, however, that the notice of redemption shall not be given earlier than 90 days before the earliest date on which we would be obligated to pay such Additional Amounts if a payment in respect of the notes due 2023 was then due.

Prior to the mailing or delivery of any notice of redemption pursuant to this section "Redemption for Tax Reasons," we will deliver to the trustee and the paying agent:

(a) a certificate signed by one of our officers stating that we are entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to our right to so redeem have occurred, and
(b) a written opinion of independent tax counsel of nationally recognized standing to the effect that we have or will become obligated to pay such Additional Amounts as a result of such change or amendment or that there is a material probability that we will be required to pay Additional Amounts as a result of such action, change, amendment, clarification, application or interpretation, as the case may be.

Such notice, once delivered by us will be irrevocable.

Resignation and Removal of the Trustee; Deemed Resignation

The trustee may resign at any time by giving written notice to us.

The trustee may also be removed with respect to the notes due 2023 by act of the holders of a majority in principal amount of the then outstanding notes due 2023 .

No resignation or removal of the trustee and no appointment of a successor trustee will become effective until the acceptance of appointment by a successor trustee in accordance with the requirements of the indenture.

Under certain circumstances, we may appoint a successor trustee.

We will provide you with notice of any resignation, termination or appointment of the trustee or any paying agent or transfer agent, and of any change in the office through which any such agent will act.

Notices

Notices to holders of notes due 2023 are to be given by mail to the addresses of the holders as they may appear in the security register.

Title

UTC, the trustee, and any agent of either, may treat the person or entity in whose name indenture securities are registered as the owner of those indenture securities for the purpose of receiving payments on such indenture securities (subject to the provisions of the indenture) and for all other purposes whatsoever, whether or not such indenture securities may be overdue, and irrespective of notice to the contrary.

Governing Law

The notes due 2023 provide that they are governed by and construed in accordance with the laws of the State of New York.

The Trustee, Registrar and Paying Agent

The trustee, registrar and transfer agent under the indenture is The Bank of New York Mellon Trust Company, N.A. The Bank of New York Mellon, London Branch has been appointed by the Company to act as paying agent. The trustee maintains various banking and trust relationships with us and some of our affiliates.

The trustee is under no obligation to exercise any of the rights or powers vested in it by the indenture at the request or direction of any of the holders of notes due 2023 pursuant to the indenture, unless such holders shall have offered to the trustee security or indemnity reasonably satisfactory to the trustee against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction.

Book-Entry, Delivery and Form

We issued the notes due 2023 in the form of one or more global notes (the "global notes") in definitive, fully registered, book-entry form without coupons. The global notes will be deposited with a common depositary (and registered in the name of its nominee) for, and in respect of interests held through, Clearstream Banking, société anonyme, which we refer to as "Clearstream," or Euroclear Bank S.A./N.V., which we refer to as "Euroclear." Except as described herein, certificates will not be issued in exchange for beneficial interests in the global notes.

Except as set forth below, the global notes may be transferred, in whole and not in part, only to a common depository for Clearstream and Euroclear or its nominee. No link is expected to be established among The Depository Trust Company and Clearstream or Euroclear in connection with the issuance of the notes.

Beneficial interests in the global notes will be represented through book-entry accounts of financial institutions acting on behalf of beneficial owners as direct and indirect participants in Clearstream or Euroclear. Those beneficial interests will be in denominations of €100,000 and integral multiples of €1,000 in excess thereof. Should certificates be issued to individual holders of the notes due 2023, a holder of notes due 2023 who, as a result of trading or otherwise, holds a principal amount of notes due 2023 that is less than the minimum denomination of the notes due 2023 would be required to purchase an additional principal amount of notes due 2023 such that its holding of notes due 2023 amounts to the minimum specified denomination. Investors may hold interests in the global notes through Clearstream or Euroclear either directly if they are participants in such systems or indirectly through organizations that are participants in such systems.

Except as set forth in the indenture, owners of beneficial interests in the global notes will not be entitled to have notes registered in their names, and will not receive or be entitled to receive physical delivery of notes in definitive form. Except as provided below, beneficial owners will not be considered the owners or holders of the notes under the indenture. Accordingly, each beneficial owner must rely on the procedures of the clearing systems and, if such person is not a participant of the clearing systems, on the procedures of the participant through which such person owns its interest, to exercise any rights of a holder under the indenture. Under existing industry practices, if we request any action of holders or a beneficial owner desires to give or take any action which a holder is entitled to give or take under the indenture, the clearing systems would authorize their participants holding the relevant beneficial interests to give or take action and the participants would authorize beneficial owners owning through the participants to give or take such action or would otherwise act upon the instructions of beneficial owners. Conveyance of notices and other communications by the clearing systems to their participants, by the participants to indirect participants and by the participants and indirect participants to beneficial owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Persons who are not Euroclear or Clearstream participants may beneficially own notes held by the common depositary for Euroclear and Clearstream only through direct or indirect participants in Euroclear and Clearstream.

We understand that Clearstream is incorporated under the laws of Luxembourg as a professional depositary. Clearstream holds securities for its participants and facilitates the clearance and settlement of securities transactions between its participants through electronic book-entry changes in accounts of its participants, thereby eliminating the need for physical movement of certificates. Clearstream provides to its participants, among other things, services for safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Clearstream interfaces with domestic markets in several countries. As a professional depositary, Clearstream is subject to regulation by the Luxembourg Commission for the Supervision of the Financial Sector. Clearstream participants are recognized financial institutions around the world, including underwriters, securities brokers and dealers, banks, trust companies, clearing corporations and other organizations and may include the underwriters. Indirect access to Clearstream is also available to others, such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a Clearstream participant either directly or indirectly.

We understand that Euroclear was created in 1968 to hold securities for participants of Euroclear and to clear and settle transactions between Euroclear participants through simultaneous electronic book-entry delivery against payment, thereby eliminating the need for physical movement of certificates and any risk from lack of simultaneous transfers of securities and cash. Euroclear provides various other services, including securities lending and borrowing and interfaces with domestic markets in several countries. Euroclear is operated by Euroclear Bank S.A./N.V., which we refer to as the "Euroclear Operator," under contract with Euroclear Clearance Systems S.C., a Belgian cooperative corporation, which we refer to as the "Cooperative." All operations are conducted by the Euroclear Operator, and all Euroclear securities clearance accounts and Euroclear cash accounts are accounts with the Euroclear Operator, not the Cooperative. The Cooperative establishes policy for Euroclear on behalf of Euroclear participants. Euroclear participants include banks (including central banks), securities brokers and dealers, and other professional financial intermediaries and may include the underwriters. Indirect access to Euroclear is also available to other firms that clear through or maintain a custodial relationship with a Euroclear participant, either directly or indirectly.

We understand that the Euroclear Operator is licensed by the Belgian Banking and Finance Commission to carry out banking activities on a global basis. As a Belgian bank, it is regulated and examined by the Belgian Banking and Finance Commission.

Securities clearance accounts and cash accounts with the Euroclear Operator are governed by the Terms and Conditions Governing Use of Euroclear and the related Operating Procedures of the Euroclear System, and applicable Belgian law (collectively, the "Terms and Conditions"). The Terms and Conditions govern transfers of securities and cash within Euroclear, withdrawals of securities and cash from Euroclear, and receipts of payments with respect to securities in Euroclear. All securities in Euroclear are held on a fungible basis without attribution of specific certificates to specific securities clearance accounts. The Euroclear Operator acts under the Terms and Conditions only on behalf of Euroclear participants and has no record of or relationship with persons holding through Euroclear participants.

We have provided the descriptions of the operations and procedures of Clearstream and Euroclear in this prospectus supplement solely as a matter of convenience, and we make no representation or warranty of any kind with respect to these operations and procedures. These operations and procedures are solely within the control of those organizations and are subject to change by them from time to time. None of us, the underwriters, the trustee or the paying agent takes any responsibility for these operations or procedures, and you are urged to contact Clearstream and Euroclear or their participants directly to discuss these matters.

We, the trustee, the paying agent and the registrar will not have any responsibility or liability for any aspect of the records relating to or payments made on account of notes by Clearstream or Euroclear, or for maintaining, supervising or reviewing any records of those organizations relating to the notes.

So long as Euroclear or Clearstream or their nominee or their common depositary is the registered holder of the global notes, Euroclear, Clearstream or such nominee, as the case may be, will be considered the sole owner or holder of the notes represented by such global notes for all purposes under the indenture and the notes. Payments of principal, interest and Additional Amounts, if any, in respect of the global notes will be made to Euroclear, Clearstream or such nominee, as the case may be, as registered holder thereof.

Distributions of principal, interest and Additional Amounts, if any, with respect to the global notes will be credited in euro to the extent received by Euroclear or Clearstream to the cash accounts of Euroclear or Clearstream customers in accordance with the relevant system's rules and procedures.

Because Euroclear and Clearstream can only act on behalf of participants, who in turn act on behalf of indirect participants, the ability of a person having an interest in the global notes to pledge such interest to persons or entities which do not participate in the relevant clearing system, or otherwise take actions in respect of such interest, may be affected by the lack of a physical certificate in respect of such interest.

Initial settlement for the notes will be made in immediately available funds. Secondary market trading between Clearstream and/or Euroclear participants will occur in the ordinary way in accordance with the applicable rules and operating procedures of Clearstream and Euroclear, as applicable, and will be settled using the procedures applicable to conventional Eurobonds in immediately available funds.

You should be aware that investors will only be able to make and receive deliveries, payments and other communications involving the notes through the Clearstream and Euroclear systems on days when those systems are open for business. Those systems may not be open for business on days when banks, brokers and other institutions are open for business in the United States.

In addition, because of time-zone differences, there may be problems with completing transactions involving the Clearstream and Euroclear systems on the same business day as in the

United States. U.S. investors who wish to transfer their interests in the notes, or to make or receive a payment or delivery of the notes, on a particular day, may find that the transactions will not be performed until the next business day in Luxembourg or Brussels, depending on whether the Clearstream or Euroclear system is used.

Because the purchaser determines the place of delivery, it is important to establish at the time of trading of any notes where both the purchaser's and seller's accounts are located to ensure that settlement can be made on the desired date.

Secondary market sales of book-entry interests in the notes held through Clearstream or Euroclear to purchasers of book-entry interests in a global note through Clearstream or Euroclear will be conducted in accordance with the normal rules and operating procedures of Clearstream and Euroclear and will be settled using the procedures applicable to conventional eurobonds in same-day funds.
We have obtained the information in this section concerning Clearstream and Euroclear and the book-entry system and procedures from sources that we believe to be reliable, but neither we nor the underwriters take any responsibility for the accuracy of this information.

In a few special situations described below, the book-entry system for the notes will terminate and interests in the global notes will be exchanged for physical certificates representing the notes. After that exchange, the choice of whether to hold notes directly or in street name will be up to you. You must consult your bank, broker or other financial institution to find out how to have your interests in the notes transferred to your name, so that you will be a direct holder.

The special situations for termination of the book-entry system for the notes due 2023 are:

- the depositary for any of the notes represented by a registered global note notifies us that it is unwilling or unable to continue as depositary and we are unable to find a qualified replacement for such depositary within 90 days;
- we in our sole discretion determine to allow that global note to be exchangeable for definitive notes in registered form; or
- any event has occurred and is continuing, which after notice or lapse of time, would become an event of default with respect to the notes.

Notes due 2024

The following briefly summarizes certain terms of the notes due 2024. This summary does not describe every aspect of the notes due 2024 and is subject, and is qualified in its entirety by reference, to the prospectus supplement of UTC, dated as of May 18, 2018 and the definitive documents related to such notes.

General

We have issued the notes due 2024 in an initial aggregate principal amount of €750,000,000. The notes due 2024 will mature on May 18, 2024.

The notes due 2024 have been issued in book-entry form. See "Book-Entry, Delivery and Form." We issued the notes due 2024 only in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof.

The notes due 2024 are listed on the New York Stock Exchange under the symbol "UTX 24A." We have no obligation to maintain such listing, and we may delist the notes due 2024 at any time.

We may, without the consent of the holders of the notes due 2024, issue additional notes due 2024 under the indenture having the same ranking and the same interest rate, maturity and other terms as the notes due 2024; *provided* that any such additional notes due 2024 that are not fungible with the notes due 2024 offered under the prospectus supplement dated as of May 18, 2018 for U.S. federal income tax purposes will have a separate CUSIP, ISIN and other identifying number than the notes due 2024 offered thereunder. Any such additional notes due 2024 will, together with the notes due 2024 offered by the same prospectus supplement, constitute a single series of notes under the indenture.

Interest

The notes due 2024 will bear interest at the annual rate of 1.150% and will accrue interest from the most recent date to which interest has been paid or duly provided for.

Interest will be payable on the notes due 2024 annually in arrears on May 18 of each year, and on the relevant maturity date, beginning on May 18, 2019 (each, a "fixed rate interest payment date"), to the persons in whose names the notes due 2024 are registered on the record date; provided, however, that interest payable on the relevant maturity date or any relevant redemption date will be payable to the persons to whom the principal of the notes due 2024 is payable. Interest on the notes due 2024 will be computed on the basis of the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on the notes due 2024 (or May 18, 2018 if no interest has been paid on the notes due 2024), to, but excluding, the next fixed rate interest payment date. This payment convention is referred to as ACTUAL/ACTUAL (ICMA) as defined in the

rulebook of the International Capital Market Association. If the date on which a payment of interest or principal on the notes due 2024 is scheduled to be paid is not a business day, then that interest or principal will be paid on the next succeeding business day, and no further interest will accrue as a result of such delay.

A “business day” is each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions are authorized or obligated by law or executive order to be closed in New York City or London and which is a day on which the Trans-European Automated Real-time Gross Settlement Express Transfer system (the “TARGET2 system”), or any successor thereto, operates.

A “record date” is the close of business on the date that is fifteen calendar days prior to the date on which interest is scheduled to be paid, regardless of whether such date is a business day; provided that if any of the notes due 2024 are held by a securities depositary in book-entry form, the record date for such notes will be the close of business on the business day (for this purpose a day on which Clearstream and Euroclear are open for business) immediately preceding the date on which interest is scheduled to be paid.

Issuance in Euro

Payments of principal, interest and Additional Amounts, if any, in respect of the notes due 2024 will be payable in euro. If the euro is unavailable to us due to the imposition of exchange controls or other circumstances beyond our control (including the dissolution of the euro) or if the euro is no longer being used by the then member states of the European Monetary Union that have adopted the euro as their currency or for the settlement of transactions by public institutions of or within the international banking community, then all payments in respect of the applicable notes will be made in U.S. dollars until the euro is again available to us or so used. The amount payable on any date in euro will be converted into U.S. dollars at the rate mandated by the U.S. Federal Reserve Board as of the close of business on the second business day prior to the relevant payment date or, in the event the U.S. Federal Reserve Board has not mandated a rate of conversion, on the basis of the then most recent U.S. dollar/euro exchange rate available on or prior to the second business day prior to the relevant payment date as determined by us in our sole discretion. Any payment in respect of the notes so made in U.S. dollars will not constitute an event of default under the notes or the indenture governing the notes. Neither the trustee nor the paying agent shall have any responsibility for any calculation or conversion in connection with the foregoing.

Investors will be subject to foreign exchange risks as to payments of principal, interest and Additional Amounts, if any, that may have important economic and tax consequences to them.

Optional Redemption

The notes due 2024 will be redeemable, in whole or in part, at our option at any time. The Company may redeem the notes due 2024 on any date prior to February 18, 2024 at a redemption price in euro equal to the greater of:

(a) 100% of the principal amount of the notes due 2024 to be redeemed; or
(b) the sum of the present values of the remaining scheduled payments of principal and interest on the notes due 2024 to be redeemed as described below, discounted to the redemption date on an annual basis (ACTUAL/ACTUAL (ICMA)) at the applicable Comparable Government Bond Rate (as defined below), plus 20 basis points.

In every such case, the redemption price will also include interest accrued to, but excluding, the date of redemption on the principal balance of the notes due 2024 being redeemed.

In addition, at any time on or after February 18, 2024, the Company may redeem some or all of the notes due 2024 at its option at a redemption price equal to 100% of the principal amount of the notes due 2024 to be redeemed, plus, in every such case, interest accrued to, but excluding, the date of redemption on the principal balance of the notes due 2024 being redeemed.

In any case, the principal amount of a note remaining outstanding after a redemption in part shall be €100,000 or an integral multiple of €1,000 in excess thereof.

For purposes of the optional redemption provisions of the notes due 2024, the following terms will be applicable:

"Comparable Government Bond" means, in relation to any Comparable Government Bond Rate calculation, at the discretion of an independent investment bank selected by us, a German federal government bond whose maturity is closest to the maturity of the notes due 2024 to be redeemed, or if such independent investment bank in its discretion determines that such similar bond is not in issue, such other German federal government bond as such independent investment bank may, with the advice of three brokers of, and/or market makers in, German federal government bonds selected by us, determine to be appropriate for determining the Comparable Government Bond Rate.

"Comparable Government Bond Rate" means, with respect to any redemption date, the price, expressed as a percentage (rounded to three decimal places, with 0.0005 being rounded upwards), at which the gross redemption yield on the notes due 2024 to be redeemed, if they were to be purchased at such price on the third business day prior to the redemption date, would be equal to the gross redemption yield on such business day of the Comparable Government Bond (as defined above) on the basis of the middle market price of the Comparable Government Bond prevailing at 11:00 a.m. (London time) on such business day as determined by an independent investment bank selected by us.

General Information Regarding Optional Redemption

We will mail or electronically deliver, according to the procedures of the applicable depositary, notice (with a copy to the trustee and the paying agent) of any optional redemption to the registered holder of the notes due 2024 being redeemed not less than 15 days and not more than 60 days before the redemption date. The notice of redemption will identify, among other things,

the redemption date, the redemption price (or if not then ascertainable, the manner of calculation thereof) and that on the redemption date, the redemption price will become due and payable and that the notes called for redemption will cease to accrue interest on and after the redemption date (unless there is a default on payment of the redemption price). Prior to any redemption date, we will deposit with the paying agent or the trustee money sufficient to pay the redemption price of the notes to be redeemed on that date. If we redeem less than all of any series of fixed rate notes, the trustee will choose the notes due 2024 to be redeemed by any method that it deems fair and appropriate; provided that if the notes due 2024 are represented by one or more global notes, beneficial interests in the notes due 2024 will be selected for redemption by Euroclear and Clearstream in accordance with their respective standard procedures therefor.

The notes due 2024 are also subject to redemption if certain events occur involving United States taxation. See "—Redemption for Tax Reasons."

Additional Amounts

All payments of principal and interest in respect of the notes due 2024 by us or a paying agent on our behalf will be made free and clear of, and without deduction or withholding for or on account of, any present or future taxes, duties, assessments or other similar governmental charges imposed or levied by the United States or any political subdivision or taxing authority of or in the United States (collectively, "Taxes"), unless such withholding or deduction is required by law.

In the event such withholding or deduction for Taxes is required by law, subject to the limitations described below, we will pay to any non-U.S. holder or any foreign partnership such additional amounts ("Additional Amounts") as may be necessary to ensure that the net amount received by such person, after withholding or deduction for such Taxes, will be equal to the amount such person would have received in the absence of such withholding or deduction.

However, no Additional Amounts shall be payable with respect to any Taxes if such Taxes are imposed, withheld, deducted or levied for reasons unrelated to the holder's or beneficial owner's ownership or disposition of notes, nor shall Additional Amounts be payable for or on account of:

(a) any Taxes which would not have been so imposed, withheld, deducted or levied but for:

(1) the existence of any present or former connection between the holder or beneficial owner (or between a fiduciary, settlor, beneficiary, member or shareholder or other equity owner of, or a person having a power over, such holder or beneficial owner, if such holder or beneficial owner is an estate, a trust, a limited liability company, a partnership, a corporation or other entity) and the United States, including, without limitation, such holder or beneficial owner (or such fiduciary, settlor, beneficiary, member, shareholder or other equity owner or person having such a power) being or having been a citizen or resident or treated as a resident of the United States, being or having been engaged in a trade or business in the United States, being or having been present in the United States, or having or having had a permanent establishment in the United States;

(2) the failure of the holder or beneficial owner to comply with any applicable certification, information, documentation or other reporting requirement, if compliance is

required under the tax laws and regulations of the United States or any political subdivision or taxing authority of or in the United States to establish entitlement to a partial or complete exemption from such Taxes (including, but not limited to, the requirement to provide Internal Revenue Service Form W-8BEN, Form W-8BEN-E, Form W-8ECI, Form W-8IMY (and related documentation) or any subsequent versions thereof or successor thereto); or

(3) the holder's or beneficial owner's present or former status as a personal holding company or a foreign personal holding company with respect to the United States, as a controlled foreign corporation with respect to the United States, as a passive foreign investment company with respect to the United States, as a foreign tax-exempt organization with respect to the United States or as a corporation that accumulates earnings to avoid United States federal income tax;

(b) any Taxes which would not have been imposed, withheld, deducted or levied but for the failure of the holder or beneficial owner to meet the requirements (including the certification requirements) of Section 871(h) or Section 881(c) of the Internal Revenue Code of 1986, as amended (the "Code");

(c) any Taxes which would not have been imposed, withheld, deducted or levied but for the presentation by the holder or beneficial owner of such note for payment on a date more than 30 days after the date on which such payment became due and payable or the date on which payment of the note due 2024 is duly provided for and notice is given to holders, whichever occurs later, except to the extent that the holder or beneficial owner would have been entitled to such Additional Amounts on presenting such note on any date during such 30-day period;

(d) any estate, inheritance, gift, sales, excise, transfer, personal property, wealth or similar Taxes;

(e) any Taxes which are payable other than by withholding or deduction from a payment on such note;

(f) any Taxes which are imposed, withheld, deducted or levied with respect to, or payable by, a holder that is not the beneficial owner of the note, or a portion of the note, or that is a fiduciary, partnership, limited liability company or other similar entity, but only to the extent that a beneficial owner, a beneficiary or settlor with respect to such fiduciary or member of such partnership, limited liability company or similar entity would not have been entitled to the payment of an Additional Amount had such beneficial owner, settlor, beneficiary or member received directly its beneficial or distributive share of the payment;

(g) any Taxes required to be withheld or deducted by any paying agent from any payment on any note, if such payment can be made without such withholding or deduction by at least one other paying agent;

(h) any Taxes imposed, withheld, deducted or levied under Sections 1471 through 1474 of the Code (or any amended or successor provisions), any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such sections of the Code;

(i) any Taxes that would not have been imposed, withheld, deducted or levied but for a change in any law, treaty, regulation, or administrative or judicial interpretation that becomes effective after the applicable payment becomes due or is duly provided for, whichever occurs later; or

(j) any combination of items (a), (b), (c), (d), (e), (f), (g), (h) and (i).

Any Additional Amounts paid on the notes due 2024 will be paid in euro.

For purposes of this section, the acquisition, ownership, enforcement, or holding of or the receipt of any payment with respect to a note alone will not constitute a connection (1) between the holder or beneficial owner and the United States or (2) between a fiduciary, settlor, beneficiary, member or shareholder or other equity owner of, or a person having a power over, such holder or beneficial owner if such holder or beneficial owner is an estate, a trust, a limited liability company, a partnership, a corporation or other entity and the United States.

Except as specifically provided under this section "Additional Amounts," we will not be required to make any payment with respect to any tax, duty, assessment or other governmental charge imposed by any government or any political subdivision or taxing authority.

If we are required to pay Additional Amounts with respect to the notes due 2024, we will notify the trustee and paying agent pursuant to an officers' certificate that specifies the Additional Amounts payable and when the Additional Amounts are payable. If the trustee and the paying agent do not receive such an officers' certificate from us, the trustee and paying agent may rely on the absence of such an officers' certificate in assuming that no such Additional Amounts are payable.

Redemption for Tax Reasons

We may redeem the notes due 2024 at our option, in whole but not in part, at a redemption price equal to 100% of the principal amount of the notes due 2024 to be redeemed, together with any accrued and unpaid interest on the notes to be redeemed to, but excluding, the redemption date, at any time, if:

(i) we have or will become obliged to pay Additional Amounts with respect to such series of the notes as a result of any change in, or amendment to, the laws, regulations, treaties, or rulings of the United States or any political subdivision of or in the United States or any taxing authority thereof or therein affecting taxation, or any change in, or amendment to, the application, official interpretation, administration or enforcement of such laws, regulations, treaties or rulings (including a holding by a court of competent jurisdiction in the United States), which change or amendment is enacted, adopted, announced or becomes effective on or after the date of the applicable prospectus supplement; or
(ii) on or after the date of the applicable prospectus supplement, any action is taken by a taxing authority of, or any action has been brought in a court of competent jurisdiction in, the United States or any political subdivision of or in the United States or any taxing authority thereof or therein, including any of those actions specified in clause (i) above, whether or not such action was taken or brought with respect to us, or there is any change, amendment, clarification, application or interpretation of such laws, regulations, treaties or rulings, which in any such case, will result in a material probability that we will be required to pay Additional Amounts with respect to the notes due 2024 (it being understood that such material probability will be deemed to result if the written opinion of independent tax counsel described in clause (b) below to such effect is delivered to the trustee and the paying agent).

Notice of any such redemption will be mailed, or delivered electronically if held by any depositary in accordance with such depositary's customary procedures, at least 15 days but not more than 60 days before the redemption date to each registered holder of the notes due 2024 to be redeemed; *provided*, *however*, that the notice of redemption shall not be given earlier than 90 days before the earliest date on which we would be obligated to pay such Additional Amounts if a payment in respect of the notes to be redeemed was then due.

Prior to the mailing or delivery of any notice of redemption pursuant to this section "Redemption for Tax Reasons," we will deliver to the trustee and the paying agent:

(a) a certificate signed by one of our officers stating that we are entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to our right to so redeem have occurred, and
(b) a written opinion of independent tax counsel of nationally recognized standing to the effect that we have or will become obligated to pay such Additional Amounts as a result of a change or amendment described in clause (i) above or that there is a material probability that we will be required to pay Additional Amounts as a result of an action, change, amendment, clarification, application or interpretation described in clause (ii) above, as the case may be.

Such notice, once delivered by us will be irrevocable.

Resignation and Removal of the Trustee

The trustee may resign at any time by giving written notice to us.

The trustee may also be removed with respect to the notes due 2024 by an act of the holders of a majority in principal amount of the then outstanding the notes due 2024.

No resignation or removal of the trustee and no appointment of a successor trustee will become effective until the acceptance of appointment by a successor trustee in accordance with the requirements of the indenture.

Under certain circumstances, we may appoint a successor trustee.

We will provide you with notice of any resignation, removal or appointment of the trustee.

Notices

Notices to holders of the notes due 2024 are to be given by mail to the addresses of the holders as they may appear in the security register. If it is impractical to mail notice of any event to holders when such notice is required to be given pursuant to the indenture, then any manner of giving such notice as shall be satisfactory to the trustee shall be deemed to be sufficient giving of such notice.

Title

UTC, the trustee, and any agent of either, may treat the person or entity in whose name the notes due 2024 are registered as the owner of those notes for the purpose of receiving payments on such notes (subject to the provisions of the indenture) and for all other purposes whatsoever, whether or not such notes may be overdue, and irrespective of notice to the contrary.

Governing Law

The notes due 2024 are governed by and construed in accordance with the laws of the State of New York.

The Trustee, Securities Registrar, Paying Agent and Calculation Agent

The trustee and securities registrar under the indenture is The Bank of New York Mellon Trust Company, N.A. The Bank of New York Mellon, London Branch has been appointed by the Company to act as paying agent. The trustee maintains various banking and trust relationships with us and some of our affiliates. We may vary or terminate the appointment of any paying agent, securities registrar or calculation agent, or appoint additional or other such agents or approve any change in the office through which any such agent acts.

The trustee is under no obligation to exercise any of the rights or powers vested in it by the indenture at the request or direction of any of the holders of the notes due 2024 pursuant to the indenture, unless such holders shall have offered to the trustee reasonable security or indemnity against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction.

Book-Entry, Delivery and Form

We issued the notes due 2024 in the form of global notes (the "global notes") in definitive, fully registered, book-entry form without coupons. The global notes will be deposited with a common depositary (and registered in the name of its nominee) for, and in respect of interests held through, Clearstream Banking S.A., which we refer to as "Clearstream," or Euroclear Bank SA/NV, which we refer to as "Euroclear." Except as described herein, definitive notes in registered form will not be issued in exchange for beneficial interests in the global notes.

Except as set forth below, the global notes may be transferred, in whole and not in part, only to a common depositary for Clearstream and Euroclear or its nominee. No link is expected to be established among The Depository Trust Company and Clearstream or Euroclear in connection with the issuance of the notes.

Beneficial interests in the global notes will be represented through book-entry accounts of financial institutions acting on behalf of beneficial owners as direct and indirect participants in Clearstream or Euroclear. Those beneficial interests will be in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof. Should definitive notes in registered

form be issued to individual holders of the notes due 2024, a holder of notes due 2024 who, as a result of trading or otherwise, holds a principal amount of the notes due 2024 that is less than the minimum denomination would be required to purchase an additional principal amount of the notes due 2024 such that its holding of the notes due 2024 amounts to the minimum specified denomination. Investors may hold interests in the global notes through Clearstream or Euroclear either directly if they are participants in such systems or indirectly through organizations that are participants in such systems.

Except as set forth in the indenture or related officers' certificate, owners of beneficial interests in the global notes will not be entitled to have notes registered in their names, and will not receive or be entitled to receive physical delivery of notes in definitive form. Except as provided below, beneficial owners will not be considered the owners or holders of the notes under the indenture. Accordingly, each beneficial owner must rely on the procedures of the clearing systems and, if such person is not a participant of the clearing systems, on the procedures of the participant through which such person owns its interest, to exercise any rights of a holder under the indenture. Under existing industry practices, if we request any action of holders or a beneficial owner desires to give or take any action which a holder is entitled to give or take under the indenture, the clearing systems would authorize their participants holding the relevant beneficial interests to give or take action and the participants would authorize beneficial owners owning through the participants to give or take such action or would otherwise act upon the instructions of beneficial owners. Conveyance of notices and other communications by the clearing systems to their participants, by the participants to indirect participants and by the participants and indirect participants to beneficial owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Persons who are not Euroclear or Clearstream participants may beneficially own notes held by the common depositary for Euroclear and Clearstream only through direct or indirect participants in Euroclear and Clearstream.

We understand that Clearstream is incorporated under the laws of Luxembourg as a professional depositary. Clearstream holds securities for its participants and facilitates the clearance and settlement of securities transactions between its participants through electronic book-entry changes in accounts of its participants, thereby eliminating the need for physical movement of certificates. Clearstream provides to its participants, among other things, services for safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Clearstream interfaces with domestic markets in several countries. As a professional depositary, Clearstream is subject to regulation by the Luxembourg Commission for the Supervision of the Financial Sector. Clearstream participants are recognized financial institutions around the world, including underwriters, securities brokers and dealers, banks, trust companies, clearing corporations and other organizations and may include the underwriters. Indirect access to Clearstream is also available to others, such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a Clearstream participant either directly or indirectly.

We understand that Euroclear was created in 1968 to hold securities for participants of Euroclear and to clear and settle transactions between Euroclear participants through simultaneous

electronic book-entry delivery against payment, thereby eliminating the need for physical movement of certificates and any risk from lack of simultaneous transfers of securities and cash. Euroclear provides various other services, including securities lending and borrowing and interfaces with domestic markets in several countries. Euroclear is operated by Euroclear Bank SA/NV, which we refer to as the "Euroclear Operator," under contract with Euroclear Clearance Systems S.C., a Belgian cooperative corporation, which we refer to as the "Cooperative." All operations are conducted by the Euroclear Operator, and all Euroclear securities clearance accounts and Euroclear cash accounts are accounts with the Euroclear Operator, not the Cooperative. The Cooperative establishes policy for Euroclear on behalf of Euroclear participants. Euroclear participants include banks (including central banks), securities brokers and dealers, and other professional financial intermediaries and may include the underwriters. Indirect access to Euroclear is also available to other firms that clear through or maintain a custodial relationship with a Euroclear participant, either directly or indirectly.

We understand that the Euroclear Operator is licensed by the Belgian Banking and Finance Commission to carry out banking activities on a global basis. As a Belgian bank, it is regulated and examined by the Belgian Banking and Finance Commission.

Securities clearance accounts and cash accounts with the Euroclear Operator are governed by the Terms and Conditions Governing Use of Euroclear and the related Operating Procedures of the Euroclear System, and applicable Belgian law (collectively, the "Terms and Conditions"). The Terms and Conditions govern transfers of securities and cash within Euroclear, withdrawals of securities and cash from Euroclear, and receipts of payments with respect to securities in Euroclear. All securities in Euroclear are held on a fungible basis without attribution of specific certificates to specific securities clearance accounts. The Euroclear Operator acts under the Terms and Conditions only on behalf of Euroclear participants and has no record of or relationship with persons holding through Euroclear participants.

We have provided the descriptions of the operations and procedures of Clearstream and Euroclear in this prospectus supplement solely as a matter of convenience, and we make no representation or warranty of any kind with respect to these operations and procedures. These operations and procedures are solely within the control of those organizations and are subject to change by them from time to time. None of us, the underwriters, the trustee or the paying agent takes any responsibility for these operations or procedures, and you are urged to contact Clearstream and Euroclear or their participants directly to discuss these matters.

We, the trustee, the paying agent and the registrar will not have any responsibility or liability for any aspect of the records relating to or payments made on account of notes by Clearstream or Euroclear, or for maintaining, supervising or reviewing any records of those organizations relating to the notes.

So long as Euroclear or Clearstream or their nominee or their common depositary is the registered holder of the global notes, Euroclear, Clearstream or such nominee, as the case may be, will be considered the sole owner or holder of the notes represented by such global notes for all purposes under the indenture and the notes. Payments of principal, interest and Additional

Amounts, if any, in respect of the global notes will be made to Euroclear, Clearstream or such nominee, as the case may be, as registered holder thereof.

Distributions of principal, interest and Additional Amounts, if any, with respect to the global notes will be credited in euro to the extent received by Euroclear or Clearstream to the cash accounts of Euroclear or Clearstream customers in accordance with the relevant system's rules and procedures.

Because Euroclear and Clearstream can only act on behalf of participants, who in turn act on behalf of indirect participants, the ability of a person having an interest in the global notes to pledge such interest to persons or entities which do not participate in the relevant clearing system, or otherwise take actions in respect of such interest, may be affected by the lack of a physical certificate in respect of such interest.

Initial settlement for the notes will be made in immediately available funds. Secondary market trading between Clearstream and/or Euroclear participants will occur in the ordinary way in accordance with the applicable rules and operating procedures of Clearstream and Euroclear, as applicable, and will be settled using the procedures applicable to conventional Eurobonds in immediately available funds.

You should be aware that investors will only be able to make and receive deliveries, payments and other communications involving the notes through the Clearstream and Euroclear systems on days when those systems are open for business. Those systems may not be open for business on days when banks, brokers and other institutions are open for business in the United States.

In addition, because of time-zone differences, there may be problems with completing transactions involving the Clearstream and Euroclear systems on the same business day as in the United States. U.S. investors who wish to transfer their interests in the notes, or to make or receive a payment or delivery of the notes, on a particular day, may find that the transactions will not be performed until the next business day in Luxembourg or Brussels, depending on whether the Clearstream or Euroclear system is used.

Because the purchaser determines the place of delivery, it is important to establish at the time of trading of any notes where both the purchaser's and seller's accounts are located to ensure that settlement can be made on the desired date.

Secondary market sales of book-entry interests in the notes held through Clearstream or Euroclear to purchasers of book-entry interests in a global note through Clearstream or Euroclear will be conducted in accordance with the normal rules and operating procedures of Clearstream and Euroclear and will be settled using the procedures applicable to conventional eurobonds in same-day funds.

We have obtained the information in this section concerning Clearstream and Euroclear and the book-entry system and procedures from sources that we believe to be reliable, but neither we nor the underwriters take any responsibility for the accuracy of this information.

In a few special situations described below, the book-entry system for the notes will terminate and interests in the global notes will be exchanged for definitive notes in registered form. You must consult your bank, broker or other financial institution to find out how to have your interests in the notes transferred to your name, so that you will be a direct holder.

The special situations for termination of the book-entry system for the notes due 2024 are:

- the depositary for any of the notes represented by a registered global note (a) notifies us that it is unwilling or unable to continue as depositary or clearing system for the global notes or (b) ceases to be a “clearing agency” registered under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and in either event we are unable to find a qualified replacement for such depositary within 90 days;
- we in our sole discretion determine to allow global notes to be exchangeable for definitive notes in registered form; or
- there has occurred and is continuing an event of default with respect to the notes and the depositary notifies the trustee of its decision to exchange the global notes for definitive notes in registered form.

Notes due 2026

The following briefly summarizes certain terms of the notes due 2026. This summary does not describe every aspect of the notes due 2026 and is subject, and is qualified in its entirety by reference, to the prospectus supplement of UTC, dated as of February 17, 2016 and the definitive documents related to such notes.

General

We have issued the notes due 2026 in an initial aggregate principal amount of €500,000,000. The notes due 2026 will mature on February 22, 2026.

The notes due 2026 have been issued in book-entry form. See “Book-Entry, Delivery and Form.” We issued the notes due 2026 only in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof.

The notes due 2026 are listed on the New York Stock Exchange under the symbol “UTX 26.” We have no obligation to maintain such listing, and we may delist the notes due 2026 at any time.

We may, without the consent of the holders of notes due 2026, issue additional notes of such series under the indenture having the same ranking and the same interest rate, maturity and other terms as the notes of such series; *provided* that any such additional notes of such series that are not fungible with the notes due 2026 offered under the prospectus supplement dated as of February 17, 2016 for U.S. federal income tax purposes will have a separate CUSIP, ISIN and other identifying number than the notes due 2026 offered thereunder. Any such additional notes due 206 will, together with the notes due 2026 offered by the same prospectus supplement, constitute a single series of notes under the indenture.

Interest

The notes due 2026 will bear interest at the annual rate of 1.875% and will accrue interest from the most recent date to which interest has been paid or duly provided for.

Interest will be payable on the notes due 2026 annually in arrears on February 22 of each year with respect to the notes due 2026 and on the maturity date, beginning on February 22, 2017 for the notes due 2026 (each, a “fixed rate interest payment date”), to the persons in whose names the notes due 2026 are registered on the record date; *provided*, *however*, that interest payable on the relevant maturity date or any relevant redemption date will be payable to the persons to whom the principal of such notes is payable. Interest on notes due 2026 will be computed on the basis of the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on notes due 2026 (or February 22, 2016 if no interest has been paid on notes due 2026), to but excluding the next fixed rate interest payment date. This payment convention is referred to as ACTUAL/

ACTUAL (ICMA) as defined in the rulebook of the International Capital Market Association. If the date on which a payment of interest or principal on notes due 2026 is scheduled to be paid is not a business day, then that interest or principal will be paid on the next succeeding business day, and no further interest will accrue as a result of such delay.

A “business day” is each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions are authorized or obligated by law or executive order to be closed in New York City or London and which is a day on which the Trans-European Automated Real-time Gross Settlement Express Transfer system (the “TARGET2 system”), or any successor thereto, operates.

A “record date” is the close of business on the date that is fifteen calendar days prior to the date on which interest is scheduled to be paid, regardless of whether such date is a business day; *provided* that if any of the notes due 2026 are held by a securities depositary in book-entry form, the record date for such notes will be the close of business on the business day (for this purpose a day on which Clearstream and Euroclear are open for business) immediately preceding the date on which interest is scheduled to be paid.

Issuance in Euro

Payments of principal, interest and Additional Amounts, if any, in respect of the notes due 2026 will be payable in euro. If the euro is unavailable to us due to the imposition of exchange controls or other circumstances beyond our control (including the dissolution of the euro) or if the euro is no longer being used by the then member states of the European Monetary Union that have adopted the euro as their currency or for the settlement of transactions by public institutions of or within the international banking community, then all payments in respect of the applicable notes will be made in U.S. dollars until the euro is again available to us or so used. The amount payable on any date in euro will be converted into U.S. dollars at the rate mandated by the U.S. Federal Reserve Board as of the close of business on the second business day prior to the relevant payment date or, in the event the U.S. Federal Reserve Board has not mandated a rate of conversion, on the basis of the then most recent U.S. dollar/euro exchange rate available on or prior to the second business day prior to the relevant payment date as determined by us in our sole discretion. Any payment in respect of the notes so made in U.S. dollars will not constitute an event of default under the notes or the indenture governing the notes. Neither the trustee nor the paying agent shall have any responsibility for any calculation or conversion in connection with the foregoing.

Investors will be subject to foreign exchange risks as to payments of principal, interest and Additional Amounts, if any, that may have important economic and tax consequences to them.

Optional Redemption

The notes due 2026 will be redeemable, in whole or in part, at our option at any time. The Company may redeem the notes due 2026 on any date prior to November 22, 2025 at a redemption price in euro equal to the greater of:

(a) 100% of the principal amount of notes due 2026 to be redeemed; or
(b) the sum of the present values of the remaining scheduled payments of principal and interest on the notes due 2026 to be redeemed as described below, discounted to the redemption date on an annual basis (ACTUAL/ACTUAL (ICMA)) at the applicable Comparable Government Bond Rate (as defined below), plus 30 basis points.

In every such case, the redemption price will also include interest accrued to, but excluding, the date of redemption on the principal balance of notes due 2026 being redeemed.

In addition, at any time on or after November 22, 2025, the Company may redeem some or all of the notes due 2026, in each case, at its option at a redemption price equal to 100% of the principal amount of the notes due 2026 to be redeemed, plus, in every such case, interest accrued to, but excluding, the date of redemption on the principal balance of notes due 2026 being redeemed.

In any case, the principal amount of a note remaining outstanding after a redemption in part shall be €100,000 or an integral multiple of €1,000 in excess thereof.

For purposes of the optional redemption provisions of notes due 2026, the following terms will be applicable:

"Comparable Government Bond" means, in relation to any Comparable Government Bond Rate calculation, at the discretion of an independent investment bank selected by us, a German federal government bond whose maturity is closest to the maturity of the notes due 2026 to be redeemed, or if such independent investment bank in its discretion determines that such similar bond is not in issue, such other German federal government bond as such independent investment bank may, with the advice of three brokers of, and/or market makers in, German federal government bonds selected by us, determine to be appropriate for determining the Comparable Government Bond Rate.

"Comparable Government Bond Rate" means, with respect to any redemption date, the price, expressed as a percentage (rounded to three decimal places, with 0.0005 being rounded upwards), at which the gross redemption yield on the notes due 2026 to be redeemed, if they were to be purchased at such price on the third business day prior to the redemption date, would be equal to the gross redemption yield on such business day of the Comparable Government Bond (as defined above) on the basis of the middle market price of the Comparable Government Bond prevailing at 11:00 a.m. (London time) on such business day as determined by an independent investment bank selected by us.

General Information Regarding Optional Redemption

We will mail or electronically deliver, according to the procedures of the applicable depositary, notice (with a copy to the trustee and the paying agent) of any optional redemption to the registered holder of notes due 2026 being redeemed not less than 30 days and not more than 60

days before the redemption date. The notice of redemption will identify, among other things, the redemption date, the redemption price (or if not then ascertainable, the manner of calculation thereof) and that on the redemption date, the redemption price will become due and payable and that notes called for redemption will cease to accrue interest on and after the redemption date (unless there is a default on payment of the redemption price). Prior to any redemption date, we will deposit with the paying agent or the trustee money sufficient to pay the redemption price of the notes to be redeemed on that date. If we redeem less than all of the series of notes due 2026, the trustee will choose notes due 2026 to be redeemed by any method that it deems fair and appropriate; *provided* that if the notes due 2026 are represented by one or more global notes, beneficial interests in the notes due 2026 will be selected for redemption by Euroclear and Clearstream in accordance with their respective standard procedures therefor.

The notes due 2026 are also subject to redemption if certain events occur involving United States taxation. See "—Redemption for Tax Reasons."

Additional Amounts

All payments of principal and interest in respect of the notes due 2026 by us or a paying agent on our behalf will be made free and clear of, and without deduction or withholding for or on account of, any present or future taxes, duties, assessments or other similar governmental charges imposed or levied by the United States or any political subdivision or taxing authority of or in the United States (collectively, "Taxes"), unless such withholding or deduction is required by law.

In the event such withholding or deduction for Taxes is required by law, subject to the limitations described below, we will pay to any non-U.S. holder or any foreign partnership such additional amounts ("Additional Amounts") as may be necessary to ensure that the net amount received by such person, after withholding or deduction for such Taxes, will be equal to the amount such person would have received in the absence of such withholding or deduction.

However, no Additional Amounts shall be payable with respect to any Taxes if such Taxes are imposed or levied for reasons unrelated to the holder's or beneficial owner's ownership or disposition of notes, nor shall Additional Amounts be payable for or on account of:

(a) any Taxes which would not have been so imposed, withheld or deducted but for:

(1) the existence of any present or former connection between the holder or beneficial owner (or between a fiduciary, settlor, beneficiary, member or shareholder or other equity owner of, or a person having a power over, such holder or beneficial owner, if such holder or beneficial owner is an estate, a trust, a limited liability company, a partnership, a corporation or other entity) and the United States, including, without limitation, such holder or beneficial owner (or such fiduciary, settlor, beneficiary, member, shareholder or other equity owner or person having such a power) being or having been a citizen or resident or treated as a resident of the United States, being or having been engaged in a trade or business in the United States, being or having been present in the United States, or having or having had a permanent establishment in the United States;

(2) the failure of the holder or beneficial owner to comply with any applicable certification, information, documentation or other reporting requirement, if compliance is required under the tax laws and regulations of the United States or any political subdivision or taxing authority of or in the United States to establish entitlement to a partial or complete exemption from such Taxes (including, but not limited to, the requirement to provide Internal Revenue Service Form W-8BEN, Form W-8BEN-E, Form W-8ECI, Form W-8IMY (and related documentation) or any subsequent versions thereof or successor thereto); or

(3) the holder's or beneficial owner's present or former status as a personal holding company or a foreign personal holding company with respect to the United States, as a controlled foreign corporation with respect to the United States, as a passive foreign investment company with respect to the United States, as a foreign tax exempt organization with respect to the United States or as a corporation that accumulates earnings to avoid United States federal income tax;

(b) any Taxes which would not have been imposed, withheld or deducted but for the failure of the holder or beneficial owner to meet the requirements (including the certification requirements) of Section 871(h) or Section 881(c) of the Internal Revenue Code of 1986, as amended (the "Code");

(c) any Taxes which would not have been imposed, withheld or deducted but for the presentation by the holder or beneficial owner of such note for payment on a date more than 30 days after the date on which such payment became due and payable or the date on which payment of the note due 2026 is duly provided for and notice is given to holders, whichever occurs later, except to the extent that the holder or beneficial owner would have been entitled to such Additional Amounts on presenting such note on any date during such 30-day period;

(d) any estate, inheritance, gift, sales, excise, transfer, personal property, wealth or similar Taxes;

(e) any Taxes which are payable other than by withholding or deduction from a payment on such note;

(f) any Taxes which are imposed, withheld or deducted with respect to, or payable by, a holder that is not the beneficial owner of the note, or a portion of the note, or that is a fiduciary, partnership, limited liability company or other similar entity, but only to the extent that a beneficial owner, a beneficiary or settlor with respect to such fiduciary or member of such partnership, limited liability company or similar entity would not have been entitled to the payment of an Additional Amount had such beneficial owner, settlor, beneficiary or member received directly its beneficial or distributive share of the payment;

(g) any Taxes required to be withheld or deducted by any paying agent from any payment on any note, if such payment can be made without such withholding or deduction by at least one other paying agent;

(h) any Taxes imposed, withheld or deducted under Sections 1471 through 1474 of the Code (or any amended or successor provisions), any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such sections of the Code;

(i) any Taxes that would not have been imposed, withheld or deducted but for a change in any law, treaty, regulation, or administrative or judicial interpretation that becomes effective after the applicable payment becomes due or is duly provided for, whichever occurs later; or

(j) any combination of items (a), (b), (c), (d), (e), (f), (g), (h) and (i).

Any Additional Amounts paid on the notes due 2026 will be paid in euro.

For purposes of this section, the acquisition, ownership, enforcement, or holding of or the receipt of any payment with respect to a note alone will not constitute a connection (1) between the holder or beneficial owner and the United States or (2) between a fiduciary, settlor, beneficiary, member or shareholder or other equity owner of, or a person having a power over, such holder or beneficial owner if such holder or beneficial owner is an estate, a trust, a limited liability company, a partnership, a corporation or other entity and the United States.

Except as specifically provided under this section "Additional Amounts," we will not be required to make any payment with respect to any tax, duty, assessment or other governmental charge imposed by any government or any political subdivision or taxing authority.

If we are required to pay Additional Amounts with respect to the notes due 2026, we will notify the trustee and paying agent pursuant to an officers' certificate that specifies the Additional Amounts payable and when the Additional Amounts are payable. If the trustee and the paying agent do not receive such an officers' certificate from us, the trustee and paying agent may rely on the absence of such an officers' certificate in assuming that no such Additional Amounts are payable.

Redemption for Tax Reasons

We may redeem the notes due 2026 at our option, in whole but not in part, at a redemption price equal to 100% of the principal amount of the notes due 2026 to be redeemed, together with any accrued and unpaid interest on the notes to be redeemed to, but excluding, the redemption date, at any time, if:

(i) we have or will become obliged to pay Additional Amounts with respect to the notes due 2026 as a result of any change in, or amendment to, the laws, regulations, treaties, or rulings of the United States or any political subdivision of or in the United States or any taxing authority thereof or therein affecting taxation, or any change in, or amendment to, the application, official interpretation, administration or enforcement of such laws, regulations, treaties or rulings (including a holding by a court of competent jurisdiction in the United States), which change or amendment is enacted, adopted, announced or becomes effective on or after the date of the applicable prospectus supplement; or
(ii) on or after the date of the applicable prospectus supplement, any action is taken by a taxing authority of, or any action has been brought in a court of competent jurisdiction in, the United States or any political subdivision of or in the United States or any taxing authority thereof or therein, including any of those actions specified in clause (i) above, whether or not such action was taken or brought with respect to us, or there is any change, amendment, clarification, application or interpretation of such laws, regulations, treaties or rulings, which in any such case, will result in a material probability that we will be required to pay Additional Amounts with respect to the notes due 2026 (it being understood that such material probability will be deemed

to result if the written opinion of independent tax counsel described in clause (b) below to such effect is delivered to the trustee and the paying agent).

Notice of any such redemption will be mailed, or delivered electronically if held by any depositary in accordance with such depositary's customary procedures, at least 30 days but not more than 60 days before the redemption date to each registered holder of the notes due 2026 to be redeemed; *provided*, *however*, that the notice of redemption shall not be given earlier than 90 days before the earliest date on which we would be obligated to pay such Additional Amounts if a payment in respect of the notes to be redeemed was then due.

Prior to the mailing or delivery of any notice of redemption pursuant to this section "Redemption for Tax Reasons," we will deliver to the trustee and the paying agent:
(a) a certificate signed by one of our officers stating that we are entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to our right to so redeem have occurred, and
(b) a written opinion of independent tax counsel of nationally recognized standing to the effect that we have or will become obligated to pay such Additional Amounts as a result of a change or amendment described in clause (i) above or that there is a material probability that we will be required to pay Additional Amounts as a result of an action, change, amendment, clarification, application or interpretation described in clause (ii) above, as the case may be.

Such notice, once delivered by us will be irrevocable.

Resignation and Removal of the Trustee

The trustee may resign at any time by giving written notice to us.

The trustee may also be removed with respect to the notes due 2026 by act of the holders of a majority in principal amount of the then outstanding notes due 2026.

No resignation or removal of the trustee and no appointment of a successor trustee will become effective until the acceptance of appointment by a successor trustee in accordance with the requirements of the indenture.

Under certain circumstances, we may appoint a successor trustee.

We will provide you with notice of any resignation, removal or appointment of the trustee.

Notices

Notices to holders of notes due 2026 are to be given by mail to the addresses of the holders as they may appear in the security register.

Title

UTC, the trustee, and any agent of either, may treat the person or entity in whose name the notes due 2026 are registered as the owner of those notes for the purpose of receiving payments on such notes (subject to the provisions of the indenture) and for all other purposes whatsoever, whether or not such notes may be overdue, and irrespective of notice to the contrary.

Governing Law

The notes due 2026 are governed by and construed in accordance with the laws of the State of New York.

The Trustee, Securities Registrar, Paying Agent and Calculation Agent

The trustee and securities registrar under the indenture is The Bank of New York Mellon Trust Company, N.A. The Bank of New York Mellon (London Branch) has been appointed by the Company to act as paying agent. The trustee maintains various banking and trust relationships with us and some of our affiliates. We may vary or terminate the appointment of any paying agent, securities registrar or calculation agent, or appoint additional or other such agents or approve any change in the office through which any such agent acts.

The trustee is under no obligation to exercise any of the rights or powers vested in it by the indenture at the request or direction of any of the holders of the notes due 2026 pursuant to the indenture, unless such holders shall have offered to the trustee reasonable security or indemnity against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction.

Book-Entry, Delivery and Form

We issued the notes due 2026 in the form of one or more global notes (the "global notes") in definitive, fully registered, book-entry form without coupons. The global notes will be deposited with a common depositary (and registered in the name of its nominee) for, and in respect of interests held through, Clearstream Banking, société anonyme, which we refer to as "Clearstream," or Euroclear Bank S.A./N.V., which we refer to as "Euroclear." Except as described herein, certificates will not be issued in exchange for beneficial interests in the global notes.

Except as set forth below, the global notes may be transferred, in whole and not in part, only to a common depositary for Clearstream and Euroclear or its nominee. No link is expected to be established among The Depository Trust Company and Clearstream or Euroclear in connection with the issuance of the notes.

Beneficial interests in the global notes will be represented through book-entry accounts of financial institutions acting on behalf of beneficial owners as direct and indirect participants in Clearstream or Euroclear. Those beneficial interests will be in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof. Should certificates be issued to individual holders of the notes due 2026, a holder of notes due 2026 who, as a result of trading or

otherwise, holds a principal amount of notes due 2026 that is less than the minimum denomination would be required to purchase an additional principal amount of notes due 2026 such that its holding of notes due 2026 amounts to the minimum specified denomination. Investors may hold interests in the global notes through Clearstream or Euroclear either directly if they are participants in such systems or indirectly through organizations that are participants in such systems.

Except as set forth in the indenture, owners of beneficial interests in the global notes will not be entitled to have notes registered in their names, and will not receive or be entitled to receive physical delivery of notes in definitive form. Except as provided below, beneficial owners will not be considered the owners or holders of the notes under the indenture. Accordingly, each beneficial owner must rely on the procedures of the clearing systems and, if such person is not a participant of the clearing systems, on the procedures of the participant through which such person owns its interest, to exercise any rights of a holder under the indenture. Under existing industry practices, if we request any action of holders or a beneficial owner desires to give or take any action which a holder is entitled to give or take under the indenture, the clearing systems would authorize their participants holding the relevant beneficial interests to give or take action and the participants would authorize beneficial owners owning through the participants to give or take such action or would otherwise act upon the instructions of beneficial owners. Conveyance of notices and other communications by the clearing systems to their participants, by the participants to indirect participants and by the participants and indirect participants to beneficial owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Persons who are not Euroclear or Clearstream participants may beneficially own notes held by the common depositary for Euroclear and Clearstream only through direct or indirect participants in Euroclear and Clearstream.

We understand that Clearstream is incorporated under the laws of Luxembourg as a professional depositary. Clearstream holds securities for its participants and facilitates the clearance and settlement of securities transactions between its participants through electronic book-entry changes in accounts of its participants, thereby eliminating the need for physical movement of certificates. Clearstream provides to its participants, among other things, services for safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Clearstream interfaces with domestic markets in several countries. As a professional depositary, Clearstream is subject to regulation by the Luxembourg Commission for the Supervision of the Financial Sector. Clearstream participants are recognized financial institutions around the world, including underwriters, securities brokers and dealers, banks, trust companies, clearing corporations and other organizations and may include the underwriters. Indirect access to Clearstream is also available to others, such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a Clearstream participant either directly or indirectly.

We understand that Euroclear was created in 1968 to hold securities for participants of Euroclear and to clear and settle transactions between Euroclear participants through simultaneous electronic book-entry delivery against payment, thereby eliminating the need for physical

movement of certificates and any risk from lack of simultaneous transfers of securities and cash. Euroclear provides various other services, including securities lending and borrowing and interfaces with domestic markets in several countries. Euroclear is operated by Euroclear Bank S.A./N.V., which we refer to as the "Euroclear Operator," under contract with Euroclear Clearance Systems S.C., a Belgian cooperative corporation, which we refer to as the "Cooperative." All operations are conducted by the Euroclear Operator, and all Euroclear securities clearance accounts and Euroclear cash accounts are accounts with the Euroclear Operator, not the Cooperative. The Cooperative establishes policy for Euroclear on behalf of Euroclear participants. Euroclear participants include banks (including central banks), securities brokers and dealers, and other professional financial intermediaries and may include the underwriters. Indirect access to Euroclear is also available to other firms that clear through or maintain a custodial relationship with a Euroclear participant, either directly or indirectly.

We understand that the Euroclear Operator is licensed by the Belgian Banking and Finance Commission to carry out banking activities on a global basis. As a Belgian bank, it is regulated and examined by the Belgian Banking and Finance Commission.

Securities clearance accounts and cash accounts with the Euroclear Operator are governed by the Terms and Conditions Governing Use of Euroclear and the related Operating Procedures of the Euroclear System, and applicable Belgian law (collectively, the "Terms and Conditions"). The Terms and Conditions govern transfers of securities and cash within Euroclear, withdrawals of securities and cash from Euroclear, and receipts of payments with respect to securities in Euroclear. All securities in Euroclear are held on a fungible basis without attribution of specific certificates to specific securities clearance accounts. The Euroclear Operator acts under the Terms and Conditions only on behalf of Euroclear participants and has no record of or relationship with persons holding through Euroclear participants.

We have provided the descriptions of the operations and procedures of Clearstream and Euroclear in this prospectus supplement solely as a matter of convenience, and we make no representation or warranty of any kind with respect to these operations and procedures. These operations and procedures are solely within the control of those organizations and are subject to change by them from time to time. None of us, the underwriters, the trustee or the paying agent takes any responsibility for these operations or procedures, and you are urged to contact Clearstream and Euroclear or their participants directly to discuss these matters.

We, the trustee, the paying agent and the registrar will not have any responsibility or liability for any aspect of the records relating to or payments made on account of notes by Clearstream or Euroclear, or for maintaining, supervising or reviewing any records of those organizations relating to the notes.

So long as Euroclear or Clearstream or their nominee or their common depositary is the registered holder of the global notes, Euroclear, Clearstream or such nominee, as the case may be, will be considered the sole owner or holder of the notes represented by such global notes for all purposes under the indenture and the notes. Payments of principal, interest and Additional Amounts, if any, in respect of the global notes will be made to Euroclear, Clearstream or such nominee, as the case may be, as registered holder thereof.

Distributions of principal, interest and Additional Amounts, if any, with respect to the global notes will be credited in euro to the extent received by Euroclear or Clearstream to the cash accounts of Euroclear or Clearstream customers in accordance with the relevant system's rules and procedures.

Because Euroclear and Clearstream can only act on behalf of participants, who in turn act on behalf of indirect participants, the ability of a person having an interest in the global notes to pledge such interest to persons or entities which do not participate in the relevant clearing system, or otherwise take actions in respect of such interest, may be affected by the lack of a physical certificate in respect of such interest.

Initial settlement for the notes will be made in immediately available funds. Secondary market trading between Clearstream and/or Euroclear participants will occur in the ordinary way in accordance with the applicable rules and operating procedures of Clearstream and Euroclear, as applicable, and will be settled using the procedures applicable to conventional Eurobonds in immediately available funds.

You should be aware that investors will only be able to make and receive deliveries, payments and other communications involving the notes through the Clearstream and Euroclear systems on days when those systems are open for business. Those systems may not be open for business on days when banks, brokers and other institutions are open for business in the United States.

In addition, because of time-zone differences, there may be problems with completing transactions involving the Clearstream and Euroclear systems on the same business day as in the United States. U.S. investors who wish to transfer their interests in the notes, or to make or receive a payment or delivery of the notes, on a particular day, may find that the transactions will not be performed until the next business day in Luxembourg or Brussels, depending on whether the Clearstream or Euroclear system is used.

Because the purchaser determines the place of delivery, it is important to establish at the time of trading of any notes where both the purchaser's and seller's accounts are located to ensure that settlement can be made on the desired date.

Secondary market sales of book-entry interests in the notes held through Clearstream or Euroclear to purchasers of book-entry interests in a global note through Clearstream or Euroclear will be conducted in accordance with the normal rules and operating procedures of Clearstream and Euroclear and will be settled using the procedures applicable to conventional eurobonds in same-day funds.

We have obtained the information in this section concerning Clearstream and Euroclear and the book-entry system and procedures from sources that we believe to be reliable, but neither we nor the underwriters take any responsibility for the accuracy of this information.

In a few special situations described below, the book-entry system for the notes will terminate and interests in the global notes will be exchanged for definitive notes in registered form. You must consult your bank, broker or other financial institution to find out how to have your interests in the notes transferred to your name, so that you will be a direct holder.

The special situations for termination of the book-entry system for the notes due 2026 are:

- the depositary for any of the notes represented by a registered global note notifies us that it is unwilling or unable to continue as depositary and we are unable to find a qualified replacement for such depositary within 90 days;
- we in our sole discretion determine to allow that global note to be exchangeable for definitive notes in registered form; or
- any event has occurred and is continuing, which after notice or lapse of time, would become an event of default with respect to the notes.

Notes due 2030

The following briefly summarizes certain terms of the notes due 2030. This summary does not describe every aspect of the notes due 2030 and is subject, and is qualified in its entirety by reference, to the prospectus supplement of UTC, dated as of May 18, 2018 and the definitive documents related to such notes.

General

We have issued the notes due 2030 in an initial aggregate principal amount of €500,000,000. The notes due 2030 will mature on May 18, 2030 and .

The notes due 2030 have been issued in book-entry form. See "Book-Entry, Delivery and Form." We issued the notes due 2030 only in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof.

The notes due 2030 are listed on the New York Stock Exchange under the symbol "UTX 30." We have no obligation to maintain such listing, and we may delist the notes due 2030 at any time.

We may, without the consent of the holders of the notes due 2030, issue additional notes due 2030 under the indenture having the same ranking and the same interest rate, maturity and other terms as the notes due 2030; *provided* that any such additional notes due 2030 that are not fungible with the notes due 2030 offered under the prospectus supplement dated as of May 18, 2018 for U.S. federal income tax purposes will have a separate CUSIP, ISIN and other identifying number than the notes due 2030 offered thereunder. Any such additional notes due 2030 will, together with the notes due 2030 offered by the same prospectus supplement, constitute a single series of notes under the indenture.

Interest

The notes due 2030 will bear interest at the annual rate of 2.150% and will accrue interest from the most recent date to which interest has been paid or duly provided for.

Interest will be payable on the notes due 2030 annually in arrears on May 18 of each year, and on the relevant maturity date, beginning on May 18, 2019 (each, a "fixed rate interest payment date"), to the persons in whose names the notes due 2030 are registered on the record date; provided, however, that interest payable on the relevant maturity date or any relevant redemption date will be payable to the persons to whom the principal of the notes due 2030 is payable. Interest on the notes due 2030 will be computed on the basis of the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on the notes due 2030 (or May 18, 2018 if no interest has been paid on the notes due 2030), to, but excluding, the next fixed rate interest payment date. This payment convention is referred to as ACTUAL/ACTUAL (ICMA) as defined in the

rulebook of the International Capital Market Association. If the date on which a payment of interest or principal on the notes due 2030 is scheduled to be paid is not a business day, then that interest or principal will be paid on the next succeeding business day, and no further interest will accrue as a result of such delay.

A “business day” is each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions are authorized or obligated by law or executive order to be closed in New York City or London and which is a day on which the Trans-European Automated Real-time Gross Settlement Express Transfer system (the “TARGET2 system”), or any successor thereto, operates.

A “record date” is the close of business on the date that is fifteen calendar days prior to the date on which interest is scheduled to be paid, regardless of whether such date is a business day; provided that if any of the notes due 2030 are held by a securities depositary in book-entry form, the record date for such notes will be the close of business on the business day (for this purpose a day on which Clearstream and Euroclear are open for business) immediately preceding the date on which interest is scheduled to be paid.

Issuance in Euro

Payments of principal, interest and Additional Amounts, if any, in respect of the notes due 2030 will be payable in euro. If the euro is unavailable to us due to the imposition of exchange controls or other circumstances beyond our control (including the dissolution of the euro) or if the euro is no longer being used by the then member states of the European Monetary Union that have adopted the euro as their currency or for the settlement of transactions by public institutions of or within the international banking community, then all payments in respect of the applicable notes will be made in U.S. dollars until the euro is again available to us or so used. The amount payable on any date in euro will be converted into U.S. dollars at the rate mandated by the U.S. Federal Reserve Board as of the close of business on the second business day prior to the relevant payment date or, in the event the U.S. Federal Reserve Board has not mandated a rate of conversion, on the basis of the then most recent U.S. dollar/euro exchange rate available on or prior to the second business day prior to the relevant payment date as determined by us in our sole discretion. Any payment in respect of the notes so made in U.S. dollars will not constitute an event of default under the notes or the indenture governing the notes. Neither the trustee nor the paying agent shall have any responsibility for any calculation or conversion in connection with the foregoing.

Investors will be subject to foreign exchange risks as to payments of principal, interest and Additional Amounts, if any, that may have important economic and tax consequences to them.

Optional Redemption

The notes due 2030 will be redeemable, in whole or in part, at our option at any time. The Company may redeem the notes due 2030 on any date prior to February 18, 2030 at a redemption price in euro equal to the greater of:

(a) 100% of the principal amount of the notes due 2030 to be redeemed; or
(b) the sum of the present values of the remaining scheduled payments of principal and interest on the notes due 2030 to be redeemed as described below, discounted to the redemption date on an annual basis (ACTUAL/ACTUAL (ICMA)) at the applicable Comparable Government Bond Rate (as defined below), plus 25 basis points.

In every such case, the redemption price will also include interest accrued to, but excluding, the date of redemption on the principal balance of the notes due 2030 being redeemed.

In addition, at any time on or after February 18, 2030, the Company may redeem some or all of the notes due 2030, in each case, at its option at a redemption price equal to 100% of the principal amount of the notes due 2030 to be redeemed, plus, in every such case, interest accrued to, but excluding, the date of redemption on the principal balance of the notes due 2030 being redeemed.

In any case, the principal amount of a note remaining outstanding after a redemption in part shall be €100,000 or an integral multiple of €1,000 in excess thereof.

For purposes of the optional redemption provisions of the notes due 2030, the following terms will be applicable:

"Comparable Government Bond" means, in relation to any Comparable Government Bond Rate calculation, at the discretion of an independent investment bank selected by us, a German federal government bond whose maturity is closest to the maturity of the notes due 2030 to be redeemed, or if such independent investment bank in its discretion determines that such similar bond is not in issue, such other German federal government bond as such independent investment bank may, with the advice of three brokers of, and/or market makers in, German federal government bonds selected by us, determine to be appropriate for determining the Comparable Government Bond Rate.

"Comparable Government Bond Rate" means, with respect to any redemption date, the price, expressed as a percentage (rounded to three decimal places, with 0.0005 being rounded upwards), at which the gross redemption yield on the notes due 2030 to be redeemed, if they were to be purchased at such price on the third business day prior to the redemption date, would be equal to the gross redemption yield on such business day of the Comparable Government Bond (as defined above) on the basis of the middle market price of the Comparable Government Bond prevailing at 11:00 a.m. (London time) on such business day as determined by an independent investment bank selected by us.

General Information Regarding Optional Redemption

We will mail or electronically deliver, according to the procedures of the applicable depositary, notice (with a copy to the trustee and the paying agent) of any optional redemption to the registered holder of the notes due 2030 being redeemed not less than 15 days and not more than

60 days before the redemption date. The notice of redemption will identify, among other things, the redemption date, the redemption price (or if not then ascertainable, the manner of calculation thereof) and that on the redemption date, the redemption price will become due and payable and that the notes called for redemption will cease to accrue interest on and after the redemption date (unless there is a default on payment of the redemption price). Prior to any redemption date, we will deposit with the paying agent or the trustee money sufficient to pay the redemption price of the notes to be redeemed on that date. If we redeem less than all of any series of fixed rate notes, the trustee will choose the notes due 2030 to be redeemed by any method that it deems fair and appropriate; provided that if the notes due 2030 are represented by one or more global notes, beneficial interests in the notes due 2030 will be selected for redemption by Euroclear and Clearstream in accordance with their respective standard procedures therefor.

The notes due 2030 are also subject to redemption if certain events occur involving United States taxation. See "—Redemption for Tax Reasons."

Additional Amounts

All payments of principal and interest in respect of the notes due 2030 by us or a paying agent on our behalf will be made free and clear of, and without deduction or withholding for or on account of, any present or future taxes, duties, assessments or other similar governmental charges imposed or levied by the United States or any political subdivision or taxing authority of or in the United States (collectively, "Taxes"), unless such withholding or deduction is required by law.

In the event such withholding or deduction for Taxes is required by law, subject to the limitations described below, we will pay to any non-U.S. holder or any foreign partnership such additional amounts ("Additional Amounts") as may be necessary to ensure that the net amount received by such person, after withholding or deduction for such Taxes, will be equal to the amount such person would have received in the absence of such withholding or deduction.

However, no Additional Amounts shall be payable with respect to any Taxes if such Taxes are imposed, withheld, deducted or levied for reasons unrelated to the holder's or beneficial owner's ownership or disposition of notes, nor shall Additional Amounts be payable for or on account of:

(a) any Taxes which would not have been so imposed, withheld, deducted or levied but for:

(1) the existence of any present or former connection between the holder or beneficial owner (or between a fiduciary, settlor, beneficiary, member or shareholder or other equity owner of, or a person having a power over, such holder or beneficial owner, if such holder or beneficial owner is an estate, a trust, a limited liability company, a partnership, a corporation or other entity) and the United States, including, without limitation, such holder or beneficial owner (or such fiduciary, settlor, beneficiary, member, shareholder or other equity owner or person having such a power) being or having been a citizen or resident or treated as a resident of the United States, being or having been engaged in a trade or business in the United States, being or having been present in the United States, or having or having had a permanent establishment in the United States;

(2) the failure of the holder or beneficial owner to comply with any applicable certification, information, documentation or other reporting requirement, if compliance is required under the tax laws and regulations of the United States or any political subdivision or taxing authority of or in the United States to establish entitlement to a partial or complete exemption from such Taxes (including, but not limited to, the requirement to provide Internal Revenue Service Form W-8BEN, Form W-8BEN-E, Form W-8ECI, Form W-8IMY (and related documentation) or any subsequent versions thereof or successor thereto); or

(3) the holder's or beneficial owner's present or former status as a personal holding company or a foreign personal holding company with respect to the United States, as a controlled foreign corporation with respect to the United States, as a passive foreign investment company with respect to the United States, as a foreign tax-exempt organization with respect to the United States or as a corporation that accumulates earnings to avoid United States federal income tax;

(b) any Taxes which would not have been imposed, withheld, deducted or levied but for the failure of the holder or beneficial owner to meet the requirements (including the certification requirements) of Section 871(h) or Section 881(c) of the Internal Revenue Code of 1986, as amended (the "Code");

(c) any Taxes which would not have been imposed, withheld, deducted or levied but for the presentation by the holder or beneficial owner of such note for payment on a date more than 30 days after the date on which such payment became due and payable or the date on which payment of the note due 2030 is duly provided for and notice is given to holders, whichever occurs later, except to the extent that the holder or beneficial owner would have been entitled to such Additional Amounts on presenting such note on any date during such 30-day period;

(d) any estate, inheritance, gift, sales, excise, transfer, personal property, wealth or similar Taxes;

(e) any Taxes which are payable other than by withholding or deduction from a payment on such note;

(f) any Taxes which are imposed, withheld, deducted or levied with respect to, or payable by, a holder that is not the beneficial owner of the note, or a portion of the note, or that is a fiduciary, partnership, limited liability company or other similar entity, but only to the extent that a beneficial owner, a beneficiary or settlor with respect to such fiduciary or member of such partnership, limited liability company or similar entity would not have been entitled to the payment of an Additional Amount had such beneficial owner, settlor, beneficiary or member received directly its beneficial or distributive share of the payment;

(g) any Taxes required to be withheld or deducted by any paying agent from any payment on any note, if such payment can be made without such withholding or deduction by at least one other paying agent;

(h) any Taxes imposed, withheld, deducted or levied under Sections 1471 through 1474 of the Code (or any amended or successor provisions), any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such sections of the Code;

(i) any Taxes that would not have been imposed, withheld, deducted or levied but for a change in any law, treaty, regulation, or administrative or judicial interpretation that becomes effective after the applicable payment becomes due or is duly provided for, whichever occurs later; or

(j) any combination of items (a), (b), (c), (d), (e), (f), (g), (h) and (i).

Any Additional Amounts paid on the notes due 2030 will be paid in euro.

For purposes of this section, the acquisition, ownership, enforcement, or holding of or the receipt of any payment with respect to a note alone will not constitute a connection (1) between the holder or beneficial owner and the United States or (2) between a fiduciary, settlor, beneficiary, member or shareholder or other equity owner of, or a person having a power over, such holder or beneficial owner if such holder or beneficial owner is an estate, a trust, a limited liability company, a partnership, a corporation or other entity and the United States.

Except as specifically provided under this section "Additional Amounts," we will not be required to make any payment with respect to any tax, duty, assessment or other governmental charge imposed by any government or any political subdivision or taxing authority.

If we are required to pay Additional Amounts with respect to the notes due 2030, we will notify the trustee and paying agent pursuant to an officers' certificate that specifies the Additional Amounts payable and when the Additional Amounts are payable. If the trustee and the paying agent do not receive such an officers' certificate from us, the trustee and paying agent may rely on the absence of such an officers' certificate in assuming that no such Additional Amounts are payable.

Redemption for Tax Reasons

We may redeem the notes due 2030 at our option, in whole but not in part, at a redemption price equal to 100% of the principal amount of the notes due 2030 to be redeemed, together with any accrued and unpaid interest on the notes to be redeemed to, but excluding, the redemption date, at any time, if:

(i) we have or will become obliged to pay Additional Amounts with respect to such series of the notes as a result of any change in, or amendment to, the laws, regulations, treaties, or rulings of the United States or any political subdivision of or in the United States or any taxing authority thereof or therein affecting taxation, or any change in, or amendment to, the application, official interpretation, administration or enforcement of such laws, regulations, treaties or rulings (including a holding by a court of competent jurisdiction in the United States), which change or amendment is enacted, adopted, announced or becomes effective on or after the date of the applicable prospectus supplement; or
(ii) on or after the date of the applicable prospectus supplement, any action is taken by a taxing authority of, or any action has been brought in a court of competent jurisdiction in, the United States or any political subdivision of or in the United States or any taxing authority thereof or therein, including any of those actions specified in clause (i) above, whether or not such action was taken or brought with respect to us, or there is any change, amendment, clarification, application or interpretation of such laws, regulations, treaties or rulings, which in any such case, will result in a material probability that we will be required to pay Additional Amounts with respect to the notes due 2030 (it being understood that such material probability will be deemed

to result if the written opinion of independent tax counsel described in clause (b) below to such effect is delivered to the trustee and the paying agent).

Notice of any such redemption will be mailed, or delivered electronically if held by any depositary in accordance with such depositary's customary procedures, at least 15 days but not more than 60 days before the redemption date to each registered holder of the notes due 2030 to be redeemed; *provided*, *however*, that the notice of redemption shall not be given earlier than 90 days before the earliest date on which we would be obligated to pay such Additional Amounts if a payment in respect of the notes to be redeemed was then due.

Prior to the mailing or delivery of any notice of redemption pursuant to this section "Redemption for Tax Reasons," we will deliver to the trustee and the paying agent:

(a) a certificate signed by one of our officers stating that we are entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to our right to so redeem have occurred, and
(b) a written opinion of independent tax counsel of nationally recognized standing to the effect that we have or will become obligated to pay such Additional Amounts as a result of a change or amendment described in clause (i) above or that there is a material probability that we will be required to pay Additional Amounts as a result of an action, change, amendment, clarification, application or interpretation described in clause (ii) above, as the case may be.

Such notice, once delivered by us will be irrevocable.

Resignation and Removal of the Trustee

The trustee may resign at any time by giving written notice to us.

The trustee may also be removed with respect to the notes due 2030 by an act of the holders of a majority in principal amount of the then outstanding the notes due 2030.

No resignation or removal of the trustee and no appointment of a successor trustee will become effective until the acceptance of appointment by a successor trustee in accordance with the requirements of the indenture.

Under certain circumstances, we may appoint a successor trustee.

We will provide you with notice of any resignation, removal or appointment of the trustee.

Notices

Notices to holders of the notes due 2030 are to be given by mail to the addresses of the holders as they may appear in the security register. If it is impractical to mail notice of any event to holders when such notice is required to be given pursuant to the indenture, then any manner of giving

such notice as shall be satisfactory to the trustee shall be deemed to be sufficient giving of such notice.

Title

UTC, the trustee, and any agent of either, may treat the person or entity in whose name the notes due 2030 are registered as the owner of those notes for the purpose of receiving payments on such notes (subject to the provisions of the indenture) and for all other purposes whatsoever, whether or not such notes may be overdue, and irrespective of notice to the contrary.

Governing Law

The notes due 2030 are governed by and construed in accordance with the laws of the State of New York.

The Trustee, Securities Registrar, Paying Agent and Calculation Agent

The trustee and securities registrar under the indenture is The Bank of New York Mellon Trust Company, N.A. The Bank of New York Mellon, London Branch has been appointed by the Company to act as paying agent. The trustee maintains various banking and trust relationships with us and some of our affiliates. We may vary or terminate the appointment of any paying agent, securities registrar or calculation agent, or appoint additional or other such agents or approve any change in the office through which any such agent acts.

The trustee is under no obligation to exercise any of the rights or powers vested in it by the indenture at the request or direction of any of the holders of the notes due 2030 pursuant to the indenture, unless such holders shall have offered to the trustee reasonable security or indemnity against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction.

Book-Entry, Delivery and Form

We issued the notes due 2030 in the form of global notes (the “global notes”) in definitive, fully registered, book-entry form without coupons. The global notes will be deposited with a common depositary (and registered in the name of its nominee) for, and in respect of interests held through, Clearstream Banking S.A., which we refer to as “Clearstream,” or Euroclear Bank SA/NV, which we refer to as “Euroclear.” Except as described herein, definitive notes in registered form will not be issued in exchange for beneficial interests in the global notes.

Except as set forth below, the global notes may be transferred, in whole and not in part, only to a common depositary for Clearstream and Euroclear or its nominee. No link is expected to be established among The Depository Trust Company and Clearstream or Euroclear in connection with the issuance of the notes.

Beneficial interests in the global notes will be represented through book-entry accounts of financial institutions acting on behalf of beneficial owners as direct and indirect participants in Clearstream or Euroclear. Those beneficial interests will be in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof. Should definitive notes in registered form be issued to individual holders of the notes due 2030, a holder of notes due 2030 who, as a result of trading or otherwise, holds a principal amount of the notes due 2030 that is less than the minimum denomination would be required to purchase an additional principal amount of the notes due 2030 such that its holding of the notes due 2030 amounts to the minimum specified denomination. Investors may hold interests in the global notes through Clearstream or Euroclear either directly if they are participants in such systems or indirectly through organizations that are participants in such systems.

Except as set forth in the indenture or related officers' certificate, owners of beneficial interests in the global notes will not be entitled to have notes registered in their names, and will not receive or be entitled to receive physical delivery of notes in definitive form. Except as provided below, beneficial owners will not be considered the owners or holders of the notes under the indenture. Accordingly, each beneficial owner must rely on the procedures of the clearing systems and, if such person is not a participant of the clearing systems, on the procedures of the participant through which such person owns its interest, to exercise any rights of a holder under the indenture. Under existing industry practices, if we request any action of holders or a beneficial owner desires to give or take any action which a holder is entitled to give or take under the indenture, the clearing systems would authorize their participants holding the relevant beneficial interests to give or take action and the participants would authorize beneficial owners owning through the participants to give or take such action or would otherwise act upon the instructions of beneficial owners. Conveyance of notices and other communications by the clearing systems to their participants, by the participants to indirect participants and by the participants and indirect participants to beneficial owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Persons who are not Euroclear or Clearstream participants may beneficially own notes held by the common depositary for Euroclear and Clearstream only through direct or indirect participants in Euroclear and Clearstream.

We understand that Clearstream is incorporated under the laws of Luxembourg as a professional depositary. Clearstream holds securities for its participants and facilitates the clearance and settlement of securities transactions between its participants through electronic book-entry changes in accounts of its participants, thereby eliminating the need for physical movement of certificates. Clearstream provides to its participants, among other things, services for safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Clearstream interfaces with domestic markets in several countries. As a professional depositary, Clearstream is subject to regulation by the Luxembourg Commission for the Supervision of the Financial Sector. Clearstream participants are recognized financial institutions around the world, including underwriters, securities brokers and dealers, banks, trust companies, clearing corporations and other organizations and may include the underwriters. Indirect access to Clearstream is also available to others, such as banks, brokers,

dealers and trust companies that clear through or maintain a custodial relationship with a Clearstream participant either directly or indirectly.

We understand that Euroclear was created in 1968 to hold securities for participants of Euroclear and to clear and settle transactions between Euroclear participants through simultaneous electronic book-entry delivery against payment, thereby eliminating the need for physical movement of certificates and any risk from lack of simultaneous transfers of securities and cash. Euroclear provides various other services, including securities lending and borrowing and interfaces with domestic markets in several countries. Euroclear is operated by Euroclear Bank SA/NV, which we refer to as the "Euroclear Operator," under contract with Euroclear Clearance Systems S.C., a Belgian cooperative corporation, which we refer to as the "Cooperative." All operations are conducted by the Euroclear Operator, and all Euroclear securities clearance accounts and Euroclear cash accounts are accounts with the Euroclear Operator, not the Cooperative. The Cooperative establishes policy for Euroclear on behalf of Euroclear participants. Euroclear participants include banks (including central banks), securities brokers and dealers, and other professional financial intermediaries and may include the underwriters. Indirect access to Euroclear is also available to other firms that clear through or maintain a custodial relationship with a Euroclear participant, either directly or indirectly.

We understand that the Euroclear Operator is licensed by the Belgian Banking and Finance Commission to carry out banking activities on a global basis. As a Belgian bank, it is regulated and examined by the Belgian Banking and Finance Commission.

Securities clearance accounts and cash accounts with the Euroclear Operator are governed by the Terms and Conditions Governing Use of Euroclear and the related Operating Procedures of the Euroclear System, and applicable Belgian law (collectively, the "Terms and Conditions"). The Terms and Conditions govern transfers of securities and cash within Euroclear, withdrawals of securities and cash from Euroclear, and receipts of payments with respect to securities in Euroclear. All securities in Euroclear are held on a fungible basis without attribution of specific certificates to specific securities clearance accounts. The Euroclear Operator acts under the Terms and Conditions only on behalf of Euroclear participants and has no record of or relationship with persons holding through Euroclear participants.

We have provided the descriptions of the operations and procedures of Clearstream and Euroclear in this prospectus supplement solely as a matter of convenience, and we make no representation or warranty of any kind with respect to these operations and procedures. These operations and procedures are solely within the control of those organizations and are subject to change by them from time to time. None of us, the underwriters, the trustee or the paying agent takes any responsibility for these operations or procedures, and you are urged to contact Clearstream and Euroclear or their participants directly to discuss these matters.

We, the trustee, the paying agent and the registrar will not have any responsibility or liability for any aspect of the records relating to or payments made on account of notes by Clearstream or Euroclear, or for maintaining, supervising or reviewing any records of those organizations relating to the notes.

So long as Euroclear or Clearstream or their nominee or their common depositary is the registered holder of the global notes, Euroclear, Clearstream or such nominee, as the case may be, will be considered the sole owner or holder of the notes represented by such global notes for all purposes under the indenture and the notes. Payments of principal, interest and Additional Amounts, if any, in respect of the global notes will be made to Euroclear, Clearstream or such nominee, as the case may be, as registered holder thereof.

Distributions of principal, interest and Additional Amounts, if any, with respect to the global notes will be credited in euro to the extent received by Euroclear or Clearstream to the cash accounts of Euroclear or Clearstream customers in accordance with the relevant system's rules and procedures.

Because Euroclear and Clearstream can only act on behalf of participants, who in turn act on behalf of indirect participants, the ability of a person having an interest in the global notes to pledge such interest to persons or entities which do not participate in the relevant clearing system, or otherwise take actions in respect of such interest, may be affected by the lack of a physical certificate in respect of such interest.

Initial settlement for the notes will be made in immediately available funds. Secondary market trading between Clearstream and/or Euroclear participants will occur in the ordinary way in accordance with the applicable rules and operating procedures of Clearstream and Euroclear, as applicable, and will be settled using the procedures applicable to conventional Eurobonds in immediately available funds.

You should be aware that investors will only be able to make and receive deliveries, payments and other communications involving the notes through the Clearstream and Euroclear systems on days when those systems are open for business. Those systems may not be open for business on days when banks, brokers and other institutions are open for business in the United States.

In addition, because of time-zone differences, there may be problems with completing transactions involving the Clearstream and Euroclear systems on the same business day as in the United States. U.S. investors who wish to transfer their interests in the notes, or to make or receive a payment or delivery of the notes, on a particular day, may find that the transactions will not be performed until the next business day in Luxembourg or Brussels, depending on whether the Clearstream or Euroclear system is used.

Because the purchaser determines the place of delivery, it is important to establish at the time of trading of any notes where both the purchaser's and seller's accounts are located to ensure that settlement can be made on the desired date.

Secondary market sales of book-entry interests in the notes held through Clearstream or Euroclear to purchasers of book-entry interests in a global note through Clearstream or Euroclear will be conducted in accordance with the normal rules and operating procedures of Clearstream

and Euroclear and will be settled using the procedures applicable to conventional eurobonds in same-day funds.

We have obtained the information in this section concerning Clearstream and Euroclear and the book-entry system and procedures from sources that we believe to be reliable, but neither we nor the underwriters take any responsibility for the accuracy of this information.

In a few special situations described below, the book-entry system for the notes will terminate and interests in the global notes will be exchanged for definitive notes in registered form. You must consult your bank, broker or other financial institution to find out how to have your interests in the notes transferred to your name, so that you will be a direct holder.

The special situations for termination of the book-entry system for the notes due 2030 are:

- the depositary for any of the notes represented by a registered global note (a) notifies us that it is unwilling or unable to continue as depositary or clearing system for the global notes or (b) ceases to be a "clearing agency" registered under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in either event we are unable to find a qualified replacement for such depositary within 90 days;
- we in our sole discretion determine to allow global notes to be exchangeable for definitive notes in registered form; or
- there has occurred and is continuing an event of default with respect to the notes and the depositary notifies the trustee of its decision to exchange the global notes for definitive notes in registered form.

Floating Rate Notes

The following briefly summarizes certain terms of the floating rate notes. This summary does not describe every aspect of the floating rate notes and is subject, and is qualified in its entirety by reference, to the prospectus supplement of UTC, dated as of May 18, 2018 and the definitive documents related to such notes.

General

We have issued the floating rate notes in an initial aggregate principal amount of €750,000,000. The floating rate notes will mature on May 18, 2020.

The floating rate notes have been issued in book-entry form. See "Book-Entry, Delivery and Form." We issued the floating rate notes only in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof.

The floating rate notes are listed on the New York Stock Exchange under the symbol "UTX 20B." We have no obligation to maintain such listing, and we may delist the floating rate notes at any time.

We may, without the consent of the holders of the floating rate notes, issue additional floating rate notes under the indenture having the same ranking and the same interest rate, maturity and other terms as the floating rate notes; *provided* that any such additional floating rate notes that are not fungible with the floating rate notes offered under the prospectus supplement dated as of May, 18, 2018 for U.S. federal income tax purposes will have a separate CUSIP, ISIN and other identifying number than the floating rate notes offered thereunder. Any such additional floating rate notes will, together with the floating rate notes offered by the same prospectus supplement, constitute a single series of notes under the indenture.

Interest on the Floating Rate Notes

Interest will be payable on the floating rate notes quarterly in arrears on February 18, May 18, August 18 and November 18 of each year, and on the maturity date, commencing on August 18, 2018 (each, a "floating rate interest payment date"), to the persons in whose names such floating rate notes are registered on the record date; *provided*, *however*, that interest payable on the maturity date or any redemption date will be payable to the persons to whom the principal of such floating rate notes is payable. If a floating rate interest payment date (other than the maturity date or any earlier redemption date) is not a business day, then such floating rate interest payment date shall be the next succeeding business day, unless the next succeeding business day is in the next succeeding calendar month, in which case such floating rate interest payment date shall be the immediately preceding business day. If the maturity date or any earlier redemption date of the floating rate notes falls on a day that is not a business day, the payment of principal and interest, if any, otherwise payable on such date will be postponed to the next succeeding

business day, and no interest on such payment will accrue from and after the maturity date or earlier redemption date, as applicable.

The floating rate notes will bear interest for each interest period at a rate determined by The Bank of New York Mellon, London Branch, acting as calculation agent. The interest rate for each day of an interest period will be a rate equal to EURIBOR as determined on the interest determination date plus 0.20% per year, *provided*, *however*, that in no event shall the interest rate be less than zero.

The interest rate for each interest period will be reset on February 18, May 18, August 18 and November 18 of each year (each such date, an “interest reset date”), and will be set for the initial interest period on May 18, 2018. If any interest reset date would otherwise be a day that is not a business day, such interest reset date shall be the next succeeding business day, unless the next succeeding business day is in the next succeeding calendar month, in which case such interest reset date shall be the immediately preceding business day.

The initial interest period for the floating rate notes will be the period from and including May 18, 2018 to, but excluding, the first interest reset date. Thereafter, an “interest period” shall mean the period from and including an interest reset date to, but excluding, the next succeeding interest reset date and, in the case of the last such period, from and including the interest reset date immediately preceding the maturity date or any earlier redemption date, as the case may be, to, but excluding, such maturity date or earlier redemption date.

The interest determination date for the initial interest period is May 16, 2018 and for any other interest period will be the second TARGET2 system day preceding the relevant interest reset date. A “TARGET2 system day” is any day on which the TARGET2 system, or any successor thereto, operates. Promptly upon determination, the calculation agent will inform us of the interest rate for the next interest period. Absent manifest error, the determination of the interest rate by the calculation agent shall be binding and conclusive on the holders of the floating rate notes, the trustee and us. So long as EURIBOR is required to be determined with respect to the floating rate notes, there will at all times be a calculation agent. In the event that any then acting calculation agent shall be unable or unwilling to act, or that such calculation agent shall fail duly to establish EURIBOR for any interest period, or that we propose to remove such calculation agent, we shall appoint another person which is a bank, trust company, investment banking firm or other financial institution to act as the calculation agent.

On any interest determination date, EURIBOR will be equal to the offered rate for deposits in euro having an index maturity of three months as such rate appears on the Reuters screen EURIBOR01 page at approximately 11:00 a.m., Brussels time, on such interest determination date. “Reuters screen EURIBOR01 page” means the display designated on page “EURIBOR01” on Reuters (or such other page as may replace the EURIBOR01 page on that service or any successor service for the purpose of displaying euro-zone interbank offered rates for euro-denominated deposits of major banks).

Subject to the immediately following paragraph, if no offered rate appears on the Reuters screen EURIBOR01 page on an interest determination date at approximately 11:00 a.m., Brussels time, then we will select four major banks in the euro-zone interbank market and shall request each of their principal euro-zone offices to provide to the calculation agent a quotation of the rate at which three-month deposits in euros in amounts of at least €1,000,000 are offered by it to prime banks in the euro-zone interbank market, on that date and at that time, that is representative of single transactions at that time. If at least two quotations are provided, EURIBOR will be the arithmetic average of the quotations provided. Otherwise, we will select three major banks in the euro-zone and shall request each of them to provide to the calculation agent a quotation of the rate offered by them at approximately 11:00 a.m., Brussels time, on the interest determination date for loans in euros to leading European banks having an index maturity of three months for the applicable interest period in an amount of at least €1,000,000 that is representative of single transactions at that time. If three quotations are provided, EURIBOR will be the arithmetic average of the quotations provided. Otherwise, the rate of EURIBOR for the next interest period will be set equal to the rate of EURIBOR for the then current interest period.

Notwithstanding the paragraph immediately above, if UTC in its sole discretion determines that EURIBOR has been permanently discontinued and UTC has notified the calculation agent of such determination (a “EURIBOR Event”), the calculation agent will use, as a substitute for EURIBOR (the “Alternative Rate”) for each future interest determination date, the alternative reference rate selected by the central bank, reserve bank, monetary authority or any similar institution (including any committee or working group thereof) that is consistent with market practice regarding a substitute for EURIBOR. As part of such substitution, the calculation agent will, after consultation with us, make such adjustments to the Alternative Rate or the spread thereon, as well as the business day convention, interest determination dates and related provisions and definitions, in each case that are consistent with market practice for the use of such Alternative Rate. If a EURIBOR Event has occurred, but for any reason an Alternative Rate has not been determined, the rate of EURIBOR for the next interest period will be set equal to the rate of EURIBOR for the then current interest period.

The amount of interest for each day that the floating rate notes are outstanding (the “daily interest amount”) will be calculated by dividing the floating interest rate in effect for such day by 360 and multiplying the result by the principal amount of the floating rate notes (known as the “Actual/360” day count). The amount of interest to be paid on the floating rate notes for any interest period will be calculated by adding the daily interest amounts for each day in such interest period.

The interest rate on the floating rate notes will be limited to the maximum rate permitted by New York law, as the same may be modified by United States law of general application.
All percentages resulting from any calculation of any interest rate for the floating rate notes will be rounded, if necessary, to the nearest one hundred thousandth of a percentage point, with five one-millionths of a percentage point rounded upward (e.g., 9.876545% (or .09876545) would be rounded to 9.87655% (or .0987655)), and all euro amounts will be rounded to the nearest cent, with one-half cent being rounded upward.

Upon prior written request from any holder of the floating rate notes, the calculation agent will provide the interest rate in effect on such floating rate notes for the current interest period and, if it has been determined, the interest rate to be in effect for the next interest period.

Issuance in Euro

Payments of principal, interest and Additional Amounts, if any, in respect of the floating rate notes will be payable in euro. If the euro is unavailable to us due to the imposition of exchange controls or other circumstances beyond our control (including the dissolution of the euro) or if the euro is no longer being used by the then member states of the European Monetary Union that have adopted the euro as their currency or for the settlement of transactions by public institutions of or within the international banking community, then all payments in respect of the applicable notes will be made in U.S. dollars until the euro is again available to us or so used. The amount payable on any date in euro will be converted into U.S. dollars at the rate mandated by the U.S. Federal Reserve Board as of the close of business on the second business day prior to the relevant payment date or, in the event the U.S. Federal Reserve Board has not mandated a rate of conversion, on the basis of the then most recent U.S. dollar/euro exchange rate available on or prior to the second business day prior to the relevant payment date as determined by us in our sole discretion. Any payment in respect of the notes so made in U.S. dollars will not constitute an event of default under the notes or the indenture governing the notes. Neither the trustee nor the paying agent shall have any responsibility for any calculation or conversion in connection with the foregoing.

Investors will be subject to foreign exchange risks as to payments of principal, interest and Additional Amounts, if any, that may have important economic and tax consequences to them.

Additional Amounts

All payments of principal and interest in respect of the floating rate notes by us or a paying agent on our behalf will be made free and clear of, and without deduction or withholding for or on account of, any present or future taxes, duties, assessments or other similar governmental charges imposed or levied by the United States or any political subdivision or taxing authority of or in the United States (collectively, “Taxes”), unless such withholding or deduction is required by law.

In the event such withholding or deduction for Taxes is required by law, subject to the limitations described below, we will pay to any non-U.S. holder or any foreign partnership such additional amounts (“Additional Amounts”) as may be necessary to ensure that the net amount received by such person, after withholding or deduction for such Taxes, will be equal to the amount such person would have received in the absence of such withholding or deduction.

However, no Additional Amounts shall be payable with respect to any Taxes if such Taxes are imposed, withheld, deducted or levied for reasons unrelated to the holder’s or beneficial owner’s ownership or disposition of notes, nor shall Additional Amounts be payable for or on account of:

(a) any Taxes which would not have been so imposed, withheld, deducted or levied but for:

(1) the existence of any present or former connection between the holder or beneficial owner (or between a fiduciary, settlor, beneficiary, member or shareholder or other equity owner of, or a person having a power over, such holder or beneficial owner, if such holder or beneficial owner is an estate, a trust, a limited liability company, a partnership, a corporation or other entity) and the United States, including, without limitation, such holder or beneficial owner (or such fiduciary, settlor, beneficiary, member, shareholder or other equity owner or person having such a power) being or having been a citizen or resident or treated as a resident of the United States, being or having been engaged in a trade or business in the United States, being or having been present in the United States, or having or having had a permanent establishment in the United States;

(2) the failure of the holder or beneficial owner to comply with any applicable certification, information, documentation or other reporting requirement, if compliance is required under the tax laws and regulations of the United States or any political subdivision or taxing authority of or in the United States to establish entitlement to a partial or complete exemption from such Taxes (including, but not limited to, the requirement to provide Internal Revenue Service Form W-8BEN, Form W-8BEN-E, Form W-8ECI, Form W-8IMY (and related documentation) or any subsequent versions thereof or successor thereto); or

(3) the holder's or beneficial owner's present or former status as a personal holding company or a foreign personal holding company with respect to the United States, as a controlled foreign corporation with respect to the United States, as a passive foreign investment company with respect to the United States, as a foreign tax-exempt organization with respect to the United States or as a corporation that accumulates earnings to avoid United States federal income tax;

(b) any Taxes which would not have been imposed, withheld, deducted or levied but for the failure of the holder or beneficial owner to meet the requirements (including the certification requirements) of Section 871(h) or Section 881(c) of the Internal Revenue Code of 1986, as amended (the "Code");

(c) any Taxes which would not have been imposed, withheld, deducted or levied but for the presentation by the holder or beneficial owner of such note for payment on a date more than 30 days after the date on which such payment became due and payable or the date on which payment of the floating rate note is duly provided for and notice is given to holders, whichever occurs later, except to the extent that the holder or beneficial owner would have been entitled to such Additional Amounts on presenting such note on any date during such 30-day period;

(d) any estate, inheritance, gift, sales, excise, transfer, personal property, wealth or similar Taxes;

(e) any Taxes which are payable other than by withholding or deduction from a payment on such note;

(f) any Taxes which are imposed, withheld, deducted or levied with respect to, or payable by, a holder that is not the beneficial owner of the note, or a portion of the note, or that is a fiduciary, partnership, limited liability company or other similar entity, but only to the extent that a beneficial owner, a beneficiary or settlor with respect to such fiduciary or member of such partnership, limited liability company or similar entity would not have been entitled to the payment of an Additional Amount had such beneficial owner, settlor, beneficiary or member received directly its beneficial or distributive share of the payment;

(g) any Taxes required to be withheld or deducted by any paying agent from any payment on any note, if such payment can be made without such withholding or deduction by at least one other paying agent;
(h) any Taxes imposed, withheld, deducted or levied under Sections 1471 through 1474 of the Code (or any amended or successor provisions), any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such sections of the Code;
(i) any Taxes that would not have been imposed, withheld, deducted or levied but for a change in any law, treaty, regulation, or administrative or judicial interpretation that becomes effective after the applicable payment becomes due or is duly provided for, whichever occurs later; or
(j) any combination of items (a), (b), (c), (d), (e), (f), (g), (h) and (i).

Any Additional Amounts paid on the floating rate notes will be paid in euro.

For purposes of this section, the acquisition, ownership, enforcement, or holding of or the receipt of any payment with respect to a note alone will not constitute a connection (1) between the holder or beneficial owner and the United States or (2) between a fiduciary, settlor, beneficiary, member or shareholder or other equity owner of, or a person having a power over, such holder or beneficial owner if such holder or beneficial owner is an estate, a trust, a limited liability company, a partnership, a corporation or other entity and the United States.

Except as specifically provided under this section "Additional Amounts," we will not be required to make any payment with respect to any tax, duty, assessment or other governmental charge imposed by any government or any political subdivision or taxing authority.

If we are required to pay Additional Amounts with respect to the floating rate notes, we will notify the trustee and paying agent pursuant to an officers' certificate that specifies the Additional Amounts payable and when the Additional Amounts are payable. If the trustee and the paying agent do not receive such an officers' certificate from us, the trustee and paying agent may rely on the absence of such an officers' certificate in assuming that no such Additional Amounts are payable.

Redemption for Tax Reasons

We may redeem the floating rate notes at our option, in whole but not in part, at a redemption price equal to 100% of the principal amount of the floating rate notes to be redeemed, together with any accrued and unpaid interest on the notes to be redeemed to, but excluding, the redemption date, at any time, if:

(i) we have or will become obliged to pay Additional Amounts with respect to such series of the notes as a result of any change in, or amendment to, the laws, regulations, treaties, or rulings of the United States or any political subdivision of or in the United States or any taxing authority thereof or therein affecting taxation, or any change in, or amendment to, the application, official interpretation, administration or enforcement of such laws, regulations, treaties or rulings

(including a holding by a court of competent jurisdiction in the United States), which change or amendment is enacted, adopted, announced or becomes effective on or after the date of the applicable prospectus supplement; or
(ii) on or after the date of the applicable prospectus supplement, any action is taken by a taxing authority of, or any action has been brought in a court of competent jurisdiction in, the United States or any political subdivision of or in the United States or any taxing authority thereof or therein, including any of those actions specified in clause (i) above, whether or not such action was taken or brought with respect to us, or there is any change, amendment, clarification, application or interpretation of such laws, regulations, treaties or rulings, which in any such case, will result in a material probability that we will be required to pay Additional Amounts with respect to the floating rate notes (it being understood that such material probability will be deemed to result if the written opinion of independent tax counsel described in clause (b) below to such effect is delivered to the trustee and the paying agent).

Notice of any such redemption will be mailed, or delivered electronically if held by any depositary in accordance with such depositary's customary procedures, at least 15 days but not more than 60 days before the redemption date to each registered holder of the floating rate notes to be redeemed; *provided*, *however*, that the notice of redemption shall not be given earlier than 90 days before the earliest date on which we would be obligated to pay such Additional Amounts if a payment in respect of the notes to be redeemed was then due.

Prior to the mailing or delivery of any notice of redemption pursuant to this section "Redemption for Tax Reasons," we will deliver to the trustee and the paying agent:

(a) a certificate signed by one of our officers stating that we are entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to our right to so redeem have occurred, and
(b) a written opinion of independent tax counsel of nationally recognized standing to the effect that we have or will become obligated to pay such Additional Amounts as a result of a change or amendment described in clause (i) above or that there is a material probability that we will be required to pay Additional Amounts as a result of an action, change, amendment, clarification, application or interpretation described in clause (ii) above, as the case may be.

Such notice, once delivered by us will be irrevocable.

Resignation and Removal of the Trustee

The trustee may resign at any time by giving written notice to us.

The trustee may also be removed with respect to the floating rate notes by an act of the holders of a majority in principal amount of the then outstanding the floating rate notes.

No resignation or removal of the trustee and no appointment of a successor trustee will become effective until the acceptance of appointment by a successor trustee in accordance with the requirements of the indenture.

Under certain circumstances, we may appoint a successor trustee.

We will provide you with notice of any resignation, removal or appointment of the trustee.

Notices

Notices to holders of the floating rate notes are to be given by mail to the addresses of the holders as they may appear in the security register. If it is impractical to mail notice of any event to holders when such notice is required to be given pursuant to the indenture, then any manner of giving such notice as shall be satisfactory to the trustee shall be deemed to be sufficient giving of such notice.

Title

UTC, the trustee, and any agent of either, may treat the person or entity in whose name the floating rate notes are registered as the owner of those notes for the purpose of receiving payments on such notes (subject to the provisions of the indenture) and for all other purposes whatsoever, whether or not such notes may be overdue, and irrespective of notice to the contrary.

Governing Law

The floating rate notes are governed by and construed in accordance with the laws of the State of New York.

The Trustee, Securities Registrar, Paying Agent and Calculation Agent

The trustee and securities registrar under the indenture is The Bank of New York Mellon Trust Company, N.A. The Bank of New York Mellon, London Branch has been appointed by the Company to act as paying agent and calculation agent. The trustee maintains various banking and trust relationships with us and some of our affiliates. We may vary or terminate the appointment of any paying agent, securities registrar or calculation agent, or appoint additional or other such agents or approve any change in the office through which any such agent acts.

The trustee is under no obligation to exercise any of the rights or powers vested in it by the indenture at the request or direction of any of the holders of the floating rate notes pursuant to the indenture, unless such holders shall have offered to the trustee reasonable security or indemnity against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction.

Book-Entry, Delivery and Form

We issued the floating rate notes in the form of global notes (the "global notes") in definitive, fully registered, book-entry form without coupons. The global notes will be deposited with a common depositary (and registered in the name of its nominee) for, and in respect of interests

held through, Clearstream Banking S.A., which we refer to as “Clearstream,” or Euroclear Bank SA/NV, which we refer to as “Euroclear.” Except as described herein, definitive notes in registered form will not be issued in exchange for beneficial interests in the global notes.

Except as set forth below, the global notes may be transferred, in whole and not in part, only to a common depositary for Clearstream and Euroclear or its nominee. No link is expected to be established among The Depository Trust Company and Clearstream or Euroclear in connection with the issuance of the notes.

Beneficial interests in the global notes will be represented through book-entry accounts of financial institutions acting on behalf of beneficial owners as direct and indirect participants in Clearstream or Euroclear. Those beneficial interests will be in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof. Should definitive notes in registered form be issued to individual holders of the floating rate notes, a holder of floating rate notes who, as a result of trading or otherwise, holds a principal amount of the floating rate notes that is less than the minimum denomination would be required to purchase an additional principal amount of the floating rate notes such that its holding of the floating rate notes amounts to the minimum specified denomination. Investors may hold interests in the global notes through Clearstream or Euroclear either directly if they are participants in such systems or indirectly through organizations that are participants in such systems.

Except as set forth in the indenture or related officers’ certificate, owners of beneficial interests in the global notes will not be entitled to have notes registered in their names, and will not receive or be entitled to receive physical delivery of notes in definitive form. Except as provided below, beneficial owners will not be considered the owners or holders of the notes under the indenture. Accordingly, each beneficial owner must rely on the procedures of the clearing systems and, if such person is not a participant of the clearing systems, on the procedures of the participant through which such person owns its interest, to exercise any rights of a holder under the indenture. Under existing industry practices, if we request any action of holders or a beneficial owner desires to give or take any action which a holder is entitled to give or take under the indenture, the clearing systems would authorize their participants holding the relevant beneficial interests to give or take action and the participants would authorize beneficial owners owning through the participants to give or take such action or would otherwise act upon the instructions of beneficial owners. Conveyance of notices and other communications by the clearing systems to their participants, by the participants to indirect participants and by the participants and indirect participants to beneficial owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Persons who are not Euroclear or Clearstream participants may beneficially own notes held by the common depositary for Euroclear and Clearstream only through direct or indirect participants in Euroclear and Clearstream.

We understand that Clearstream is incorporated under the laws of Luxembourg as a professional depositary. Clearstream holds securities for its participants and facilitates the clearance and settlement of securities transactions between its participants through electronic book-entry changes in accounts of its participants, thereby eliminating the need for physical movement of

certificates. Clearstream provides to its participants, among other things, services for safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Clearstream interfaces with domestic markets in several countries. As a professional depositary, Clearstream is subject to regulation by the Luxembourg Commission for the Supervision of the Financial Sector. Clearstream participants are recognized financial institutions around the world, including underwriters, securities brokers and dealers, banks, trust companies, clearing corporations and other organizations and may include the underwriters. Indirect access to Clearstream is also available to others, such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a Clearstream participant either directly or indirectly.

We understand that Euroclear was created in 1968 to hold securities for participants of Euroclear and to clear and settle transactions between Euroclear participants through simultaneous electronic book-entry delivery against payment, thereby eliminating the need for physical movement of certificates and any risk from lack of simultaneous transfers of securities and cash. Euroclear provides various other services, including securities lending and borrowing and interfaces with domestic markets in several countries. Euroclear is operated by Euroclear Bank SA/NV, which we refer to as the "Euroclear Operator," under contract with Euroclear Clearance Systems S.C., a Belgian cooperative corporation, which we refer to as the "Cooperative." All operations are conducted by the Euroclear Operator, and all Euroclear securities clearance accounts and Euroclear cash accounts are accounts with the Euroclear Operator, not the Cooperative. The Cooperative establishes policy for Euroclear on behalf of Euroclear participants. Euroclear participants include banks (including central banks), securities brokers and dealers, and other professional financial intermediaries and may include the underwriters. Indirect access to Euroclear is also available to other firms that clear through or maintain a custodial relationship with a Euroclear participant, either directly or indirectly.

We understand that the Euroclear Operator is licensed by the Belgian Banking and Finance Commission to carry out banking activities on a global basis. As a Belgian bank, it is regulated and examined by the Belgian Banking and Finance Commission.

Securities clearance accounts and cash accounts with the Euroclear Operator are governed by the Terms and Conditions Governing Use of Euroclear and the related Operating Procedures of the Euroclear System, and applicable Belgian law (collectively, the "Terms and Conditions"). The Terms and Conditions govern transfers of securities and cash within Euroclear, withdrawals of securities and cash from Euroclear, and receipts of payments with respect to securities in Euroclear. All securities in Euroclear are held on a fungible basis without attribution of specific certificates to specific securities clearance accounts. The Euroclear Operator acts under the Terms and Conditions only on behalf of Euroclear participants and has no record of or relationship with persons holding through Euroclear participants.

We have provided the descriptions of the operations and procedures of Clearstream and Euroclear in this prospectus supplement solely as a matter of convenience, and we make no representation or warranty of any kind with respect to these operations and procedures. These operations and procedures are solely within the control of those organizations and are subject to

change by them from time to time. None of us, the underwriters, the trustee or the paying agent takes any responsibility for these operations or procedures, and you are urged to contact Clearstream and Euroclear or their participants directly to discuss these matters.

We, the trustee, the paying agent and the registrar will not have any responsibility or liability for any aspect of the records relating to or payments made on account of notes by Clearstream or Euroclear, or for maintaining, supervising or reviewing any records of those organizations relating to the notes.

So long as Euroclear or Clearstream or their nominee or their common depositary is the registered holder of the global notes, Euroclear, Clearstream or such nominee, as the case may be, will be considered the sole owner or holder of the notes represented by such global notes for all purposes under the indenture and the notes. Payments of principal, interest and Additional Amounts, if any, in respect of the global notes will be made to Euroclear, Clearstream or such nominee, as the case may be, as registered holder thereof.

Distributions of principal, interest and Additional Amounts, if any, with respect to the global notes will be credited in euro to the extent received by Euroclear or Clearstream to the cash accounts of Euroclear or Clearstream customers in accordance with the relevant system’s rules and procedures.

Because Euroclear and Clearstream can only act on behalf of participants, who in turn act on behalf of indirect participants, the ability of a person having an interest in the global notes to pledge such interest to persons or entities which do not participate in the relevant clearing system, or otherwise take actions in respect of such interest, may be affected by the lack of a physical certificate in respect of such interest.

Initial settlement for the notes will be made in immediately available funds. Secondary market trading between Clearstream and/or Euroclear participants will occur in the ordinary way in accordance with the applicable rules and operating procedures of Clearstream and Euroclear, as applicable, and will be settled using the procedures applicable to conventional Eurobonds in immediately available funds.

You should be aware that investors will only be able to make and receive deliveries, payments and other communications involving the notes through the Clearstream and Euroclear systems on days when those systems are open for business. Those systems may not be open for business on days when banks, brokers and other institutions are open for business in the United States.

In addition, because of time-zone differences, there may be problems with completing transactions involving the Clearstream and Euroclear systems on the same business day as in the United States. U.S. investors who wish to transfer their interests in the notes, or to make or receive a payment or delivery of the notes, on a particular day, may find that the transactions will not be performed until the next business day in Luxembourg or Brussels, depending on whether the Clearstream or Euroclear system is used.

Because the purchaser determines the place of delivery, it is important to establish at the time of trading of any notes where both the purchaser's and seller's accounts are located to ensure that settlement can be made on the desired date.

Secondary market sales of book-entry interests in the notes held through Clearstream or Euroclear to purchasers of book-entry interests in a global note through Clearstream or Euroclear will be conducted in accordance with the normal rules and operating procedures of Clearstream and Euroclear and will be settled using the procedures applicable to conventional eurobonds in same-day funds.

We have obtained the information in this section concerning Clearstream and Euroclear and the book-entry system and procedures from sources that we believe to be reliable, but neither we nor the underwriters take any responsibility for the accuracy of this information.
In a few special situations described below, the book-entry system for the notes will terminate and interests in the global notes will be exchanged for definitive notes in registered form. You must consult your bank, broker or other financial institution to find out how to have your interests in the notes transferred to your name, so that you will be a direct holder.

The special situations for termination of the book-entry system for the floating rate notes are:

- the depositary for any of the notes represented by a registered global note (a) notifies us that it is unwilling or unable to continue as depositary or clearing system for the global notes or (b) ceases to be a "clearing agency" registered under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in either event we are unable to find a qualified replacement for such depositary within 90 days;
- we in our sole discretion determine to allow global notes to be exchangeable for definitive notes in registered form; or
- there has occurred and is continuing an event of default with respect to the notes and the depositary notifies the trustee of its decision to exchange the global notes for definitive notes in registered form.

Exhibit 10.5

EXECUTIVE LEADERSHIP GROUP AGREEMENT

United Technologies Corporation

This Executive Leadership Group Agreement (the “ELG Agreement”) is entered into between [Name] (hereinafter the “Executive”) and United Technologies Corporation (“UTC”), a Delaware corporation, with an office and place of business at 10 Farm Springs Road, Farmington, Connecticut (UTC and all its subsidiaries, divisions and affiliates are hereinafter referred to as the “Company”).

The Executive acknowledges receipt of the materials summarizing the United Technologies Corporation’s Executive Leadership Group (“ELG”) Program and the benefits available to the Executive as a member of the ELG, as well as the Executive’s obligations and commitments to the Company as an ELG member. Capitalized terms in this ELG Agreement are defined in Attachment A of the ELG Program materials.

ELG benefits include recognition of status as one of UTC’s most senior leaders, with annual Long-Term Incentive Plan awards and annual bonus awards commensurate with your ELG status, a significant restricted stock unit (RSU) retention award, disability benefits, and an annual car allowance. Following three years of ELG service, the ELG Restricted Stock Unit Retention Award (the “ELG RSU Retention Award”) provides for vesting in the event of a Qualifying Separation. A “Qualifying Separation” means and includes a Mutually Agreeable Termination, a Change in Control Termination, or retirement at age 62 or later. Vesting is also subject to compliance with ELG Covenants. The ELG RSU Retention Award will not vest in the case of a Termination for Cause. The amounts realized in the event of the vesting of the ELG RSU Retention Award will be offset and reduced by the full amount (if any) of cash severance benefits that the Executive may separately be entitled to receive from the Company based on any employment agreement or other contractual obligation or statutory scheme, including mandated termination indemnities or similar benefits. The Executive agrees that in the event of such an offset, the Executive’s commitments under the ELG remain in full force and effect.

While employed and following termination of employment, the Executive agrees to protect and not to disclose Company Information until such information has become public or is no longer material or relevant to the Company. While employed and for a two year period following termination of employment, the Executive agrees to refrain from soliciting Company employees or engaging in other activities that might reasonably be expected to induce an employee to leave the Company. For a one-year period following termination of employment, the Executive agrees to be bound by a one-year non-compete agreement. In the event of a Qualifying Separation, the Executive will vest in the ELG RSU Retention Award provided the Executive agrees to certain additional commitments to the Company, including an additional one year non-compete agreement and a waiver of claims arising from or relating to the termination of the Executive's employment. In the event payment is required under local law for enforcement of a non-compete, the Executive agrees that the Company may structure payments and/or distribution of amounts payable pursuant to this ELG Agreement, and/or the ELG RSU Retention Award, or payments in lieu thereof, at the time of separation to satisfy local requirements, which may include adjustments to method, form and timing of benefits, provided such payments are not subject to IRC Section 409A.

ELG membership requires commitment to UTC share ownership guidelines. The value of an ELG member's UTC share ownership must equal or exceed three times (3x) annual base salary within five years of appointment to the ELG.

In consideration of the ELG benefits, the Executive hereby commits to membership in the ELG effective [DATE] in accordance with the terms and conditions set forth in this Agreement and as further described in the ELG Program materials. In consideration of ELG membership, the Executive hereby acknowledges and accepts the obligations and commitments to the Company, including postemployment restrictions and protective covenants as described in this Agreement and the ELG Program materials. The Company, in turn, agrees to provide ELG benefits to the Executive upon receipt of this signed Agreement in accordance with this Agreement and as described in the ELG Program materials.

____

Name
Title
Business Unit

____
Date

UNITED TECHNOLOGIES CORPORATION

By ____
Executive Vice President and Chief Human Resources Officer

____
Date

Attachment A

Executive Leadership Group Program Definitions

a) "Committee" means the Compensation Committee of the Board of Directors.

b) "Company" means United Technologies Corporation and its subsidiaries, divisions and affiliates.

c) "Company Information" means (i) confidential or proprietary information, including without limitation, information received from third parties under confidential or proprietary conditions; (ii) information subject to the Company's attorney-client or work-product privilege; and (iii) other technical, business or financial information, the use or disclosure of which might reasonably be construed to be contrary to the Company's interests.

d) "Qualifying Separation" means and includes a Mutually Agreeable Termination, a Change- in-Control Termination, or retirement at age 62 or later.

   a. "Mutually Agreeable Termination" means a decision by the Company, in its sole discretion, to terminate the Executive's employment with the Company as a result of circumstances described in this paragraph and the Executive's acknowledgment and agreement that his/her employment will end as a result of such circumstances. Circumstances that may result in a Mutually Agreeable Termination include management realignment, change in business conditions or priorities, the sale or elimination of the Executive's business unit or any other change in business circumstances that materially and adversely affects the Executive's role within the Company or such circumstances that preclude continued employment at the ELG level, in all cases as determined by the Executive Vice President and Chief Human Resources Officer. Neither a unilateral voluntary resignation nor a Termination for Cause will constitute a Mutually Agreeable Termination.

   b. "Change-in-Control Termination" means either the involuntary termination of the Executive's employment by the Company (other than a Termination for Cause) or the voluntary resignation by the Executive for Good Reason within 24 months following a Change -in-Control.

      i. "Change-in-Control" shall mean any of the following events:

         1. An acquisition by any individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act) (a "Person") of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of 20% or more of either: (a) the then outstanding shares of common stock of the Corporation (the "Outstanding Corporation Common Stock"); or (b) the combined voting power of the then outstanding voting securities of the

Corporation entitled to vote generally in the election of directors (the “Outstanding Corporation Voting Securities”); provided, however, that for purposes of this section 1, the following acquisitions shall not constitute a Change-in-Control: (1) any acquisition directly from the Corporation, (2) any acquisition by the Corporation, (3) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by the Corporation or any entity controlled by the Corporation, or (4) any acquisition by any entity pursuant to a transaction that complies with clauses (a), (b) and (c) of subsection (3) of this Section (d)(ii)(A); or

2. A change in the composition of the Board such that the individuals who, as of the Effective Date, constitute the Board (the “Incumbent Board”) cease for any reason to constitute at least a majority of the Board; provided, however, that for purposes of this Section (d)(2)(A), any individual who becomes a member of the Board subsequent to the Effective Date whose election, or nomination for election by the Corporation’s shareowners, was approved by a vote of at least two-thirds of those individuals who are members of the Board and who were also members of the Incumbent Board (or deemed to be pursuant to this proviso) shall be considered as though such individual were a member of the Incumbent Board; provided further, that any such individual whose initial assumption of office occurs as a result of either an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents by or on behalf of a Person other than the Board shall not be considered as a member of the Incumbent Board; or

3. The consummation of a reorganization, merger, statutory share exchange or consolidation or similar transaction involving the Corporation or any of its subsidiaries or a sale or other disposition of all or substantially all of the assets of the Corporation, or the acquisition of assets or stock of another entity by the Corporation or any of its subsidiaries, (a “Business Combination”), in each case, unless following such Business Combination, (a) all or substantially all of the individuals and entities who were the beneficial owners, respectively, of the Outstanding Corporation Common Stock and Outstanding Corporation Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of, respectively, the then outstanding shares of common stock (or, for a non-corporate entity, equivalent securities) and the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors (or, for a non-corporate entity, equivalent securities), as the case may be, of the entity resulting from such Business Combination (including an entity that, as a result of such transaction, owns the Corporation or all or substantially all of the Corporation’s assets either directly or through

one or more subsidiaries) in substantially the same proportions as their ownership, immediately prior to such Business Combination of the Outstanding Corporation Common Stock and Outstanding Corporation Voting Securities, as the case may be, (b) no Person (excluding any entity resulting from such Business Combination or any employee benefit plan (or related trust) of the Corporation or such entity resulting from such Business Combination) beneficially owns, directly or indirectly, 20% or more of, respectively, the then outstanding shares of common stock (or, for a non-corporate entity, equivalent securities) of the entity resulting from such Business Combination or the combined voting power of the then outstanding voting securities of such entity except to the extent that such ownership existed prior to the Business Combination, and (c) at least a majority of the members of the Board of Directors (or, for a non-corporate entity, equivalent body or committee) of the entity resulting from such Business Combination were members of the Incumbent Board at the time of the execution of the initial agreement, or of the action of the Board, providing for such Business Combination; or

4. The approval by the shareholders of the Corporation of a complete liquidation or dissolution of the Corporation.

The sale, merger or other transaction affecting any subsidiary or business unit of the Corporation will in no case be considered a Change-in-Control under this Program.

If an Award is determined to constitute nonqualified deferred compensation within the meaning of Section 409A of the Code, a Change-in-Control shall not constitute a settlement or distribution event with respect to such Award, or an event that otherwise changes the timing of settlement or distribution of such Award, unless the Change-in-Control also constitutes an event described in Section 409A(a)(2)(v) of the Code and the regulations promulgated thereunder (a “Section 409A CIC”); provided, however, that whether or not a Change-in-Control is a Section 409A CIC, such Change-in-Control shall result in the accelerated vesting of such Award to the extent provided by the Award Agreement, this Plan, any Individual Agreement or otherwise by the Committee.

(B) “Good Reason” means, voluntary termination of the Executive’s employment within twenty-four (24) months of a Change-in-Control *and* the occurrence of any of the following without a Participant’s consent: (i) a material reduction in the Participant’s annual base salary, annual bonus opportunities, long-term incentive opportunities or other compensation and benefits in the aggregate from those in effect immediately prior to the Change-in-Control; (ii) a material diminution in the Participant’s title, duties, authority, responsibilities, functions or reporting relationship from those in effect immediately prior to the Change-in-Control; (iii) a mandatory relocation of the Participant’s principal location of employment greater than 50 miles from immediately prior to the Change-in-Control; or

(iv) The failure of the Company to obtain a satisfactory agreement from any successor to the Company to assume and agree to perform its obligations under this Agreement.

In order to invoke a termination for Good Reason, the Participant shall provide written notice to the Corporation of the existence of one or more of the conditions described in clauses (i) through (iv) within 90 days following the Participant's knowledge of the initial existence of such condition or conditions, and the Corporation shall have 30 days following receipt of such written notice (the "Cure Period") during which it may cure the condition, if curable. If the Corporation fails to cure the condition constituting Good Reason during the Cure Period, the Participant must terminate employment, if at all, within one year following the end of the Cure Period in order for such termination to constitute a termination for Good Reason. The Participant's mental or physical incapacity following the occurrence of an event described above in clauses (i) through (iii) shall not affect the Participant's ability to terminate employment for Good Reason.

(e) "Termination for Cause" means a decision by the Company to terminate the Executive's employment for (i) violation of an ELG covenant, (ii) conduct involving a felony criminal offense under U.S. federal or state law or an equivalent violation of the laws of any other country, (iii) dishonesty, fraud, self-dealing, or material violations of civil law in the course of fulfilling the Executive's employment duties; (iv) breach of the Executive's intellectual property agreement or other written agreement with the Company; (v) willful misconduct injurious to the Company, as determined by the Committee; (vi) negligent conduct injurious to the Company, including negligent supervision of a subordinate who causes significant harm to the Company as determined by the Committee; or (vii) prior to a Change-in-Control, such other events as shall be determined by the Committee. Following a Change-in-Control, any determination by the Committee as to whether "Cause" exists shall be subject to de novo review.

Exhibit 10.6

United Technologies Corporation

2018 Long-Term Incentive Plan

Executive Leadership Group Restricted Stock Unit Retention Award

Schedule of Terms

(Rev. April 1, 2019)

This Schedule of Terms describes the material features of the Participant’s Executive Leadership Group Restricted Stock Unit Retention Award (the “ELG RSU Retention Award” or the “ELG RSU Award”) granted under the United Technologies Corporation 2018 Long-Term Incentive Plan (the “LTIP”), subject to this Schedule of Terms, the Award Agreement and the terms and conditions set forth in the LTIP and

the ELG Program. The LTIP Prospectus contains further information about the LTIP and this ELG RSU Award and is available on the Company's internal employee website and at www.ubs.com/onesource/UTX.

United Technologies Corporation (the "Corporation") has awarded the Executive designated in the Award Statement (the "Participant" or the "Executive"), who has accepted membership in the Corporation's Executive Leadership Group (the "ELG"), with Restricted Stock Units (the "ELG RSU Retention Award" or the "ELG RSU Award") pursuant to the LTIP.

Certain Definitions

A Restricted Stock Unit (an "RSU") represents the right to receive one share of Common Stock of the Corporation ("Common Stock") (or a cash payment equal to the Fair Market Value thereof). RSUs generally vest and are converted into shares of Common Stock if the Participant remains employed by the Company as a member of the ELG and experiences a Qualifying Separation from the Company with at least three years of ELG service (see "Vesting" below). "Company" means the Corporation, together with its subsidiaries, divisions and affiliates. For the avoidance of doubt, absences from employment by reason of notice periods, garden leaves, or similar paid leaves associated with a Termination of Service shall not be recognized as service in determining vesting of an Award or the Termination Date for a Qualifying Separation. "Committee" means the Compensation Committee of the Board. Capitalized terms not otherwise defined in this Schedule of Terms have the same meaning as defined in the LTIP or the ELG Program materials.

Acknowledgement and Acceptance of Award

The number of RSUs awarded is set forth in the Award Agreement. The Participant must affirmatively acknowledge and accept the terms and conditions of the ELG RSU Award within 150 days following the Grant Date. A failure to acknowledge and accept the ELG RSU Award within such 150-day period will result in forfeiture of the ELG RSU Award, effective as of the 150th day following the Grant Date.

Participants must acknowledge and accept the terms and conditions of this ELG RSU Award electronically via the UBS*One Source* website at www.ubs.com/onesources/UTX. Participants based in certain countries may be required to acknowledge and accept the terms and conditions of this ELG RSU Award by signing and returning the designated hard copy portion of the Award Agreement to the Stock Plan Administrator. These countries currently include Russia, Turkey, Hungary, and Slovenia.

Dividend Equivalents

RSUs granted under this Award will earn dividend equivalent units each time the Corporation pays a cash dividend to Common Stock shareholders of record. Dividend equivalents will be credited as additional RSUs to Awards outstanding on the dividend payment date and will be eligible to vest under the same terms as the underlying RSUs. The number of additional RSUs that will be credited on any dividend payment date will equal (1) the per share cash dividend amount, multiplied by (2) the number of RSUs subject to the RSU Award (including RSUs resulting from prior dividend equivalents), divided by (3) the Fair Market Value of a share of Common Stock on the dividend payment date, rounded down to the nearest whole number of RSUs.

Vesting

RSUs vest upon a Qualifying Separation from the Company with completion of at least three years of service as a member of the ELG (the “Vesting Date”), and in the event of Death. A “Qualifying Separation” means and includes a Mutually Agreeable Termination, a Change-in-Control Termination or retirement at age 62 or later, as defined in Attachment A of the ELG Program materials.

Vesting is subject to entering into the ELG RSU Retention Award Vesting Agreement set forth in Attachment A of this Schedule of Terms (or similar form at the sole discretion of the Corporation) and continued compliance with ELG covenants.

RSUs may also be forfeited and value realized from previously vested RSUs may be recouped by the Company under certain circumstances (see “Forfeiture of Award and Repayment of Realized Gains” below).

No Shareowner Rights

An RSU is the right to receive a share of Common Stock in the future (or a cash payment equal to the Fair Market Value), subject to continued employment, membership in the ELG, and certain other conditions. The holder of an RSU has no voting or other rights accorded to owners of Common Stock, unless and until RSUs are converted into shares of Common Stock.

Payment / Conversion of RSUs

Vested RSUs will be converted into shares of Common Stock to be delivered to the Participant as soon as administratively practicable following the vesting date. RSUs may instead be paid in cash if the Committee so determines, including where local law restricts the distribution of Common Stock.

In the event payment is required under local law for enforcement of the ELG non-compete covenants, the Participant agrees that the Company may structure distribution of the ELG RSU Award to satisfy local requirements, which may include adjustments to method, form and timing, provided such payments are not subject to IRC Section 409A.

Death

If the Participant dies while actively employed by the Company, all RSUs will vest as of the date of death and be converted to shares of Common Stock to be delivered to the Participant’s estate, net of taxes (where applicable) as soon as administratively practicable.

Adjustments

If the Corporation engages in a transaction effecting its capital structure, such as a merger, distribution of a special dividend, spin-off of a business unit, stock split, subdivision or consolidation of shares of Common Stock or other events effecting the value of Common Stock, RSU awards may be adjusted as determined by the Committee, in its sole discretion.

Further information concerning capital adjustments is set forth in Section 3(e) of the LTIP, which can be located at www.ubs.com/onesource/UTX.

ELG Covenants

Entering into the Executive Leadership Group Agreement and acceptance of the ELG RSU Award constitutes agreement and acceptance by the Participant of the following ELG covenants:

• Pre-Vesting Date Covenants

(a) During the period of the Participant's employment, and following termination of employment, the Participant agrees to protect and to not disclose "Company Information" until the information has become public (through no action on the part of the Participant) or is no longer material or relevant to the Company.

"Company Information" means (i) confidential or proprietary information including without limitation information received from third parties under confidential or proprietary conditions; (ii) information subject to the Company's attorney-client or work-product privilege; and (iii) other technical, business or financial information, the use or disclosure of which might reasonably be construed to be contrary to the Company's interests.

(b) During the period of the Participant's employment, and for a period of two years following termination of employment, the Participant agrees to not initiate, cause or allow to be initiated (under those conditions which he or she controls) any action which would reasonably be expected to encourage or to induce any employee of the Company or any of its affiliated entities, or any individual who had been an employee of the Company or any of its affiliated entities within the previous three months, to leave the employ of the Company or its affiliated entities. In this regard, the Participant agrees that he or she will not directly or indirectly recruit any executive or other employee of the Company (or individual who had been an employee of the Company within the previous three months) or provide any information or make referrals to personnel recruitment agencies or other third parties in connection with executives of the Company and other employees (or individual who had been employees of the Company within the previous three months).

(c) During the period of the Participant's employment, and for a period of one year following termination of employment, the Participant agrees not to accept employment in any form (including entering into consulting relationships or similar arrangements) with any business that: (i) engages in activities that compete directly or indirectly with any of the Company's businesses; or (ii) is a material customer of or a material supplier to any of the Company's businesses unless the Participant has first obtained the consent of the Chief Human Resources Officer, which consent shall be granted or withheld in his or her sole discretion.

• Post-Vesting Date Covenants

(a) The Pre-Vesting Date Covenant described in (a) above remains in full effect and the Pre-Vesting Date Covenants described in (b) and (c) above will remain in effect, for two years and one year respectively, as detailed above following the Vesting Date.

(b) To further ensure the protection of Company Information, the Participant agrees not to accept employment in any form (including entering into consulting relationships or similar arrangements) for an additional one year period which shall run consecutive to the one

year Pre-Vesting Date Covenant referenced above, for a total two-year noncompetition period following the Vesting Date with any business that: (i) engages in activities that compete directly or indirectly with any of the Company's businesses; or (ii) is a material customer of or a material supplier to any of the Company's businesses unless the Participant has first obtained the consent of the Chief Human Resources Officer, which consent shall be granted or withheld in his or her sole discretion.

(c) For a period of two-years following the Vesting Date, the Participant will not directly or indirectly, in any capacity or manner, make any statements of any kind (or cause, further, assist, solicit, encourage, support or participate in the foregoing), whether verbal, in writing, electronically transferred or otherwise, or disclose any items of information which, in either case are or may reasonably be construed to be derogatory, critical or adverse to the interests of the Company. The Participant agrees that he or she will not disparage the Company, its executives, directors or products.

The Participant agrees that the terms of the foregoing restrictions are reasonable and that the value of ELG RSU Retention Award is reasonable consideration for accepting such restrictions and forfeiture contingencies. However, if any portion of this section is held by competent authority to be unenforceable, this section shall be deemed amended to limit its scope to the broadest scope that such authority determines is enforceable, and as so amended shall continue in effect.

The Participant acknowledges that ELG benefits received under the ELG program, and the ELG RSU Retention Award, shall constitute compensation in satisfaction of these covenants. Further, in the event payment is required under local law for enforcement of the non-compete covenant, the Participant agrees that the Company may structure payments and/or distribution of the ELG RSU Award, or payments in lieu thereof, to satisfy local requirements, which may include adjustments to method, form and timing, provided such payments are not subject to IRC Section 409A.

The ELG covenants set forth in this Schedule of Terms are in addition to other obligations and commitments of the ELG program, the terms and conditions of the LTIP and the Participant's intellectual property agreement with the Company (and as each may be amended from time to time).

Specified Employees

If a Participant is a "specified employee" within the meaning of Section 409A of the Code (i.e., generally the fifty highest paid employees, as determined by the Company) at the time of the Participant's Qualifying Separation, then to the extent necessary to avoid the application of any additional tax or penalty under IRC Section 409A and consistent with the terms of the Plan, RSUs will be held in the Participant's UBS account and will vest on the first day of the seventh month following the later of the Participant's Qualifying Separation or the signing of the ELG RSU Retention Award Vesting Agreement set forth in Attachment A of this Schedule of Terms (or similar form at the Company's discretion). Upon vest, RSUs will convert into an equal number of shares of Common Stock (or cash). The value of the RSUs will be determined as of the vest date.

Forfeiture of Award and Repayment of Realized Gains

The ELG RSU Retention Award will be immediately forfeited and the Participant will be obligated to repay to the Company the value realized from a vested ELG RSU Award upon the occurrence of any of the following events:

Membership in the ELG ceases. While an employee of the Company, Participant's membership in the ELG ceases for any reason.

Non-mutual termination. Participant terminates employment and the Company wants to retain Participant's services.

Violation of ELG Covenants. Participant violates any of the ELG Covenants.

Self-dealing. Participant engages in conduct which serves his or her own personal interests at the expense of the Company, or permit others to do so.

Financial restatement. A restatement of financial results attributable to Participant's actions, whether intentional or negligent.

Improper or criminal conduct. Participant's discharge results from actions (or omissions) which Participant did not reasonably believe to be in the best interests of the Company. Participant must not engage in conduct that is fraudulent, dishonest, or violates federal, state or local law.

Termination for Cause. Participant's termination results from facts or circumstances that constitute a Termination for Cause as defined herein; or if following termination, the Company determines within three years that Participant engaged in conduct that would have constituted the basis for a Termination for Cause.

ELG Definitions

For purposes of the Executive Leadership Group RSU Retention Award, the following terms shall have the meanings ascribed to them in Attachment A of the ELG Program materials: Qualifying Separation, Mutually Agreeable Termination, Change-in-Control Termination, Good Reason, and Termination for Cause.

Change-in-Control

In the event of a Change-in-Control or restructuring of the Company, the Committee may, in its sole discretion, take certain actions with respect to outstanding Awards to assure fair and equitable treatment of LTIP Participants. Such actions may include the acceleration of vesting, canceling an outstanding Award in exchange for its equivalent cash value (as determined by the Committee), or providing for other adjustments or modifications to outstanding Awards as the Committee may deem appropriate.

Awards Not to Affect Certain Transactions

RSU Awards do not in any way affect the right of the Corporation or its shareowners to effect: (i) any adjustments, recapitalizations, reorganizations or other changes in the Corporation's capital or business structure; (ii) any merger or consolidation of the Corporation; (iii) any issue of bonds, debentures, shares of stock preferred to, or otherwise affecting the Common Stock

of the Corporation or the rights of the holders of such Common Stock; (iv) the dissolution or liquidation of the Corporation; (v) any sale or transfer of all or any part of its assets or business; or (vi) any other corporate act or proceeding.

Right of Offset

The ELG RSU Retention Award will be offset and reduced by the full amount (if any) of cash severance benefits that the Participant may separately be entitled to receive from the Company based on any employment agreement, contractual obligation, or statutory scheme, including mandated termination indemnities or similar benefits. In the event of such an offset, the Participant's commitments under the ELG remain in full force and effect.

Taxes / Withholding

The Participant is responsible for all income taxes, social insurance contributions, payroll taxes, payment on account or other tax-related items attributable to any Award ("Tax-Related Items"). The Fair Market Value of Common Stock on the New York Stock Exchange on the date the taxable event occurs will be used to calculate taxable income realized from the RSUs. The provisions of Section 14(d) (Required Taxes) of the LTIP apply to this Award; provided that, if the Participant is an individual covered under Section 16 of the Securities Exchange Act of 1934, as amended, at that the time that a taxable event occurs, then the Company's withholding obligations with respect to such taxable event will be satisfied by the Company withholding shares of Common Stock, subject to the ELG RSU Award having a Fair Market Value on the date of withholding equal to or greater than the amount required to be withheld for tax purposes (calculated using the minimum statutory withholding rate, except as otherwise approved by the Committee). The Company shall have the right to deduct directly from any payment or delivery of shares due to Participant or from Participant's regular compensation to effect compliance with all Tax-Related Items including withholding and reporting with respect to the vesting of any RSU. Acceptance of an Award constitutes affirmative consent by Participant to such reporting and withholding. The Participant acknowledges that the ultimate liability for all Tax-Related Items is and remains the Participant's responsibility and may exceed the amount actually withheld by the Company. Further, if the Participant has become subject to tax in more than one jurisdiction between the date of grant and the date of any relevant taxable event, the Participant acknowledges that the Company may be required to withhold or account for Tax-Related Items in more than one jurisdiction. In those countries where there is no withholding on account of such Tax-Related Items, Participants must pay the appropriate taxes as required by any country where they are subject to tax. In those instances where the Company is required to calculate and remit withholding on Tax-Related Items after shares have already been delivered, the Participant shall pay the Company any amount of Tax-Related Items that the Company is required to pay. The Company may refuse to distribute an Award if a Participant fails to comply with his or her obligations in connection with Tax-Related Items.

Important information about the U.S. Federal income tax consequences of LTIP Awards can be found in the LTIP Prospectus at www.ubs.com/onesource/UTX.

Vesting / Taxes Due

If the Participant is subject to tax in the U.S., the value of the Award as of the Vesting Date will be subject to FICA withholding in that same calendar year. If the Participant is responsible for a

Tax-Related Item in a country outside the U.S. ("Foreign Country") and if pursuant to the rules regarding such Tax-Related Item in such Foreign Country, the Participant will be liable for such Tax-Related Item prior to the date that the Participant is issued shares pursuant to this Award, the Committee, in its discretion, may accelerate vesting and settlement of a portion of the Award to the extent necessary to pay the foreign Tax-Related Items due (and any applicable U.S. income taxes due as a result of the acceleration of vesting and settlement) but only if such acceleration does not result in taxation under Section 409A (as permitted under Treasury Regulation Section 1.409A-3(j)(4)(xi)).

Non-assignability

Unless otherwise approved by the Committee or its delegate, no assignment or transfer of any right or interest of a Participant in any ELG RSU Award, whether voluntary or involuntary, by operation of law or otherwise, is permitted except by will or the laws of descent and distribution. Any other attempt to assign such rights or interest shall be void and without force or effect.

Nature of Payments

All Awards made pursuant to the LTIP are in consideration of services performed for the Company. Any gains realized pursuant to such Awards constitute a special incentive payment to the Participant and will not be taken into account as compensation for purposes of any of the employee benefit plans of the Company. Awards are made at the discretion of the Committee. Receipt of a current Award does not guarantee receipt of a future Award.

Right of Discharge Reserved

Nothing in the LTIP or in any RSU Award shall confer upon any Participant the right to continued employment or service for any period of time, or affect any right that the Company may have to terminate the employment of any Participant at any time for any reason.

Administration

The Board of Directors of the Corporation has delegated the administration and interpretation of the Awards granted pursuant to the LTIP to the Compensation Committee. The Committee establishes such procedures as it deems necessary and appropriate to administer Awards in a manner that is consistent with the terms of the LTIP. The Committee has, consistent with its charter and subject to certain limitations, delegated to the Chief Executive Officer, and the Chief Human Resources Officer (and to such subordinates as she or he may further delegate) the authority to grant, administer and interpret Awards, provided that, such delegation will not apply with respect to employees of the Company who are covered under Section 16 of the Securities Exchange Act of 1934, as amended, and to members of the Company's Executive Leadership Group. Awards to these individuals will be granted, administered, and interpreted exclusively by the Committee. The Committee's decision or that of its delegate on any matter related to an Award shall be binding, final and conclusive on all parties in interest.

Data Privacy

The Corporation maintains electronic records for the purpose of administering the LTIP and individual Awards. In the normal course of plan administration, electronic data may be transferred to different sites within the Company and to outside service providers. Acceptance of an Award constitutes consent by the Participant to the collection, use, processing, transmission, and holding of personal data, in electronic or other form, as required for the implementation, administration, and management of this Award and the LTIP by the Company or its third party administrators within or outside the country in which the Participant resides or works. All such collection, use, processing, transmission, and holding of data will comply with applicable privacy protection requirements. If a Participant does not want to have his or her personal data shared, he or she may choose to not accept this Award.

Company Compliance Policies

Participants must comply with the Company's Code of Ethics and Corporate Policies and Procedures. Violations can result in the forfeiture of Awards and the obligation to repay previous gains realized from LTIP Awards. The UTC Code of Ethics, Corporate Policy Manual, Corporate Financial Manual, as well as other Company policies are available online via the Company's internal home page.

Interpretations

This Schedule of Terms provides a summary of terms applicable to the ELG RSU Award. This Schedule of Terms and each Award Agreement are subject in all respects to the terms of the LTIP, which can be located at www.ubs.com/onesource/UTX, and ELG Program materials. In the event that any provision of this Schedule of Terms or any Award Agreement is inconsistent with the terms of the LTIP or ELG Program materials, the terms of the LTIP and ELG Program materials shall govern. The ELG Program materials may impose additional obligations or restrictions beyond the terms of the LTIP. Capitalized terms used but not otherwise defined herein shall have the meanings as defined in the LTIP or ELG Program materials. In the event of a conflict between the LTIP and ELG Program materials, ELG Program materials shall control. Any question concerning administration or interpretation arising under the Schedule of Terms or any Award Agreement shall be determined by the Committee or its delegates, and such determination shall be final, binding, and conclusive upon all parties in interest. If this Schedule of Terms or any other document related to this Award is translated into a language other than English and a conflict arises between the English and translated version, the English version will control.

Governing Law

The LTIP, this Schedule of Terms and the Award Agreement shall be governed by and construed in accordance with the laws of the State of Delaware.

Additional Information

Questions concerning the LTIP or Awards and requests for LTIP documents shall be directed to:

Stock Plan Administrator

stockoptionplans@utc.com

OR

United Technologies Corporation
Attn: Stock Plan Administrator
4 Farm Springs Road
Farmington, CT 06032

The Corporation and/or its approved Stock Plan Administrator will send any Award-related communications to the Participant's email address or physical address on record. It is the responsibility of the Participant to ensure that both the e-mail and physical address on record are up-to-date and accurate at all times to ensure delivery of Award-related communications.

ELG RSU Retention Award Schedule of Terms
Attachment A

ELG RSU RETENTION AWARD VESTING AGREEMENT

This VESTING AGREEMENT, is entered into between _______________ (hereinafter, the "Executive"), and UNITED TECHNOLOGIES CORPORATION, a Delaware corporation, with an office and place of business at 10 Farm Springs Road, Farmington, CT 06032 (United Technologies Corporation and all its subsidiaries, divisions and affiliates are hereinafter referred to as the "Company").

WHEREAS, the Executive and the Company agree that the Executive’s employment with the Company will terminate; and

WHEREAS, the parties wish to set forth their mutual understanding concerning the terms and conditions relative to the termination of the Executive's employment with the Company; and

WHEREAS, the Executive has committed to membership in the Company's Executive Leadership Group (the "ELG"), which commitment signifies, among other things, the Executive's acceptance of the terms and conditions of the ELG Program, including, specifically, the terms and conditions of the ELG Restricted Stock Unit Retention Award as set forth in the Schedule of Terms applicable to such Award granted on or about [Date] (the “ELG RSU Award”);

NOW, THEREFORE, it is hereby mutually agreed as follows:

1. (a) The Executive's employment with the Company will terminate effective ___________ (the "Termination Date").

   (b) The parties agree that the termination of the Executive's employment shall be a Qualifying Separation from the Company, thus entitling the Executive to vest in the ELG RSU Award (the “ELG RSU Retention Award”) as of the later of the Executive’s Termination Date or the date of this Agreement (the “Vesting Date”). Vesting is subject to the Executive’s compliance with the Schedule of Terms of such Award and the terms of this Agreement.

2. (a) Effective as of the Vesting Date, the number of ELG RSUs awarded, including dividend equivalents will convert into an equal number of shares of UTC Common Stock, less the number of shares withheld to pay taxes. The Executive acknowledges **[his/her]** understanding that the vesting of this ELG RSU Award will occur in consideration of **[his/her]** agreements and obligations set forth in this Agreement and the ELG RSU Award.

(b) The Executive understands and agrees that the value of the ELG RSU Award will not be treated as compensation for any purpose under any of the retirement, savings, severance or other employee benefit plans in which **[he/she]** participated.

3. (a) The Executive, for **[him/her]**self and on behalf of **[his/her]** heirs, executors, assigns and successors in interest, hereby agrees to release the Company, its subsidiaries, divisions, present or former employees, officers and directors, personally and in their capacity as employees, officers and directors of the Company, from all claims or demands the Executive may have based on **[his/her]** employment with the Company or the termination of that employment. This includes a release of any rights or claims the Executive may have under the Age Discrimination in Employment Act of 1967, as amended from time to time, which prohibits age discrimination in employment; Title VII of the Civil Rights Act of 1964, as amended from time to time, which prohibits discrimination in employment based on race, color, national origin, religion or sex; the Equal Pay Act, which prohibits paying men and women unequal pay for equal work; the Americans with Disabilities Act which prohibits discrimination on the basis of handicap; the Employee Retirement and Income Security Act of 1974, as amended from time to time, which prohibits termination of employment for the purpose of interfering with eligibility for employee benefits, and any other federal, state or local laws or regulations prohibiting employment discrimination. This release also includes any claims or actions for wrongful discharge, breach of contract (express or implied), tort, defamation, emotional distress or any other claims otherwise related to his employment or the termination of his employment with the Company. The Executive acknowledges and agrees that this release also applies to similar claims he might assert under the laws of any other country. The Parties agree that this Agreement constitutes a comprehensive and conclusive resolution of all matters related to the termination of his employment.

(b) This Release covers all claims based on any facts or events, whether known or unknown by the Executive that occurred on or before the effective date of this Agreement. The Executive will notify the Company of any claims that **[he/she]** asserts

may have arisen after the effective date of this Agreement but before the Termination Date. The Executive agrees to ratify and confirm the release and waiver effective as of the Termination Date as a pre-condition to receiving any of the benefits hereunder. The Executive acknowledges that he is not entitled to, and will not assert any claim for termination related benefits under any jurisdiction outside of the United States, whether based on foreign law, regulation, collective agreement, contract or arrangement.

(c) This Release does not include a release of the Executive's rights to any pension, deferred compensation, health or similar benefits to which **[he/she]** may be entitled in accordance with the terms of the Company employee benefit plans in which **[he/she]** participated.

(d) Nothing in this Agreement shall be construed to prohibit the Executive from filing a charge with, or participating in, any investigation or proceeding by the U.S. Equal Employment Opportunity Commission (EEOC), the Securities and Exchange Commission (SEC) or other comparable governmental agency. The Executive agrees, however, to waive the right to recover monetary damages in any charge, complaint or lawsuit filed by **[him/her]** or on **[his/her]** behalf with respect any claims released pursuant to this Agreement.

(e) The Executive understands and agrees that the vesting and distribution of the ELG RSU Award pursuant to this Agreement is in full and complete satisfaction of all obligations due **[him/her]** by the Company and that no other obligations are due **[him/her]** under the ELG Program. The Executive further acknowledges that **[he/she]** shall not be entitled to any additional severance payments or payments in lieu of vacation, holiday or other fringe benefits under the ELG or any other Company program. The Executive further agrees that the ELG RSU Award shall be offset and reduced by the full amount (if any) of cash severance benefits that the Executive may separately be entitled to receive from the Company based on any employment agreement, contractual obligation or statutory scheme, including mandated termination indemnities or similar benefits.

(f) Following the Termination Date, the Executive agrees that **[he/she]** will cooperate with the Company with respect to matters that involved **[him/her]** during the course of **[his/her]** employment if such cooperation is deemed necessary or appropriate by the Company.

(g) The Executive agrees to resign from all committees, boards, associations and other organizations, both internal and external, to which the Executive currently belongs in **[his/her]** capacity as a Company executive, except as mutually agreed with the Company. Following the Termination Date, the Executive will be free to join boards and affiliate with organizations provided that such affiliation will not violate or conflict with any of **[his/her]** obligations set forth in Section 4 of this Agreement.

(h) The Executive is encouraged, at **[his/her]** own expense, to consult with an attorney before signing this Agreement and acknowledges that **[he/she]** was offered sufficient time to review and consider this Agreement.

(i) The Executive may revoke this Agreement within seven (7) days of the date of the Executive's signature. Revocation can be made by delivering a written notice of revocation to **[____]**, Executive Vice President & Chief Human Resources Officer, United Technologies Corporation, 10 Farm Springs, Farmington, CT 06032. For this revocation to be effective, **[____]** must receive written notice no later than close of business on the seventh (7th) day after the Executive signs this Agreement. If the Executive revokes this Agreement, it shall not be effective or enforceable and the Executive will not vest in the ELG RSU Award or receive any other benefits described herein and agrees to immediately repay to the Company the value of any benefits provided prior to revocation.

4. In consideration of the benefits of membership in the ELG and the opportunity to vest in the ELG RSU Award, the Executive has agreed to certain restrictive covenants effective during the course of **[his/her]** employment and additional restrictive covenants that become effective upon the termination of **[his/her]** employment and the vesting of **[his/her]** ELG RSU Award (the "ELG Covenants"). The Executive hereby acknowledges and affirms **[his/her]** ELG Covenants and makes the following representations to and additional agreements with the Company:

(a) During a period beginning on the date hereof and extending for two years after the Termination Date, the Executive will not directly or indirectly, in any capacity or manner, make any statements of any kind (or cause, further, assist, solicit, encourage, support or participate in the foregoing), whether verbal, in writing, electronically transferred or otherwise, or disclose any items of information which are or may reasonably be construed to be derogatory, critical of, or adverse to

the interests of the Company. The Executive agrees that **[he/she]** will not disparage the Company, its executives, directors or products.

(b) The Executive acknowledges that in the course of **[his/her]** employment with the Company **[he/she]** has acquired Company Information and that such Company Information has been disclosed to **[him/her]** in confidence and for the Company's use only. The Executive agrees that, except as **[he/she]** may otherwise be directed under this Agreement or as required by law, regulation or legal proceeding, **[he/she]** (i) will keep such Company Information confidential at all times, (ii) will not disclose or communicate Company Information to any third party and (iii) will not make use of Company Information on his own behalf or on behalf of any third party. In the event that the Executive becomes legally compelled to disclose any Company Information, it is agreed that the Executive will provide the Company with prompt written notice of such request(s) so that the Company may seek a protective order or other appropriate legal remedy to which it may be entitled. In view of the nature of the Executive's employment and the sensitive nature of Company Information which the Executive has received during the course of **[his/her]** employment, the Executive agrees that any unauthorized disclosure to third parties of Company Information or other violation, or threatened violation, of this Agreement would cause irreparable damage to the trade secret, confidential or proprietary status of Company Information and to the Company. Therefore, in that event the Company shall be entitled to an injunction prohibiting the Executive from any such disclosure, attempted disclosure, violation or threatened violation. When Company Information becomes generally available to the public other than by the Executive's acts or omissions, it is no longer subject to the restrictions in this paragraph.

(i) Notice regarding trade secrets. Under certain conditions, the Defend Trade Secrets Act of 2016 (Public Law No. 114-153, Section 7) provides immunity from liability for certain disclosures of trade secrets, in confidence or under seal, to the government or in connection with a court proceeding, when related to suspected violations of law raised in good faith. (18 U.S.C. § 1833).

(c) To further ensure the protection of Company Information, the Executive agrees that for a period of two (2) years after **[his/her]** Termination Date, **[he/she]** will not accept employment in any form (including entering into consulting relationships or similar arrangements) with a business which: (i) competes

directly or indirectly with **[any of the Company's businesses (applies to corporate executives)] [the Executive's business unit (includes current and past business units)]**; or (ii) is a material customer of or a material supplier to **[any of the Company's businesses] [the Executive's business unit],** unless the Executive has obtained the written consent of the Executive Vice President & Chief Human Resources Officer or **[his/her]** successor, which consent shall be granted or withheld in his sole discretion. The Executive acknowledges that the ELG RSU Award vested and distributed pursuant to this Agreement constitutes full and adequate consideration for the Executive's obligations set forth in this paragraph (4)(d). The parties agree that the terms of this paragraph are reasonable. However, if any portion of this paragraph is held by competent authority to be unenforceable, this paragraph shall be deemed amended to limit its scope to the broadest scope that such authority determines is enforceable, and as so amended shall continue in effect.

(d) For a period of two (2) years following the Termination Date, the Executive will not initiate, cause or allow to be initiated (under those conditions which **[he/she]** controls) any action which would reasonably be expected to encourage or to induce any employee of the Company or any of its affiliated entities to leave the employ of the Company or its affiliated entities. In this regard, the Executive agrees that **[he/she]** will not directly or indirectly recruit any Company executive or other employee or provide any information or make referrals to personnel recruitment agencies or other third parties in connection with Company executives and other employees.

(e) The Executive acknowledges that the Intellectual Property Agreement between **[him/her]** and the Company will continue in full force and effect following the Termination Date.

5. The Company represents to the Executive that it is fully authorized and empowered to enter into this Agreement, and that it will safeguard this Agreement and its terms from public disclosure with the same degree of care with which the Company protects its proprietary information.

6. The Executive will not disclose or allow to be disclosed any of the terms or conditions of this Agreement. The Executive agrees not to make duplicate copies of this Agreement, provided, however, **[he/she]** may retain a copy of the Agreement; and provided further, that **[he/she]** may disclose this Agreement to **[his/her]** spouse, attorney, financial

advisor and the preparer of **[his/her]** tax returns. Further, the Executive may, if necessary, advise a new employer of **[his/her]** obligations hereunder.

7. The obligations of the parties hereto are severable and divisible. In the event any provision hereunder is determined to be illegal or unenforceable, the remainder of this Agreement shall continue in full force and effect.

8. In addition to any other rights the Company may have, should the Executive breach any of the terms of this Agreement, the Company will have the right to recover the value realized from the ELG RSU Award and any other benefits provided hereunder, the amount of such recovery to be determined relative to the damages caused by the breach. Such action by the Company will not be taken capriciously and will have no effect on the Release and Waiver contained in this Agreement.

9. Any dispute arising between the Company and the Executive with respect to the validity, performance or interpretation of this Agreement shall be submitted to and determined in binding arbitration in Hartford, Connecticut, for resolution in accordance with the rules of the American Arbitration Association, modified to provide that the decision by the arbitrator shall be binding on the parties; shall be furnished in writing, separately and specifically stating the findings of fact and conclusions of law on which the decision is based; shall be kept confidential by the arbitrator and the parties; and shall be rendered within 60 days following empanelment of the arbitrator. Costs of the arbitration shall be borne by the party that does not prevail. The arbitrator shall be selected in accordance with the rules of the American Arbitration Association.

10. This Agreement shall be subject to and governed by the laws of the State of Connecticut, USA, excluding its conflict of laws rules.

11. This Agreement constitutes the entire agreement between the parties and supersedes all previous communications between the parties with respect to the subject matter of this Agreement. No amendment to this Agreement shall be binding upon either party unless in writing and signed by or on behalf of such party.

12. Any notice under this agreement shall be in writing and addressed to the Executive at **[his/her]** home address of record at the Company and to the Company as follows:

United Technologies Corporation
10 Farm Springs Road
Farmington, CT 06032
Attention: Executive Vice President & Chief Human Resources Officer

Either party may change its address for notices by giving the other party notice of the change.

13. The Executive, or **[his/her]** estate, shall be responsible for any and all tax liability imposed on amounts paid hereunder. The Company reserves the right to withhold applicable taxes from any amounts paid pursuant to this Agreement to the extent required by law.

14. Capitalized terms in this Agreement, not otherwise defined herein, are defined in the ELG Program materials, Schedule of Terms applicable to this ELG RSU Award, or the UTC Long Term Incentive Plan, as amended and restated.

15. If and to the extent any payment or benefit provided herein is determined to be deferred compensation within the meaning of Section 409A, such payment or benefit will provided in a manner that complies with Section 409A.

16. The effective date of this Agreement shall be seven (7) days from the date in which the Agreement is signed and dated by the Executive, provided the Executive has not revoked acceptance in accordance with Paragraph 3(i) above. If the Agreement is not dated by the Executive, the effective day of the Agreement shall be seven (7) calendar days after receipt of the Agreement by the Company, provided the Executive has not revoked acceptance in accordance with Paragraph 3(i) above.

17. The Executive states that **[he/she]** has read this Agreement, including the Release and Waiver contained herein, fully understands its content and effect, and without duress or coercion, knowingly and voluntarily assents to its terms.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement which shall be effective as of the date of the Executive's signature below.

UNITED TECHNOLOGIES CORPORATION

By: __ By: ___
[Name] [Name of Executive]
Executive Vice President and

Chief Human Resources Officer

Date: ___ Date: __

Exhibit 10.7

Name:
Grant Date:

About This Statement

This personalized statement shows your ELG Restricted Stock Unit ("ELG RSU") Award under the United Technologies Corporation 2018 Long-Term Incentive Plan (the "LTIP"). The Award shown in this statement is nontransferable and subject to the Schedule of Terms, the terms and conditions set forth in the LTIP and the ELG Program.

Your Award

Type	Number of Units	Grant Price	Estimated Present Value	Vesting Date
RSUs		$	$	TBD*

**Satisfaction of criteria specified in the ELG Agreement, the ELG program materials and the Schedule of Terms following a minimum of 3 years of ELG Service*

Time Based RSUs

How do RSUs work?

- An RSU represents the right to receive one share of Common Stock of the Corporation
  - Special rules apply for vesting (see Schedule of Terms)
  - Reinvested dividends are earned on unvested RSUs
  - Upon vesting, in most countries, RSUs are converted to shares and issued into a UBS account
  - Awards may be paid in cash where local law restricts the distribution of Common Stock

- Dividends are payable on issued shares

How to Accept Your Award – Within 150 Days

You will receive an email from UBS alerting you that your Award has posted to your UBS account. You must acknowledge and accept the terms and conditions of your Award electronically via UBS *One Source*. You can access the UBS *One Source* site from any computer (using your UBS Participant ID and PIN) at http://www.ubs.com/onesource/utx.

First time Award recipients will receive their UBS Participant ID from UTC's Stock Plan Administrator and their temporary password from UBS.

If you do not accept your Award on-line at UBS *One Source* within 150 days of the Grant Date, your Award will be forfeited.

The award shown in this statement is nontransferable and is subject to the terms and conditions of the LTIP. I acknowledge this statement of award and the Executive Leadership Group Restricted Stock Unit Retention Award Schedule of Terms and the LTIP. I understand that I am accepting this award subject to the Schedule of Terms and the LTIP and the terms and conditions of the Executive Leadership ("ELG") program. In accepting this award, I accept responsibility for any tax liabilities associated with this award at the time of grant, lapse, exercise and/or sale. I authorize the Company, its Affiliates and its third party administrators to collect, use, process, transfer, and hold my personal data, in electronic or other form, as required for the implementation, administration and management of this award and the LTIP within or outside the country in which I reside or work.

United Technologies Corporation

10 Farm Springs Road
Farmington, CT 06032

February 3, 2020

Dear Ms. Marks:

The purpose of this letter is to confirm an amendment to the terms of certain awards granted to you under the UTC Long Term Incentive Plan (the "LTIP") dated November 1, 2017 (excluding the ELG award granted on that date), January 2, 2018 and February 5, 2019 (the "Awards"). As a result of Compensation Committee action taken at its meeting of January 31, 2020, these awards will now be subject to modified treatment in the event you are involuntarily terminated from Otis Worldwide Corporation ("Otis") for reasons other than cause (as defined in Section 1(h) of the LTIP). Specifically, in the event of such an involuntary termination, the Awards will be subject to the same treatment provided for retirement eligible participants. Accordingly, the Awards (and each Award Agreement and Schedule of Terms, as applicable) are hereby amended, effective immediately, to provide that, in the event of involuntary, not for cause termination, the following will occur:

(i) Awards held for more than one year will not be subject to forfeiture;

(ii) Awards comprised of restricted share units ("RSUs") held for more than one year (including the sign on RSU grant dated November 1, 2017) will fully vest, provided, however, that your Executive Leadership Group RSU award dated November 1, 2017 will remain subject to the vesting criteria applicable to ELG RSU awards;

(iii) Awards comprised of performance share units ("PSUs") held for more than one year that will be converted into time-based RSUs upon the spinoff of Otis will remain eligible to vest on the original vesting date;

(iv) Awards comprised of stock appreciation rights ("SARs") held for more than one year will fully vest and become exercisable immediately following the date of termination and remain exercisable until the SAR expiration date; and

(v) Your 2020 LTIP grant will be subject to the vesting provisions set forth above.

Vesting treatment is not affected by this Amendment should you resign voluntarily or if termination occurs for cause. This amendment shall continue to apply to the Awards following the transfer of such Awards from UTC to Otis. All other terms of the LTIP and any successor Otis plan continue to apply to the Awards except as expressly modified herein. The Awards remain subject to conversion and adjustment resulting from the

---

spinoff of Otis, consistent with the treatment and methodology applicable to Otis awards generally.

Very truly yours,

/s/ Jeffrey W. Kridler

Jeffrey W. Kridler
Corporate Vice President, Total Rewards

Acknowledged and Accepted

/s/ Judy Marks 3 February 2020
Judy Marks Date

Exhibit 13

Five-Year Summary

(dollars in millions, except per share amounts; shares in millions)	**2019**	2018	2017	2016	2015
For The Year					
Net sales	**$ 77,046**	$ 66,501	$ 59,837	$ 57,244	$ 56,098
Research and development	**3,015**	2,462	2,427	2,376	2,262
Restructuring costs	**425**	307	253	290	396
Net income from continuing operations [1]	**5,948**	5,654	4,920	5,436	4,356
Net income from continuing operations attributable to common shareowners [1]	**5,537**	5,269	4,552	5,065	3,996
Basic earnings per share—Net income from continuing operations attributable to common shareowners	**6.48**	6.58	5.76	6.19	4.58
Diluted earnings per share—Net income from continuing operations attributable to common shareowners	**6.41**	6.50	5.70	6.13	4.53
Cash dividends per common share	**2.94**	2.84	2.72	2.62	2.56
Average number of shares of Common Stock outstanding:					
Basic [2]	**855**	800	790	818	873
Diluted [2]	**864**	810	799	826	883
Cash flows provided by operating activities of continuing operations	**8,883**	6,322	5,631	6,412	6,755
Capital expenditures [3]	**2,256**	1,902	2,014	1,699	1,652
Acquisitions, including debt assumed & equity issued	**56**	31,142	231	712	556
Repurchases of Common Stock [3]	**151**	325	1,453	2,254	10,000
Dividends paid on Common Stock (excluding ESOP)	**2,442**	2,170	2,074	2,069	2,184
At Year End					
Working capital [4]	**$ 2,911**	$ 4,135	$ 8,467	$ 6,644	$ 4,088
Total assets	**139,716**	134,211	96,920	89,706	87,484
Long-term debt, including current portion [5]	**41,284**	44,068	27,093	23,300	19,499
Total debt [5]	**43,648**	45,537	27,485	23,901	20,425
Total debt to total capitalization [5]	**50 %**	53 %	47 %	45 %	41 %
Total equity [5, 6]	**44,231**	40,610	31,421	29,169	28,844
Number of employees [7]	**243,200**	240,200	204,700	201,600	197,200

Note 1 2019 amounts include pre-tax charges associated with the Company's intention to separate its commercial business of approximately $600 million and tax charges of approximately $730 million. 2018 amounts include unfavorable tax charges of approximately $744 million primarily related to non U.S. taxes that will become due when earnings of certain international subsidiaries are remitted, a $300 million pre-tax charge resulting from customer contract matters, partially offset by a $799 million pre-tax gain on the sale of Taylor. 2017 amounts include unfavorable tax charges of approximately $690 million related to U.S. tax reform legislation enacted in December, 2017, commonly referred to as the Tax Cuts and Jobs Act of 2017 (TCJA) and a $196 million pre-tax charge resulting from customer contract matters, partially offset by pre-tax gains of approximately $500 million on sales of available for sale securities. 2016 amounts include a $423 million pre-tax pension settlement charge resulting from defined benefit plan de-risking actions. 2015 amounts include pre-tax charges of: $867 million as a result of a settlement with the Canadian government, $295 million from customer contract negotiations at Collins Aerospace Systems, and $237 million related to pending and future asbestos claims.

Note 2 Increase in average number of Common Stock outstanding is due to additional shares issued in connection with the Rockwell Collins acquisition.

Note 3 The decrease in 2019 is due to restrictions arising from the pending merger transaction with Raytheon. The decrease in share repurchases in 2018 is due to the temporary suspension of activity in connection with the acquisition of Rockwell Collins announced on September 4, 2017, excluding activity relating to our employee savings plans. Share repurchases in 2015 include share repurchases under accelerated repurchase agreements of $2.6 billion in the first quarter of 2015 and $6.0 billion in the fourth quarter of 2015.

Note 4 Working capital in 2019 includes tax costs accrued associated with the Company's intention to separate its commercial business of $634 million and Operating lease liabilities, current of $544 million. Working capital in 2018 includes the addition of contract assets and liabilities of $3.5B and $5.7B, respectively in accordance with the New Revenue Standard as well as an increase in current borrowings of $1.8 billion. Working capital in 2015 includes approximately $2.4 billion of taxes payable related to the gain on the sale of Sikorsky, which were paid in 2016. 2015 working capital also reflects the reclassification of current deferred tax assets and liabilities to non-current assets and liabilities in connection with the adoption of Accounting Standards Update 2015-17.

Note 5 The decrease in debt to total capitalization ratio primarily reflects debt repayments in 2019. The increase in the 2018 debt to total capitalization ratio primarily reflects additional borrowings in 2018 used to finance the acquisition of Rockwell Collins. The increase in the 2017 and 2016 debt to total capitalization ratio primarily reflects additional borrowings to fund share repurchases, the 2017 discretionary pension contributions, and for general corporate purposes.

Note 6 The increase in total equity in 2018 is due to UTC common stock issued as Merger Consideration for Rockwell Collins.

Note 7 The increase in employees in 2018 is due to the addition of approximately 30,000 of Rockwell Collins employees.

Management's Discussion and Analysis of Financial Condition and Results of Operations

BUSINESS OVERVIEW

We are a global provider of high technology products and services to the building systems and aerospace industries. Our operations for the periods presented herein are classified into four principal business segments: Otis, Carrier, Pratt & Whitney, and Collins Aerospace Systems. Otis and Carrier are referred to as the "commercial businesses," while Pratt & Whitney and Collins Aerospace Systems are referred to as the "aerospace businesses."

On June 9, 2019, UTC entered into a merger agreement with Raytheon Company (Raytheon) providing for an all-stock merger of equals transaction. The Raytheon merger agreement provides, among other things, that each share of Raytheon common stock issued and outstanding immediately prior to the closing of the Raytheon merger (except for shares held by Raytheon as treasury stock) will be converted into the right to receive 2.3348 shares of UTC common stock. Upon the closing of the Raytheon merger, Raytheon will become a wholly-owned subsidiary of UTC, and UTC will change its name to Raytheon Technologies Corporation. On October 11, 2019, the shareowners of each of UTC and Raytheon approved the proposals necessary to complete the Raytheon merger. The Raytheon merger is expected to close early in the second quarter of 2020 and is subject to customary closing conditions, including receipt of required regulatory approvals, as well as the completion of UTC's separation of its Otis and Carrier businesses.

As has been previously disclosed, in November 2018, the Company announced its intention to separate into three independent companies. The separation will result in three global, industry-leading companies:
United Technologies, comprised of Collins Aerospace Systems and Pratt & Whitney, will be the preeminent systems supplier to the aerospace and defense industry;

- Otis, the world's leading manufacturer of elevators, escalators and moving walkways; and
- Carrier, a global provider of HVAC, refrigeration, building automation, fire safety and security products with leadership positions across its portfolio.

The proposed separations are expected to be effected through spin-offs of Otis and Carrier that are intended to be tax-free for the Company's shareowners for U.S. federal income tax purposes, and are expected to be completed early in the second quarter of 2020. Separation of Otis and Carrier from UTC via spin-off transactions will be subject to the satisfaction of customary conditions, including, among others, final approval by the Company's Board of Directors, receipt of tax rulings and a tax opinion from external counsel, the filing with the Securities and Exchange Commission (SEC) and effectiveness of Form 10 registration statements, and satisfactory completion of financing (subject to UTC's agreement to consummate the distributions pursuant to, and subject to the terms and conditions of, the Raytheon merger agreement discussed below).

On November 26, 2018, we completed the acquisition of Rockwell Collins (the "Rockwell Acquisition"), a leader in aviation and high-integrity solutions for commercial and military customers as well as leading-edge avionics, flight controls, aircraft interior and data connectivity solutions. The total aggregate consideration payable in the Rockwell Acquisition was $15.5 billion in cash ($14.9 billion net of cash acquired) and 62.2 million shares of Company common stock. In addition, $7.8 billion of Rockwell Collins debt was outstanding at the time of the Rockwell Acquisition. Refer to Note 2 of the Consolidated Financial Statements for additional discussion on the Rockwell Acquisition.

The commercial businesses generally serve customers in the worldwide commercial and residential property industries, with Carrier also serving customers in the commercial and transport refrigeration industries. The aerospace businesses serve commercial and government aerospace customers in both the original equipment and aftermarket parts and services markets. Our consolidated net sales were derived from the commercial and aerospace businesses as follows:

	2019	2018	2017
Commercial and industrial	**41 %**	47 %	50 %
Military aerospace and space	**17 %**	14 %	13 %
Commercial aerospace	**42 %**	39 %	37 %
	100 %	100 %	100 %

Our consolidated net sales were derived from original equipment manufacturing (OEM) and aftermarket parts and services as follows:

	2019	2018	2017
OEM	**54 %**	54 %	53 %
Aftermarket parts and services	**46 %**	46 %	47 %
	100 %	100 %	100 %

Our worldwide operations can be affected by industrial, economic and political factors on both a regional and global level. Our operations include original equipment manufacturing and extensive related aftermarket parts and services in both our

commercial and aerospace businesses. Our business mix also reflects the combination of shorter cycles at Carrier and in our commercial aerospace spares businesses, and longer cycles at Otis and in our aerospace OEM and aftermarket maintenance businesses. Our customers are in both the public and private sectors, and our businesses reflect an extensive geographic diversification that has evolved with continued globalization. Refer to Note 20 of the Consolidated Financial Statements for additional discussion of sales attributed to geographic regions.

As part of our growth strategy, we invest in businesses in certain countries that carry high levels of currency, political and/or economic risk, such as Argentina, Brazil, China, India, Indonesia, Mexico, Poland, Russia, South Africa, Turkey, Ukraine and countries in the Middle East and Central Asia. As of December 31, 2019, the net assets in any one of these countries did not exceed 5% of consolidated shareowners' equity.

In a referendum on June 23, 2016, voters in the United Kingdom (the U.K.) voted in favor of the U.K.'s exiting the European Union (the EU). The manner in which the U.K. decides to exit the EU could have negative macroeconomic consequences. Our 2019 full year sales in and from the U.K. were approximately $4 billion and represented less than 5% of our overall sales, and we do not believe the U.K.'s withdrawal from the EU will significantly impact our businesses in the near term.

Organic sales growth was 5% in 2019, reflecting growth across all segments driven by:

- Higher sales across all channels at Pratt & Whitney;
- Higher commercial aftermarket and military sales, partially offset by lower commercial aerospace OEM sales at Collins Aerospace Systems;
- Higher service sales across all regions and higher new equipment sales driven by growth in Asia at Otis;
- Higher commercial and residential HVAC sales at Carrier.

We continue to invest in new platforms and new markets to position the Company for long-term growth, while remaining focused on innovation, structural cost reduction, disciplined capital allocation and execution to meet or exceed customer and shareowner commitments.

As discussed below in "Results of Operations," operating profit in both 2019 and 2018 includes the impact from activities that are not expected to recur often or that are not otherwise reflective of the underlying operations, such as the beneficial impact of net gains from sales of investments, the unfavorable impact of contract matters with customers, transaction, acquisition and integration costs, costs associated with the Company's intention to separate its commercial businesses, and other significant non-recurring and non-operational items. Our earnings growth strategy contemplates earnings from organic sales growth, including growth from new product development and product improvements, structural cost reductions, operational improvements, and incremental earnings from our investments in acquisitions.

In total, our investments in businesses in 2019 and 2018 totaled $56 million and $31,142 million, (including debt assumed of $7,784 million and stock issued of $7,960 million) respectively. Our investments in businesses in 2019 included a number of small acquisitions primarily at Otis. In addition to Rockwell Collins, acquisitions completed in 2018 primarily include an acquisition at Carrier and at Pratt & Whitney.

Both acquisition and restructuring costs associated with business combinations are expensed as incurred. Depending on the nature and level of acquisition activity, earnings could be adversely impacted due to acquisition and restructuring actions initiated in connection with the integration of businesses acquired. For additional discussion of acquisitions and restructuring, see "Liquidity and Financial Condition," "Restructuring Costs" and Notes 2 and 13 to the Consolidated Financial Statements.

RESULTS OF OPERATIONS

Net Sales

(dollars in millions)	2019	2018	2017
Net sales	**$ 77,046**	$ 66,501	$ 59,837
Percentage change year-over-year	**16 %**	11 %	5 %

The factors contributing to the total percentage change year-over-year in total net sales are as follows:

	2019	2018
Organic volume	**5 %**	8 %
Foreign currency translation	**(1)%**	1 %
Acquisitions and divestitures, net	**12 %**	1 %
Other	**— %**	1 %
Total % Change	**16 %**	11 %

All four segments experienced organic sales growth during 2019. Pratt & Whitney sales grew 8% organically, reflecting higher military, commercial OEM, and commercial aftermarket sales. Collins Aerospace Systems grew 6% organically, driven by higher commercial aftermarket and military sales, partially offset by lower commercial aerospace OEM sales. Organic sales growth of 5% at Otis reflects higher service sales, driven by broad-based growth across all regions, and higher new equipment sales driven by growth in Asia. Carrier sales grew 1% organically, driven by higher commercial and residential HVAC sales. The 12% increase in Acquisitions and divestitures, net primarily reflects the increase in sales attributed to the Rockwell Acquisition.

All four segments experienced organic sales growth during 2018. Pratt & Whitney sales grew 14% organically, reflecting higher commercial aftermarket, commercial OEM, and military sales. Collins Aerospace Systems grew 8% organically, driven by higher commercial aftermarket and military sales, and higher commercial OEM sales. Organic sales growth of 6% at Carrier was driven by growth in North America residential HVAC, global commercial HVAC, and transport refrigeration sales. Otis sales grew 3% organically, reflecting higher service sales in North America and Asia, and higher new equipment sales in Europe, Asia excluding China, and North America, partially offset by a decline in China.

Cost of Products and Services Sold

(dollars in millions)	2019	2018	2017
Total cost of products and services sold	**$ 57,065**	$ 49,985	$ 44,201
Percentage change year-over-year	**14 %**	13 %	7 %

The factors contributing to the total percentage change year-over-year in total cost of products and services sold are as follows:

	2019	2018
Organic volume	**5 %**	9 %
Foreign currency translation	**(1)%**	1 %
Acquisitions and divestitures, net	**11 %**	1 %
Other	**(1)%**	2 %
Total % Change	**14 %**	13 %

The organic increase in total cost of products and services sold in 2019 was primarily driven by the organic sales increases noted above. The 11% increase in Acquisitions and divestitures, net primarily reflects the increase in cost of products and services sold attributed to the Rockwell Acquisition. The 1% decline in Other primarily reflects the absence of a prior year customer contract settlement at Pratt & Whitney (1%).

The organic increase in total cost of products and services sold in 2018 was primarily driven by the organic sales increases noted above. The 2% increase in Other primarily reflects the impact of the adoption of the New Revenue Standard (1%) and a customer contract settlement at Pratt & Whitney (1%), partially offset by the absence of a prior year customer contract matter at Pratt & Whitney.

Gross Margin

(dollars in millions)	**2019**	2018	2017
Gross margin	**$ 19,981**	$ 16,516	$ 15,636
Percentage of net sales	**25.9 %**	24.8 %	26.1 %

The 110 basis point increase in gross margin as a percentage of sales in 2019, includes a 230 basis point increase at Collins Aerospace Systems driven by higher commercial aftermarket volumes and cost reduction, partially offset by adverse commercial OEM mix. Pratt & Whitney's gross margin increased 120 basis points primarily reflecting continued year-over-year cost reduction and favorable mix on large commercial engine shipments. Gross margin at Otis increased 30 basis points largely driven by favorable service contribution. These increases were partially offset by a 30 basis point decline in Carrier's gross margin primarily driven by unfavorable mix, the absence of a favorable prior year contract adjustment related to a large commercial project at Carrier, and the unfavorable year-over-year impact resulting from the revaluation of certain long-term liabilities.

The 130 basis point decrease in gross margin as a percentage of sales in 2018, includes a 300 basis point decline in Pratt & Whitney's gross margin driven by the unfavorable year-over-year impact of customer contract matters and higher negative engine margin from higher engine deliveries. Collins Aerospace Systems' gross margin declined 40 basis points as the benefits of higher commercial aftermarket volumes and cost reduction were more than offset by adverse commercial OEM and military OEM mix, and higher warranty expense. Gross margin at Otis declined 140 basis points largely driven by unfavorable price and mix, primarily in China. These declines were partially offset by a 40 basis point increase in Carrier's gross margin as favorable pricing and the favorable year-over-year impact of contract adjustments related to a large commercial project and a prior year product recall program were partially offset by increased commodities and logistics costs.

Research and Development

(dollars in millions)	**2019**	2018	2017
Company-funded	**$ 3,015**	$ 2,462	$ 2,427
Percentage of net sales	**3.9 %**	3.7 %	4.1 %
Customer-funded	**$ 2,283**	$ 1,517	$ 1,514
Percentage of net sales	**3.0 %**	2.3 %	2.5 %

Research and development spending is subject to the variable nature of program development schedules and, therefore, year-over-year variations in spending levels are expected. The majority of the company-funded spending is incurred by the aerospace businesses and relates largely to the next generation engine product family at Pratt & Whitney and systems being developed to support new aircraft and other program introductions at Collins Aerospace Systems. In 2019, company-funded research and development increased 22% over the prior year. This increase was primarily driven by the impact of the Rockwell Acquisition (18%). Excluding this impact, an increase in company-funded research and development at Collins Aerospace Systems (3%) was driven by higher spend across various commercial programs. Company-funded research and development expense at Pratt & Whitney also increased (2%) driven by higher spend across various commercial programs partially offset by a decline in military program spend.

Customer-funded research and development increased 50% over the prior year, primarily reflecting the impact of the Rockwell Acquisition (53%). Excluding this impact, customer-funded research and development declined year-over-year as a decrease at Pratt & Whitney (4%), primarily driven by lower research and development expenses on military development programs, was partially offset by an increase at Collins Aerospace Systems (2%), primarily driven by higher expenses on various military development programs.

In 2018, company-funded research and development increased 1% over the prior year. This increase was primarily driven by Collins Aerospace Systems (1%) as higher spend across various commercial programs was largely offset by the deferral of certain development costs as contract fulfillment costs in accordance with the New Revenue Standard. Company-funded research and development expense at Pratt & Whitney was consistent with the prior year.

Customer-funded research and development in 2018 was consistent with 2017, as a decrease at Collins Aerospace Systems, primarily driven by the deferral of certain development costs as contract fulfillment costs in accordance with the New Revenue Standard, was offset by an increase at Pratt & Whitney, primarily driven by higher research and development expenses on military development programs.

Selling, General and Administrative

(dollars in millions)	**2019**	2018	2017
Selling, general and administrative	**$ 8,521**	$ 7,066	$ 6,429
Percentage of net sales	**11.1 %**	10.6 %	10.7 %

Selling, general and administrative expenses increased 21% in 2019. This increase primarily reflects the impact of incremental selling, general and administrative expenses resulting from the Rockwell Acquisition (9%), costs associated with the Company's intention to separate its commercial businesses (8%), and costs associated with the Raytheon merger (1%). In addition, 2019 reflects higher expenses at Pratt & Whitney (1%) driven by increased headcount and employee compensation related expenses and costs to support higher volumes as well as higher restructuring costs; higher expenses at Collins Aerospace Systems (1%) primarily driven by increased headcount and employee compensation related expenses partially offset by synergy capture related to the Rockwell Acquisition; higher expenses at Otis (1%) resulting from higher labor and information technology cost; and an increase at Carrier (1%) primarily driven by higher costs related to productivity initiatives and higher employee compensation related expenses.

Selling, general and administrative expenses increased 10% in 2018, but decreased 10 basis points as a percentage of net sales. The increase reflects the impact of incremental selling, general and administrative expenses resulting from the acquisition of Rockwell Collins (1%). In addition, 2018 reflects higher expenses at Collins Aerospace Systems (3%) primarily driven by increased headcount and employee compensation related expenses; an increase at Carrier (2%) primarily driven by employee compensation related expenses; higher expenses at Pratt & Whitney (1%) driven by increased headcount and employee compensation related expenses and costs to support higher volumes; and higher expenses at Otis (1%) resulting from higher labor and information technology costs. The remaining increase includes transaction costs related to the acquisition of Rockwell Collins and the proposed separation of our commercial businesses into independent entities.

We are continuously evaluating our cost structure and have implemented restructuring actions as a method of keeping our cost structure competitive. As appropriate, the amounts reflected above include the beneficial impact of restructuring actions on Selling, general and administrative expenses. See Note 13 "Restructuring Costs" and the "Restructuring Costs" section of "Management's Discussion and Analysis of Financial Condition and Results of Operations" for further discussion.

Other Income, Net

(dollars in millions)	**2019**	2018	2017
Other income, net	**$ 521**	$ 1,565	$ 1,358

Other income, net includes the operational impact of equity earnings in unconsolidated entities, royalty income, foreign exchange gains and losses as well as other ongoing and infrequently occurring items. In 2019, the year-over-year decrease in Other income, net (67%) primarily reflects the absence of the prior year gain on the sale of Taylor Company (51%), the impairment of an investment at Carrier (7%) and the net unfavorable year-over-year impact of foreign exchange gains and losses (5%).

In 2018, the year-over-year increase in Other income, net (15%) is primarily driven by the gain on the sale of Taylor Company (59%), partially offset by the absence of a prior year gain from the sale of Carrier's investments in Watsco, Inc. (28%), lower year-over-year gains on the sale of securities (11%), an impairment of assets related to a previously acquired Collins Aerospace Systems business (4%) and the absence of a prior year gain on the sale of a Carrier business (2%).

Interest Expense, Net

(dollars in millions)	**2019**	2018	2017
Interest expense	**$ 1,773**	$ 1,225	$ 1,017
Interest income	**(162)**	(187)	(108)
Interest expense, net	**$ 1,611**	$ 1,038	$ 909
Average interest expense rate - average outstanding borrowings during the year:			
Short-term borrowings	**1.9 %**	1.5 %	1.1 %
Total debt	**3.7 %**	3.5 %	3.5 %
Average interest expense rate - outstanding borrowings as of December 31:			
Short-term borrowings	**3.1 %**	1.2 %	2.3 %
Total debt	**3.7 %**	3.5 %	3.5 %

Interest expense, net increased 55% in 2019 as compared with 2018. The increase in interest expense primarily reflects interest on debt acquired from the Rockwell Collins acquisition and the impact of the August 16, 2018 issuance of notes representing $11 billion in aggregate principal. The average maturity of our long-term debt at December 31, 2019 is approximately 10 years. The decrease in interest income in 2019 as compared to 2018 primarily reflects the absence of interest earned on higher cash balances held in the prior year in advance of funding the Rockwell Acquisition.

Interest expense, net increased 14% in 2018 as compared with 2017. The increase in interest expense reflects the impact of the August 16, 2018 issuance of notes representing $11 billion in aggregate principal; the May 4, 2017 issuance of notes representing $4 billion in aggregate principal; and the May 18, 2018 issuance of Euro-denominated notes representing €2 billion in aggregate principal. These increases were partially offset by the favorable impact of the repayment at maturity of the following: 1.800% notes in June 2017 representing $1.5 billion in aggregate principal; the 6.8% notes in February 2018 representing $99 million of aggregate principal; the Euro-denominated floating rate notes in February 2018 representing €750 million in aggregate principal; and the 1.778% notes in May 2018 representing $1.1 billion of aggregate principal. The average maturity of our long-term debt at December 31, 2018 is approximately 11 years.

The $11 billion in aggregate principal amount of notes issued on August 16, 2018 was primarily used to fund the cash consideration in the acquisition of Rockwell Collins and related fees, expenses and other amounts. The increase in interest income in 2018 as compared with 2017 primarily reflects interest earned on higher cash balances, including interest earned on cash from the $11 billion of notes issued and held prior to funding the Rockwell Acquisition.

The year-over-year increase in the average interest expense rate for short-term borrowings was primarily driven by increased borrowings under our term credit agreement. In 2018, the year-over-year increase in the average interest expense rate for short-term borrowings was primarily driven by increases in LIBOR rates.

Income Taxes

	2019	2018	2017
Effective income tax rate	**27.8 %**	31.7 %	36.6 %

The 2019 effective tax rate includes $729 million of income tax charges associated with the Company’s portfolio separation transactions, offset in part by amounts associated with the conclusion of the audit by the Examination Division of the Internal Revenue Service for the UTC 2014, 2015 and 2016 tax years, the filing by a subsidiary of the Company to participate in an amnesty program offered by the Italian Tax Authority.

On December 22, 2017 Public Law 115-97 *“An Act to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018”* was enacted. This law is commonly referred to as the Tax Cuts and Jobs Act of 2017 (TCJA).

The 2018 effective tax rate reflects a net charge of $744 million of TCJA related adjustments. The amount primarily relates to accounting completed under SAB 118 for non-U.S. taxes that will become due when previously reinvested earnings of certain international subsidiaries are remitted.

The 2017 effective tax rate reflects a tax charge of $690 million attributable to the passage of the TCJA. This amount relates to U.S. income tax attributable to previously undistributed earnings of UTC's international subsidiaries and equity investments, net of foreign tax credits, and the revaluation of U.S. deferred income taxes.

The effective income tax rate for 2017 also includes tax benefits associated with lower tax rates on international earnings and the expiration of statutes of limitations during 2017 resulted in a favorable adjustment of $55 million largely offset by the unfavorable impact related to a retroactive Quebec tax law change.

For additional discussion of income taxes and the effective income tax rate, see "Critical Accounting Estimates—Income Taxes" and Note 11 to the Consolidated Financial Statements.

Net Income Attributable to Common Shareowners from Continuing Operations

(dollars in millions, except per share amounts)	**2019**	2018	2017
Net income from continuing operations attributable to common shareowners	**$ 5,537**	$ 5,269	$ 4,552
Diluted earnings per share from continuing operations	**$ 6.41**	$ 6.50	$ 5.70

To help mitigate the volatility of foreign currency exchange rates on our operating results, we maintain foreign currency hedging programs, the majority of which are entered into by Pratt & Whitney Canada (P&WC). In 2019, foreign currency, including hedging at P&WC, had a favorable impact on our consolidated operational results of $0.06 per diluted share. In 2018, foreign currency, including hedging at P&WC, had a favorable impact on our consolidated operational results of $0.02 per diluted share. In 2017, foreign currency, including hedging at P&WC, had a favorable impact on our consolidated operational

results of $0.13 per diluted share. For additional discussion of foreign currency exposure, see "Market Risk and Risk Management—Foreign Currency Exposures."

Net income from continuing operations attributable to common shareowners for the year ended December 31, 2019 includes restructuring charges, net of tax benefit, of $317 million ($425 million pre-tax) as well as a net charge for significant non-operational and/or nonrecurring items, including the impact of taxes, of $1,282 million. Non-operational and/or nonrecurring items primarily include costs associated with the Company's intention to separate its commercial businesses, amortization of an inventory fair value adjustment associated with the Rockwell Acquisition, an impairment of an investment, transaction expenses associated with the Raytheon Merger, pension curtailment costs, and transaction and integration costs related to the Rockwell Acquisition. The effect of restructuring charges and nonrecurring items on diluted earnings per share for the year ended December 31, 2019 was a charge of $1.85 per share.

Net income from continuing operations attributable to common shareowners for the year ended December 31, 2018 includes restructuring charges, net of tax benefit, of $228 million ($307 million pre-tax) as well as a net charge for significant non-operational and/or nonrecurring items, including the impact of taxes, of $668 million. Non-operational and/or nonrecurring items include a tax charge in connection with the passage of the TCJA as described in Note 11 and the unfavorable impact of a customer contract matter at Pratt & Whitney, partially offset by a gain on Carrier's sale of Taylor Company. The effect of restructuring charges and nonrecurring items on diluted earnings per share for the year ended December 31, 2018 was a charge of $1.11 per share.

Net income from continuing operations attributable to common shareowners for the year ended December 31, 2017 includes restructuring charges, net of tax benefit, of $176 million ($253 million pre-tax) as well as the net unfavorable impact of significant non-operational and/or nonrecurring items, net of tax, of $587 million. Non-operational and/or nonrecurring items include a tax charge in connection with the passage of the TCJA as described in Note 11, the unfavorable impact of customer contract matters at Pratt & Whitney, and the unfavorable impact of a product recall program at Carrier, partially offset by gains resulting from Carrier's sale of its investments in Watsco, Inc. The effect of restructuring charges and nonrecurring items on diluted earnings per share for 2017 was a charge of $0.95 per share.

RESTRUCTURING COSTS

(dollars in millions)	**2019**	2018	2017
Restructuring costs	**$ 425**	$ 307	$ 253

Restructuring actions are an essential component of our operating margin improvement efforts and relate to existing and recently acquired operations. Charges generally arise from severance related to workforce reductions, facility exit and lease termination costs associated with the consolidation of field and manufacturing operations and costs to exit legacy programs. We continue to closely monitor the economic environment and may undertake further restructuring actions to keep our cost structure aligned with the demands of the prevailing market conditions.

2019 Actions. During 2019, we recorded net pre-tax restructuring charges of $321 million relating to ongoing cost reduction actions initiated in 2019. We are targeting to complete in 2020 and 2021 the majority of the remaining workforce and facility related cost reduction actions initiated in 2019. Approximately 90% of the total pre-tax charge will require cash payments, which we have funded and expect to continue to fund with cash generated from operations. During 2019, we had cash outflows of approximately $199 million related to the 2019 actions. We expect to incur additional restructuring and other charges of $123 million to complete these actions. We expect recurring pre-tax savings to increase over the two-year period subsequent to initiating the actions to approximately $389 million annually, of which, approximately $125 million was realized in 2019.

2018 Actions. During 2019 and 2018, we recorded net pre-tax restructuring charges of $46 million and $207 million, respectively, for actions initiated in 2018. We are targeting to complete in 2020 the majority of the remaining workforce and all facility related cost reduction actions initiated in 2018. Approximately 96% of the total pre-tax charge will require cash payments, which we have and expect to continue to fund with cash generated from operations. During 2019, we had cash outflows of approximately $143 million related to the 2018 actions. We expect to incur additional restructuring charges of $5 million to complete these actions. We expect recurring pre-tax savings to increase over the two-year period subsequent to initiating the actions to approximately $260 million annually.

In addition, during 2019, we recorded net pre-tax restructuring costs totaling $58 million for restructuring actions initiated in 2017 and prior. For additional discussion of restructuring, see Note 13 to the Consolidated Financial Statements.

SEGMENT REVIEW

	Net Sales			Operating Profits			Operating Profit Margin		
(dollars in millions)	**2019**	2018	2017	**2019**	2018	2017	**2019**	2018	2017
Otis	**$ 13,113**	$ 12,904	$ 12,341	**$ 1,948**	$ 1,915	$ 2,002	**14.9 %**	14.8 %	16.2 %
Carrier	**18,608**	18,922	17,812	**2,697**	3,777	3,165	**14.5 %**	20.0 %	17.8 %
Pratt & Whitney	**20,892**	19,397	16,160	**1,668**	1,269	1,300	**8.0 %**	6.5 %	8.0 %
Collins Aerospace Systems	**26,028**	16,634	14,691	**4,100**	2,303	2,191	**15.8 %**	13.8 %	14.9 %
Total segment	**78,641**	67,857	61,004	**10,413**	9,264	8,658	**13.2 %**	13.7 %	14.2 %
Eliminations and other	**(1,595)**	(1,356)	(1,167)	**(932)**	(236)	(81)			
General corporate expenses	**—**	—	—	**(515)**	(475)	(439)			
Consolidated	**$ 77,046**	$ 66,501	$ 59,837	**$ 8,966**	$ 8,553	$ 8,138	**11.6 %**	12.9 %	13.6 %

Commercial Businesses

The financial performance of our commercial businesses can be influenced by a number of external factors including fluctuations in residential and commercial construction activity, regulatory changes, interest rates, labor costs, foreign currency exchange rates, customer attrition, raw material and energy costs, credit markets and other global and political factors. Carrier's financial performance can also be influenced by production and utilization of transport equipment, and weather conditions for its residential business. Geographic and industry diversity across the commercial businesses help to balance the impact of such factors on our consolidated operating results, particularly in the face of uneven economic growth. At constant currency, Otis new equipment orders were consistent with the prior year as order growth in Asia (3%) and Europe (2%) was offset by declines in North America (3%) and the Middle East (20%). At constant currency and excluding the effect of acquisitions and divestitures, Carrier equipment orders for 2019 decreased 8% in comparison to 2018 driven by a decline in global refrigeration (32%). Global HVAC and fire & security products equipment orders for 2019 were consistent with the prior year.

Total commercial business sales generated outside the U.S., including U.S. export sales, were 61% and 62% in 2019 and 2018, respectively. The following table shows sales generated outside the U.S., including U.S. export sales, for each of the commercial business segments:

	2019	2018
Otis	**73 %**	73 %
Carrier	**52 %**	54 %

Otis is the world's largest elevator and escalator manufacturing, installation and service company. Otis designs, manufactures, sells and installs a wide range of passenger and freight elevators as well as escalators and moving walkways. In addition to new equipment, Otis provides modernization products to upgrade elevators and escalators as well as maintenance and repair services for both its products and those of other manufacturers. Otis serves customers in the commercial, residential and infrastructure property sectors around the world. Otis sells direct and through sales representatives and distributors.

				Total Increase (Decrease) Year-Over-Year for:			
(dollars in millions)	**2019**	2018	2017	**2019 Compared with 2018**		2018 Compared with 2017	
Net Sales	**$ 13,113**	$ 12,904	$ 12,341	**$ 209**	**2 %**	$ 563	5 %
Cost of Sales	**9,291**	9,192	8,612	**99**	**1 %**	580	7 %
	3,822	3,712	3,729				
Operating Expenses and Other	**1,874**	1,797	1,727				
Operating Profits	**$ 1,948**	$ 1,915	$ 2,002	**$ 33**	**2 %**	$ (87)	(4)%

	Factors Contributing to Total % Increase (Decrease) Year-Over-Year in:					
	2019			2018		
	Net Sales	**Cost of Sales**	**Operating Profits**	Net Sales	Cost of Sales	Operating Profits
Organic / Operational	**5 %**	**5 %**	**4 %**	3 %	5 %	(4) %
Foreign currency translation	**(3)%**	**(4)%**	**(4) %**	1 %	1 %	2 %
Restructuring costs	—	—	**1 %**	—	—	(1) %
Other	—	—	**1 %**	1 %	1 %	(1) %
Total % change	**2 %**	**1 %**	**2 %**	5 %	7 %	(4) %

2019 Compared with 2018

The organic sales increase of 5% primarily reflects higher service sales (3%), driven by broad-based growth across all regions, and higher new equipment sales (2%) driven by growth in Asia.

The operational profit increase of 4% was driven by:

- margin contribution from the higher sales volumes noted above (6%)
- favorable price and mix (2%)
- favorable productivity (1%)

These increases were partially offset by:

- higher selling, general and administrative expenses (4%)
- unfavorable transactional foreign exchange gains and losses from mark-to-market adjustments and embedded foreign currency derivatives within certain new equipment contracts (1%)

2018 Compared with 2017

The organic sales increase of 3% primarily reflects higher service sales (2%), driven by growth in North America and Asia, and higher new equipment sales (1%) driven by growth in Europe, Asia excluding China, and North America (combined, 2%), partially offset by a decline in China (1%).

The operational profit decrease of 4% was driven by:

- unfavorable price and mix (8%), primarily in China
- higher selling, general and administrative expenses and research and development costs (3%)
- unfavorable commodity costs (2%)
- unfavorable transactional foreign exchange from mark-to-market adjustments (1%)

These decreases were partially offset by:

- profit contribution from the higher sales volumes noted above (8%)
- favorable productivity (2%)

Carrier is a leading provider of heating, ventilating, air conditioning (HVAC), refrigeration, fire, security, and building automation products, solutions, and services for commercial, government, infrastructure, and residential property applications and refrigeration and transportation applications. Carrier provides a wide range of building systems, including cooling, heating, ventilation, refrigeration, fire, flame, gas, and smoke detection, portable fire extinguishers, fire suppression, intruder alarms, access control systems, video surveillance, and building control systems. Carrier also provides a broad array of related building services, including audit, design, installation, system integration, repair, maintenance, and monitoring services. Carrier also provides refrigeration and monitoring products and solutions to the transport industry.

(dollars in millions)	2019	2018	2017	Total Increase (Decrease) Year-Over-Year for: 2019 Compared with 2018		2018 Compared with 2017	
Net Sales	$ 18,608	$ 18,922	$ 17,812	$ (314)	(2)%	$ 1,110	6 %
Cost of Sales	13,180	13,337	12,630	(157)	(1)%	707	6 %
	5,428	5,585	5,182				
Operating Expenses and Other	2,731	1,808	2,017				
Operating Profits	$ 2,697	$ 3,777	$ 3,165	$ (1,080)	(29)%	$ 612	19 %

	Factors Contributing to Total % Increase (Decrease) Year-Over-Year in: 2019			2018		
	Net Sales	Cost of Sales	Operating Profits	Net Sales	Cost of Sales	Operating Profits
Organic / Operational	1 %	2 %	(2) %	6 %	6 %	6 %
Foreign currency translation	(2)%	(2)%	(1) %	1 %	1 %	—
Acquisitions and divestitures, net	(1)%	(1)%	(1) %	(1)%	(1)%	(1) %
Restructuring costs	—	—	(1) %	—	—	1 %
Other	—	—	(24) %	—	—	13 %
Total % change	(2)%	(1)%	(29) %	6 %	6 %	19 %

2019 Compared with 2018

The organic sales increase of 1% was primarily driven by growth in commercial and residential HVAC (1%, combined). Sales in global fire & security and global refrigeration were consistent with the prior year.

Operational profit decreased 2% in comparison to the prior year as the favorable impact of pricing and productivity net of unfavorable commodities and tariffs (4%, combined) were more than offset by lower volume and unfavorable mix (3%), the absence of a favorable prior year contract adjustment related to a large commercial project (1%), and the unfavorable year-over-year impact resulting from the revaluation of certain long-term liabilities (1%).

The 24% decrease in Other primarily reflects the absence of the prior year gain on the sale of Taylor Company (21%) and a current-year impairment of an investment (3%).

2018 Compared with 2017

The organic sales increase of 6% was driven primarily by growth in North America residential HVAC (2%), global commercial HVAC (2%), and global refrigeration (2%).

The operational profit increase of 6% was driven by:

- profit contribution from the higher sales volumes noted above, net of mix (6%)
- the year-over-year impact of contract adjustments related to a large commercial project (3%)
- favorable pricing, net of commodities (2%)

These increases were partially offset by:

- higher logistics costs (3%)
- higher research and development costs (1%)

The 13% increase in Other primarily reflects the year-over-year impact of gains on sale of businesses and investments (11%), primarily driven by the sale of Taylor Company in 2018 (25%), partially offset by the absence of the prior year sale of investments in Watsco, Inc. (12%). The remaining increase in Other is largely driven by the year-over-year impact of a prior year product recall program (2%).

Aerospace Businesses

The financial performance of Pratt & Whitney and Collins Aerospace Systems is directly tied to the economic conditions of the commercial aerospace and defense aerospace industries. In particular, Pratt & Whitney experiences intense competition for new commercial airframe/engine combinations. Engine suppliers may offer substantial discounts and other financial incentives, performance and operating cost guarantees, and participate in financing arrangements in an effort to compete for the aftermarket associated with these engine sales. These OEM engine sales may result in losses on the engine sales, which economically are recovered through the sales and profits generated over the engine's maintenance cycle. At times, the aerospace businesses also enter into development programs and firm fixed-price development contracts, which may require the company to bear cost overruns related to unforeseen technical and design challenges that arise during the development stage of the program. Customer selections of engines and components can also have a significant impact on later sales of parts and service. Predicted traffic levels, load factors, worldwide airline profits, general economic activity and global defense spending have been reliable indicators for new aircraft and aftermarket orders within the aerospace industry. Spare part sales and aftermarket service trends are affected by many factors, including usage, technological improvements, pricing, regulatory changes and the retirement of older aircraft. Our commercial aftermarket businesses continue to evolve as an increasing proportion of our aerospace businesses' customers are covered under long-term aftermarket service agreements. These agreements are comprehensive long-term spare part and service agreements with our customers. We expect a continued shift to long-term aftermarket service agreements in lieu of transactional spare part sales as new aerospace products enter our customers' fleets under long-term aftermarket service agreements and legacy fleets are retired. In 2019, as compared with 2018, total commercial aerospace aftermarket sales increased 2% at Pratt & Whitney and 63% at Collins Aerospace Systems, or 14% excluding the impact of the Rockwell Acquisition.

Our long-term aerospace contracts are subject to strict safety and performance regulations which can affect our ability to estimate costs precisely. Contract cost estimation for the development of complex projects, in particular, requires management to make significant judgments and assumptions regarding the complexity of the work to be performed, availability of materials, the performance by subcontractors, the timing of funding from customers and the length of time to complete the contract. As a result, we review and update our cost estimates on significant contracts on a quarterly basis, and no less frequently than annually for all others, and when circumstances change and warrant a modification to a previous estimate. Changes in estimates relate to the current period impact of revisions to total estimated contract sales and costs at completion. We record changes in contract estimates primarily using the cumulative catch-up method. Operating profits included net unfavorable changes in aerospace contract estimates of approximately $69 million, $50 million and $110 million in 2019, 2018 and 2017, respectively, primarily the result of unexpected increases in estimated costs related to Pratt & Whitney long-term aftermarket agreements. In accordance with our revenue recognition policy, losses, if any, on long-term contracts are provided for when anticipated. There were no material loss provisions recorded in continuing operations in 2019 or 2018.

Performance in the general aviation sector is closely tied to the overall health of the economy. We continue to see growth in a strong commercial airline industry. Airline traffic, as measured by revenue passenger miles (RPMs), grew approximately 4% in the first eleven months of 2019.

Our military sales are affected by U.S. Department of Defense spending levels. Total sales to the U.S. Government were $10.6 billion in 2019, $7.4 billion in 2018, and $5.8 billion in 2017, and were 14% of total UTC sales in 2019, and 11% in 2018 and 10% in 2017. The defense portion of our aerospace business is also affected by changes in market demand and the global political environment. Our participation in long-term production and development programs for the U.S. Government has contributed positively to our results in 2019 and is expected to continue to benefit results in 2020.

Collins Aerospace Systems provides standard and selectable content to Boeing for its 737 MAX aircraft including standard avionics, cockpit flight displays, and cabin interior products. In March 2019, aviation authorities suspended worldwide operations of the Boeing 737 MAX fleet. In January 2020, Boeing announced that it expects the fleet to remain grounded until mid-2020. In addition, Boeing announced the temporary suspension of 737 MAX production. The Company has made various investments in support of content for the 737 MAX which we currently expect to recover despite these delays in the production and operation of the fleet.

Pratt & Whitney is among the world's leading suppliers of aircraft engines for the commercial, military, business jet and general aviation markets. Pratt & Whitney provides fleet management services and aftermarket maintenance, repair and overhaul services. Pratt & Whitney produces and develops families of large engines for wide- and narrow-body and large regional aircraft in the commercial market and for fighter, bomber, tanker and transport aircraft in the military market. P&WC is among the world's leading suppliers of engines powering general and business aviation, as well as regional airline, utility and military airplanes, and helicopters. Pratt & Whitney and P&WC also produce, sell and service auxiliary power units for commercial and military aircraft. Pratt & Whitney's products are sold principally to aircraft manufacturers, airlines and other aircraft operators, aircraft leasing companies and the U.S. and foreign governments.

				Total Increase (Decrease) Year-Over-Year for:			
(dollars in millions)	**2019**	2018	2017	**2019 Compared with 2018**		2018 Compared with 2017	
Net Sales	**$ 20,892**	$ 19,397	$ 16,160	**$ 1,495**	**8 %**	$ 3,237	20 %
Cost of Sales	**17,291**	16,301	13,093	**990**	**6 %**	3,208	25 %
	3,601	3,096	3,067				
Operating Expenses and Other	**1,933**	1,827	1,767				
Operating Profits	**$ 1,668**	$ 1,269	$ 1,300	**$ 399**	**31 %**	$ (31)	(2)%

	Factors Contributing to Total % Increase (Decrease) Year-Over-Year in:					
	2019			2018		
	Net Sales	**Cost of Sales**	**Operating Profits**	Net Sales	Cost of Sales	Operating Profits
Organic* / Operational*	**8 %**	**8 %**	**18 %**	14 %	17 %	(8) %
Foreign currency (including P&WC net hedging)*	—	—	**(1) %**	—	1 %	—
Acquisitions and divestitures, net	**—**	**—**	**(1) %**	—	—	—
Restructuring costs	**—**	**—**	**(11) %**	—	—	1 %
Other	—	**(2)%**	**26 %**	6 %	7 %	5 %
Total % change	**8 %**	**6 %**	**31 %**	20 %	25 %	(2) %

* As discussed further in the "Business Overview" and "Results of Operations" sections, for Pratt & Whitney only, the transactional impact of foreign exchange hedging at P&WC has been netted against the translational foreign exchange impact for presentation purposes in the above table. For all other segments, these foreign exchange transactional impacts are included within the organic sales/operational operating profit caption in their respective tables. Due to its significance to Pratt & Whitney's overall operating results, we believe it is useful to segregate the foreign exchange transactional impact in order to clearly identify the underlying financial performance.

2019 Compared with 2018

The organic sales growth of 8% primarily reflects higher military sales (4%), higher commercial OEM sales (3%), and higher commercial aftermarket sales (1%).

The operational profit increase of 18% was primarily driven by:

- higher military margin contribution (13%), driven by the sales increase noted above
- higher OEM margin contribution (11%) primarily driven by continued year-over-year cost reduction and favorable mix on large commercial engine shipments

These increases were partially offset by:

- higher research and development costs (4%)
- higher selling, general and administrative expenses (3%)

The 26% increase in "Other" primarily reflects the absence of a prior year customer contract settlement.

2018 Compared with 2017

The organic sales increase of 14% primarily reflects higher commercial aftermarket sales (6%), higher commercial OEM sales (5%) and increased military sales (3%). The 6% increase in Other primarily reflects the impact of the adoption of the New Revenue Standard (4%) and the absence of a prior year customer contract matter (2%).

The operational profit decrease of 8% was primarily driven by:

- lower commercial OEM profit contribution (27%) primarily driven by higher negative engine margin on higher deliveries
- higher selling, general and administrative expenses (5%)

- the absence of the favorable impact from a prior year license agreement (4%)
- higher research and development costs (2%)

These decreases were partially offset by:

- higher commercial aftermarket profit contribution (23%), driven by the sales increase noted above
- higher military profit contribution (5%), driven by the sales increase noted above

The 5% increase in Other primarily reflects the favorable impact resulting from the adoption of the New Revenue Standard (13%) partially offset by the unfavorable year-over-year impact of contract settlements (8%).

Collins Aerospace Systems is a leading global provider of technologically advanced aerospace products and aftermarket service solutions for aircraft manufacturers, airlines, regional, business and general aviation markets, military and space operations. Collins Aerospace Systems' product portfolio includes electric power generation, power management and distribution systems, air data and aircraft sensing systems, engine control systems, intelligence, surveillance and reconnaissance systems, engine components, environmental control systems, fire and ice detection and protection systems, propeller systems, engine nacelle systems, including thrust reversers and mounting pylons, interior and exterior aircraft lighting, aircraft seating and cargo systems, actuation systems, landing systems, including landing gear and wheels and brakes, space products and subsystems, integrated avionics systems, precision targeting, electronic warfare and range and training systems, flight controls, communications systems, navigation systems, oxygen systems, simulation and training systems, food and beverage preparation, storage and galley systems, lavatory and wastewater management systems. Collins Aerospace Systems also designs, produces and supports cabin interior, communications and aviation systems and products and provides information management services through voice and data communication networks and solutions worldwide. Aftermarket services include spare parts, overhaul and repair, engineering and technical support, training and fleet management solutions, and information management services. Collins Aerospace Systems sells aerospace products and services to aircraft manufacturers, airlines and other aircraft operators, the U.S. and foreign governments, maintenance, repair and overhaul providers, and independent distributors.

				Total Increase (Decrease) Year-Over-Year for:			
(dollars in millions)	**2019**	2018	2017	**2019 Compared with 2018**		2018 Compared with 2017	
Net Sales	**$ 26,028**	$ 16,634	$ 14,691	**$ 9,394**	**56 %**	$ 1,943	13 %
Cost of Sales	**18,702**	12,336	10,838	**6,366**	**52 %**	1,498	14 %
	7,326	4,298	3,853				
Operating Expenses and Other	**3,226**	1,995	1,662				
Operating Profits	**$ 4,100**	$ 2,303	$ 2,191	**$ 1,797**	**78 %**	$ 112	5 %

	Factors Contributing to Total % Increase (Decrease) Year-Over-Year in:					
	2019			2018		
	Net Sales	**Cost of Sales**	**Operating Profits**	Net Sales	Cost of Sales	Operating Profits
Organic / Operational	**6 %**	**6 %**	**7 %**	8 %	7 %	10 %
Foreign currency translation	**—**	**(1)%**	**1 %**	—	1 %	(1) %
Acquisitions and divestitures, net	**50 %**	**46 %**	**68 %**	5 %	6 %	1 %
Restructuring costs	**—**	**—**	**3 %**	—	—	(4) %
Other	**—**	**1 %**	**(1) %**	—	—	(1) %
Total % change	**56 %**	**52 %**	**78 %**	13 %	14 %	5 %

2019 Compared with 2018

The organic sales increase of 6% primarily reflects higher commercial aerospace aftermarket sales (5%) and higher military sales (2%), partially offset by lower commercial aerospace OEM sales (1%).

The operational profit increase of 7% primarily reflects:

- higher commercial aerospace margin contribution (10%) driven by the commercial aftermarket sales growth noted above, partially offset by lower commercial aerospace OEM margin contribution
- higher military margin contribution (4%) driven by the sales growth noted above

This increase was partially offset by:

- higher selling, general and administrative expenses (4%)
- higher research and development costs (3%)

2018 Compared with 2017

The organic sales growth of 8% primarily reflects higher commercial aftermarket and military sales (combined, 6%) and higher commercial aerospace OEM sales (2%).

The increase in operational profit of 10% primarily reflects:

- higher commercial aftermarket and military profit contribution (combined, 18%) primarily driven by the commercial aftermarket sales growth noted above
- higher commercial aerospace OEM profit contribution (3%)

These increases were partially offset by:

- higher selling, general, and administrative expenses (7%)
- higher warranty costs (4%)

Eliminations and other

	Net Sales			Operating Profits		
(dollars in millions)	**2019**	2018	2017	**2019**	2018	2017
Eliminations and other	**$ (1,595)**	$ (1,356)	$ (1,167)	**$ (932)**	$ (236)	$ (81)
General corporate expenses	**—**	—	—	**(515)**	(475)	(439)

Eliminations and other reflects the elimination of sales, other income and operating profit transacted between segments, as well as the operating results of certain smaller businesses. The year-over-year increase in sales eliminations in 2019 as compared with 2018 reflects an increase in the amount of inter-segment eliminations, principally between our aerospace businesses. The year-over-year decrease in operating profit for 2019 as compared with 2018, is primarily driven by costs associated with the Company's intention to separate its commercial businesses, costs associated with the Raytheon merger, and the absence of the favorable impact of prior year insurance settlements, partially offset by lower year-over-year costs related to the Rockwell Acquisition.

LIQUIDITY AND FINANCIAL CONDITION

(dollars in millions)	**2019**	2018
Cash and cash equivalents	**$ 7,378**	$ 6,152
Total debt	**43,648**	45,537
Net debt (total debt less cash and cash equivalents)	**36,270**	39,385
Total equity	**44,231**	40,610
Total capitalization (total debt plus total equity)	**87,879**	86,147
Net capitalization (total debt plus total equity less cash and cash equivalents)	**80,501**	79,995
Total debt to total capitalization	**50 %**	53 %
Net debt to net capitalization	**45 %**	49 %

We assess our liquidity in terms of our ability to generate cash to fund our operating, investing and financing activities. Our principal source of liquidity is operating cash flows from operations. For 2019 our cash flows from operations, net of capital expenditures was $6.6 billion. The 2019 cash flows from operations reflect cash payments associated with the Company's portfolio separation costs of approximately $400 million. In addition to operating cash flows, other significant factors that affect our overall management of liquidity include: capital expenditures, customer financing requirements, investments in businesses, dividends, common stock repurchases, pension funding, access to the commercial paper markets, adequacy of available bank lines of credit, redemptions of debt and the ability to attract long-term capital at satisfactory terms.

At December 31, 2019, we had cash and cash equivalents of $7.4 billion, of which approximately 56% was held by UTC's foreign subsidiaries. We manage our worldwide cash requirements by reviewing available funds among the many subsidiaries through which we conduct our business and the cost effectiveness with which those funds can be accessed. The Company no longer intends to reinvest certain undistributed earnings of its international subsidiaries that have been previously taxed in the U.S. As such, in 2018 it recorded the international taxes associated with the future remittance of these earnings. For the remainder of the Company's undistributed international earnings, unless tax effective to repatriate, UTC will continue to

permanently reinvest these earnings. We repatriated $1.6 billion and $6.2 billion of overseas cash for the year ended December 31, 2019 and 2018, respectively.

On occasion, we are required to maintain cash deposits with certain banks with respect to contractual obligations related to acquisitions or divestitues or other legal obligations. As of December 31, 2019, 2018 and 2017, the amount of such restricted cash was approximately $42 million, $60 million and $33 million, respectively.

On November 26, 2018, we completed the acquisition of Rockwell Collins. The total aggregate consideration payable in the Merger was $15.5 billion in cash ($14.9 billion net of cash acquired) and 62.2 million shares of Company common stock. In addition, $7.8 billion of Rockwell Collins debt was outstanding as of the acquisition date. Refer to Note 2 of the Consolidated Financial Statements for additional discussion on the Rockwell Acquisition.

Our domestic pension funds experienced a positive return on assets of 19.8% during 2019 and a negative return on assets of 5.1% during 2018. Approximately 90% of these domestic pension plans' funds are invested in readily-liquid investments, including equity, fixed income, asset-backed receivables and structured products. The balance of these domestic pension plans' funds (10%) is invested in less-liquid but market-valued investments, including real estate and private equity. As part of the Rockwell Collins acquisition on November 26, 2018, we assumed approximately $3.7 billion of projected pension benefit obligations and $3.4 billion of plan assets. As part of our long-term strategy to de-risk our defined benefit pension plans, we made discretionary contributions of approximately $1.9 billion to our domestic defined benefit pension plans in 2017.

The funded status of our defined benefit pension plans is dependent upon many factors, including returns on invested assets, the level of market interest rates and actuarial mortality assumptions. We can contribute cash or UTC shares to our plans at our discretion, subject to applicable regulations. As of December 31, 2019, the total investment by the global defined benefit pension plans in the Company's securities was less than 1% of total plan assets. Our qualified domestic defined benefit pension plans are approximately 99% funded on a projected benefit obligation basis as of December 31, 2019, and we are not required to make additional contributions through the end of 2025. We expect to make total contributions of approximately $125 million to our global defined benefit pension plans in 2020. Contributions to our global defined benefit pension plans in 2020 are expected to meet or exceed the current funding requirements.

Historically, our strong debt ratings and financial position have enabled us to issue long-term debt at favorable market rates. Our ability to obtain debt financing or additional credit facilities at comparable risk-based interest rates is partly a function of our existing debt-to-total-capitalization level as well as our credit standing. Our debt-to-total-capitalization decreased 300 basis points from 53% at December 31, 2018 to 50% at December 31, 2019. The average maturity of our long-term debt at December 31, 2019 is approximately 10 years.

At December 31, 2019, we had revolving credit agreements with various banks permitting aggregate borrowings of up to $10.35 billion pursuant to a $2.20 billion revolving credit agreement and a $2.15 billion multicurrency revolving credit agreement, both of which expire in August 2021; and a $2.0 billion revolving credit agreement and a $4.0 billion term credit agreement, both of which we entered into on March 15, 2019 and which will expire on March 15, 2021 or, if earlier, the date that is 180 days after the date on which each of the separations of Otis and Carrier have been consummated. As of December 31, 2019, we drew down $2.1 billion on the term credit agreement to pay current debt maturities. There were no borrowings on any of the other agreements. The undrawn portions of the revolving credit agreements are also available to serve as backup facilities for the issuance of commercial paper.

As of December 31, 2019, our maximum commercial paper borrowing limit was $6.35 billion. We had no commercial paper borrowings outstanding at December 31, 2019. We use our commercial paper borrowings for general corporate purposes, including the funding of potential acquisitions, pension contributions, debt refinancing, dividend payments and repurchases of our common stock. The need for commercial paper borrowings arises when the use of domestic cash for general corporate purposes exceeds the sum of domestic cash generation and foreign cash repatriated to the U.S.

We have an existing universal shelf registration statement filed with the SEC for an indeterminate amount of debt and equity securities for future issuance, subject to our internal limitations on the amount of debt to be issued under this shelf registration statement.

We had no debt issuances in 2019 and the following issuances of debt in 2018 and 2017:

(dollars in millions)

Issuance Date	Description of Notes		Aggregate Principal Balance
August 16, 2018:	3.350% notes due 2021[1]	$	1,000
	3.650% notes due 2023[1]		2,250
	3.950% notes due 2025[1]		1,500
	4.125% notes due 2028[1]		3,000
	4.450% notes due 2038[1]		750
	4.625% notes due 2048[2]		1,750
	LIBOR plus 0.65% floating rate notes due 2021[1]		750
May 18, 2018:	1.150% notes due 2024[3]	€	750
	2.150% notes due 2030[3]		500
	EURIBOR plus 0.20% floating rate notes due 2020[3]		750
November 13, 2017:	EURIBOR plus 0.15% floating rate notes due 2019[2]	€	750
May 4, 2017:	1.900% notes due 2020[4]	$	1,000
	2.300% notes due 2022[4]		500
	2.800% notes due 2024[4]		800
	3.125% notes due 2027[4]		1,100
	4.050% notes due 2047[4]		600

1 The net proceeds received from these debt issuances were used to partially finance the cash consideration portion of the purchase price for Rockwell Collins and fees, expenses and other amounts related to the acquisition of Rockwell Collins.

2 The net proceeds from these debt issuances were used to fund the repayment of commercial paper and for other general corporate purposes.

3 The net proceeds received from these debt issuances were used for general corporate purposes.

4 The net proceeds received from these debt issuances were used to fund the repayment at maturity of our 1.800% notes due 2017, representing $1.5 billion in aggregate principal and other general corporate purposes.

We made the following repayments of debt in 2019, 2018 and 2017:

(dollars in millions)

Repayment Date	Description of Notes		Aggregate Principal Balance
November 15, 2019	8.875% notes	$	271
November 13, 2019	EURIBOR plus 0.15% floating rate notes	€	750
November 1, 2019:	LIBOR plus 0.350% floating rate notes	$	350
	1.500% notes	$	650
July 15, 2019:	1.950% notes[1]	$	300
	5.250% notes[1]	$	300
December 14, 2018	Variable-rate term loan due 2020 (1 month LIBOR plus 1.25%)[1]	$	482
May 4, 2018	1.778% junior subordinated notes	$	1,100
February 22, 2018	EURIBOR plus 0.80% floating rate notes	€	750
February 1, 2018	6.80% notes	$	99
June 1, 2017	1.800% notes	$	1,500

1 These notes and term loan were assumed in connection with the Rockwell Collins acquisition and subsequently repaid.

We believe our future operating cash flows will be sufficient to meet our future operating cash needs. Further, we continue to have access to the commercial paper markets and our existing credit facilities, and our ability to obtain debt or equity financing, as well as the availability under committed credit lines, provides additional potential sources of liquidity should they be required or appropriate.

Cash Flow—Operating Activities

(dollars in millions)	**2019**	2018	2017
Net cash flows provided by operating activities	**$ 8,883**	$ 6,322	$ 5,631

2019 Compared with 2018

Cash generated from operating activities in 2019 was approximately $2.6 billion higher than 2018. This increase is largely driven by an increase in Net income after adjustments for depreciation and amortization, deferred income tax provision, stock compensation costs, net periodic pension and other postretirement benefit, portfolio separation costs, and the gain on the sale of Taylor Company of $2.4 billion and working capital improvements of $0.9 billion, partially offset by outflows with other long term assets and liabilities of $0.9 billion. Reduced factoring activity resulted in a decrease of approximately $1.6 billion in cash flows from operating activities during the year ended December 31, 2019, as compared to the prior year. This decrease in factoring activity was primarily driven from an increase in funded factoring levels at Pratt & Whitney partially offset by increased factoring at Collins Aerospace Systems. Factoring activity does not reflect the factoring of certain receivables performed at customer request for which we are compensated by the customer for the extended collection cycle.

The 2019 cash flows provided by working capital were $175 million. Accounts receivable decreased $419 million primarily driven by a decrease in V2500 sales and lower collaborator receivables at Pratt & Whitney and an increase in factoring activity at Collins Aerospace. Accounts payable and accrued liabilities increased $1.2 billion. The Accounts payable increase is primarily driven by Pratt & Whitney due to an increase in collaborator payables. The increase in Accrued liabilities was driven by an increase in accrued costs for the Company's portfolio separation and various accruals at Collins Aerospace Systems and Pratt & Whitney. Contract liabilities, current increased $359 million driven by Collins Aerospace due to higher advanced billings. These inflows were partially offset by increases in Contract assets, current, Inventory and Other current assets. Contract assets, current increased $307 million due to work performed in excess of billings at Pratt & Whitney and Collins Aerospace. Inventory increased $1.2 billion to support higher sales volume at Collins Aerospace Systems and Pratt & Whitney. Other current assets increased $309 million due to increases in prepaid expenses at Pratt & Whitney.

Total cash contributions to our global defined benefit pension plans were $118 million, $147 million and $2,112 million during 2019, 2018 and 2017, respectively.

2018 Compared with 2017

Cash generated from operating activities in 2018 was approximately $691 million higher than 2017. Cash outflows for working capital increased $703 million over the prior period to support higher top line organic growth. Factoring activity resulted in a decrease of approximately $148 million in cash generated from operating activities during the year ended, December 31, 2018, as compared to the prior year. This decrease was primarily driven from lower factoring levels at Pratt & Whitney and Carrier. Factoring activity does not reflect the factoring of certain aerospace receivables performed at customer request for which we are compensated by the customer for the extended collection cycle.

The 2018 cash outflows from working capital were $755 million. Accounts receivable increased approximately $2.4 billion due to an increase in sales volume. Contract assets, current increased $604 million due to costs in excess of billings primarily at Pratt & Whitney driven by military engines, at Otis due to progression on major projects, and at Collins Aerospace Systems. Inventory increased $537 million primarily driven by an increase in production for the Geared Turbofan at Pratt & Whitney, increases at Carrier to support higher sales volume and increases at Collins Aerospace Systems. This was partially offset by decreases in Other assets of $161 million primarily due to tax refunds received, an increase in Accounts payable and accrued liabilities of approximately $2.4 billion, driven by higher inventory purchasing activity at Pratt & Whitney and higher direct material purchases at Collins Aerospace Systems, as well as an increase in Contract liabilities, current of $205 million driven by progress payments on major contracts and seasonal advanced billings at Otis.

Cash Flow—Investing Activities

(dollars in millions)	**2019**	2018	2017
Net cash flows used in investing activities	**$ (3,092)**	$ (16,973)	$ (3,019)

2019 Compared with 2018

Cash flows used in investing activities for 2019 and 2018 primarily reflect capital expenditures, cash investments in customer financing assets, investments/dispositions of businesses, payments related to our collaboration intangible assets and contractual rights to provide product on new aircraft platforms, and settlements of derivative contracts. The $13.9 billion decrease in cash flows used in investing activities in 2019 the compared to 2018 primarily relates to the absence of cash paid to acquire Rockwell Collins of $14.9 billion in November 2018 and the absence of $1 billion in proceeds from the sale of Taylor Company in June 2018 by Carrier.

Capital expenditures in 2019 ($2.3 billion) primarily relate to several projects at Collins Aerospace Systems and investments in production and aftermarket capacity at Pratt & Whitney.

Cash investments in businesses in 2019 ($56 million) primarily consisted of several acquisitions at Otis. Dispositions of businesses in 2019 ($138 million) primarily consisted of the businesses sold in connection with the Rockwell Collins acquisition.

Customer financing assets is primarily driven by additional Geared Turbofan engines to support customer fleets and was a use of cash of $787 million and $988 million in 2019 and 2018, respectively. The decrease in the source of cash related to customer financing assets of $129 million in 2019 compared to $606 million in 2018 is driven by lower repayments on customer financing. At December 31, 2019, we had commercial aerospace financing and other contractual commitments of approximately $15.0 billion related to commercial aircraft and certain contractual rights to provide product on new aircraft platforms, of which as much as $1.6 billion may be required to be disbursed during 2020. As discussed in Note 1 to the Consolidated Financial Statements, we have entered into certain collaboration arrangements, which may include participation by our collaborators in these commitments. At December 31, 2019, our collaborators' share of these commitments was approximately $5.3 billion of which as much as $508 million may be required to be disbursed to us during 2020. Refer to Note 4 to the Consolidated Financial Statements for additional discussion of our commercial aerospace industry assets and commitments.

In 2019, we increased our collaboration intangible assets by approximately $351 million, which primarily relates to payments made under our 2012 agreement to acquire Rolls-Royce's collaboration interests in IAE.

As discussed in Note 14 to the Consolidated Financial Statements, we enter into derivative instruments for risk management purposes only, including derivatives designated as hedging instruments under the Derivatives and Hedging Topic of the FASB ASC and those utilized as economic hedges. We operate internationally and, in the normal course of business, are exposed to fluctuations in interest rates, foreign exchange rates and commodity prices. These fluctuations can increase the costs of financing, investing and operating the business. We have used derivative instruments, including swaps, forward contracts and options to manage certain foreign currency, interest rate and commodity price exposures. During the years ended December 31, 2019 and 2018, we had net cash receipts of approximately $336 million and $143 million, respectively, from the settlement of these derivative instruments.

2018 Compared with 2017

Cash flows used in investing activities for 2018 and 2017 primarily reflect capital investments/dispositions of businesses, expenditures, cash investments in customer financing assets, payments related to our collaboration intangible assets and contractual rights to provide product on new aircraft platforms and settlements of derivative contracts. The $14 billion increase in cash flows used in investing activities from the prior year primarily relates to the $14.9 billion of cash paid for the acquisition of Rockwell Collins (net of cash acquired) and the absence of $596 million in net proceeds received from Carrier's sale of investments in Watsco, Inc. in 2017, partially offset by proceeds from the sale of Taylor Company in June 2018 by Carrier of $1.0 billion, a decrease in customer financing assets of $593 million and $143 million in receipts from settlements of derivative contracts compared to payments of $317 million in 2017.

Capital expenditures in 2018 ($1,902 million) primarily relate to investments in production capacity at Pratt & Whitney, investments in production capacity and several small projects at Collins Aerospace Systems, and new facilities and investments in products and information technology at Carrier, and investments in digital and information technology at Otis.

Cash investments in businesses (net of cash acquired) in 2018 ($15.4 billion) primarily relate to the acquisition of Rockwell Collins in November 2018. Dispositions of businesses in 2018 of $1.1 billion primarily relate to the sale of Taylor Company.

Customer financing activities, primarily driven by additional Geared Turbofan engines to support customer fleets, were a net use of cash of $382 million and $975 million in 2018 and 2017, respectively. At December 31, 2018, we had commercial aerospace financing and other contractual commitments of approximately $15.5 billion related to commercial aircraft and certain contractual rights to provide product on new aircraft platforms, of which as much as $1.7 billion have been be required to be disbursed during 2019. At December 31, 2018, our collaborators' share of these commitments was approximately $5.3 billion of which as much as $468 million may have been required to be dispersed to us during 2019.

In 2018, we increased our collaboration intangible assets by approximately $400 million, which primarily relates to payments made under our 2012 agreement to acquire Rolls-Royce's collaboration interests in IAE.

Cash Flow—Financing Activities

(dollars in millions)	**2019**	2018	2017
Net cash flows (used in) provided by financing activities	**$ (4,564)**	$ 7,965	$ (993)

2019 Compared with 2018

Our financing activities primarily include the issuance and repayment of short-term and long-term debt, payment of dividends and stock repurchases. Financing activities was a cash outflow of $4.6 billion in 2019 compared to a cash inflow of $8.0 billion in 2018. This change is driven by the absence of $13.5 billion of long-term debt issuances in the prior year which was primarily utilized to fund the Rockwell Acquisition, an increase in debt repayments of $0.3 billion, an increase in dividends paid on common stock of $0.3 billion, partially offset by an increase in short term borrowings of $1.3 billion and a reduction in common stock repurchases of $0.2 billion.

Commercial paper borrowings and revolving credit facilities provide short-term liquidity to supplement operating cash flows and are used for general corporate purposes, including the funding of potential acquisitions and repurchases of our stock. We had no outstanding commercial paper at December 31, 2019.

At December 31, 2019, management had remaining authority to repurchase approximately $1.8 billion of our common stock under the October 14, 2015 share repurchase program. Under this program, shares may be purchased on the open market, in privately negotiated transactions, under accelerated share repurchase programs, and under plans complying with Rules 10b5-1 and 10b-18 under the Securities Exchange Act of 1934, as amended. We may also reacquire shares outside of the program from time to time in connection with the surrender of shares to cover taxes on vesting of restricted stock and as required under our employee savings plan. Our ability to repurchase shares is subject to applicable law, including restrictions arising from the pending merger transaction with Raytheon. We made cash payments of approximately $151 million to repurchase approximately 1.1 million shares of our common stock during the year ended December 31, 2019.

We paid aggregate dividends on common stock of approximately $2.4 billion and $2.2 billion in 2019 and 2018, respectively On February 3, 2020, the Board of Directors declared a dividend of $0.735 per share payable March 10, 2020 to shareowners of record at the close of business on February 14, 2020.

2018 Compared with 2017

Net cash provided by financing activities increased $8,958 million in 2018 compared to the prior year due to an increase in long-term debt issuances of $8.5 billion, including the $11 billion issued in 2018 for the financing of the Rockwell Collins acquisition, and a decrease in repurchases of common stock of $1.1 billion, partially offset by an increase in repayments of long-term debt of $0.9 billion.

We had approximately $1.3 billion of outstanding commercial paper at December 31, 2018.

We made cash payments of approximately $325 million to repurchase approximately 2.7 million shares of our common stock during the year ended December 31, 2018.

We paid aggregate dividends on common stock of approximately $2.2 billion and $2.1 billion in 2018 and 2017, respectively.

CRITICAL ACCOUNTING ESTIMATES

Preparation of our financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. Note 1 to the Consolidated Financial Statements describes the significant accounting policies used in preparation of the Consolidated Financial Statements. Management believes the most complex and sensitive judgments, because of their significance to the Consolidated Financial Statements, result primarily from the need to make estimates about the effects of matters that are inherently uncertain. The most significant areas involving management judgments and estimates are described below. Actual results in these areas could differ from management's estimates.

Long-Term Contract Accounting. As described in Note 1, several of our businesses use an over-time revenue recognition model. Revenue is recognized on an over-time basis using an input method for repair contracts within Otis and Carrier; certain U.S. Government and commercial aerospace equipment contracts; and aerospace aftermarket service work. We measure progress toward completion for these contracts using costs incurred to date relative to total estimated costs at completion. This over-time basis using an input method requires estimates of future revenues and costs over the full term of product and/or service delivery. Incurred costs represent work performed, which correspond with and best depict transfer of control to the customer. Contract costs are incurred over a period of time, which can be several years, and the estimation of these costs requires management's judgment.

The long-term nature of these contracts, the complexity of the products, and the strict safety and performance standards under which they are regulated can affect our ability to estimate costs precisely. As a result, we review our cost estimates on significant contracts on a quarterly basis and for others, at least annually or when circumstances change and warrant a modification to a previous estimate. We record changes in contract estimates using the cumulative catch-up method.

Costs incurred for engineering and development of aerospace products under contracts with customers are capitalized as contract fulfillment costs, to the extent recoverable from the associated contract margin, and subsequently amortized as the OEM products are delivered to the customer. The estimation of contract margin requires management's judgment.

Income Taxes. The future tax benefit arising from deductible temporary differences and tax carryforwards was $5.2 billion at December 31, 2019 and $4.7 billion at December 31, 2018. Management believes that our earnings during the periods when the temporary differences become deductible will be sufficient to realize the related future income tax benefits, which may be realized over an extended period of time. For those jurisdictions where the expiration date of tax carryforwards or the projected operating results indicate that realization is not likely, a valuation allowance is provided.

In assessing the need for a valuation allowance, we estimate future taxable income, considering the feasibility of ongoing tax planning strategies and the realizability of tax loss carryforwards. Valuation allowances related to deferred tax assets can be affected by changes to tax laws, changes to statutory tax rates and future taxable income levels. In the event we were to determine that we would not be able to realize all or a portion of our deferred tax assets in the future, we would reduce such amounts through an increase to tax expense in the period in which that determination is made or when tax law changes are enacted. Conversely, if we were to determine that we would be able to realize our deferred tax assets in the future in excess of the net carrying amounts, we would decrease the recorded valuation allowance through a decrease to tax expense in the period in which that determination is made.

In the ordinary course of business there is inherent uncertainty in quantifying our income tax positions. We assess our income tax positions and record tax benefits for all years subject to examination based upon management's evaluation of the facts, circumstances and information available at the reporting date. For those tax positions where it is more likely than not that a tax benefit will be sustained, we have recorded the largest amount of tax benefit with a greater than 50% likelihood of being realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, no tax benefit has been recognized in the financial statements. In addition, we have entered into certain internal legal entity restructuring transactions necessary to effectuate the separation transactions. We have accrued tax on these transactions based on our interpretation of the applicable tax laws and our determination of appropriate entity valuations. See Notes 1 and 11 to the Consolidated Financial Statements for further discussion. Also see Note 18 for discussion of UTC administrative review proceedings with the German Tax Office.

See Note 11 to the Consolidated Financial Statements for additional tax provision items.

Goodwill and Intangible Assets. Our investments in businesses net of cash acquired in 2019 totaled $56 million. The assets and liabilities of acquired businesses are recorded under the acquisition method of accounting at their estimated fair values at the dates of acquisition. Goodwill represents costs in excess of fair values assigned to the underlying identifiable net assets of acquired businesses. Intangible assets consist of service portfolios, patents, trademarks/tradenames, customer relationships and other intangible assets including a collaboration asset established in connection with our 2012 agreement to acquire Rolls-Royce's ownership and collaboration interests in IAE AG, as discussed in Note 2 to the Consolidated Financial Statements. The fair value for acquired customer relationship intangibles is determined as of the acquisition date based on estimates and judgments regarding expectations for the future after-tax cash flows arising from the follow-on revenue from customer relationships that existed on the acquisition date over their estimated lives, including the probability of expected future contract renewals and revenue, less a contributory assets charge, all of which is discounted to present value. The fair value of the tradename intangible assets were determined utilizing the relief from royalty method which is a form of the income approach. Under this method, a royalty rate based on observed market royalties is applied to projected revenue supporting the tradename and discounted to present value using an appropriate discount rate. See Note 2 to the Consolidated Financial Statements for further details.

Also included within other intangible assets are payments made to secure certain contractual rights to provide products on new commercial aerospace platforms. Such payments are capitalized when there are distinct rights obtained and there are sufficient incremental cash flows to support the recoverability of the assets established. Otherwise, the applicable portion of the payments are expensed. Capitalized payments made on these contractual commitments are amortized as a reduction of sales. We amortize these intangible assets based on the pattern of economic benefit, which typically results in an amortization method other than straight-line. In the aerospace industry, amortization based on the pattern of economic benefit generally results in lower amortization expense during the development period with increasing amortization expense as programs enter full production and aftermarket cycles. If a pattern of economic benefit cannot be reliably determined, a straight-line amortization method is used. The gross value of these contractual commitments at December 31, 2019 was approximately $12.3 billion, of

which approximately $3.2 billion has been paid to date. We record these payments as intangible assets when such payments are no longer conditional. The recoverability of these intangibles is dependent upon the future success and profitability of the underlying aircraft platforms including the associated aftermarket revenue streams.

Goodwill and intangible assets deemed to have indefinite lives are not amortized, but are subject to annual, or more frequent if necessary, impairment testing using the guidance and criteria described in the Intangibles—Goodwill and Other Topic of the FASB ASC. A goodwill impairment loss is measured at the amount by which a reporting unit's carrying value exceeds its fair value, without exceeding the recorded amount of goodwill. In developing our estimates for the fair value of our reporting units, significant judgment is required in the determination of the appropriateness of using a qualitative assessment or quantitative assessment. For these quantitative assessments that are performed, fair value is primarily based on income approaches using discounted cash flow models and relief from royalty models, respectively, which have significant assumptions including revenue growth rates, projected operating income, terminal growth rates, discount rates and royalty rates. Such assumptions are subject to variability from year to year and are directly impacted by global market conditions. We completed our annual impairment testing as of July 1, 2019 and determined that no significant adjustments to the carrying value of goodwill or indefinite lived intangible assets were necessary. Although these assets are not currently impaired, there can be no assurance that future impairments will not occur. See Note 2 to the Consolidated Financial Statements for further discussion.

Contingent Liabilities. Our operating units include businesses which sell products and services and conduct operations throughout the world. As described in Note 18 to the Consolidated Financial Statements, contractual, regulatory and other matters, including asbestos claims, in the normal course of business may arise that subject us to claims or litigation. Of note, the design, development, production and support of new aerospace technologies is inherently complex and subject to risk. Since the PW1000G Geared Turbofan engine entered into service in 2016, technical issues have been identified and experienced with the engine, which is typical for new engines and new aerospace technologies. Pratt & Whitney has addressed these issues through various improvements and modifications. These issues have resulted in financial impacts, including increased warranty provisions, customer contract settlements, and reductions in contract performance estimates. Additional technical issues may also arise in the normal course, which may result in financial impacts that could be material to the Company's financial position, results of operations and cash flows.

Additionally, we have significant contracts with the U.S. Government, subject to government oversight and audit, which may require significant adjustment of contract prices. We accrue for liabilities associated with these matters when it is probable that a liability has been incurred and the amount can be reasonably estimated. The most likely cost to be incurred is accrued based on an evaluation of then currently available facts with respect to each matter. When no amount within a range of estimates is more likely, the minimum is accrued. The inherent uncertainty related to the outcome of these matters can result in amounts materially different from any provisions made with respect to their resolution.

Employee Benefit Plans. We sponsor domestic and foreign defined benefit pension and other postretirement plans. Major assumptions used in the accounting for these employee benefit plans include the discount rate, expected return on plan assets, rate of increase in employee compensation levels, mortality rates, and health care cost increase projections. Assumptions are determined based on company data and appropriate market indicators, and are evaluated each year at December 31. A change in any of these assumptions would have an effect on net periodic pension and postretirement benefit costs reported in the Consolidated Financial Statements.

In the following table, we show the sensitivity of our pension and other postretirement benefit plan liabilities and net periodic cost to a 25 basis point change in the discount rates for benefit obligations, interest cost and service cost as of December 31, 2019:

(dollars in millions)	Increase in Discount Rate of 25 bps	Decrease in Discount Rate of 25 bps
Pension plans		
Projected benefit obligation	$ (1,141)	$ 1,198
Net periodic pension (benefit) cost	(5)	7
Other postretirement benefit plans[1]		
Accumulated postretirement benefit obligation	(11)	12

1 The impact on net periodic postretirement (benefit) cost is less than $1M.

These estimates assume no change in the shape or steepness of the company-specific yield curve used to plot the individual spot rates that will be applied to the future cash outflows for future benefit payments in order to calculate interest and service cost. A flattening of the yield curve, from a narrowing of the spread between interest and obligation discount rates,

would increase our net periodic pension cost. Conversely, a steepening of the yield curve, from an increase in the spread between interest and obligation discount rates, would decrease our net periodic pension cost.

Pension expense is also sensitive to changes in the expected long-term rate of asset return. An increase or decrease of 25 basis points in the expected long-term rate of asset return would have decreased or increased 2019 pension expense by approximately $89 million.

The weighted-average discount rates used to measure pension liabilities and costs are set by reference to UTC-specific analyses using each plan's specific cash flows and are then compared to high-quality bond indices for reasonableness. For our significant plans, we utilize a full yield curve approach in the estimation of the service cost and interest cost components by applying the specific spot rates along the yield curve used in determination of the benefit obligation to the relevant projected cash flows. Global market interest rates have decreased in 2019 as compared with 2018 and, as a result, the weighted-average discount rate used to measure pension liabilities decreased from 4.0% in 2018 to 3.0% in 2019. The weighted-average discount rates used to measure service cost and interest cost was 3.6% in 2019. Across our global pension plans, the amendment to our domestic pension plans to cease accrual of additional benefits and domestic pension plan merger, partially offset by reduction in expected return on assets for 2020, will result in a net periodic pension benefit in 2020 consistent with 2019 amounts.

See Note 12 to the Consolidated Financial Statements for further discussion.

OFF-BALANCE SHEET ARRANGEMENTS AND CONTRACTUAL OBLIGATIONS

We extend a variety of financial guarantees to third parties in support of unconsolidated affiliates and for potential financing requirements of commercial aerospace customers. We also have obligations arising from sales of certain businesses and assets, including indemnities for representations and warranties and environmental, health and safety, tax and employment matters. Circumstances that could cause the contingent obligations and liabilities arising from these arrangements to come to fruition include changes in an underlying transaction (e.g., hazardous waste discoveries, etc.), nonperformance under a contract, customer requests for financing, or deterioration in the financial condition of the guaranteed party.

A summary of our consolidated contractual obligations and commitments as of December 31, 2019 is as follows:

		Payments Due by Period			
(dollars in millions)	**Total**	2020	2021-2022	2023-2024	Thereafter
Long-term debt—principal	**$ 41,599**	$ 3,496	$ 8,061	$ 6,093	$ 23,949
Long-term debt—future interest	**16,865**	1,400	2,535	2,136	10,794
Operating leases	**3,147**	641	952	540	1,014
Purchase obligations	**15,334**	10,845	4,050	374	65
Other long-term liabilities	**3,750**	1,020	1,215	491	1,024
Total contractual obligations	**$ 80,695**	$ 17,402	$ 16,813	$ 9,634	$ 36,846

Purchase obligations include amounts committed for the purchase of goods and services under legally enforceable contracts or purchase orders. Where it is not practically feasible to determine the legally enforceable portion of our obligation under certain of our long-term purchase agreements, we include additional expected purchase obligations beyond what is legally enforceable. Approximately 19% of the purchase obligations disclosed above represent purchase orders for products to be delivered under firm contracts with the U.S. Government for which we have full recourse under customary contract termination clauses.

Other long-term liabilities primarily include those amounts on our December 31, 2019 balance sheet representing obligations under product service and warranty policies, performance and operating cost guarantees, estimated environmental remediation costs and expected contributions under employee benefit programs. The timing of expected cash flows associated with these obligations is based upon management's estimates over the terms of these agreements and is largely based upon historical experience.

In connection with the acquisitions of Rockwell Collins in 2018 and Goodrich in 2012, we recorded assumed liabilities of approximately $1.03 billion and $2.2 billion, respectively related to customer contractual obligations on certain programs with terms less favorable than could be realized in market transactions as of the acquisition date. These liabilities are being liquidated in accordance with the underlying pattern of obligations, as reflected by the net cash outflows incurred on the contracts. Total consumption of the contractual obligations for the year ended December 31, 2019 was approximately $345 million. Total future consumption of the contractual obligations is expected to be as follows: $263 million in 2020, $189 million in 2021, $148 million in 2022, $118 million in 2023, $127 million in 2024 and $563 million thereafter. These amounts are not included in the table above.

The above table also does not reflect unrecognized tax benefits of $1,347 million, the timing of which is uncertain, except for approximately $24 million that may become payable during 2020. Refer to Note 11 to the Consolidated Financial Statements for additional discussion on unrecognized tax benefits.

COMMERCIAL COMMITMENTS

The following table summarizes our commercial commitments outstanding as of December 31, 2019:

	Amount of Commitment Expiration per Period				
(dollars in millions)	**Committed**	2020	2021-2022	2023-2024	Thereafter
Commercial aerospace financing commitments	**$ 3,937**	$ 911	$ 2,093	$ 863	$ 70
Other commercial aerospace commitments	**11,055**	702	1,453	1,295	7,605
Commercial aerospace financing arrangements	**333**	11	10	—	312
Performance guarantees	**48**	4	—	39	5
Total commercial commitments	**$ 15,373**	$ 1,628	$ 3,556	$ 2,197	$ 7,992

In connection with our 2012 agreement to acquire Rolls-Royce's ownership and collaboration interests in IAE AG, additional payments are due to Rolls-Royce contingent upon each hour flown through June 2027 by the V2500-powered aircraft in service as of the acquisition date. These flight hour payments, included in "Other commercial aerospace commitments" in the table above, are being capitalized as collaboration intangible assets. The collaboration intangible assets are amortized based upon the pattern of economic benefit as represented by the underlying cash flows.

We also have other contractual commitments, including commitments to secure certain contractual rights to provide product on new aircraft platforms, which are included in "Other commercial aerospace commitments" in the table above. Such payments are capitalized when distinct rights are obtained and there are sufficient incremental cash flows to support the recoverability of the assets established. Otherwise, the applicable portion of the payments are expensed. Capitalized payments made on these contractual commitments are included in intangible assets and are amortized over the term of underlying economic benefit.

Refer to Notes 1, 4 and 17 to the Consolidated Financial Statements for additional discussion on contractual and commercial commitments.

MARKET RISK AND RISK MANAGEMENT

We are exposed to fluctuations in foreign currency exchange rates, interest rates and commodity prices. To manage certain of those exposures, we use derivative instruments, including swaps, forward contracts and options. Derivative instruments utilized by us in our hedging activities are viewed as risk management tools, involve relatively little complexity and are not used for trading or speculative purposes. We diversify the counterparties used and monitor the concentration of risk to limit our counterparty exposure.

We have evaluated our exposure to changes in foreign currency exchange rates, interest rates and commodity prices in our market risk sensitive instruments, which are primarily cash, debt, and derivative instruments, using a value at risk analysis. Based on a 95% confidence level and a one-day holding period, at December 31, 2019, the potential loss in fair value on our market risk sensitive instruments was not material in relation to our financial position, results of operations or cash flows. Our calculated value at risk exposure represents an estimate of reasonably possible net losses based on volatilities and correlations and is not necessarily indicative of actual results. Refer to Notes 1, 9 and 14 to the Consolidated Financial Statements for additional discussion of foreign currency exchange, interest rates and financial instruments.

Foreign Currency Exposures. We have a large volume of foreign currency exposures that result from our international sales, purchases, investments, borrowings and other international transactions. International segment sales, excluding U.S. export sales, averaged approximately $27 billion over the last three years. We actively manage foreign currency exposures that are associated with committed foreign currency purchases and sales, and other assets and liabilities created in the normal course of business at the operating unit level. More than insignificant exposures that cannot be naturally offset within an operating unit are hedged with foreign currency derivatives. We also have a significant amount of foreign currency net asset exposures. As discussed in Note 9 to the Consolidated Financial Statements, at December 31, 2019 we have approximately €4.20 billion of euro-denominated long-term debt, which qualifies as a net investment hedge against our investments in European businesses. As of December 31, 2019, the net investment hedge is deemed to be effective. Currently, we do not hold any derivative contracts that hedge our foreign currency net asset exposures but may consider such strategies in the future.

Within aerospace, our sales are typically denominated in U.S. Dollars under accepted industry convention. However, for our non-U.S. based entities, such as P&WC, a substantial portion of their costs are incurred in local currencies. Consequently,

there is a foreign currency exchange impact and risk to operational results as U.S. Dollars must be converted to local currencies such as the Canadian Dollar in order to meet local currency cost obligations. Additionally, we transact business in various foreign currencies which exposes our cash flows and earnings to changes in foreign currency exchange rates. In order to minimize the exposure that exists from changes in the exchange rate of the U.S. Dollar against these other currencies, we hedge a certain portion of sales to secure the rates at which U.S. Dollars will be converted. The majority of this hedging activity occurs at P&WC and Collins Aerospace Systems, and hedging activity also occurs to a lesser extent at the remainder of Pratt & Whitney. At P&WC and Collins Aerospace Systems, firm and forecasted sales for both original equipment and spare parts are hedged at varying amounts for up to 49 months on the U.S. Dollar sales exposure as represented by the excess of U.S. Dollar sales over U.S. Dollar denominated purchases. Hedging gains and losses resulting from movements in foreign currency exchange rates are partially offset by the foreign currency translation impacts that are generated on the translation of local currency operating results into U.S. Dollars for reporting purposes. While the objective of the hedging program is to minimize the foreign currency exchange impact on operating results, there are typically variances between the hedging gains or losses and the translational impact due to the length of hedging contracts, changes in the sales profile, volatility in the exchange rates and other such operational considerations.

Interest Rate Exposures. Our long-term debt portfolio consists mostly of fixed-rate instruments. From time to time, we may hedge to floating rates using interest rate swaps. The hedges are designated as fair value hedges and the gains and losses on the swaps are reported in interest expense, reflecting that portion of interest expense at a variable rate. We issue commercial paper, which exposes us to changes in interest rates. Currently, we do not hold any derivative contracts that hedge our interest exposures, but may consider such strategies in the future.

Commodity Price Exposures. We are exposed to volatility in the prices of raw materials used in some of our products and from time to time we may use forward contracts in limited circumstances to manage some of those exposures. In the future, if hedges are used, gains and losses may affect earnings. There were no significant outstanding commodity hedges as of December 31, 2019.

ENVIRONMENTAL MATTERS

Our operations are subject to environmental regulation by federal, state and local authorities in the United States and regulatory authorities with jurisdiction over our foreign operations. As a result, we have established, and continually update, policies relating to environmental standards of performance for our operations worldwide. We believe that expenditures necessary to comply with the present regulations governing environmental protection will not have a material effect upon our competitive position, results of operations, cash flows or financial condition.

We have identified 773 locations, mostly in the United States, at which we may have some liability for remediating contamination. We have resolved our liability at 363 of these locations. We do not believe that any individual location's exposure will have a material effect on our results of operations. Sites in the investigation, remediation or operation and maintenance stage represent approximately 91% of our accrued environmental remediation reserve.

We have been identified as a potentially responsible party under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA or Superfund) at 129 sites. The number of Superfund sites, in and of itself, does not represent a relevant measure of liability because the nature and extent of environmental concerns vary from site to site and our share of responsibility varies from sole responsibility to very little responsibility. In estimating our liability for remediation, we consider our likely proportionate share of the anticipated remediation expense and the ability of other potentially responsible parties to fulfill their obligations.

At December 31, 2019 and 2018, we had $896 million and $830 million reserved for environmental remediation, respectively. Cash outflows for environmental remediation were $52 million in 2019, $48 million in 2018 and $42 million in 2017. We estimate that ongoing environmental remediation expenditures in each of the next two years will not exceed approximately $100 million.

ASBESTOS MATTERS

The estimated range of total liabilities to resolve all pending and unasserted potential future asbestos claims through 2059 is approximately $330 million to $400 million. Where no amount within a range of estimates is more likely, the minimum is accrued. We have recorded the minimum amount of $330 million, which is principally recorded in Other long-term liabilities on our Consolidated Balance Sheet as of December 31, 2019. This amount is on a pre-tax basis, not discounted, and excludes the Company's legal fees to defend the asbestos claims (which will continue to be expensed by the Company as they are incurred). In addition, the Company has an insurance recovery receivable for probable asbestos related recoveries of approximately $140 million, which is included primarily in Other assets on our Consolidated Balance Sheet as of December 31, 2019. See Note 18 "Contingent Liabilities" of our Consolidated Financial Statements for further discussion of this matter.

GOVERNMENT MATTERS

As described in "Critical Accounting Estimates—Contingent Liabilities," our contracts with the U.S. Government are subject to audits. Such audits may recommend that certain contract prices should be reduced to comply with various government regulations, or that certain payments be delayed or withheld. We are also the subject of one or more investigations and legal proceedings initiated by the U.S. Government with respect to government contract matters. See "Legal Proceedings" in Item 1 to this Form 10-K, and Note 11 "Income Taxes" and Note 18 "Contingent Liabilities" of our Consolidated Financial Statements for further discussion of these and other government matters.

Cautionary Note Concerning Factors That May Affect Future Results

This 2019 Annual Report to Shareowners (2019 Annual Report) contains statements which, to the extent they are not statements of historical or present fact, constitute "forward-looking statements" under the securities laws. From time to time, oral or written forward-looking statements may also be included in other information released to the public. These forward-looking statements are intended to provide management's current expectations or plans for our future operating and financial performance, based on assumptions currently believed to be valid. Forward-looking statements can be identified by the use of words such as "believe," "expect," "expectations," "plans," "strategy," "prospects," "estimate," "project," "target," "anticipate," "will," "should," "see," "guidance," "outlook," "confident," "on track" and other words of similar meaning. Forward-looking statements may include, among other things, statements relating to future sales, earnings, cash flow, results of operations, uses of cash, share repurchases, tax rates, R&D spend, other measures of financial performance, potential future plans, strategies or transactions, credit ratings and net indebtedness, other anticipated benefits of the Rockwell Acquisition, the proposed merger with Raytheon or the spin-offs by UTC of Otis and Carrier into separate independent companies (the "separation transactions"), including estimated synergies and customer cost savings resulting from the proposed merger, the expected timing of completion of the proposed merger and the separation transactions, estimated costs associated with such transactions and other statements that are not historical facts. All forward-looking statements involve risks, uncertainties and other factors that may cause actual results to differ materially from those expressed or implied in the forward-looking statements. For those statements, we claim the protection of the safe harbor for forward-looking statements contained in the U.S. Private Securities Litigation Reform Act of 1995. Such risks, uncertainties and other factors include, without limitation:

- the effect of economic conditions in the industries and markets in which we and Raytheon operate in the U.S. and globally and any changes therein, including financial market conditions, fluctuations in commodity prices, interest rates and foreign currency exchange rates, levels of end market demand in construction and in both the commercial and defense segments of the aerospace industry, levels of air travel, financial condition of commercial airlines, the impact of pandemic health issues, aviation safety concerns, weather conditions and natural disasters, the financial condition of our customers and suppliers, and the risks associated with U.S. government sales (including changes or shifts in defense spending due to budgetary constraints, spending cuts resulting from sequestration, a government shutdown, or otherwise, and uncertain funding of programs);
- challenges in the development, production, delivery, support, performance and realization of the anticipated benefits (including our expected returns under customer contracts) of advanced technologies and new products and services;
- the scope, nature, impact or timing of the proposed merger with Raytheon and the separation transactions and other merger, acquisition and divestiture activity, including among other things the integration of or with other businesses and realization of synergies and opportunities for growth and innovation and incurrence of related costs and expenses;
- future levels of indebtedness, including indebtedness that may be incurred in connection with the proposed merger with Raytheon and the separation transactions, and capital spending and research and development spending;
- future availability of credit and factors that may affect such availability, including credit market conditions and our capital structure;
- the timing and scope of future repurchases of our common stock, which may be suspended at any time due to various factors, including market conditions and the level of other investing activities and uses of cash, including in connection with the proposed merger with Raytheon;
- delays and disruption in delivery of materials and services from suppliers;
- company and customer-directed cost reduction efforts and restructuring costs and savings and other consequences thereof (including the potential termination of U.S. government contracts and performance under undefinitized contract awards and the potential inability to recover termination costs);
- new business and investment opportunities;
- the ability to realize the intended benefits of organizational changes;
- the anticipated benefits of diversification and balance of operations across product lines, regions and industries;
- the outcome of legal proceedings, investigations and other contingencies;
- pension plan assumptions and future contributions;
- the impact of the negotiation of collective bargaining agreements and labor disputes;
- the effect of changes in political conditions in the U.S. and other countries in which we and Raytheon and our businesses each operate, including the effect of changes in U.S. trade policies or the U.K.'s pending withdrawal from the European Union, on general market conditions, global trade policies and currency exchange rates in the near term and beyond;
- the effect of changes in tax (including U.S. tax reform enacted on December 22, 2017, which is commonly referred to as the Tax Cuts and Jobs Act of 2017), environmental, regulatory and other laws and regulations (including, among other things, export and import requirements such as the International Traffic in Arms Regulations and the Export Administration Regulations, anti-bribery and anti-corruption requirements, including the Foreign Corrupt Practices

Act, industrial cooperation agreement obligations, and procurement and other regulations) in the U.S. and other countries in which we, Raytheon and our businesses each operate;

- negative effects of the announcement or pendency of the proposed merger with Raytheon or the separation transactions on the market price of our and/or Raytheon’s respective common stock and/or on our respective financial performance;
- the ability of UTC and Raytheon to receive the required regulatory approvals for the proposed merger (and the risk that such approvals may result in the imposition of conditions that could adversely affect the combined company or the expected benefits of the transaction) and to satisfy the other conditions to the closing of the merger on a timely basis or at all;
- the occurrence of events that may give rise to a right of one or both of UTC or Raytheon to terminate the merger agreement;
- risks relating to the value of our shares to be issued in the proposed merger with Raytheon, significant transaction costs and/or unknown liabilities;
- the possibility that the anticipated benefits from the proposed merger with Raytheon cannot be realized in full or at all or may take longer to realize than expected, including risks associated with third party contracts containing consent and/or other provisions that may be triggered by the proposed transaction;
- risks associated with merger-related litigation;
- the possibility that costs or difficulties related to the integration of UTC’s and Raytheon’s operations will be greater than expected;
- risks relating to completed merger, acquisition and divestiture activity, including UTC’s integration of Rockwell Collins, including the risk that the integration may be more difficult, time-consuming or costly than expected or may not result in the achievement of estimated synergies within the contemplated time frame or at all;
- the ability of each of UTC, Raytheon, the companies resulting from the separation transactions and the combined company to retain and hire key personnel;
- the expected benefits and timing of the separation transactions, and the risk that conditions to the separation transactions will not be satisfied and/or that the separation transactions will not be completed within the expected time frame, on the expected terms or at all;
- the intended qualification of (i) the merger as a tax-free reorganization and (ii) the separation transactions as tax-free to UTC and UTC’s shareowners, in each case, for U.S. federal income tax purposes;
- the possibility that any opinions, consents, approvals or rulings required in connection with the separation transactions will not be received or obtained within the expected time frame, on the expected terms or at all;
- expected financing transactions undertaken in connection with the proposed merger with Raytheon and the separation transactions and risks associated with additional indebtedness;
- the risk that dissynergy costs, costs of restructuring transactions and other costs incurred in connection with the separation transactions will exceed our estimates; and
- the impact of the proposed merger and the separation transactions on the respective businesses of UTC and Raytheon and the risk that the separation transactions may be more difficult, time-consuming or costly than expected, including the impact on UTC’s resources, systems, procedures and controls and the impact on relationships with customers, suppliers, employees and other business counterparties.

In addition, our Annual Report on Form 10-K for 2019 includes important information as to risks, uncertainties and other factors that may cause actual results to differ materially from those expressed or implied in the forward-looking statements. See the "Notes to Consolidated Financial Statements" under the heading "Note 18: Contingent Liabilities," the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the headings "Business Overview," "Results of Operations," "Liquidity and Financial Condition," and "Critical Accounting Estimates," and the section titled "Risk Factors." Our Annual Report on Form 10-K for 2019 also includes important information as to these factors in the "Business" section under the headings "General," "Description of Business by Segment" and "Other Matters Relating to Our Business as a Whole," and in the "Legal Proceedings" section. Additional important information as to these factors is included in this 2019 Annual Report in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the headings "Restructuring Costs," "Environmental Matters" and "Governmental Matters" and in our Form S-4 Registration Statements (Registration No. 333-220883) and (Registration No. 333-232696) under the heading "Risk Factors." The forward-looking statements speak only as of the date of this report or, in the case of any document incorporated by reference, the date of that document. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law. Additional information as to factors that may cause actual results to differ materially from those expressed or implied in the forward-looking statements is disclosed from time to time in our other filings with the SEC.

Management's Report on Internal Control over Financial Reporting

The management of UTC is responsible for establishing and maintaining adequate internal control over financial reporting. 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 reporting purposes in accordance with accounting principles generally accepted in the United States of America. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements.

Management has assessed the effectiveness of UTC's internal control over financial reporting as of December 31, 2019. In making its assessment, management has utilized the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in its *Internal Control—Integrated Framework*, released in 2013. Management concluded that based on its assessment, UTC's internal control over financial reporting was effective as of December 31, 2019. The effectiveness of UTC's internal control over financial reporting, as of December 31, 2019, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein.

/s/ Gregory J. Hayes

Gregory J. Hayes
Chairman, President and Chief Executive Officer

/s/ Neil G. Mitchill, Jr.

Neil G. Mitchill, Jr.
Acting Senior Vice President & Chief Financial Officer

/s/ Robert J. Bailey

Robert J. Bailey
Corporate Vice President, Controller

Report of Independent Registered Public Accounting Firm

To the Shareowners and Board of Directors of United Technologies Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of United Technologies Corporation and its subsidiaries (the "Company") as of December 31, 2019 and 2018, and the related consolidated statements of operations, of comprehensive income, of changes in equity and of cash flows for each of the three years in the period ended December 31, 2019, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

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

Changes in Accounting Principles

As discussed in Note 19 to the consolidated financial statements, the Company changed the manner in which it accounts for leases in 2019 and, as discussed in Note 1 to the consolidated financial statements, the Company changed the manner in which it accounts for revenue from contracts with customers in 2018.

Basis for Opinions

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

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

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

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and

dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

Critical Audit Matters

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

Revenue Recognition - Estimated Costs at Completion for Certain Long-Term Aerospace Aftermarket Service Contracts

As described in Notes 1 and 20 to the consolidated financial statements, the Company recognizes revenue on an over-time basis on certain long-term aerospace aftermarket service contracts. A substantial portion of the Company's $8.0 billion Pratt & Whitney segment service sales is derived from long-term contracts providing fleet management services and aftermarket maintenance, repair and overhaul services. As disclosed by management, the Company generally measures progress toward completion for these contracts using costs incurred to date relative to total estimated costs at completion because management believes that measure best depicts the transfer of control to the customer, which occurs as the Company incurs costs on the contracts. Due to the long-term duration of these contracts and technical complexity of the engines on which the work is required to be performed for many of the performance obligations, management's estimation of costs at completion is complex and requires significant judgment. Periodically during the year, or as needed when circumstances change and warrant a modification to a previous estimate, cost estimates requiring management judgment are updated to measure the revenue to recognize in line with progress made on contracts.

The principal considerations for our determination that performing procedures relating to revenue recognition - estimated costs at completion for certain long-term aerospace aftermarket service contracts is a critical audit matter are there was significant judgment by management to determine the estimated costs at completion. This in turn led to significant auditor judgment, subjectivity and effort in performing procedures and evaluating audit evidence relating to the estimates of the costs to complete.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the revenue recognition process, specifically as it relates to controls over significant assumptions used in the development of estimated costs at contract completion. These procedures also included, among others, evaluating and testing management's process for developing estimated costs at contract completion, which included evaluating on a test basis the reasonableness of assumptions considered by management specific to each contract. Evaluating the assumptions related to the estimated costs at completion involved evaluating whether the assumptions used were reasonable considering (i) management's historical forecasting accuracy, (ii) current and past service cost and frequency experience, (iii) the consistent application of accounting policies, and (iv) the timely identification of circumstances which may warrant a modification to a previous estimate.

Goodwill and Intangible Assets Quantitative Impairment Assessments

As described in Notes 1 and 2 to the consolidated financial statements, the Company's consolidated goodwill and intangible asset balances were $48.1 billion and $26.0 billion, respectively as of December 31, 2019. Intangible assets included unamortized intangible assets of $3.9 billion as of December 31, 2019. Goodwill and unamortized intangible assets are subject to annual impairment testing, or more frequent if a triggering event occurs. In developing the estimates for the fair value of reporting units and unamortized intangible assets, significant judgment is required by management in the determination of the appropriateness of using a qualitative assessment or quantitative assessment. The quantitative impairment testing compares carrying values to fair values and, when appropriate, the carrying value of these assets is reduced to fair value. For these quantitative assessments that are performed for goodwill and unamortized intangible assets, fair value is primarily based on income approaches using discounted cash flow and relief from royalty models, respectively, which have significant

assumptions, including revenue growth rates, projected operating income, terminal growth rates, discount rates and royalty rates.

The principal considerations for our determination that performing procedures relating to the goodwill and unamortized intangible assets quantitative impairment assessments is a critical audit matter as there was significant judgment by management when developing the fair value measurements of these assets. This in turn led to a high degree of auditor judgment, subjectivity, and effort in performing procedures to evaluate management's fair value measurements and significant assumptions for both goodwill and unamortized intangible assets, including revenue growth rates, projected operating income, terminal growth rates, and discount rates. In addition, the audit effort involved the use of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill and unamortized intangible assets quantitative impairment assessments, including controls over the valuation of the Company's reporting units and unamortized intangible assets. These procedures also included, among others, testing management's process for developing the fair value estimates; evaluating the appropriateness of the discounted cash flow and relief from royalty models; testing the completeness, accuracy, and relevance of underlying data in the models; and evaluating the significant assumptions used by management, including revenue growth rates, projected operating income, terminal value growth rates and discount rates. Evaluating management's assumptions related to revenue growth rates, projected operating income, and terminal growth rates involved evaluating whether the assumptions used by management were reasonable considering (i) the current and past performance of the reporting units and unamortized intangible assets, (ii) the consistency with external market and industry data, and (iii) whether these assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in the evaluation of the Company's discounted cash flow models and certain significant assumptions, including discount rates.

/s/ PricewaterhouseCoopers LLP
Hartford, Connecticut
February 6, 2020

We have served as the Company's auditor since 1947.

Consolidated Statement of Operations

(dollars in millions, except per share amounts; shares in millions)	**2019**	2018	2017
Net Sales:			
Product sales	**$ 54,004**	$ 45,434	$ 41,361
Service sales	**23,042**	21,067	18,476
	77,046	66,501	59,837
Costs and Expenses:			
Cost of products sold	**42,444**	36,754	31,224
Cost of services sold	**14,621**	13,231	12,977
Research and development	**3,015**	2,462	2,427
Selling, general and administrative	**8,521**	7,066	6,429
	68,601	59,513	53,057
Other income, net	**521**	1,565	1,358
Operating profit	**8,966**	8,553	8,138
Non-service pension (benefit)	**(888)**	(765)	(534)
Interest expense, net	**1,611**	1,038	909
Income from operations before income taxes	**8,243**	8,280	7,763
Income tax expense	**2,295**	2,626	2,843
Net income from operations	**5,948**	5,654	4,920
Less: Noncontrolling interest in subsidiaries' earnings from operations	**411**	385	368
Net income attributable to common shareowners	**$ 5,537**	$ 5,269	$ 4,552
Earnings Per Share of Common Stock—Basic:			
Net income attributable to common shareowners	**$ 6.48**	$ 6.58	$ 5.76
Earnings Per Share of Common Stock—Diluted:			
Net income attributable to common shareowners	**$ 6.41**	$ 6.50	$ 5.70
Weighted average number of shares outstanding:			
Basic shares	**854.8**	800.4	790.0
Diluted shares	**863.9**	810.1	799.1

See accompanying Notes to Consolidated Financial Statements

Consolidated Statement of Comprehensive Income

(dollars in millions)	**2019**	2018	2017
Net income from operations	**$ 5,948**	$ 5,654	$ 4,920
Other comprehensive (loss) income, net of tax			
Foreign currency translation adjustments			
Foreign currency translation adjustments arising during period	**266**	(516)	620
Less: Reclassification adjustments for gain on sale of an investment in a foreign entity recognized in Other income, net	**2**	(2)	(10)
	268	(518)	610
Tax expense	**(43)**	(4)	—
	225	(522)	610
Pension and postretirement benefit plans			
Net actuarial (loss) gain arising during period	**(543)**	(1,819)	241
Prior service (cost) credit arising during period	**(6)**	(22)	2
Amortization of actuarial loss and prior service cost	**228**	344	529
Other	**(93)**	105	(116)
	(414)	(1,392)	656
Tax benefit (expense)	**97**	326	(263)
	(317)	(1,066)	393
Unrealized (loss) gain on available-for-sale securities			
Unrealized holding gain arising during period	**—**	—	5
Reclassification adjustments for gain included in Other income, net	**—**	—	(566)
ASU 2016-01 adoption impact (Note 10)	**—**	(5)	—
	—	(5)	(561)
Tax benefit	**—**	—	213
	—	(5)	(348)
Change in unrealized cash flow hedging			
Unrealized cash flow hedging (loss) gain arising during period	**(33)**	(307)	347
Loss (gain) reclassified into Product sales	**51**	(16)	(39)
	18	(323)	308
Tax (expense) benefit	**(11)**	78	(74)
	7	(245)	234
Other comprehensive (loss) income, net of tax	**(85)**	(1,838)	889
Comprehensive income	**5,863**	3,816	5,809
Less: comprehensive income attributable to noncontrolling interest	**(399)**	(355)	(448)
Comprehensive income attributable to common shareowners	**$ 5,464**	$ 3,461	$ 5,361

See accompanying Notes to Consolidated Financial Statements

Consolidated Balance Sheet

(dollars in millions, except per share amounts; shares in thousands)	2019	2018
Assets		
Cash and cash equivalents	**$ 7,378**	$ 6,152
Accounts receivable (net of allowance for doubtful accounts of $389 and $488)	**13,524**	14,271
Contract assets, current	**4,184**	3,486
Inventory, net	**10,950**	10,083
Other assets, current	**1,461**	1,511
Total Current Assets	**37,497**	35,503
Customer financing assets	**3,477**	3,023
Future income tax benefits	**1,611**	1,646
Fixed assets, net	**12,755**	12,297
Operating lease right-of-use assets	**2,599**	—
Goodwill	**48,063**	48,112
Intangible assets, net	**26,046**	26,424
Other assets	**7,668**	7,206
Total Assets	**$ 139,716**	$ 134,211
Liabilities and Equity		
Short-term borrowings	**$ 2,364**	$ 1,469
Accounts payable	**10,809**	11,080
Accrued liabilities	**11,737**	10,223
Contract liabilities, current	**6,180**	5,720
Long-term debt currently due	**3,496**	2,876
Total Current Liabilities	**34,586**	31,368
Long-term debt	**37,788**	41,192
Future pension and postretirement benefit obligations	**3,502**	4,018
Operating lease liabilities	**2,144**	—
Contract liabilities, long-term	**5,732**	5,069
Other long-term liabilities	**11,638**	11,845
Total Liabilities	**95,390**	93,492
Commitments and contingent liabilities (Notes 4 and 18)		
Redeemable noncontrolling interest	**95**	109
Shareowners' Equity:		
Capital Stock:		
Preferred Stock, $1 par value; 250,000 shares authorized; None issued or outstanding	**—**	—
Common Stock, $1 par value; 4,000,000 shares authorized; 1,450,845 and 1,446,961 shares issued	**23,019**	22,514
Treasury Stock— 586,479 and 585,479 common shares at average cost	**(32,626)**	(32,482)
Retained earnings	**61,594**	57,823
Unearned ESOP shares	**(64)**	(76)
Total Accumulated other comprehensive loss	**(10,149)**	(9,333)
Total Shareowners' Equity	**41,774**	38,446
Noncontrolling interest	**2,457**	2,164
Total Equity	**44,231**	40,610
Total Liabilities and Equity	**$ 139,716**	$ 134,211

See accompanying Notes to Consolidated Financial Statements

Consolidated Statement of Cash Flows

(dollars in millions)	**2019**	2018	2017
Operating Activities:			
Net income from operations	**$ 5,948**	$ 5,654	$ 4,920
Adjustments to reconcile income from operations to net cash flows provided by operating activities:			
Depreciation and amortization	**3,783**	2,433	2,140
Deferred income tax provision	**35**	735	62
Stock compensation cost	**356**	251	192
Net periodic pension and other postretirement benefit	**(525)**	(393)	(158)
Portfolio separation tax cost	**634**	—	—
Gain on sale of Taylor Company	**—**	(799)	—
Change in:			
Accounts receivable	**419**	(2,426)	(448)
Contract assets, current	**(307)**	(604)	—
Inventory	**(1,216)**	(537)	(1,074)
Other current assets	**(309)**	161	(101)
Accounts payable and accrued liabilities	**1,229**	2,446	1,571
Contract liabilities, current	**359**	205	—
Income taxes	**(406)**	(195)	1,579
Global pension contributions	**(118)**	(147)	(2,112)
Canadian government settlement	**(38)**	(429)	(285)
Other operating activities, net	**(961)**	(33)	(655)
Net cash flows provided by operating activities	**8,883**	6,322	5,631
Investing Activities:			
Capital expenditures	**(2,256)**	(1,902)	(2,014)
Increase in customer financing assets	**(787)**	(988)	(1,197)
Decrease in customer financing assets	**129**	606	222
Investments in businesses (Note 2)	**(56)**	(15,398)	(231)
Dispositions of businesses (Note 2)	**138**	1,105	70
Proceeds from sale of investments in Watsco, Inc.	**—**	—	596
Increase in collaboration intangible assets	**(351)**	(400)	(380)
Receipts (payments) from settlements of derivative contracts	**336**	143	(317)
Other investing activities, net	**(245)**	(139)	232
Net cash flows used in investing activities	**(3,092)**	(16,973)	(3,019)
Financing Activities:			
Issuance of long-term debt	**88**	13,455	4,954
Repayment of long-term debt	**(2,830)**	(2,520)	(1,604)
Increase (decrease) in short-term borrowings, net	**927**	(356)	(271)
Proceeds from Common Stock issued under employee stock plans	**27**	36	31
Dividends paid on Common Stock	**(2,442)**	(2,170)	(2,074)
Repurchase of Common Stock	**(151)**	(325)	(1,453)
Other financing activities, net	**(183)**	(155)	(576)
Net cash flows (used in) provided by financing activities	**(4,564)**	7,965	(993)
Effect of foreign exchange rate changes on cash and cash equivalents	**(19)**	(120)	210
Net increase (decrease) in cash, cash equivalents and restricted cash	**1,208**	(2,806)	1,829
Cash, cash equivalents and restricted cash, beginning of year	**6,212**	9,018	7,189
Cash, cash equivalents and restricted cash, end of year	**7,420**	6,212	9,018
Less: Restricted cash, included in Other assets	**42**	60	33
Cash and cash equivalents, end of year	**$ 7,378**	$ 6,152	$ 8,985
Supplemental Disclosure of Cash Flow Information:			
Interest paid, net of amounts capitalized	**$ 1,801**	$ 1,027	$ 974
Income taxes paid, net of refunds	**$ 1,768**	$ 1,714	$ 1,326

See accompanying Notes to Consolidated Financial Statements

Consolidated Statement of Changes in Equity

(dollars in millions, except per share amounts; shares in thousands)	**2019**	2018	2017
Equity at January 1	**$ 40,610**	$ 31,421	$ 29,169
Common Stock			
Balance at January 1	**22,514**	17,574	17,285
Common Stock issued under employee plans	**525**	423	331
Common Stock repurchased	—	—	1
Common Stock issued for Rockwell Collins outstanding common stock & equity awards	—	4,523	—
(Purchase) sale of subsidiary shares from noncontrolling interest, net	**(20)**	(6)	4
Redeemable noncontrolling interest fair value adjustment	**—**	—	(47)
Balance at December 31	**23,019**	22,514	17,574
Treasury Stock			
Balance at January 1	**(32,482)**	(35,596)	(34,150)
Common Stock issued under employee plans	**7**	6	7
Common Stock repurchased	**(151)**	(329)	(1,453)
Common Stock issued for Rockwell Collins outstanding common stock & equity awards	—	3,437	—
Balance at December 31	**(32,626)**	(32,482)	(35,596)
Retained Earnings			
Balance at January 1	**57,823**	55,242	52,873
Net Income	**5,537**	5,269	4,552
Dividends on Common Stock	**(2,442)**	(2,170)	(2,074)
Dividends on ESOP Common Stock	**(70)**	(71)	(72)
Redeemable noncontrolling interest fair value adjustment	**4**	7	(42)
ASU 2018-02 adoption impact (Note 10)	**745**	—	—
New Revenue Standard adoption impact	—	(480)	—
Other	**(3)**	26	5
Balance at December 31	**61,594**	57,823	55,242
Unearned ESOP Shares			
Balance at January 1	**(76)**	(85)	(95)
Common Stock issued under employee plans	**12**	9	10
Balance at December 31	**(64)**	(76)	(85)
Accumulated Other Comprehensive (Loss) Income			
Balance at January 1	**(9,333)**	(7,525)	(8,334)
Other comprehensive (loss) income, net of tax	**(816)**	(1,808)	809
Balance at December 31	**(10,149)**	(9,333)	(7,525)
Noncontrolling Interest			
Balance at January 1	**2,164**	1,811	1,590
Net Income	**411**	385	368
Redeemable noncontrolling interest in subsidiaries' earnings	**7**	(4)	(17)
Other comprehensive (loss) income, net of tax	**(12)**	(30)	56
Dividends attributable to noncontrolling interest	**(268)**	(315)	(336)
Sale (purchase) of subsidiary shares from noncontrolling interest, net	**70**	(23)	—
(Disposition) acquisition of noncontrolling interest, net	**(23)**	(8)	14
Capital contributions	**108**	342	135
Other	**—**	6	1
Balance at December 31	**2,457**	2,164	1,811
Equity at December 31	**$ 44,231**	$ 40,610	$ 31,421

Supplemental share information			
Shares of Common Stock issued under employee plans	**3,883**	2,775	3,205
Shares of Common Stock repurchased	**1,133**	2,727	12,900
Dividends per share of Common Stock	**$ 2.94**	$ 2.84	$ 2.72

See accompanying Notes to Consolidated Financial Statements

Notes to Consolidated Financial Statements

NOTE 1: SUMMARY OF ACCOUNTING PRINCIPLES

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. Actual results could differ from those estimates. Certain reclassifications have been made to the prior year amounts to conform to the current year presentation.

Consolidation. The Consolidated Financial Statements include the accounts of United Technologies Corporation (UTC) and its controlled subsidiaries. Intercompany transactions have been eliminated.

Cash and Cash Equivalents. Cash and cash equivalents includes cash on hand, demand deposits and short-term cash investments that are highly liquid in nature and have original maturities of three months or less.

On occasion, we are required to maintain cash deposits with certain banks with respect to contractual obligations related to acquisitions or divestitures or other legal obligations. As of December 31, 2019 and 2018, the amount of such restricted cash was approximately $42 million and $60 million, respectively.

Accounts Receivable. Accounts receivable are stated at their net estimated realized value. The allowance for doubtful accounts is based upon an assessment of customer creditworthiness, historical payment experience, and the age and status of outstanding receivables. Current and long-term accounts receivable as of December 31, 2019 includes retainage of $111 million and unbilled receivables of $522 million, which primarily includes unbilled receivables with commercial aerospace customers. Current and long-term accounts receivable as of December 31, 2018 include retainage of $116 million and unbilled receivables of $678 million, which primarily includes unbilled receivables with commercial aerospace customers. See Note 4 for discussion of commercial aerospace industry assets and commitments.

Retainage represents amounts that, pursuant to the applicable contract, are not due until project completion and acceptance by the customer. Unbilled receivables represent revenues that are not currently billable to the customer under the terms of the contract. These items are expected to be billed and collected in the normal course of business. Unbilled receivables where we have an unconditional right to payment are included in Accounts receivable.

Contract Assets and Liabilities. Contract assets and liabilities represent the difference in the timing of revenue recognition from receipt of cash from our customers. Contract assets reflect revenue recognized and performance obligations satisfied in advance of customer billing. Performance obligations partially satisfied in advance of customer billings are included in contract assets.

Contract liabilities relate to payments received in advance of the satisfaction of performance under the contract. We receive payments from customers based on the terms established in our contracts. See Note 6 for further discussion of contract assets and liabilities.

Inventory. Inventory is stated at the lower of cost or estimated realizable value and are primarily based on first-in, first-out (FIFO) or average cost methods; however, certain Collins Aerospace Systems and Carrier entities use the last-in, first-out (LIFO) method. If inventories that were valued using the LIFO method had been valued under the FIFO method, they would have been higher by $126 million and $119 million at December 31, 2019 and 2018, respectively.

Valuation reserves for excess, obsolete, and slow-moving inventory are estimated by comparing the inventory levels of individual parts to both future sales forecasts or production requirements and historical usage rates in order to identify inventory where the resale value or replacement value is less than inventoriable cost. Other factors that management considers in determining the adequacy of these reserves include whether individual inventory parts meet current specifications and cannot be substituted for a part currently being sold or used as a service part, overall market conditions, and other inventory management initiatives. Manufacturing costs are allocated to current production and firm contracts.

Equity Method Investments. Investments in which we have the ability to exercise significant influence, but do not control, are accounted for under the equity method of accounting and are included in Other assets on the Consolidated Balance Sheet. Under this method of accounting, our share of the net earnings or losses of the investee is included in Other income, net on the Consolidated Statement of Operations since the activities of the investee are closely aligned with the operations of the business segment holding the investment. We evaluate our equity method investments whenever events or changes in circumstance indicate that the carrying amounts of such investments may be impaired. If a decline in the value of an equity method investment is determined to be other than temporary, a loss is recorded in earnings in the current period. UTC sells products to and purchases products from unconsolidated entities accounted for under the equity method, which are considered related parties. This activity is predominantly within our Carrier segment and is not considered material to the Consolidated Statement of Operations nor Consolidated Balance Sheet of UTC.

Customer Financing Assets. Customer Financing Assets (CFA) primarily relate to the aerospace business in which we provide financing to airline customers. The most common types of financing include products under lease, notes receivable, long-term accounts receivable and lease receivable. We record revenue from lease assets by applying Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 842, Leases, and from interest on the notes, accounts and lease receivables. Interest from notes and financing leases, rental income from operating lease assets and gains or losses on sales of operating lease assets is aggregated under the caption of "Other income, net" in the Consolidated Statement of Operations. The current portion of these financing arrangements are aggregated under the caption of "Other assets, current" and the non-current portions of these financing arrangements are aggregated under the caption of "Customer financing assets" in the Consolidated Balance Sheet. The increases and decreases in CFA from funding, receipts and certain other activity, are reflected as Investing Activities in the Consolidated Statement of Cash Flows. The product under lease assets are valued at cost and reviewed for impairment when circumstances indicate that the related carrying amounts may not be recoverable. Notes, accounts and lease receivable are valued at cost and reviewed for impairment when it is probable that we will be unable to collect amounts due. As of December 31, 2019 the reserves related to customer financing assets are not material.

Business Combinations. We account for transactions that are classified as business combinations in accordance with FASB ASC Topic 805,*"Business Combinations."* Once a business is acquired, the fair value of the identifiable assets acquired and liabilities assumed is determined with the excess cost recorded to goodwill. As required, a preliminary fair value is determined once a business is acquired, with the final determination of the fair value being completed within the one year measurement period from the date of acquisition.

Goodwill and Intangible Assets. Goodwill represents costs in excess of fair values assigned to the underlying net assets of acquired businesses. Goodwill and intangible assets deemed to have indefinite lives are not amortized. Goodwill and indefinite-lived intangible assets are subject to annual impairment testing or when a triggering event occurs using the guidance and criteria described in the Intangibles - Goodwill and Other Topic of the FASB ASC. This testing compares carrying values to fair values and, when appropriate, the carrying value of these assets is reduced to fair value.

Intangible assets consist of service portfolios, patents, trademarks/tradenames, customer relationships and other intangible assets including collaboration assets, as discussed further in Note 2. Acquired intangible assets are recognized at fair value in purchase accounting and then amortized to cost of sales and selling, general & administrative expenses over the applicable useful lives. Also included within other intangible assets are commercial aerospace payments made to secure certain contractual rights to provide product on new aircraft platforms. We classify amortization of such payments as a reduction of sales. Such payments are capitalized when there are distinct rights obtained and there are sufficient incremental cash flows to support the recoverability of the assets established. Otherwise, the applicable portion of the payments are expensed. Consideration paid on these contractual commitments is capitalized when it is no longer conditional.

Useful lives of finite-lived intangible assets are estimated based upon the nature of the intangible asset and the industry in which the intangible asset is used. These intangible assets are amortized based on the pattern in which the economic benefits of the intangible assets are consumed. For both our commercial aerospace collaboration assets and exclusivity arrangements, the pattern of economic benefit generally results in lower amortization during the development period with increasing amortization as programs enter full rate production and aftermarket cycles. If a pattern of economic benefit cannot be reliably determined or if straight-line amortization approximates the pattern of economic benefit, a straight-line amortization method may be used. The range of estimated useful lives is as follows:

Collaboration assets	30 years
Customer relationships and related programs	1 to 32 years
Purchased service contracts	5 to 25 years
Patents & trademarks	4 to 40 years
Exclusivity assets	5 to 25 years

Leases. We account for leases in accordance with ASC Topic 842: Leases. Under Topic 842, the right-of-use model requires a lessee to record a right-of-use asset and a lease liability on the Consolidated Balance Sheet for all leases with terms longer than 12 months. Leases are classified as either finance or operating, with classification affecting the pattern of expense recognition in the Consolidated Statement of Operations. In addition, Topic 842 requires a lessor to classify leases as either sales-type, finance or operating. A lease will be treated as a sale if it transfers all of the risks and rewards, as well as control of the underlying asset, to the lessee. If risks and rewards are conveyed without the transfer of control, the lease is treated as financing. If the lessor doesn't convey risks and rewards or control, the lease is treated as operating.

We enter into lease agreements for the use of real estate space, vehicles, information technology equipment, and certain otherequipment under operating and finance leases. We determine if an arrangement contains a lease at inception. Operating leases are included in Operating lease right-of-use assets, Accrued liabilities, and Operating lease liabilities in our

Consolidated Balance Sheet. Finance leases are not considered significant to our Consolidated Balance Sheet or Consolidated Statement of Operations. Finance lease right-of-use assets at December 31, 2019 of $55 million are included in Other assets in our Consolidated Balance Sheet. Finance lease liabilities at December 31, 2019 of $84 million are included in Long-term debt currently due, and Long-term debt in our Consolidated Balance Sheet.

Right-of-use assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Lease right-of-use assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments, and use the implicit rate when readily determinable. We determine our incremental borrowing rate through market sources including relevant industry rates. Our lease right-of-use assets also include any lease pre-payments and exclude lease incentives. Certain of our leases include variable payments, which may vary based upon changes in facts or circumstances after the start of the lease. We exclude variable payments from lease right-of-use assets and lease liabilities, to the extent not considered fixed, and instead, expense variable payments as incurred. Variable lease expense and lease expense for short duration contracts is not a material component of lease expense. Our leases generally have remaining lease terms of 1 to 20 years, some of which include options to extend leases. For the majority of our leases with options to extend, those options are up to 5 years with the ability to terminate the lease within 1 year. The exercise of lease renewal options is at our sole discretion and our lease right-of-use assets and liabilities reflect only the options we are reasonably certain that we will exercise. Lease expense is recognized on a straight-line basis over the lease term.

In limited instances we act as a lessor, primarily for commercial aerospace engines and certain heating, ventilation and air conditioning (HVAC) systems and commercial equipment, all of which are classified as operating leases. These leases are not significant to our Consolidated Balance Sheet or Consolidated Statement of Operations.

Other Long-Lived Assets. We evaluate the potential impairment of other long-lived assets whenever events or changes in circumstances indicate that the related carrying amounts may not be recoverable. If the carrying value of other long-lived assets held and used exceeds the sum of the undiscounted expected future cash flows, the carrying value is written down to fair value.

Long-Term Financing Receivables. Our long-term financing receivables primarily represent balances related to the aerospace businesses such as long-term trade accounts receivable, leases, and notes receivable. We also have other long-term receivables in our commercial businesses; however, both the individual and aggregate amounts of those other receivables are not significant.

Long-term trade accounts receivable are principally amounts arising from the sale of goods and services with a contractual maturity date or realization period of greater than one year and are recognized as "Other assets" in our Consolidated Balance Sheet. Notes and leases receivable are recognized as "Customer financing assets" in our Consolidated Balance Sheet. These exclude receivables related to operating leases. The following table summarizes the balance by class of aerospace business-related long-term receivables as of December 31, 2019 and 2018:

(dollars in millions)	**2019**	2018
Long-term trade accounts receivable	**$ 251**	$ 269
Notes and leases receivable	**265**	258
Total long-term receivables	**$ 516**	$ 527

We determine a receivable is impaired when, based on current information and events, it is probable that we will be unable to collect amounts due according to the contractual terms of the receivable agreement. Factors considered in assessing collectability and risk include, but are not limited to, examination of credit quality indicators and other evaluation measures, underlying value of any collateral or security interests, significant past due balances, historical losses, and existing economic conditions.

We determine credit ratings for each customer in our portfolio based upon public information and information obtained directly from our customers. We conduct a review of customer credit ratings, published historical credit default rates for different rating categories, and multiple third-party aircraft value publications as a basis to validate the reasonableness of the allowance for losses on these balances quarterly or when events and circumstances warrant. Customer credit ratings range from customers with an extremely strong capacity to meet financial obligations, to customers whose uncollateralized receivable is in default. There can be no assurance that actual results will not differ from estimates or that consideration of these factors in the future will not result in an increase or decrease to the allowance for credit losses on long-term receivables. Based upon the customer credit ratings, approximately $150 million of our long-term receivables were considered to bear high credit risk as of December 31, 2019 and 2018. See Note 4 for further discussion of commercial aerospace industry assets and commitments.

Reserves for credit losses on receivables relate to specifically identified receivables that are evaluated individually for impairment. For notes and leases receivable, we determine a specific reserve for exposure based on the difference between the

carrying value of the receivable and the estimated fair value of the related collateral in connection with the evaluation of credit risk and collectability. For long-term trade accounts receivable, we evaluate credit risk and collectability individually to determine if an allowance is necessary. Our long-term receivables reflected in the table above, which include reserves of $17 million and $16 million as of December 31, 2019 and 2018, respectively, are individually evaluated for impairment. At both December 31, 2019 and 2018, we did not have any significant balances that are considered to be delinquent, on non-accrual status, past due 90 days or more, or considered to be impaired.

Income Taxes. In the ordinary course of business there is inherent uncertainty in quantifying our income tax positions. We assess our income tax positions and record tax benefits for all years subject to examination based upon management's evaluation of the facts, circumstances, and information available at the reporting date. For those tax positions where it is more-likely-than-not that a tax benefit will be sustained, we have recorded the largest amount of tax benefit with a greater than 50% likelihood of being realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. For those income tax positions where it is not more-likely-than-not that a tax benefit will be sustained, no tax benefit has been recognized in the financial statements. Where applicable, associated interest expense has also been recognized. We recognize accrued interest related to unrecognized tax benefits in interest expense. Penalties, if incurred, would be recognized as a component of income tax expense.

On December 22, 2017 the TCJA was enacted. The TCJA contains a new law that subjects the Company to a tax on Global Intangible Low-Taxed Income (GILTI), beginning in 2018. GILTI is a tax on foreign income in excess of a deemed return on tangible assets of foreign corporations. The FASB has provided that companies subject to GILTI have the option to account for the GILTI tax as a period cost if and when incurred, or to recognize deferred taxes for temporary differences, including outside basis differences, expected to reverse as GILTI. We have elected to account for GILTI as a period cost, as incurred.

Revenue Recognition. We account for revenue in accordance with ASC Topic 606: Revenue from Contracts with Customers.We adopted ASC 606 effective January 1, 2018 and elected the modified retrospective approach. The results for periods before 2018 were not adjusted for the new standard and the cumulative effect of the change in accounting was recognized through retained earnings at the date of adoption. Under Topic 606, a performance obligation is a promise in a contract with a customer to transfer a distinct good or service to the customer. Some of our contracts with customers contain a single performance obligation, while others contain multiple performance obligations most commonly when a contract spans multiple phases of the product life-cycle such as development, production, maintenance and support. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. When there are multiple performance obligations within a contract, we allocate the transaction price to each performance obligation based on its standalone selling price.

We consider the contractual consideration payable by the customer and assess variable consideration that may affect the total transaction price, including contractual discounts, contract incentive payments, estimates of award fees, unfunded contract value under U.S. Government contracts, and other sources of variable consideration, when determining the transaction price of each contract. We include variable consideration in the estimated transaction price when there is a basis to reasonably estimate the amount. These estimates are based on historical experience, anticipated performance and our best judgment at the time. We also consider whether our contracts provide customers with significant financing. Generally, our contracts do not contain significant financing.

Timing of the satisfaction of performance obligations varies across our businesses due to our diverse product and service mix, customer base, and contractual terms.

Point in time revenue recognition. Performance obligations are satisfied as of a point in time for heating, ventilating, air-conditioning and refrigeration systems, certain alarm and fire detection and suppression systems, and certain aerospace components, engines, and spare parts. Revenue is recognized when control of the product transfers to the customer, generally upon product shipment.

Over-time revenue recognition. Performance obligations are satisfied over-time if the customer receives the benefits as we perform work, if the customer controls the asset as it is being produced, or if the product being produced for the customer has no alternative use and we have a contractual right to payment. Revenue is recognized for our construction-type and certain production-type contracts on an over-time basis. We recognize revenue on an over-time basis on certain long-term aerospace aftermarket contracts and aftermarket service work; development, fixed price, and other cost reimbursement contracts in our aerospace businesses; and elevator and escalator sales, installation, service, modernization and other construction contracts in our commercial businesses. For construction and installation contracts within our commercial businesses and aerospace performance obligations satisfied over time, revenue is recognized using costs incurred to date relative to total estimated costs at completion to measure progress. Incurred costs represent work performed, which correspond with and best depict transfer of

control to the customer. Contract costs include labor, materials, and subcontractors' costs, or other direct costs, and where applicable on government and commercial contracts, indirect costs.

For certain of our long-term aftermarket contracts, revenue is recognized over the contract period. In the commercial businesses, revenue is primarily recognized on a straight-line basis over the contract period. In the aerospace businesses, we generally account for such contracts as a series of daily obligations to stand ready to provide spare parts and product maintenance and aftermarket services. These arrangements include the sale of spare parts with integral services to our customers, and are generally classified as Service sales, with the corresponding costs classified in Cost of services sold, within the Consolidated Statement of Operations. Revenue is primarily recognized in proportion to cost as sufficient historical evidence indicates that the cost of performing services under the contract is incurred on an other than straight-line basis. Aerospace contract modifications are routine and contracts are often modified to account for changes in contract specifications or requirements. Contract modifications that are for goods or services that are not distinct are accounted for as part of the existing contract.

We incur costs for engineering and development of aerospace products directly related to existing or anticipated contracts with customers. Such costs generate or enhance our ability to satisfy our performance obligations under these contracts. We capitalize these costs as contract fulfillment costs to the extent the costs are recoverable from the associated contract margin and subsequently amortize the costs as the original equipment (OEM) products performance obligations are satisfied. In instances where intellectual property does not transfer to the customer, we defer the customer funding of OEM product engineering and development and recognize revenue when the OEM products performance obligations are satisfied. Capitalized contract fulfillment costs were $1,519 million and $914 million as of December 31, 2019 and 2018, respectively and are recognized in "Other assets" in our Consolidated Balance Sheet and are included in Other operating activities, net in our Consolidated Statement of Cash Flows. The increase in capitalized net contract fulfillment costs is driven by current year activity at Collins Aerospace Systems. Costs to obtain contracts are not material.

Loss provisions on OEM contracts are recognized to the extent that estimated contract costs exceed the estimated consideration from the products contemplated under the contractual arrangement. For new commitments, we generally record loss provisions at the earlier of contract announcement or contract signing except for certain contracts under which losses are recorded upon receipt of the purchase order that obligates us to perform. For existing commitments, anticipated losses on contractual arrangements are recognized in the period in which losses become evident. Products contemplated under contractual arrangements include firm quantities of product sold under contract and, in the commercial engine and wheels and brakes businesses, future highly probable sales of replacement parts required by regulation that are expected to be sold subsequently for incorporation into the original equipment. In the commercial engine and wheels and brakes businesses, when the combined original equipment and aftermarket arrangement for each individual sales campaign are profitable, we record original equipment product losses, as applicable, at the time of delivery.

We review our cost estimates on significant contracts on a quarterly basis and for others, no less frequently than annually or when circumstances change and warrant a modification to a previous estimate. We record changes in contract estimates using the cumulative catch-up method. Operating profits included net unfavorable changes in aerospace contract estimates of approximately $69 million, $50 million, and $110 million in 2019, 2018 and 2017, respectively, primarily the result of unexpected increases in estimated costs related to Pratt & Whitney long-term aftermarket contracts.

Collaborations: Sales generated from engine programs, spare parts sales, and aftermarket business under collaboration arrangements are recorded consistent with our revenue recognition policies in our Consolidated Financial Statements. Amounts attributable to our collaborators for their share of sales are recorded as cost of sales in our Consolidated Financial Statements based upon the terms and nature of the arrangement. Costs associated with engine programs under collaborative arrangements are expensed as incurred. Under these arrangements, collaborators contribute their program share of engine parts, incur their own production costs and make certain payments to Pratt & Whitney for shared or joint program costs. The reimbursement from collaborators of their share of program costs is recorded as a reduction of the related expense item at that time.

Cash Payments to Customers: Carrier customarily offers its customers incentives to purchase products to ensure an adequate supply of its products in the distribution channels. The principal incentive program provides reimbursements to distributors for offering promotional pricing for our products. We account for incentive payments made as a reduction in sales. In our aerospace businesses, we offer customers certain incentives to purchase our products. These incentives may result in payments made to customers. In addition, we may make participation payments to certain aerospace customers to secure certain contractual rights. To the extent these rights are incremental and are supported by the incremental cash flows obtained, they are capitalized as intangible assets. Otherwise, such payments are recorded as a reduction in sales. We classify the subsequent amortization of the capitalized acquired intangible assets from our customers as a reduction in sales. Contractually stated prices in arrangements with our customers that include the acquisition of intangible rights within the scope of the Intangibles - Goodwill and Other Topic of the FASB ASC and deliverables within the scope of the Revenue Recognition Topic

of the FASB ASC are not presumed to be representative of fair value for determining the amounts to allocate to each element of an arrangement.

Remaining Performance Obligations (RPO). RPO represents the aggregate amount of total contract transaction price that is unsatisfied or partially unsatisfied. As of December 31, 2019 our total RPO was approximately $132.7 billion compared to $115.5 billion as of December 31, 2018. Of the total RPO as of December 31, 2019, we expect approximately 45% will be recognized as sales over the following 24 months.

Research and Development. Research and development costs not specifically covered by contracts and those related to the company sponsored share of research and development activity in connection with cost-sharing arrangements are charged to expense as incurred. Government research and development support, not associated with specific contracts, is recorded as a reduction to research and development expense in the period earned.

Research and development costs incurred under contracts with customers are included as a contract cost and reported as a component of cost of products sold when revenue from such contracts is recognized. Research and development costs in excess of contractual consideration are expensed as incurred.

Foreign Exchange. We conduct business in many different currencies and, accordingly, are subject to the inherent risks associated with foreign exchange rate movements. The financial position and results of operations of substantially all of our foreign subsidiaries are measured using the local currency as the functional currency. Foreign currency denominated assets and liabilities are translated into U.S. Dollars at the exchange rates existing at the respective balance sheet dates, and income and expense items are translated at the average exchange rates during the respective periods. The aggregate effects of translating the balance sheets of these subsidiaries are deferred as a separate component of shareowners' equity.

Derivatives and Hedging Activity. We have used derivative instruments, including swaps, forward contracts and options, to help manage certain foreign currency, interest rate and commodity price exposures. Derivative instruments are viewed as risk management tools by us and are not used for trading or speculative purposes. By their nature, all financial instruments involve market and credit risks. We enter into derivative and other financial instruments with major investment grade financial institutions and have policies to monitor the credit risk of those counterparties. We limit counterparty exposure and concentration of risk by diversifying counterparties. While there can be no assurance, we do not anticipate any material non-performance by any of these counterparties. We enter into transactions that are subject to enforceable master netting arrangements or similar agreements with various counterparties. However, we have not elected to offset multiple contracts with a single counterparty and, as a result, the fair value of the derivative instruments in a loss position is not offset against the fair value of derivative instruments in a gain position.

Derivatives used for hedging purposes may be designated and effective as a hedge of the identified risk exposure at the inception of the contract. All derivative instruments are recorded on the balance sheet at fair value. Derivatives used to hedge foreign currency denominated balance sheet items are reported directly in earnings along with offsetting transaction gains and losses on the items being hedged. Derivatives used to hedge forecasted cash flows associated with foreign currency commitments or forecasted commodity purchases may be accounted for as cash flow hedges, as deemed appropriate. Gains and losses on derivatives designated as cash flow hedges are recorded in other comprehensive income and reclassified to earnings as a component of product sales or expenses, as applicable, when the hedged transaction occurs. Gains and losses on derivatives designated as cash flow hedges are recorded in Other operating activities, net within the Consolidated Statement of Cash Flows. To the extent that a previously designated hedging transaction is no longer an effective hedge, any ineffectiveness measured in the hedging relationship is recorded currently in earnings in the period it occurs. As discussed in Note 14, at December 31, 2019 we have approximately €4.20 billion of euro-denominated long-term debt, which qualifies as a net investment hedge against our investments in European businesses.

To the extent the hedge accounting criteria are not met, the foreign currency forward contracts are utilized as economic hedges and changes in the fair value of these contracts are recorded currently in earnings in the period in which they occur. Additional information pertaining to foreign currency forward contracts and net investment hedging is included in Note 14.

Environmental. Environmental investigatory, remediation, operating and maintenance costs are accrued when it is probable that a liability has been incurred and the amount can be reasonably estimated. The most likely cost to be incurred is accrued based on an evaluation of currently available facts with respect to each individual site, including existing technology, current laws and regulations and prior remediation experience. Where no amount within a range of estimates is more likely, the minimum is accrued. For sites with multiple responsible parties, we consider our likely proportionate share of the anticipated remediation costs and the ability of the other parties to fulfill their obligations in establishing a provision for those costs. Liabilities with fixed or reliably determinable future cash payments are discounted. Accrued environmental liabilities are not reduced by potential insurance reimbursements. See Note 18 for additional details on the environmental remediation activities.

Pension and Postretirement Obligations. Guidance under the Compensation - Retirement Benefits Topic of the FASB ASC requires balance sheet recognition of the overfunded or underfunded status of pension and postretirement benefit plans. Under this guidance, actuarial gains and losses, prior service costs or credits, and any remaining transition assets or obligations that have not been recognized under previous accounting standards must be recognized in other comprehensive income, net of tax effects, until they are amortized as a component of net periodic benefit cost.

Product Performance Obligations. We extend performance and operating cost guarantees beyond our normal service and warranty policies for extended periods on some of our products, particularly commercial aircraft engines. Liability under such guarantees is based upon future product performance and durability. We accrue for such costs that are probable and can be reasonably estimated. In addition, we incur discretionary costs to service our products in connection with product performance issues. The costs associated with these product performance and operating cost guarantees require estimates over the full terms of the agreements, and require management to consider factors such as the extent of future maintenance requirements and the future cost of material and labor to perform the services. These cost estimates are largely based upon historical experience. See Note 17 for further discussion.

Collaborative Arrangements. In view of the risks and costs associated with developing new engines, Pratt & Whitney has entered into certain collaboration arrangements in which sales, costs and risks are shared. Sales generated from engine programs, spare parts, and aftermarket business under collaboration arrangements are recognized in our financial statements when earned. Amounts attributable to our collaborators for their share of sales are recorded as an expense in our financial statements based upon the terms and nature of the arrangement. Costs associated with engine programs under collaborative arrangements are expensed as incurred. Under these arrangements, collaborators contribute their program share of engine parts, incur their own production costs and make certain payments to Pratt & Whitney for shared or joint program costs. The reimbursement from the collaborators of their share of program costs is recorded as a reduction of the related expense item at that time. As of December 31, 2019, the collaborators' interests in all commercial engine programs ranged from 13% to 49%, inclusive of a portion of Pratt & Whitney's interests held by other participants. Pratt & Whitney is the principal participant in all existing collaborative arrangements, with the exception of the Engine Alliance (EA), a joint venture with GE Aviation, which markets and manufactures the GP7000 engine for the Airbus A380 aircraft. There are no individually significant collaborative arrangements and none of the collaborators individually exceed a 31% share in an individual program. The following table illustrates the Consolidated Statement of Operations classification and amounts attributable to transactions arising from the collaborative arrangements between participants for each period presented.

(dollars in millions)	**2019**	2018	2017
Collaborator share of sales:			
Cost of products sold	**$ 2,097**	$ 1,688	$ 1,789
Cost of services sold	**1,674**	1,765	929
Collaborator share of program costs (reimbursement of expenses incurred):			
Cost of products sold	**(190)**	(209)	(143)
Research and development	**(219)**	(225)	(190)
Selling, general and administrative	**(101)**	(87)	(74)

Accounting Pronouncements.

In June 2016, the FASB issued Accounting Standards Update (ASU) 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. This ASU and its related amendments modifies the impairment model to utilize an expected loss methodology in place of the incurred loss methodology for financial instruments, including trade receivables, contract assets, long-term receivables and off-balance sheet credit exposures. The amendment requires entities to consider a broader range of information to estimate expected credit losses, including historical information, current conditions and a reasonable forecast period, which may result in earlier recognition of certain losses. The provisions of this ASU are effective for years beginning after December 15, 2019, with early adoption permitted. A modified retrospective approach is required with a cumulative-effect adjustment to retained earnings as of January 1, 2020. We are still quantifying the impact of this ASU and its related amendments on our Consolidated Financial Statements which is not expected to be material.

In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement. The new standard removes the disclosure requirements for the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy. This standard did not have a material impact on our financial statement disclosures. We early adopted this standard effective January 1, 2019.

In August 2018, the FASB issued ASU 2018-14, Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20): Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans. The new standard includes updates to the disclosure requirements for defined benefit plans including several additions, deletions and modifications to the disclosure requirements. The provisions of this ASU are effective for fiscal years ending after December 15, 2020, with early adoption permitted. We are currently evaluating the impact of this ASU.

In August 2018, the FASB issued ASU 2018-15, Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract. The new standard provides updated guidance surrounding implementation costs associated with cloud computing arrangements that are service contracts. The provisions of this ASU are effective for years beginning after December 15, 2019, with early adoption permitted. We adopted the new standard prospectively effective January 1, 2020. We do not expect this ASU to have a material impact on the Consolidated Financial Statements.

In October 2018, the FASB issued ASU 2018-17, Consolidation (Topic 810): Targeted Improvements to Related Party Guidance for Variable Interest Entities. The amendments in this update for determining whether a decision-making fee is a variable interest require reporting entities to consider indirect interests held through related parties under common control on a proportional basis rather than as the equivalent of a direct interest in its entirety (as currently required in generally accepted accounting principles (GAAP)). These amendments also will create alignment between determining whether a decision making fee is a variable interest and determining whether a reporting entity within a related party group is the primary beneficiary of a VIE. This will significantly reduce the risk that decision makers with insignificant direct and indirect interests could be deemed the primary beneficiary of a VIE. The provisions of this ASU are effective for years beginning after December 15, 2019, with early adoption permitted. We adopted the new standard effective January 1, 2020. This ASU did not have an impact on the Consolidated Financial Statements.

In November 2018, the FASB issued ASU 2018-18, Collaborative Arrangements (Topic 808): Clarifying the Interaction between Topic 808 and Topic 606. The amendments in this update make targeted improvements to GAAP for collaborative arrangements as follows: clarify that certain transactions between collaborative arrangement participants should be accounted for as revenue under Topic 606 when the collaborative arrangement participant is a customer in the context of a unit of account. In those situations, all the guidance in Topic 606 should be applied, including recognition, measurement, presentation, and disclosure requirements; add unit-of-account guidance in Topic 808 to align with the guidance in Topic 606 (that is, a distinct good or service) when an entity is assessing whether the collaborative arrangement or a part of the arrangement is within the scope of Topic 606; and require that in a transaction with a collaborative arrangement participant that is not directly related to sales to third parties, presenting the transaction together with revenue recognized under Topic 606 is precluded if the collaborative arrangement participant is not a customer. The provisions of this ASU are effective for years beginning after December 15, 2019, with early adoption permitted. We adopted the new standard effective January 1, 2020. This ASU did not have an impact on the Consolidated Financial Statements.

In December 2019, the FASB issued ASU 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes. The amendments in this update remove certain exceptions of Topic 740 including: exception to the incremental approach for intraperiod tax allocation when there is a loss from continuing operations and income or gain from other items; exception to the requirement to recognize a deferred tax liability for equity method investments when a foreign subsidiary becomes an equity method investment; exception to the ability not to recognize a deferred tax liability for a foreign subsidiary when a foreign equity method investment becomes a subsidiary; exception to the general methodology for calculating income taxes in an interim period when a year-to-date loss exceeds the anticipated loss for the year. There are also additional areas of guidance in regards to: franchise and other taxes partially based on income and the interim recognition of enactment of tax laws and rate changes. The provisions of this ASU are effective for years beginning after December 15, 2020, with early adoption permitted. We are currently evaluating the impact of this ASU on our consolidated financial statements.

NOTE 2: BUSINESS ACQUISITIONS, DISPOSITIONS, GOODWILL AND INTANGIBLE ASSETS

Business Acquisitions. Our investments in businesses net of cash acquired in 2019, 2018 and 2017 totaled $56 million, $31,142 million (including debt assumed of $7,784 million and stock issued of $7,960 million), and $231 million respectively. Our investments in businesses in 2019 primarily consisted of several acquisitions at Otis. Our investments in businesses in 2018 primarily consisted of the acquisition of Rockwell Collins, Inc. (Rockwell Collins). Our investments in businesses in 2017 consisted of a number of small acquisitions, primarily in our commercial businesses.

On June 9, 2019, UTC entered into a merger agreement with Raytheon Company (Raytheon) providing for an all-stock merger of equals transaction. The Raytheon merger agreement provides, among other things, that each share of Raytheon common stock issued and outstanding immediately prior to the closing of the Raytheon merger (except for shares held by Raytheon as treasury stock) will be converted into the right to receive 2.3348 shares of UTC common stock. Upon the closing

of the Raytheon merger, Raytheon will become a wholly-owned subsidiary of UTC, and UTC will change its name to Raytheon Technologies Corporation. On October 11, 2019, the shareowners of each of UTC and Raytheon approved the proposals necessary to complete the Raytheon merger. The Raytheon merger is expected to close early in the second quarter 2020 and is subject to customary closing conditions, including receipt of required regulatory approvals, as well as the completion of UTC's previously announced separation of its Otis and Carrier businesses.

On November 26, 2018, we completed the acquisition of Rockwell Collins (the "Rockwell Acquisition"), a leader in aviation and high-integrity solutions for commercial and military customers as well as leading-edge avionics, flight controls, aircraft interior and data connectivity solutions. Under the terms of the Rockwell acquisition agreement, each share of common stock, par value $0.01 per share, of Rockwell Collins issued and outstanding immediately prior to the effective time of the Rockwell Acquisition (other than shares held by Rockwell Collins, the Company, Riveter Merger Sub Corp or any of their respective wholly owned subsidiaries) was converted into the right to receive (1) $93.33 in cash, without interest, and (2) 0.37525 shares of Company common stock (together, the "Acquisition Consideration"), less any applicable withholding taxes, with cash paid in lieu of fractional shares. The total aggregate consideration payable in the Rockwell Acquisition was $15.5 billion in cash ($14.9 billion net of cash acquired) and 62.2 million shares of Company common stock. In addition, $7.8 billion of Rockwell Collins debt was outstanding at the time of the Rockwell Acquisition. This equated to a total enterprise value of $30.6 billion, including the $7.8 billion of Rockwell Collins' outstanding debt.

(dollars in millions)		**Amount**
Cash consideration paid for Rockwell Collins outstanding common stock & equity awards	$	15,533
Fair value of UTC common stock issued for Rockwell Collins outstanding common stock & equity awards		7,960
Total consideration transferred	$	23,493

The cash consideration utilized for the Rockwell Acquisition was partially financed through the previously disclosed issuance of $11.0 billion aggregate principal notes on August 16, 2018 for net proceeds of $10.9 billion. For the remainder of the cash consideration, we utilized repatriated cash and cash equivalents and cash flow generated from operating activities.

Final Allocation of Consideration Transferred to Net Assets Acquired:

The table below represents the final determination of the fair value of identifiable assets acquired and liabilities assumed from the Rockwell Collins acquisition after utilizing the one year measurement period allowed by the FASB ASC Topic 805, *"Business Combinations."*

(dollars in millions)	
Cash and cash equivalents	$ 640
Accounts receivable	1,659
Inventory	1,487
Contract assets, current	320
Other assets, current	251
Future income tax benefits	38
Fixed assets	1,542
Intangible assets:	
Customer relationships	8,720
Tradenames/trademarks	1,870
Developed technology	600
Other assets	217
Total identifiable assets acquired	17,344
Short-term borrowings	2,254
Accounts payable	520
Accrued liabilities	1,663
Contract liabilities, current	299
Long-term debt	5,530
Future pension and postretirement benefit obligation	502
Other long-term liabilities	3,614
Noncontrolling interest	6
Total liabilities acquired	14,388
Total identifiable net assets	2,956
Goodwill	20,537
Total consideration transferred	$ 23,493

In order to allocate the consideration transferred for Rockwell Collins, the fair values of all identifiable assets and liabilities were established. For accounting and financial reporting purposes, fair value is defined under FASB ASC Topic 820, *"Fair Value Measurements and Disclosures"* as the price that would be received upon sale of an asset or the amount paid to transfer a liability in an orderly transaction between market participants at the measurement date. Market participants are assumed to be buyers and sellers in the principal (most advantageous) market for the asset or liability. Additionally, fair value measurements for an asset assume the highest and best use of that asset by market participants. Use of different estimates and judgments could yield different results. Fair value adjustments to Rockwell Collins' identified assets and liabilities resulted in an increase in inventory and fixed assets of $282 million and $244 million, respectively. In determining the fair value of identifiable assets acquired and liabilities assumed, a review was conducted for any significant contingent assets or liabilities existing as of the acquisition date. This assessment did not note any significant contingencies related to existing legal or government action.

The fair values of the customer relationship and related program intangible assets, which include the related aerospace program original equipment (OEM) and aftermarket cash flows, were determined by using an "income approach." Under this approach, the net earnings attributable to the asset or liability being measured are isolated using the discounted projected net cash flows. These projected cash flows are isolated from the projected cash flows of the combined asset group over the remaining economic life of the intangible asset or liability being measured. Both the amount and the duration of the cash flows are considered from a market participant perspective. Our estimates of market participant net cash flows considered historical and projected pricing, remaining developmental effort, operational performance, including company specific synergies, aftermarket retention, product life cycles, material and labor pricing, and other relevant customer, contractual and market factors. Where appropriate, the net cash flows are probability-adjusted to reflect the uncertainties associated with the underlying assumptions as well as the risk profile of the net cash flows utilized in the valuation. The probability-adjusted future cash flows are then discounted to present value using an appropriate discount rate. The customer relationship and related program intangible assets are being amortized on a straight-line basis (which approximates the economic pattern of benefits) over the estimated economic life of the underlying programs of 10 to 23 years. The developed technology intangible asset is being amortized over the economic pattern of benefit. The fair value of the tradename intangible assets were determined utilizing the relief from royalty method which is a form of the income approach. Under this method, a royalty rate based on observed market royalties is applied to projected revenue supporting the valuation of the tradename and discounted to present value using an appropriate discount rate. The tradename intangible assets have been determined to have an indefinite life. The intangible assets included above consist of the following:

(dollars in millions)		Fair Value	Estimated Life
Acquired customer relationships	$	8,720	10-23 years
Acquired tradenames/trademarks		1,870	indefinite
Acquired developed technology		600	15 years
	$	11,190	

We also identified customer contractual obligations on certain contracts with economic returns that are lower than could be realized in market transactions as of the acquisition date. We measured these liabilities under the measurement provisions of FASB ASC Topic 820, *"Fair Value Measurements and Disclosures,"* which is based on the price to transfer the obligation to a market participant at the measurement date, assuming that the liability will remain outstanding in the marketplace. Based on the estimated net cash outflows of the programs plus a reasonable contracting profit margin required to transfer the contracts to market participants, we recorded assumed liabilities of approximately $1.02 billion in connection with the Rockwell Acquisition. These liabilities will be liquidated in accordance with the underlying pattern of obligations, as reflected by the expenses incurred on the contracts. Total consumption of the contractual obligation in 2019 was $129 million. Total consumption of the contractual obligation for the next five years is expected to be as follows: $104 million in 2020, $104 million in 2021, $112 million in 2022, $96 million in 2023, and $101 million in 2024.

Acquisition-Related Costs:

Acquisition-related costs have been expensed as incurred. In 2019, 2018, and 2017 approximately $40 million, $112 million, and $39 million respectively, of transaction and integration costs have been incurred. These costs were recorded in Selling, general and administrative expenses within the Consolidated Statement of Operations.

Supplemental Pro-Forma Data:

Rockwell Collins' results of operations have been included in UTC's financial statements for the period subsequent to the completion of the acquisition on November 26, 2018. Rockwell Collins contributed sales of approximately $778 million and operating profit of approximately $11 million for the year ended December 31, 2018. The following unaudited supplemental pro-forma data presents consolidated information as if the acquisition had been completed on January 1, 2017. The pro-forma results were calculated by combining the results of UTC with the stand-alone results of Rockwell Collins for the pre-acquisition periods, which were adjusted to account for certain costs that would have been incurred during this pre-acquisition period:

	Year Ended December 31,			
(dollars in millions, except per share amounts; shares in millions)		2018		2017
Net sales	$	74,136	$	68,033
Net income attributable to common shareowners from continuing operations	$	6,064	$	4,662
Basic earnings per share of common stock from continuing operations	$	6.82	$	5.45
Diluted earnings per share of common stock from continuing operations	$	6.76	$	5.39

The unaudited supplemental pro-forma data above includes the following significant adjustments made to account for certain costs which would have been incurred if the acquisition had been completed on January 1, 2017, as adjusted for the applicable tax impact. As our acquisition of Rockwell Collins was completed on November 26, 2018, the pro-forma adjustments in the table below only include the required adjustments through November 26, 2018:

	Year Ended December 31,	
(dollars in millions)	**2018**	**2017**
Amortization of inventory and fixed asset fair value adjustment [1]	58	$ (192)
Amortization of acquired Rockwell Collins intangible assets, net [2]	(193)	(202)
Utilization of contractual customer obligation [3]	16	116
UTC/Rockwell fees for advisory, legal, accounting services [4]	212	(212)
Interest expense incurred on acquisition financing, net [5]	(199)	(234)
Elimination of capitalized pre-production engineering amortization [6]	63	42
Adjustment to net periodic pension cost [7]	42	34
Adjustment to reflect the adoption of ASC 606 [8]	106	—
Elimination of entities held for sale [9]	(47)	(35)
Inclusion of B/E Aerospace [10]	—	(51)
	$ 58	$ (734)

1 2018 reflects the elimination of the inventory step-up amortization recorded by UTC in 2018 as this would have been completed within the first two quarters of 2017. Additionally, this adjustment reflects the amortization of the fixed asset fair value adjustment as of the acquisition date.

2 Reflects the additional amortization of the acquired Rockwell Collins' intangible assets recognized at fair value in purchase accounting and eliminates the historical Rockwell Collins intangible asset amortization expense.

3 Reflects the additional amortization of liabilities recognized for acquired contracts with terms less favorable than could be realized in market transactions as of the acquisition date and eliminates Rockwell Collins historical amortization of these liabilities.

4 2018 reflects the elimination of transaction-related fees incurred by UTC and Rockwell Collins in connection with the acquisition and assumes all of the fees were incurred during the first quarter of 2017.

5 Reflects the additional interest expense incurred on debt to finance our acquisition of Rockwell Collins and reduces interest expense for the debt fair value adjustment which would have been amortized.

6 Reflects the elimination of Rockwell Collins capitalized pre-production engineering amortization to conform to UTC policy.

7 Reflects adjustments for the elimination of amortization of prior service cost and actuarial loss amortization, which was recorded by Rockwell Collins, as a result of fair value purchase accounting, net of the impact of the revised pension and post-retirement benefit (expense) as determined under UTC's plan assumptions.

8 Reflects adjustments to Rockwell Collins revenue recognition as if they adopted the New Revenue Standard as of January 1, 2018 and primarily relates to capitalization of contract costs and changes in timing of sales recognition for contracts requiring an over time method of revenue recognition, partially offset by deferral of revenue recognized on OEM product engineering and development.

9 Reflects the elimination of entities required to be sold for regulatory approvals.

10 Reflects adjustments to include the results and related adjustments for B/E Aerospace as if it had been acquired by Rockwell Collins on January 1, 2017.

The unaudited supplemental pro-forma financial information does not reflect the potential realization of cost savings related to the integration of the two companies. Further, the pro-forma data should not be considered indicative of the results that would have occurred if the acquisition and related financing had been consummated on January 1, 2017, nor are they indicative of future results.

Dispositions. Cash inflows related to dispositions during the 2019 were $138 million and primarily consisted of the dispositions of businesses held for sale associated with the Rockwell Collins acquisition. In accordance with conditions imposed for regulatory approval of the acquisition, Rockwell Collins was required to dispose of certain businesses. These businesses were held separate from UTC's and Rockwell Collins' ongoing businesses pursuant to regulatory requirements. Definitive agreements to sell each of the businesses were entered into prior to the completion of UTC's acquisition of Rockwell Collins. The related assets and liabilities of these businesses had been accounted for as held for sale at fair value less cost to sell. As of December 31, 2018, assets held for sale of $175 million were included within Other assets, current and liabilities held for sale of $40 million were included within Accrued liabilities on the Consolidated Balance Sheet. The major classes of assets and liabilities primarily included net Inventory of $51 million and net Fixed assets of $37 million. In the first quarter of 2019, Rockwell Collins completed the sale of all businesses which were held for sale as of December 31, 2018.

On November 26, 2018, the Company announced its intention to separate into three independent companies. Following the separations, the Company will operate as an aerospace company comprised of Collins Aerospace Systems and the Pratt & Whitney businesses, and Otis and Carrier will become independent companies. The proposed separations are expected to be

effected through spin-offs of Otis and Carrier that are intended to be tax-free for the Company's shareowners for U.S. federal income tax purposes, and are expected to be completed in the first half of 2020. Separation of Otis and Carrier from UTC via spin-off transactions will be subject to the satisfaction of customary conditions, including, among others, final approval by the Company's Board of Directors, receipt of tax rulings and a tax opinion from external counsel, the filing with the Securities and Exchange Commission (SEC) and effectiveness of Form 10 registration statements, and satisfactory completion of financing (subject to UTC's agreement to consummate the distributions pursuant to, and subject to the terms and conditions of, the Raytheon merger agreement). As of December 31, 2019, approximately $600 million of charges have been incurred related to the separation activities which are predominantly recorded in Selling, general and administrative costs and approximately $730 million of tax charges have been incurred.

On June 21, 2018, Carrier completed its sale of Taylor Company for proceeds of $1.0 billion resulting in a pre-tax gain of $799 million ($591 million after tax).

On January 20, 2020 the Company reached an agreement with BAE Systems, Inc. on a proposed sale of assets related to the Collins Aerospace Systems military global positioning system business for $1.93 billion. The proposed sale is required as a regulatory condition to the Raytheon merger, and is subject to the completion of the Raytheon merger, as well as the satisfaction of other customary closing conditions, including receipt of required regulatory approvals. Due to these closing conditions, the criteria for held for sale accounting treatment were not met as of December 31, 2019.

Goodwill. Changes in our goodwill balances for the year ended in 2019 were as follows:

(dollars in millions)	Balance as of January 1, 2019	Goodwill resulting from business combinations	Foreign currency translation and other	**Balance as of December 31, 2019**
Otis	$ 1,688	$ 16	$ (57)	**$ 1,647**
Carrier	9,835	1	(29)	**9,807**
Pratt & Whitney	1,567	—	(4)	**1,563**
Collins Aerospace Systems	35,001	75	(51)	**35,025**
Total Segments	48,091	92	(141)	**48,042**
Eliminations and other	21	—	—	**21**
Total	$ 48,112	$ 92	$ (141)	**$ 48,063**

The $75 million increase in Goodwill at Collins Aerospace Systems reflects a $475 million net increase in Goodwill resulting from several individually insignificant purchase accounting adjustments related to the Rockwell Acquisition, partially offset by a $400 million decrease in Goodwill related to adjustments to the customer relationship intangible asset associated with the Rockwell Acquisition.

Intangible Assets. Identifiable intangible assets are comprised of the following:

	2019		2018	
(dollars in millions)	**Gross Amount**	**Accumulated Amortization**	Gross Amount	Accumulated Amortization
Amortized:				
Service portfolios	**$ 2,105**	**$ (1,626)**	$ 2,164	$ (1,608)
Patents and trademarks	**356**	**(250)**	361	(236)
Collaboration intangible assets	**4,862**	**(920)**	4,509	(649)
Customer relationships and other	**23,210**	**(5,607)**	22,525	(4,560)
	30,533	**(8,403)**	29,559	(7,053)
Unamortized:				
Trademarks and other	**3,916**	**—**	3,918	—
Total	**$ 34,449**	**$ (8,403)**	$ 33,477	$ (7,053)

In addition to acquired customer relationship intangible assets, customer relationship intangible assets include payments made to our customers to secure certain contractual rights. Such payments are capitalized when distinct rights are obtained and sufficient incremental cash flows to support the recoverability of the assets have been established. Otherwise, the applicable portion of the payments is expensed. We amortize these intangible assets based on the underlying pattern of economic benefit, which may result in an amortization method other than straight-line. In the aerospace industry, amortization based on the pattern of economic benefit generally results in lower amortization expense during the development period with amortization

expense increasing as programs enter full production and aftermarket cycles. If a pattern of economic benefit cannot be reliably determined, a straight-line amortization method may be used. We classify amortization of such payments as a reduction of sales. Amortization of intangible assets was $1,452 million, $976 million and $834 million in 2019, 2018 and 2017, respectively. The collaboration intangible assets are amortized based upon the pattern of economic benefits as represented by the underlying cash flows. The following is the expected amortization of total intangible assets for 2020 through 2024, which reflects the pattern of expected economic benefit on certain aerospace intangible assets:

(dollars in millions)	2020	2021	2022	2023	2024
Amortization expense	$1,438	$1,420	$1,420	$1,411	$1,381

Other Matters. In January 2020, Boeing announced that it expects the 737 Max fleet to remain grounded until mid-2020. In addition, Boeing has also announced the temporary suspension of its production of the 737 Max. The Company considered the potential impact of these developments on goodwill and intangible asset balances that could be impacted by this situation and concluded that the balances remain recoverable and no adjustment was required.

NOTE 3: EARNINGS PER SHARE

(dollars in millions, except per share amounts; shares in millions)		**2019**		2018		2017
Net income attributable to common shareowners	**$**	**5,537**	$	5,269	$	4,552
Basic weighted average number of shares outstanding		**854.8**		800.4		790.0
Stock awards and equity units (share equivalent)		**9.1**		9.7		9.1
Diluted weighted average number of shares outstanding		**863.9**		810.1		799.1
Earnings Per Share of Common Stock:						
Basic	**$**	**6.48**	$	6.58	$	5.76
Diluted	**$**	**6.41**	$	6.50	$	5.70

The computation of diluted earnings per share excludes the effect of the potential exercise of stock awards, including stock appreciation rights and stock options, when the average market price of the common stock is lower than the exercise price of the related stock awards during the period because the effect would be anti-dilutive. In addition, the computation of diluted earnings per share excludes the effect of the potential exercise of stock awards when the awards' assumed proceeds exceed the average market price of the common shares during the period. For 2019, 2018 and 2017, there were 8.3 million, 5.1 million and 5.9 million anti-dilutive stock awards excluded from the computation, respectively.

NOTE 4: COMMERCIAL AEROSPACE INDUSTRY ASSETS AND COMMITMENTS

We have receivables and other financing assets with commercial aerospace industry customers totaling $11,394 million and $11,695 million at December 31, 2019 and 2018, respectively. These include customer financing assets related to commercial aerospace industry customers, consisting of products under lease of $3,185 million and $2,736 million, and notes and leases receivable of $308 million and $299 million, at December 31, 2019 and 2018, respectively.

Aircraft financing commitments, in the form of debt or lease financing, are provided to commercial aerospace customers. The extent to which the financing commitments will be utilized is not currently known, since customers may be able to obtain more favorable terms from other financing sources. We may also arrange for third-party investors to assume a portion of these commitments. If financing commitments are exercised, debt financing is generally secured by assets with fair market values equal to or exceeding the financed amounts consistent with market terms and conditions. We may also lease aircraft and subsequently sublease the aircraft to customers under long-term non-cancelable operating leases. Our financing commitments with customers are contingent upon maintenance of certain levels of financial condition by the customers.

We have also made residual value and other guarantees related to various commercial aerospace customer financing arrangements. The estimated fair market values of the guaranteed assets equal or exceed the value of the related guarantees, net of existing reserves. We have residual value and other guarantees of $333 million as of December 31, 2019. Partner share of these guarantees is $142 million. Refer to Note 17 to the Consolidated Financial Statements for additional discussion on guarantees.

We also have other contractual commitments, including commitments to secure certain contractual rights to provide product on new aircraft platforms, which are included in "Other commercial aerospace commitments" in the table below. Payments made on these contractual commitments are included within other intangible assets and are to be amortized over the term of underlying economic benefit. Our commercial aerospace financing and other contractual commitments as of December

31, 2019 were approximately $15.0 billion. We have entered into certain collaboration arrangements, which may include participation by our collaboration partners in these commitments.

The following is the expected maturity of commercial aerospace industry assets and commitments as of December 31, 2019:

(dollars in millions)	**Committed**	2020	2021	2022	2023	2024	Thereafter
Notes and leases receivable	**$ 308**	$ 30	$ 23	$ 14	$ 22	$ 38	$ 181
Commercial aerospace financing commitments	**$ 3,937**	$ 911	$ 1,119	$ 974	$ 819	$ 44	$ 70
Other commercial aerospace commitments	**11,055**	702	736	717	668	627	7,605
Collaboration partners' share	**(5,284)**	(508)	(623)	(571)	(538)	(193)	(2,851)
Total commercial commitments	**$ 9,708**	$ 1,105	$ 1,232	$ 1,120	$ 949	$ 478	$ 4,824

In connection with our 2012 agreement to acquire Rolls-Royce's ownership and collaboration interests in IAE AG, additional payments are due to Rolls-Royce contingent upon each hour flown through June 2027 by the V2500-powered aircraft in service as of the acquisition date. These flight hour payments, included in "Other commercial aerospace commitments" in the table above, are being capitalized as collaboration intangible assets.

We have long-term aftermarket maintenance contracts with commercial aerospace industry customers for which revenue is recognized over-time in proportion to actual costs incurred relative to total expected costs to be incurred over the respective contract periods. Billings, however, are typically based on factors such as aircraft or engine flight hours. The timing differences between the billings and the maintenance costs incurred generates both Contract assets and Contract liabilities. Additionally, we have other contracts with commercial aerospace industry customers which can result in the generation of Contract assets and Contract liabilities. Contract assets totaled $2,741 million and $2,247 million at December 31, 2019 and 2018, respectively, and are included in "Contract assets, current" and "Other assets" in the accompanying Consolidated Balance Sheet.

Allowance for doubtful accounts was $248 million and $245 million at December 31, 2019 and 2018, respectively. Reserves related to financing commitments and guarantees were $7 million and $15 million at December 31, 2019 and 2018, respectively.

In addition, in connection with the acquisition of Rockwell Collins in 2018 and Goodrich in 2012, we recorded assumed liabilities of approximately $1.02 billion and $2.2 billion, respectively related to customer contractual obligations on certain programs with terms less favorable than could be realized in market transactions as of the acquisition date. These liabilities are being liquidated in accordance with the underlying pattern of obligations, as reflected by the net cash outflows incurred on the contracts. Total consumption of the contractual obligations for the years ended December 31, 2019 and 2018 was approximately $345 million and $252 million, respectively. The balance of the contractual obligations at December 31, 2019 was $1,408 million, with future consumption expected to be as follows: $263 million in 2020, $189 million in 2021, $148 million in 2022, $118 million in 2023, $127 million in 2024 and $563 million thereafter.

We also have intangible assets associated with commercial aerospace. Refer to Note 2 for discussion of intangible assets. Refer to Note 1 for discussion of contract fulfillment costs. Refer to Note 19 for discussion of leases, including those that were disclosed as commitments prior to the adoption of ASC842.

NOTE 5: INVENTORY, NET

(dollars in millions)	**2019**	2018
Raw materials	**$ 3,357**	$ 3,052
Work-in-process	**2,726**	2,673
Finished goods	**4,867**	4,358
	$ 10,950	$ 10,083

Raw materials, work-in-process and finished goods are net of valuation reserves of $1,377 million and $1,270 million as of December 31, 2019 and 2018, respectively.

NOTE 6: CONTRACT ASSETS AND LIABILITIES

Contract assets reflect revenue recognized and performance obligations satisfied in advance of customer billing. Contract liabilities relate to payments received in advance of the satisfaction of performance under the contract. We receive payments

from customers based on the terms established in our contracts. Total contract assets and contract liabilities as of December 31, 2019 and 2018 are as follows:

(dollars in millions)	December 31, 2019	December 31, 2018
Contract assets, current	$ 4,184	$ 3,486
Contract assets, noncurrent (included within Other assets)	1,338	1,142
Total contract assets	5,522	4,628
Contract liabilities, current	(6,180)	(5,720)
Contract liabilities, noncurrent	(5,732)	(5,069)
Total contract liabilities	(11,912)	(10,789)
Net contract liabilities	$ (6,390)	$ (6,161)

Contract assets increased $894 million during the year ended December 31, 2019 due to revenue recognition in excess of customer billings, primarily on Pratt & Whitney military and commercial aftermarket service agreements and various programs at Collins Aerospace Systems. Contract liabilities increased $1,123 million during the year ended December 31, 2019 primarily due to customer billings in excess of revenue recognized on Pratt & Whitney commercial aftermarket service agreements and various programs at Collins Aerospace Systems. We recognized revenue of $4.9 billion during the year ended December 31, 2019 related to contract liabilities as of December 31, 2018.

NOTE 7: FIXED ASSETS

(dollars in millions)	Estimated Useful Lives	2019	2018
Land		$ 447	$ 425
Buildings and improvements	12-40 years	6,673	6,486
Machinery, tools and equipment	3-20 years	16,353	15,119
Other, including assets under construction		2,213	2,054
		25,686	24,084
Accumulated depreciation		(12,931)	(11,787)
		$ 12,755	$ 12,297

Depreciation expense is recorded predominantly utilizing the straight-line method and was $1,506 million in 2019, $1,240 million in 2018 and $1,178 million in 2017.

NOTE 8: ACCRUED LIABILITIES

(dollars in millions)	2019	2018
Accrued salaries, wages and employee benefits	$ 2,407	$ 2,074
Service and warranty accruals	734	754
Interest payable	608	637
Litigation and contract matters	502	461
Income taxes payable	928	460
Accrued property, sales and use taxes	320	277
Canadian government settlement - current portion	—	34
Accrued restructuring costs	208	249
Accrued workers compensation	157	142
Liabilities held for sale	—	40
Operating lease liabilities, current	544	—
Other	5,329	5,095
	$ 11,737	$ 10,223

The increase in Income taxes payable is primarily related to income taxes associated with the Company’s portfolio separation transactions. Refer to Note 19 for discussion of leases.

NOTE 9: BORROWINGS AND LINES OF CREDIT

(dollars in millions)		**2019**		2018
Short-term borrowings:				
Commercial paper	**$**	**—**	$	1,257
Other borrowings		**2,364**		212
Total short-term borrowings	**$**	**2,364**	$	1,469

At December 31, 2019, we had credit agreements with various banks permitting aggregate borrowings of up to $10.35 billion including a $2.20 billion revolving credit agreement and a $2.15 billion multicurrency revolving credit agreement, both of which expire in August 2021; and a $2.0 billion revolving credit agreement and a $4.0 billion term credit agreement, both of which we entered into on March 15, 2019 and which will expire on March 15, 2021 or, if earlier, the date that is 180 days after the date on which each of the separations of Otis and Carrier have been consummated. As of December 31, 2019, there were borrowings of $2.10 billion under the $4.0 billion term credit agreement. The undrawn portions of the revolving credit agreements are also available to serve as backup facilities for the issuance of commercial paper.

As of December 31, 2019, our maximum commercial paper borrowing limit was $6.35 billion. We had no commercial paper borrowings as of December 31, 2019. We use our commercial paper borrowings for general corporate purposes, including the funding of potential acquisitions, pension contributions, debt refinancing, dividend payments and repurchases of our common stock. The need for commercial paper borrowings arises when the use of domestic cash for general corporate purposes exceeds the sum of domestic cash generation and foreign cash repatriated to the U.S.

At December 31, 2019, approximately $2.3 billion was available under short-term lines of credit with local banks at our various domestic and international subsidiaries. The weighted-average interest expense rates applicable to short-term borrowings and total debt were as follows:

	2019	2018
Average interest expense rate - average outstanding borrowings during the year:		
Short-term borrowings	**1.9 %**	1.5 %
Total debt	**3.7 %**	3.5 %
Average interest expense rate - outstanding borrowings as of December 31:		
Short-term borrowings	**3.1 %**	1.2 %
Total debt	**3.7 %**	3.5 %

Long-term debt consisted of the following as of December 31:

(dollars in millions)		**2019**		2018
Libor plus 0.350% floating rate notes due 2019 [3]	$	—	$	350
1.500% notes due 2019 [1]		—		650
1.950% notes due 2019 [4]		—		300
Euribor plus 0.15% floating rate notes due 2019 (€750 million principal value) [2]		—		858
5.250% notes due 2019 [4]		—		300
8.875% notes due 2019		—		271
4.875% notes due 2020 [1]		171		171
4.500% notes due 2020 [1]		1,250		1,250
1.900% notes due 2020 [1]		1,000		1,000
EURIBOR plus 0.20% floating rate notes due 2020 (€750 million principal value) [2]		831		858
8.750% notes due 2021		250		250
3.100% notes due 2021 [4]		250		250
3.350% notes due 2021 [1]		1,000		1,000
LIBOR plus 0.650% floating rate notes due 2021 [1,3]		750		750
1.950% notes due 2021 [1]		750		750
1.125% notes due 2021 (€950 million principal value) [1]		1,053		1,088
2.300% notes due 2022 [1]		500		500
2.800% notes due 2022 [4]		1,100		1,100
3.100% notes due 2022 [1]		2,300		2,300

1.250% notes due 2023 (€750 million principal value)[1]	831	858
3.650% notes due 2023 [1]	2,250	2,250
3.700% notes due 2023 [4]	400	400
2.800% notes due 2024 [1]	800	800
3.200% notes due 2024 [4]	950	950
1.150% notes due 2024 (€750 million principal value)[1]	831	858
3.950% notes due 2025 [1]	1,500	1,500
1.875% notes due 2026 (€500 million principal value)[1]	554	573
2.650% notes due 2026 [1]	1,150	1,150
3.125% notes due 2027 [1]	1,100	1,100
3.500% notes due 2027 [4]	1,300	1,300
7.100% notes due 2027	141	141
6.700% notes due 2028	400	400
4.125% notes due 2028 [1]	3,000	3,000
7.500% notes due 2029 [1]	550	550
2.150% notes due 2030 (€500 million principal value)[1]	554	573
5.400% notes due 2035 [1]	600	600
6.050% notes due 2036 [1]	600	600
6.800% notes due 2036 [1]	134	134
7.000% notes due 2038	159	159
6.125% notes due 2038 [1]	1,000	1,000
4.450% notes due 2038 [1]	750	750
5.700% notes due 2040 [1]	1,000	1,000
4.500% notes due 2042 [1]	3,500	3,500
4.800% notes due 2043 [4]	400	400
4.150% notes due 2045 [1]	850	850
3.750% notes due 2046 [1]	1,100	1,100
4.050% notes due 2047 [1]	600	600
4.350% notes due 2047 [4]	1,000	1,000
4.625% notes due 2048 [1]	1,750	1,750
Project financing obligations[5]	309	287
Other (including finance leases)	331	287
Total principal long-term debt	41,599	44,416
Other (fair market value adjustments, discounts and debt issuance costs)	(315)	(348)
Total long-term debt	**41,284**	44,068
Less: current portion	**3,496**	2,876
Long-term debt, net of current portion	**$ 37,788**	$ 41,192

1 We may redeem these notes at our option pursuant to their terms.

2 The three-month EURIBOR rate as of December 31, 2019 was approximately (0.383)%. The notes may be redeemed at our option in whole, but not in part, at any time in the event of certain developments affecting U.S. taxation.

3 The three-month LIBOR rate as of December 31, 2019 was approximately 1.908%.

4 Rockwell Collins debt which remained outstanding following the Merger.

5 The project financing obligations included in the table above are associated with the sale of rights to unbilled revenues related to the ongoing activity of an entity owned by Carrier.

We had no debt issuances during 2019 and the following issuances of debt in 2018:

(dollars in millions)

Issuance Date	Description of Notes		Aggregate Principal Balance
August 16, 2018:	3.350% notes due 2021[1]	$	1,000
	3.650% notes due 2023[1]		2,250
	3.950% notes due 2025[1]		1,500
	4.125% notes due 2028[1]		3,000
	4.450% notes due 2038[1]		750
	4.625% notes due 2048[2]		1,750
	LIBOR plus 0.65% floating rate notes due 2021[1]		750
May 18, 2018:	1.150% notes due 2024[3]	€	750
	2.150% notes due 2030[3]		500
	EURIBOR plus 0.20% floating rate notes due 2020[3]		750

1 The net proceeds received from these debt issuances were used to partially finance the cash consideration portion of the purchase price for Rockwell Collins and fees, expenses and other amounts related to the acquisition of Rockwell Collins.

2 The net proceeds from these debt issuances were used to fund the repayment of commercial paper and for other general corporate purposes.

3 The net proceeds received from these debt issuances were used for general corporate purposes.

We made the following repayments of debt in 2019 and 2018:

(dollars in millions)

Repayment Date	Description of Notes		Aggregate Principal Balance
November 15, 2019	8.875% notes	$	271
November 13, 2019	EURIBOR plus 0.15% floating rate notes	€	750
November 1, 2019:	LIBOR plus 0.350% floating rate notes	$	350
	1.500% notes	$	650
July 15, 2019:	1.950% notes[1]	$	300
	5.250% notes[1]	$	300
December 14, 2018	Variable-rate term loan due 2020 (1 month LIBOR plus 1.25%)[1]	$	482
May 4, 2018	1.778% junior subordinated notes	$	1,100
February 22, 2018	EURIBOR plus 0.80% floating rate notes	€	750
February 1, 2018	6.80% notes	$	99

1 These notes and term loan were assumed in connection with the Rockwell Collins acquisition and subsequently repaid.

The percentage of total short-term borrowings and long-term debt at variable interest rates was 9% and 10% at December 31, 2019 and 2018, respectively. Interest rates on our commercial paper borrowings are considered variable due to their short-term duration and high-frequency of turnover.

The average maturity of our long-term debt at December 31, 2019 is approximately 10 years. The schedule of principal payments required on long-term debt for the next five years and thereafter is:

(dollars in millions)

2020	$	3,496
2021		4,142
2022		3,919
2023		3,501
2024		2,592
Thereafter		23,949
Total	$	41,599

On September 27, 2019 we filed a universal shelf registration statement with the SEC for an indeterminate amount of debt and equity securities for future issuance, subject to our internal limitations on the amount of debt to be issued under the shelf registration statement.

NOTE 10: ACCUMULATED OTHER COMPREHENSIVE INCOME

A summary of the changes in each component of Accumulated other comprehensive (loss) income, net of tax for the years ended December 31, 2019 and 2018 is provided below:

(dollars in millions)	Foreign Currency Translation	Defined Benefit Pension and Postretirement Plans	Unrealized Gains (Losses) on Available-for-Sale Securities	Unrealized Hedging (Losses) Gains	Accumulated Other Comprehensive (Loss) Income
Balance at December 31, 2017	$ (2,950)	$ (4,652)	$ 5	$ 72	$ (7,525)
Other comprehensive income before reclassifications, net	(486)	(1,736)	—	(307)	(2,529)
Amounts reclassified, pre-tax	(2)	344	—	(16)	326
Tax (expense) benefit	(4)	326	—	78	400
ASU 2016-01 adoption impact	$ —	$ —	$ (5)	$ —	$ (5)
Balance at December 31, 2018	$ (3,442)	$ (5,718)	$ —	$ (173)	$ (9,333)
Other comprehensive loss before reclassifications, net	**280**	**(584)**	**—**	**(33)**	**(337)**
Amounts reclassified, pre-tax	**2**	**170**	**—**	**51**	**223**
Tax (expense) benefit	**(43)**	**97**	**—**	**(11)**	**43**
ASU 2018-02 adoption impact	**(8)**	**(737)**	**—**	**—**	**(745)**
Balance at December 31, 2019	**$ (3,211)**	**$ (6,772)**	**$ —**	**$ (166)**	**$ (10,149)**

In February 2018, the FASB issued ASU 2018-02,*Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income (Topic 220)*. The new standard allows companies to reclassify to retained earnings the stranded tax effects in Accumulated other comprehensive income (AOCI) from the TCJA. We elected to reclassify the income tax effects of TCJA from AOCI of $745 million to retained earnings, effective January 1, 2019.

In January 2016, the FASB issued ASU 2016-01, Financial Instruments - Overall: Recognition and Measurement of Financial Assets and Financial Liabilities. This ASU modifies how entities measure equity investments and present changes in the fair value of financial liabilities. Upon adoption, investments that do not result in consolidation and are not accounted for under the equity method generally must be carried at fair value, with changes in fair value recognized in net income. We had approximately $5 million of unrealized gains on these securities recorded in Accumulated other comprehensive loss in our Consolidated Balance Sheet as of December 31, 2017. We adopted this standard effective January 1, 2018, with these amounts recorded directly to retained earnings as of that date.

Amounts reclassified that relate to our defined benefit pension and postretirement plans include the amortization of prior service costs and actuarial net losses recognized during each period presented. These costs are recorded as components of net periodic pension cost for each period presented. Additionally, during 2019, we recorded a curtailment gain of $98 million in the Consolidated Statement of Operations which is included within amounts reclassified related to our defined pension and postretirement plans (see Note 12 for additional details).

All noncontrolling interests with redemption features, such as put options, that are not solely within our control (redeemable noncontrolling interests) are reported in the mezzanine section of the Consolidated Balance Sheet, between liabilities and equity, at the greater of redemption value or initial carrying value.

NOTE 11: INCOME TAXES

Income Before Income Taxes. The sources of income from continuing operations before income taxes are:

(dollars in millions)	**2019**	2018	2017
United States	**$ 3,207**	$ 3,630	$ 2,990
Foreign	**5,036**	4,650	4,773
	$ 8,243	$ 8,280	$ 7,763

On December 22, 2017 Public Law 115-97 *"An Act to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018"* was enacted. This law is commonly referred to as the Tax Cuts and Jobs Act of 2017 (TCJA).

The Company no longer intends to reinvest certain undistributed earnings of its international subsidiaries that have been previously taxed in the U.S. As such, in 2018 it recorded the international taxes associated with the future remittance of these earnings. For the remainder of the Company's undistributed international earnings, unless tax effective to repatriate, UTC will continue to permanently reinvest these earnings. As of December 31, 2019, such undistributed earnings were approximately $21 billion, excluding other comprehensive income amounts. It is not practicable to estimate the amount of tax that might be payable on the remaining amounts.

Provision for Income Taxes. The income tax expense (benefit) for the years ended December 31, 2019, 2018 and 2017 consisted of the following components:

(dollars in millions)	**2019**	2018	2017
Current:			
United States:			
Federal	**$ 188**	$ 442	$ 1,577
State	**48**	211	64
Foreign	**2,024**	1,238	1,140
	2,260	1,891	2,781
Future:			
United States:			
Federal	**111**	57	(27)
State	**52**	62	84
Foreign	**(128)**	616	5
	35	735	62
Income tax expense	**$ 2,295**	$ 2,626	$ 2,843
Attributable to items credited (charged) to equity	**$ 40**	$ 501	$ (128)

Reconciliation of Effective Income Tax Rate. Differences between effective income tax rates and the statutory U.S. federal income tax rate are as follows:

	2019	2018	2017
Statutory U.S. federal income tax rate	**21.0 %**	21.0 %	35.0 %
Tax related separation activities	**8.8 %**	— %	— %
Tax on international activities	**1.9 %**	0.9 %	(6.4)%
Tax audit settlements	**(3.5)%**	— %	(0.7)%
U.S. tax reform	**— %**	9.0 %	8.9 %
Other	**(0.4)%**	0.8 %	(0.2)%
Effective income tax rate	**27.8 %**	31.7 %	36.6 %

The 2019 effective tax rate includes $729 million of income taxes associated with the Company's portfolio separation transactions, offset in part by amounts associated with the conclusion of the audit by the Examination Division of the Internal Revenue Service for the UTC 2014, 2015 and 2016 tax years, the filing by a subsidiary of the Company to participate in an amnesty program offered by the Italian Tax Authority.

The 2019 increase in the cost of U.S. and foreign tax on international activities is primarily attributable to the full phase-in of the TCJA provisions on the Company's international subsidiaries. The increase in the benefit of other activities is primarily related to additional research and development credits and equity compensation deductions.

The 2018 effective tax rate reflects a net tax charge of $744 million for TCJA related adjustments. The amount is primarily associated with non-U.S. taxes that will become due when previously reinvested earnings of certain international subsidiaries are remitted. The 2018 and 2019 effective tax rate reconciliation reflects the corporate rate reduction enacted by the TCJA. The decrease in international activities is primarily related to higher international tax costs compared to the U.S. federal statutory rate.

The 2017 effective tax rate reflects a net tax charge of $690 million attributable to the passage of the TCJA. These 2017 provisional amounts, recorded as described in SAB 118, relate to U.S. income tax attributable to previously undistributed earnings of UTC's international subsidiaries and equity investments, net of foreign tax credits, and the revaluation of U.S. deferred income taxes.

Deferred Tax Assets and Liabilities. Future income taxes represent the tax effects of transactions which are reported in different periods for tax and financial reporting purposes. These amounts consist of the tax effects of temporary differences between the tax and financial reporting balance sheets and tax carryforwards. Future income tax benefits and payables within the same tax paying component of a particular jurisdiction are offset for presentation in the Consolidated Balance Sheet.

The tax effects of temporary differences and tax carryforwards which gave rise to future income tax benefits and payables at December 31, 2019 and 2018 are as follows:

(dollars in millions)	**2019**	2018
Future income tax benefits:		
Insurance and employee benefits	**$ 1,205**	$ 1,154
Other asset basis differences	**829**	1,013
Other liability basis differences	**2,153**	1,482
Tax loss carryforwards	**622**	583
Tax credit carryforwards	**1,021**	1,050
Valuation allowances	**(616)**	(605)
	$ 5,214	$ 4,677
Future income taxes payable:		
Intangible assets	**$ 4,293**	$ 4,462
Other asset basis differences	**2,904**	2,159
Other items, net	**143**	123
	$ 7,340	$ 6,744

Valuation allowances have been established primarily for tax credit carryforwards, tax loss carryforwards, and certain foreign temporary differences to reduce the future income tax benefits to expected realizable amounts.

Tax Credit and Loss Carryforwards. At December 31, 2019, tax credit carryforwards, principally state and foreign, and tax loss carryforwards, principally state and foreign, were as follows:

(dollars in millions)	Tax Credit Carryforwards	Tax Loss Carryforwards
Expiration period:		
2020-2024	$ 59	$ 393
2025-2029	27	179
2030-2039	336	394
Indefinite	599	2,218
Total	$ 1,021	$ 3,184

Unrecognized Tax Benefits. At December 31, 2019, we had gross tax-effected unrecognized tax benefits of $1,347 million, of which $1,338 million, if recognized, would impact the effective tax rate. A reconciliation of the beginning and ending amounts

of unrecognized tax benefits and interest expense related to unrecognized tax benefits for the years ended December 31, 2019, 2018 and 2017 is as follows:

(dollars in millions)	**2019**	2018	2017
Balance at January 1	**$ 1,619**	$ 1,189	$ 1,086
Additions for tax positions related to the current year	**131**	192	192
Additions for tax positions of prior years	**73**	344	73
Reductions for tax positions of prior years	**(101)**	(91)	(91)
Settlements	**(375)**	(15)	(71)
Balance at December 31	**$ 1,347**	$ 1,619	$ 1,189
Gross interest expense related to unrecognized tax benefits	**$ 57**	$ 37	$ 34
Total accrued interest balance at December 31	**$ 249**	$ 255	$ 215

The 2018 amounts above include amounts related to the acquisition of Rockwell Collins.

We conduct business globally and, as a result, UTC or one or more of our subsidiaries files income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. In the normal course of business we are subject to examination by taxing authorities throughout the world, including such major jurisdictions as Australia, Belgium, Brazil, Canada, China, France, Germany, Hong Kong, India, Italy, Japan, Mexico, Netherlands, Poland, Singapore, South Korea, Spain, Switzerland, the United Kingdom and the United States. With few exceptions, we are no longer subject to U.S. federal, state and local, or non-U.S. income tax examinations for years before 2009.

During 2019, the Company recognized a net gain of approximately $307 million, including pre-tax interest of approximately $56 million as a result of the conclusion of the IRS audit of the Company's 2014, 2015 and 2016 tax years as well as an amnesty filing in Italy made to resolve certain tax litigation. The Company also recognized a non-cash gain of approximately $40 million, primarily tax, as a result of the closure of an IRS audit of the 2014 tax year of a subsidiary acquired as part of UTC's acquisition of Rockwell Collins. This gain was partially offset by the unfavorable pre-tax impact of a reversal of a related indemnity asset of approximately $23 million. Finally, the Company recognized net non-cash gains of approximately $18 million, including pre-tax interest of approximately $5 million, as a result of various federal, state and non-US statute of limitations expirations and settlements with tax authorities.

During 2017, the Company recognized a noncash gain of approximately $64 million, including a pre-tax interest adjustment of $9 million, as a result of federal, state and non-U.S. tax year closures related to audit resolutions and the expiration of applicable statutes of limitation, including expiration of the U.S. federal income tax statute of limitations for UTC's 2013 tax year.

The Examination Division of the Internal Revenue Service (IRS) is currently auditing Rockwell Collins fiscal tax years 2016 and 2017, prior to its acquisition by UTC, which will continue into 2020. Separately, the Examination Division of the IRS has notified the Company of its intention to commence an audit of UTC tax years 2017 and 2018 during the first half of 2020.

It is reasonably possible that a net reduction within the range of $50 million to $650 million of unrecognized tax benefits may occur over the next 12 months as a result of the contemplated separation of Carrier and Otis, additional worldwide uncertain tax positions, the revaluation of current uncertain tax positions arising from developments in examinations, in appeals, or in the courts, or the closure of tax statutes.

See Note 18 "Contingent Liabilities" for discussion regarding uncertain tax positions, included in the above range, related to pending litigation with respect to certain deductions claimed in Germany.

NOTE 12: EMPLOYEE BENEFIT PLANS

We sponsor numerous domestic and foreign employee benefit plans, which are discussed below.

In March 2017, the FASB issued ASU 2017-07, Compensation-Retirement Benefits (Topic 715), Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. This ASU requires an employer to report the service cost component of net periodic pension benefit cost in the same line item(s) as other compensation costs arising from services rendered by the pertinent employees during the period, with other cost components presented separately from the service cost component and outside of income from operations. This ASU also allows only the service cost component of net periodic pension benefit cost to be eligible for capitalization when applicable. This ASU was effective for years beginning after December 15, 2017. The Company adopted this standard on January 1, 2018 applying the presentation requirements retrospectively. We elected to apply the practical expedient, which allows us to reclassify amounts disclosed previously in the employee benefit plans note as the basis for applying retrospective presentation for comparative periods as it is impracticable to determine the disaggregation of the cost components for amounts capitalized and amortized in those periods. Provisions related to presentation of the service cost component eligibility for capitalization were applied prospectively.

The effect of the retrospective presentation change related to the net periodic benefit cost of our defined benefit pension and postretirement plans on our Consolidated Statement of Operations was as follows:

	2017		
(dollars in millions)	**Previously Reported**	**Effect of Change Higher/(Lower)**	**As Revised**
Cost of product sold	$ 31,027	$ 197	$ 31,224
Cost of services sold	12,926	51	12,977
Research and development	2,387	40	2,427
Selling, general and administrative	6,183	246	6,429
Non-service pension (benefit)	—	(534)	(534)

Employee Savings Plans. We sponsor various employee savings plans. Our contributions to employer sponsored defined contribution plans were $549 million, $403 million and $351 million for 2019, 2018 and 2017, respectively.

Our non-union domestic employee savings plan uses an Employee Stock Ownership Plan (ESOP) for employer matching contributions. External borrowings were used by the ESOP to fund a portion of its purchase of ESOP stock from us. The external borrowings have been extinguished and only re-amortized loans remain between UTC and the ESOP Trust. As ESOP debt service payments are made, common stock is released from an unreleased shares account. ESOP debt may be prepaid or re-amortized to either increase or decrease the number of shares released so that the value of released shares equals the value of plan benefit. We may also, at our option, contribute additional common stock or cash to the ESOP.

Shares of common stock are allocated to employees' ESOP accounts at fair value on the date earned. Cash dividends on common stock held by the ESOP are used for debt service payments. Participants may choose to have their ESOP dividends reinvested or distributed in cash. Common stock allocated to ESOP participants is included in the average number of common shares outstanding for both basic and diluted earnings per share. At December 31, 2019, 23.4 million common shares had been allocated to employees, leaving 7.9 million unallocated common shares in the ESOP Trust, with an approximate fair value of $1.2 billion.

Pension Plans. We sponsor both funded and unfunded domestic and foreign defined benefit pension plans that cover a large number of our employees. Our largest plans are generally closed to new participants. Our plans use a December 31 measurement date consistent with our fiscal year.

(dollars in millions)		**2019**		2018
Change in Benefit Obligation:				
Beginning balance	**$**	**37,795**	$	36,999
Service cost		**359**		372
Interest cost		**1,340**		1,117
Actuarial loss (gain)		**4,651**		(2,048)
Total benefits paid		**(2,174)**		(1,932)
Net settlement, curtailment and special termination benefits		**(267)**		(38)
Plan amendments		**6**		65
Business combinations		**(6)**		3,694
Other		**127**		(434)
Ending balance	**$**	**41,831**	$	37,795
Change in Plan Assets:				
Beginning balance	**$**	**35,253**	$	35,689
Actual return on plan assets		**6,311**		(1,667)
Employer contributions		**207**		238
Benefits paid		**(2,174)**		(1,932)
Settlements		**(54)**		(38)
Business combinations		**(10)**		3,355
Other		**156**		(392)
Ending balance	**$**	**39,689**	$	35,253
Funded Status:				
Fair value of plan assets	**$**	**39,689**	$	35,253
Benefit obligations		**(41,831)**		(37,795)
Funded status of plan	**$**	**(2,142)**	$	(2,542)
Amounts Recognized in the Consolidated Balance Sheet Consist of:				
Noncurrent assets	**$**	**617**	$	686
Current liability		**(88)**		(88)
Noncurrent liability		**(2,671)**		(3,140)
Net amount recognized	**$**	**(2,142)**	$	(2,542)
Amounts Recognized in Accumulated Other Comprehensive Loss Consist of:				
Net actuarial loss	**$**	**8,910**	$	8,606
Prior service cost		**203**		139
Net amount recognized	**$**	**9,113**	$	8,745

In September 2019, we amended our domestic pension plans to cease accrual of additional benefits for future service and compensation for non-union participants effective December 31, 2019. Beginning January 1, 2020, these participants will earn additional contributions under our domestic savings plan. We utilized the practical expedient and remeasured plan assets and pension benefit obligations for the affected pension plans as of the nearest month-end, August 31, 2019, resulting in a net actuarial loss of $425 million. This reflects a benefit obligation gain of $180 million resulting from the benefit plan change that was offset by remeasurement losses of $605 million. The remeasurement losses are driven by a reduction of 124 basis points in the projected benefit obligation (PBO) discount rate as of the remeasurement date compared to December 31, 2018, partially offset by actual asset returns of approximately 17% as of the remeasurement date.

In September 2019, we recorded a curtailment gain of $98 million in the Consolidated Statement of Operations, due to the recognition of previously unrecognized prior service credits for the affected pension plans. Additionally, as a result of the remeasurement, pension income (excluding curtailment) decreased by approximately $39 million for the year ended December 31, 2019.

The amounts included in "Other" in the above table primarily reflect the impact of foreign exchange translation, primarily for plans in the U.K. and Canada.

As part of the Rockwell acquisition on November 26, 2018, we assumed approximately $3.7 billion of pension projected benefit obligations and $3.4 billion of plan assets.

Qualified domestic pension plan benefits comprise approximately 75% of the projected benefit obligation. Benefits for union employees are generally based on a stated amount for each year of service. For non-union employees, benefits for service up to December 31, 2014 are generally based on an employee's years of service and compensation through December 31, 2014. Benefits for service after December 31, 2014 through December 31, 2019 are based on the existing cash balance formula that was adopted in 2003 for newly hired non-union employees and for other non-union employees who made a one-time voluntary election to have future benefit accruals determined under this formula. Certain foreign plans, which comprise approximately 24% of the projected benefit obligation, are considered defined benefit plans for accounting purposes. Nonqualified domestic pension plans provide supplementary retirement benefits to certain employees and are not a material component of the projected benefit obligation.

We made $25 million of cash contributions to our domestic defined benefit pension plans and made $93 million of cash contributions to our foreign defined benefit pension plans in 2019. In 2018, we made no cash contributions to our domestic defined benefit pension plans and made $147 million of cash contributions to our foreign defined benefit pension plans.

Information for pension plans with accumulated benefit obligations in excess of plan assets:

(dollars in millions)	**2019**	2018
Projected benefit obligation	**$ 39,267**	$ 25,884
Accumulated benefit obligation	**38,816**	25,455
Fair value of plan assets	**36,530**	22,803

Information for pension plans with projected benefit obligations in excess of plan assets:

(dollars in millions)	**2019**	2018
Projected benefit obligation	**$ 39,680**	$ 28,591
Accumulated benefit obligation	**39,178**	27,968
Fair value of plan assets	**36,921**	25,362

The accumulated benefit obligation for all defined benefit pension plans was $41.3 billion and $37.0 billion at December 31, 2019 and 2018, respectively.

The components of the net periodic pension benefit are as follows:

(dollars in millions)	**2019**	2018	2017
Pension Benefits:			
Service cost	**$ 359**	$ 372	$ 374
Interest cost	**1,340**	1,117	1,120
Expected return on plan assets	**(2,430)**	(2,255)	(2,215)
Amortization of prior service cost (credit)	**17**	(41)	(36)
Recognized actuarial net loss	**265**	401	575
Net settlement, curtailment and special termination benefits (gain) loss	**(54)**	1	3
Net periodic pension benefit - employer	**$ (503)**	$ (405)	$ (179)

Other changes in plan assets and benefit obligations recognized in other comprehensive loss in 2019 are as follows:

(dollars in millions)	
Current year actuarial loss	**$ 553**
Amortization of actuarial loss	**(265)**
Current year prior service cost	**6**
Amortization of prior service cost	**(17)**
Net settlement and curtailment	**57**
Other	**34**
Total recognized in other comprehensive loss	**$ 368**
Net recognized in net periodic pension benefit and other comprehensive loss	**$ (135)**

The amount included in "Other" in the above table primarily reflects the impact of foreign exchange translation, primarily for plans in the U.K. and Canada.

The estimated amount that will be amortized from accumulated other comprehensive loss into net periodic pension (benefit) cost in 2020 is as follows:

(dollars in millions)	
Net actuarial loss	$ 371
Prior service cost	51
	$ 422

Major assumptions used in determining the benefit obligation and net cost for pension plans are presented in the following table as weighted-averages:

	Benefit Obligation		Net Cost		
	2019	2018	**2019**	2018	2017
Discount rate					
PBO	**3.0 %**	4.0 %	**3.9 %**	3.4 %	3.8 %
Interest cost[1]	**—**	—	**3.6 %**	3.0 %	3.3 %
Service cost[1]	**—**	—	**3.6 %**	3.3 %	3.6 %
Salary scale	**4.2 %**	4.2 %	**4.2 %**	4.2 %	4.1 %
Expected return on plan assets	**—**	—	**6.7 %**	6.8 %	7.3 %

Note 1 The discount rates used to measure the service cost and interest cost applies to our significant plans. The PBO discount rate is used for the service cost and interest cost measurements for non-significant plans.

In determining the expected return on plan assets, we consider the relative weighting of plan assets, the historical performance of total plan assets and individual asset classes, and economic and other indicators of future performance. In addition, we may consult with and consider the opinions of financial and other professionals in developing appropriate capital market assumptions. Return projections are also validated using a simulation model that incorporates yield curves, credit spreads and risk premiums to project long-term prospective returns.

The plans' investment management objectives include providing the liquidity and asset levels needed to meet current and future benefit payments, while maintaining a prudent degree of portfolio diversification considering interest rate risk and market volatility. Globally, investment strategies target a mix of 45% to 50% of growth seeking assets and 50% to 55% of income generating and hedging assets using a wide set of diversified asset types, fund strategies and investment managers. The growth seeking allocation consists of global public equities in developed and emerging countries, private equity, real estate and multi-asset class strategies. Growth assets include an enhanced alpha strategy that invests in publicly traded equity and fixed income securities, derivatives and foreign currency. Investments in private equity are primarily via limited partnership interests in buy-out strategies with smaller allocations to distressed debt funds. The real estate strategy is principally concentrated in directly held U.S. core investments with some smaller investments in international, value-added and opportunistic strategies. Within the income generating assets, the fixed income portfolio consists of mainly government and broadly diversified high quality corporate bonds.

The plans have continued their pension risk management techniques designed to reduce their interest rate risk. Specifically, the plans have incorporated liability hedging programs that include the adoption of a risk reduction objective as part of the long-term investment strategy. Under this objective the interest rate hedge is intended to increase as funded status improves. The hedging programs incorporate a range of assets and investment tools, each with varying interest rate sensitivities. As result of the improved funded status of the plans due to favorable asset returns and funding of the plans, the interest rate hedge increased significantly during 2017. The investment portfolios are currently hedging approximately 65% to 70% of the interest rate sensitivity of the pension plan liabilities.

As a result of the shift in the target asset mix to higher income generating and hedging assets and lower growth seeking assets, combined with reduced capital market assumptions for most asset classes, we will reduce the expected return on plan assets assumption for 2020 including the assumption of a 6.5% return on plan assets for our qualified domestic pension plans, down from 7.0% in 2019.

The fair values of pension plan assets at December 31, 2019 and 2018 by asset category are as follows:

(dollars in millions)	Quoted Prices in Active Markets For Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Not Subject to Leveling	Total
Asset Category:					
Public Equities					
Global Equities	**$ 3,588**	**$ 5**	**$ —**	**$ —**	**$ 3,593**
Global Equity Commingled Funds[1]	**—**	**1,734**	**—**	**—**	**1,734**
Enhanced Global Equities[2]	**322**	**393**	**—**	**—**	**715**
Global Equity Funds at net asset value[8]	**—**	**—**	**—**	**6,318**	**6,318**
Private Equities [3,8]	**—**	**—**	**202**	**1,230**	**1,432**
Fixed Income Securities					
Governments	**969**	**116**	**—**	**—**	**1,085**
Corporate Bonds	**1**	**13,059**	**5**	**—**	**13,065**
Structured Products	**—**	**17**	**—**	**—**	**17**
Fixed Income Securities[8]	**—**	**—**	**—**	**6,262**	**6,262**
Real Estate [4,8]	**—**	**13**	**1,464**	**372**	**1,849**
Other [5,8]	**—**	**343**	**—**	**2,834**	**3,177**
Cash & Cash Equivalents[6,8]	**—**	**47**	**—**	**76**	**123**
Subtotal	**$ 4,880**	**$ 15,727**	**$ 1,671**	**$ 17,092**	**39,370**
Other Assets & Liabilities[7]					**319**
Total at December 31, 2019					**$ 39,689**
Public Equities					
Global Equities	$ 2,917	$ 4	$ —	$ —	$ 2,921
Global Equity Commingled Funds[1]	185	426	—	—	611
Enhanced Global Equities[2]	79	605	—	—	684
Global Equity Funds at net asset value[8]	—	—	—	7,386	7,386
Private Equities [3,8]	—	—	133	1,194	1,327
Fixed Income Securities					
Governments	1,789	162	—	—	1,951
Corporate Bonds	—	11,527	18	29	11,574
Fixed Income Securities[8]	—	—	—	3,599	3,599
Real Estate [4,8]	—	13	1,387	429	1,829
Other [5,8]	—	262	—	2,368	2,630
Cash & Cash Equivalents[6,8]	—	220	—	138	358
Subtotal	$ 4,970	$ 13,219	$ 1,538	$ 15,143	34,870
Other Assets & Liabilities[7]					383
Total at December 31, 2018					$ 35,253

Note 1 Represents commingled funds that invest primarily in common stocks.

Note 2 Represents enhanced equity separate account and commingled fund portfolios. A portion of the portfolio may include long-short market neutral and relative value strategies that invest in publicly traded, equity and fixed income securities, as well as derivatives of equity and fixed income securities and foreign currency.

Note 3 Represents limited partner investments with general partners that primarily invest in debt and equity.

Note 4 Represents investments in real estate including commingled funds and directly held properties.

Note 5 Represents insurance contracts and global balanced risk commingled funds consisting mainly of equity, bonds and some commodities.

Note 6 Represents short-term commercial paper, bonds and other cash or cash-like instruments.

Note 7 Represents trust receivables and payables that are not leveled.

Note 8 In accordance with ASU 2015-07, *Fair Value Measurement (Topic 820)* , certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented for the total pension benefits plan assets.

Derivatives in the plan are primarily used to manage risk and gain asset class exposure while still maintaining liquidity. Derivative instruments mainly consist of equity futures, interest rate futures, interest rate swaps and currency forward contracts.

Our common stock represents less than1% of total plan assets at December 31, 2019 and 2018. We review our assets at least quarterly to ensure we are within the targeted asset allocation ranges and, if necessary, asset balances are adjusted back within target allocations. We employ a broadly diversified investment manager structure that includes diversification by active and passive management, style, capitalization, country, sector, industry and number of investment managers.

The fair value measurement of plan assets using significant unobservable inputs (Level 3) changed due to the following:

(dollars in millions)	Private Equities	Corporate Bonds	Real Estate	Total
Balance, December 31, 2017	$ 46	$ —	$ 1,446	$ 1,492
Plan assets acquired	—	33	—	33
Realized (losses) gains	—	(1)	10	9
Unrealized gains relating to instruments still held in the reporting period	—	2	38	40
Purchases, sales, and settlements, net	87	(16)	(107)	(36)
Balance, December 31, 2018	133	18	1,387	1,538
Realized losses	**—**	**—**	**(2)**	**(2)**
Unrealized gains relating to instruments still held in the reporting period	**32**	**—**	**27**	**59**
Purchases, sales, and settlements, net	**37**	**(13)**	**52**	**76**
Balance, December 31, 2019	**$ 202**	**$ 5**	**$ 1,464**	**$ 1,671**

Quoted market prices are used to value investments when available. Investments in securities traded on exchanges, including listed futures and options, are valued at the last reported sale prices on the last business day of the year or, if not available, the last reported bid prices. Fixed income securities are primarily measured using a market approach pricing methodology, where observable prices are obtained by market transactions involving identical or comparable securities of issuers with similar credit ratings. Mortgages have been valued on the basis of their future principal and interest payments discounted at prevailing interest rates for similar investments. Investment contracts are valued at fair value by discounting the related cash flows based on current yields of similar instruments with comparable durations. Real estate investments are valued on a quarterly basis using discounted cash flow models which consider long-term lease estimates, future rental receipts and estimated residual values. Valuation estimates are supplemented by third-party appraisals on an annual basis.

Private equity limited partnerships are valued quarterly using discounted cash flows, earnings multiples and market multiples. Valuation adjustments reflect changes in operating results, financial condition, or prospects of the applicable portfolio company. Over-the-counter securities and government obligations are valued at the bid prices or the average of the bid and ask prices on the last business day of the year from published sources or, if not available, from other sources considered reliable, generally broker quotes. Temporary cash investments are stated at cost, which approximates fair value.

As a result of the $1.9 billion contribution in 2017, we are not required to make additional contributions to our domestic defined benefit pension plans through the end of 2025. We expect to make total contributions of approximately $125 million to our global defined benefit pension plans in 2020. Contributions do not reflect benefits to be paid directly from corporate assets.

Benefit payments, including amounts to be paid from corporate assets, and reflecting expected future service, as appropriate, are expected to be paid as follows: $2,428 million in 2020, $2,230 million in 2021, $2,263 million in 2022, $2,289 million in 2023, $2,303 million in 2024, and $11,597 million from 2025 through 2029.

Postretirement Benefit Plans. We sponsor a number of postretirement benefit plans that provide health and life benefits to eligible retirees. Such benefits are provided primarily from domestic plans, which comprise approximately 84% of the benefit obligation. The postretirement plans are primarily unfunded. The assets we hold are invested in approximately 50% growth seeking assets and 50% income generating assets.

(dollars in millions)	**2019**	2018
Change in Benefit Obligation:		
Beginning balance	**$ 810**	$ 767
Service cost	**2**	2
Interest cost	**31**	26
Actuarial gain	**(11)**	(52)
Total benefits paid	**(69)**	(70)
Business combinations	**—**	186
Plan amendments	**—**	(43)
Other	**2**	(6)
Ending balance	**$ 765**	$ 810
Change in Plan Assets:		
Beginning balance	**$ 20**	$ —
Employer contributions	**69**	69
Benefits paid	**(69)**	(70)
Business combinations	**—**	20
Other	**—**	1
Ending balance	**$ 20**	$ 20
Funded Status:		
Fair value of plan assets	**$ 20**	$ 20
Benefit obligations	**(765)**	(810)
Funded status of plan	**$ (745)**	$ (790)
Amounts Recognized in the Consolidated Balance Sheet Consist of:		
Current liability	**$ (47)**	$ (61)
Noncurrent liability	**(698)**	(729)
Net amount recognized	**$ (745)**	$ (790)
Amounts Recognized in Accumulated Other Comprehensive Loss Consist of:		
Net actuarial gain	**$ (181)**	$ (184)
Prior service credit	**(4)**	(47)
Net amount recognized	**$ (185)**	$ (231)

As part of our acquisition of Rockwell on November 26, 2018, we assumed approximately $186 million of postretirement benefit obligations and $20 million of plan assets.

We modified the postretirement medical benefits provided to legacy Rockwell salaried employees by eliminating any company subsidy from retirements that occur after December 31, 2019. This resulted in a $43 million reduction in the benefit obligation as of November 26, 2018.

The components of net periodic benefit cost are as follows:

(dollars in millions)	**2019**	2018	2017
Other Postretirement Benefits:			
Service cost	**$ 2**	$ 2	$ 2
Interest cost	**31**	26	29
Expected return on plan assets	**(1)**	—	—
Amortization of prior service credit	**(42)**	(6)	(1)
Recognized actuarial net gain	**(12)**	(10)	(9)
Net periodic other postretirement (benefit) cost	**$ (22)**	$ 12	$ 21

Other changes in plan assets and benefit obligations recognized in other comprehensive loss in 2019 are as follows:

(dollars in millions)		
Current year actuarial gain	**$**	**(10)**
Amortization of prior service credit		**42**
Amortization of actuarial net gain		**12**
Other		**2**
Total recognized in other comprehensive loss	**$**	**46**
Net recognized in net periodic other postretirement benefit cost and other comprehensive loss	**$**	**24**

The estimated amounts that will be amortized from accumulated other comprehensive loss into net periodic benefit cost in 2020 include actuarial net gains of $13 million and prior service credits of $3 million.

Major assumptions used in determining the benefit obligation and net cost for postretirement plans are presented in the following table as weighted-averages:

	Benefit Obligation		Net Cost		
	2019	2018	**2019**	2018	2017
Discount rate	**3.0 %**	4.1 %	**4.0 %**	3.4 %	3.8 %
Expected return on assets	**—**	—	**7.0 %**	7.0 %	N/A

Assumed health care cost trend rates are as follows:

	2019	2018
Health care cost trend rate assumed for next year	**6.5 %**	7.0 %
Rate that the cost trend rate gradually declines to	**5.0 %**	5.0 %
Year that the rate reaches the rate it is assumed to remain at	**2026**	2026

Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	2019 One-Percentage-Point	
(dollars in millions)	Increase	Decrease
Effect on total service and interest cost	$ 1	$ (1)
Effect on postretirement benefit obligation	25	(22)

Benefit payments, including net amounts to be paid from corporate assets and reflecting expected future service, as appropriate, are expected to be paid as follows: $67 million in 2020, $64 million in 2021, $60 million in 2022, $56 million in 2023, $53 million in 2024, and $210 million from 2025 through 2029.

Multiemployer Benefit Plans. We contribute to various domestic and foreign multiemployer defined benefit pension plans. The risks of participating in these multiemployer plans are different from single-employer plans in that assets contributed are pooled and may be used to provide benefits to employees of other participating employers. If a participating employer stops contributing to the plan, the unfunded obligations of the plan may be borne by the remaining participating employers. Lastly, if we choose to stop participating in some of our multiemployer plans, we may be required to pay those plans a withdrawal liability based on the underfunded status of the plan.

Our participation in these plans for the annual periods ended December 31 is outlined in the table below. Unless otherwise noted, the most recent Pension Protection Act (PPA) zone status available in 2019 and 2018 is for the plan's year-end at June 30, 2018, and June 30, 2017, respectively. The zone status is based on information that we received from the plan and is certified by the plan's actuary. Our significant plan is in the green zone which represents a plan that is at least 80% funded and does not require a financial improvement plan (FIP) or a rehabilitation plan (RP). An extended amortization provision of ten years is utilized to recognize investment gains or losses for our significant plan.

(dollars in millions)		Pension Protection Act Zone Status		FIP/ RP Status	Contributions				
Pension Fund	EIN/Pension Plan Number	**2019**	2018	Pending/ Implemented	**2019**	2018	2017	Surcharge Imposed	Expiration Date of Collective-Bargaining Agreement
National Elevator Industry Pension Plan	23-2694291	**Green**	Green	No	**$ 127**	$ 120	$ 114	No	July 8, 2022
Other funds					**32**	31	31		
					$ 159	$ 151	$ 145		

For the plan years ended June 30, 2018 and 2017, respectively, we were listed in the National Elevator Industry Pension Plan's Forms 5500 as providing more than 5% of the total contributions for the plan. At the date these financial statements were issued, Forms 5500 were not available for the plan year ending June 30, 2019.

In addition, we participate in several multiemployer arrangements that provide postretirement benefits other than pensions, with the National Elevator Industry Health Benefit Plan being the most significant. These arrangements generally provide medical and life benefits for eligible active employees and retirees and their dependents. Contributions to multiemployer plans that provide postretirement benefits other than pensions were $21 million, $20 million and $19 million for 2019, 2018 and 2017, respectively.

Stock-based Compensation. UTC's long-term incentive plans authorize various types of market and performance based incentive awards that may be granted to officers and employees. The UTC 2018 Long-Term Incentive Plan (the "2018 LTIP") was approved by shareholders on April 30, 2018 and its predecessor plan (the "Legacy LTIP"), was last amended on February 5, 2016. A total of 184 million shares have been authorized for issuance pursuant to awards under these Plans. There are 252,000 shares outstanding that were issued under the Rockwell Collins, Inc. 2015 Long-Term Incentive Plan. No new equity awards will be issued under that plan. As of December 31, 2019, approximately 42 million shares remain available for awards under the 2018 LTIP. No shares remain available for future awards under the Legacy LTIP. Neither plan contains an aggregate annual award limit, however, each Plan sets an annual award limit per participant. We expect that the shares awarded on an annual basis will range from 1.0% to 1.5% of shares outstanding. The 2018 LTIP will expire after all authorized shares have been awarded or April 30, 2028, whichever is sooner.

Under both Plans, the exercise price of awards is set on the grant date and may not be less than the fair market value per share on that date. Generally, stock appreciation rights and stock options have a term of ten years and a three-year vesting period, subject to limited exceptions. In the event of retirement, annual stock appreciation rights, stock options, and restricted stock units held for more than one year may become vested and exercisable, subject to certain terms and conditions. LTIP awards with performance-based vesting generally have a minimum three-year vesting period and vest based on actual performance against pre-established metrics. In the event of retirement, performance-based awards held for more than one year, remain eligible to vest based on actual performance relative to target metrics. We have historically repurchased shares of our common stock in an amount at least equal to the number of shares issued under our equity compensation arrangements and will continue to evaluate this policy in conjunction with our overall share repurchase program.

We measure the cost of all share-based payments, including stock options, at fair value on the grant date and recognize this cost in the Consolidated Statement of Operations, net of expected forfeitures, as follows:

(dollars in millions)	**2019**	2018	2017
Total compensation cost recognized	**$ 356**	$ 251	$ 192

The associated future income tax benefit recognized was $66 million, $42 million and $38 million for the years ended December 31, 2019, 2018 and 2017, respectively. The amounts have been adjusted for the impact of the TCJA.

For the years ended December 31, 2019, 2018 and 2017, the amount of cash received from the exercise of stock options was $27 million, $36 million and $29 million, respectively, with an associated tax benefit realized of $75 million, $59 million and $100 million, respectively. In addition, for the years ended December 31, 2019, 2018 and 2017, the associated tax benefit realized from the vesting of performance share units and other restricted awards was $36 million, $13 million and $12 million, respectively.

At December 31, 2019, there was $291 million of total unrecognized compensation cost related to non-vested equity awards granted under long-term incentive plans. This cost is expected to be recognized ratably over a weighted-average period of 2.9 years.

A summary of the transactions under all long-term incentive plans for the year ended December 31, 2019 follows:

(shares and units in thousands)	Stock Options Shares	Stock Options Average Price*	Stock Appreciation Rights Shares	Stock Appreciation Rights Average Price*	Performance Share Units Units	Performance Share Units Average Price*	Other Incentive Shares/Units
Outstanding at:							
December 31, 2018	1,603	$ 99.89	32,066	$ 99.95	1,806	$ 110.41	3,047
Granted	**339**	**124.72**	**8,081**	**123.54**	**839**	**121.22**	**1,223**
Ancillary**	**—**	**—**	**—**	**—**	**101**	**95.28**	**—**
Exercised / earned	**(317)**	**88.61**	**(6,843)**	**84.44**	**(758)**	**95.28**	**(816)**
Cancelled	**(57)**	**121.69**	**(591)**	**122.76**	**(69)**	**118.21**	**(135)**
December 31, 2019	**1,568**	**$ 106.75**	**32,713**	**$ 108.61**	**1,919**	**$ 120.04**	**3,319**

* weighted-average grant / exercise price

** ancillary shares earned based on actual performance achieved on the 2016 award

The weighted-average grant date fair value of stock options and stock appreciation rights granted during 2019, 2018 and 2017 was $20.81, $20.24 and $17.22, respectively. The weighted-average grant date fair value of performance share units, which vest upon achieving certain performance metrics, granted during 2019, 2018 and 2017 was $117.87, $131.55 and $111.00, respectively. The total fair value of awards vested during the years ended December 31, 2019, 2018 and 2017 was $211 million, $149 million and $138 million, respectively. The total intrinsic value (which is the amount by which the stock price exceeded the exercise price on the date of exercise) of stock options and stock appreciation rights exercised during the years ended December 31, 2019, 2018 and 2017 was $383 million, $283 million and $320 million, respectively. The total intrinsic value (which is the stock price at vesting) of performance share units and other restricted awards vested was $188 million, $74 million and $49 million during the years ended December 31, 2019, 2018 and 2017, respectively.

The following table summarizes information about equity awards outstanding that are vested and expected to vest as well as equity awards outstanding that are exercisable at December 31, 2019:

(shares in thousands; aggregate intrinsic value in millions)	Vested and Expected to Vest: Awards	Average Price*	Aggregate Intrinsic Value	Remaining Term**	Exercisable: Awards	Average Price*	Aggregate Intrinsic Value	Remaining Term**
Stock Options/Stock Appreciation Rights	33,769	$ 107.58	$ 1,424	5.9 years	19,285	$ 96.56	$ 1,026	4.0 years
Performance Share Units/Restricted Stock	5,514	—	826	2.1 years				

* weighted-average exercise price per share

** weighted-average contractual remaining term in years

The fair value of each option award is estimated on the date of grant using a binomial lattice model.The following table indicates the assumptions used in estimating fair value for the years ended December 31, 2019, 2018 and 2017. Lattice-based option models incorporate ranges of assumptions for inputs; those ranges are as follows:

	2019	2018	2017
Expected volatility	18.8% - 19.7%	17.5% - 21.1%	19 %
Weighted-average volatility	20 %	18 %	19 %
Expected term (in years)	6.5 - 6.6	6.5 - 6.6	6.5
Expected dividend yield	2.4 %	2.2 %	2.4 %
Risk-free rate	2.3% - 2.7%	1.3% - 2.7%	0.5% - 2.5%

Expected volatilities are based on the returns of our stock, including implied volatilities from traded options on our stock for the binomial lattice model. We use historical data to estimate equity award exercise and employee termination behavior within the valuation model. The expected term represents an estimate of the period of time equity awards are expected to remain outstanding. The risk-free rate is based on the term structure of interest rates at the time of equity award grant.

NOTE 13: RESTRUCTURING COSTS

During 2019, we recorded net pre-tax restructuring costs totaling $425 million for new and ongoing restructuring actions. We recorded charges in the segments as follows:

(dollars in millions)		
Otis	$	54
Carrier		126
Pratt & Whitney		133
Collins Aerospace Systems		106
Eliminations and other		6
Total	**$**	**425**

Restructuring charges incurred in 2019 primarily relate to actions initiated during 2019 and 2018, and were recorded as follows:

(dollars in millions)		
Cost of sales	$	231
Selling, general & administrative		190
Non-service pension (benefit)		4
Total	**$**	**425**

2019 Actions. During 2019, we recorded net pre-tax restructuring costs totaling $321 million for restructuring actions initiated in 2019, consisting of $168 million in cost of sales and $153 million in selling, general and administrative expenses. The 2019 actions relate to ongoing cost reduction efforts, including workforce reductions and consolidation of field operations.

We are targeting to complete in 2020 and 2021 the majority of the remaining workforce and all facility related cost reduction actions initiated in 2019. No specific plans for significant other actions have been finalized at this time. The following table summarizes the accrual balances and utilization by cost type for the 2019 restructuring actions:

(dollars in millions)		Severance		Facility Exit & Other Costs		Total
Net pre-tax restructuring costs	$	298	$	23	$	321
Utilization, foreign exchange and other costs		(193)		(10)		(203)
Balance at December 31, 2019	**$**	**105**	**$**	**13**	**$**	**118**

The following table summarizes expected, incurred and remaining costs for the 2019 restructuring actions by segment:

(dollars in millions)		**Expected Costs**		**Cost Incurred During 2019**		**Remaining Costs at December 31, 2019**
Otis	$	65	**$**	**(45)**	**$**	**20**
Carrier		120		**(110)**		**10**
Pratt & Whitney		133		**(133)**		**—**
Collins Aerospace Systems		120		**(27)**		**93**
Eliminations and other		6		**(6)**		**—**
Total	**$**	**444**	**$**	**(321)**	**$**	**123**

2018 Actions. During 2019, we recorded net pre-tax restructuring costs totaling $46 million for restructuring actions initiated in 2018, consisting of $21 million in cost of sales and $25 million in selling, general and administrative expenses. The 2018 actions relate to ongoing cost reduction efforts, including workforce reductions and the consolidation of field operations. The following table summarizes the accrual balances and utilization by cost type for the 2018 restructuring actions:

(dollars in millions)	Severance	Facility Exit & Other Costs	Total
Restructuring accruals at January 1, 2019	$ 115	$ 23	$ 138
Net pre-tax restructuring costs	38	8	46
Utilization, foreign exchange and other costs	(132)	(29)	(161)
Balance at December 31, 2019	**$ 21**	**$ 2**	**$ 23**

The following table summarizes expected, incurred and remaining costs for the 2018 programs by segment:

(dollars in millions)	Expected Costs	Costs Incurred During 2018	**Costs Incurred During 2019**	**Remaining Costs at December 31, 2019**
Otis	$ 57	$ (48)	**$ (7)**	**$ 2**
Carrier	80	(64)	**(16)**	—
Pratt & Whitney	3	(3)	—	—
Collins Aerospace Systems	111	(87)	**(23)**	**1**
Eliminations and other	7	(5)	—	**2**
Total	**$ 258**	$ (207)	**$ (46)**	**$ 5**

2017 and Prior Actions. During 2019, we recorded net pre-tax restructuring costs totaling $58 million for restructuring actions initiated in 2017 and prior. As of December 31, 2019, we have approximately $67 million of accrual balances remaining related to 2017 and prior actions.

NOTE 14: FINANCIAL INSTRUMENTS

We enter into derivative instruments primarily for risk management purposes, including derivatives designated as hedging instruments under the Derivatives and Hedging Topic of the FASB ASC and those utilized as economic hedges. We operate internationally and in the normal course of business, are exposed to fluctuations in interest rates, foreign exchange rates and commodity prices. These fluctuations can increase the costs of financing, investing and operating the business. We have used derivative instruments, including swaps, forward contracts and options to manage certain foreign currency, interest rate and commodity price exposures.

The four quarter rolling average of the notional amount of foreign exchange contracts hedging foreign currency transactions was $17.8 billion and $20.1 billion at December 31, 2019 and 2018, respectively. Additional information pertaining to foreign exchange and hedging activities is included in Note 1.

The following table summarizes the fair value and presentation in the Consolidated Balance Sheets for derivative instruments as of December 31, 2019 and 2018:

(dollars in millions)	Balance Sheet Location		December 31, 2019		December 31, 2018
Derivatives designated as hedging instruments:					
Foreign exchange contracts	Asset Derivatives:				
	Other assets, current	**$**	**11**	$	10
	Other assets		**13**		12
	Total asset derivatives	**$**	**24**	$	22
	Liability Derivatives:				
	Accrued liabilities		**(72)**		(83)
	Other long-term liabilities		**(98)**		(111)
	Total liability derivatives	**$**	**(170)**	$	(194)
Derivatives not designated as hedging instruments:					
Foreign exchange contracts	Asset Derivatives:				
	Other assets, current		**27**		44
	Other assets		**5**		19
	Total asset derivatives	**$**	**32**	$	63
	Liability Derivatives:				
	Accrued liabilities		**(116)**		(89)
	Other long-term liabilities		**(1)**		(3)
	Total liability derivatives	**$**	**(117)**	$	(92)

The effect of cash flow hedging relationships on accumulated other comprehensive income for the years ended December 31, 2019 and 2018 are presented in the table below. The amounts of gain or (loss) are attributable to foreign exchange contract activity and are recorded as a component of Product sales when reclassified from accumulated other comprehensive income.

	Year Ended December 31,			
(dollars in millions)		**2019**		2018
Loss recorded in Accumulated other comprehensive loss	**$**	**(33)**	$	(307)
Loss (Gain) reclassified from Accumulated other comprehensive loss into Product sales	**$**	**51**	$	(16)

The table above reflects the effect of cash flow hedging relationships on the Consolidated Statement of Operations for the years ended December 31, 2019 and 2018. The Company utilizes the critical terms match method in assessing derivatives for hedge effectiveness. Accordingly, the hedged items and derivatives designated as hedging instruments are highly effective.

We have approximately €4.2 billion of euro-denominated long-term debt, which qualifies as a net investment hedge against our investments in European businesses. As of December 31, 2019, the net investment hedge is deemed to be effective.

Assuming current market conditions continue, a $32 million pre-tax loss is expected to be reclassified from Accumulated other comprehensive loss into Product sales to reflect the fixed prices obtained from foreign exchange hedging within the next 12 months. At December 31, 2019, all derivative contracts accounted for as cash flow hedges will mature by January 2024.

The effect of derivatives not designated as hedging instruments within Other income, net, on the Consolidated Statement of Operations was as follows:

	Year Ended December 31,			
(dollars in millions)		**2019**		2018
Foreign exchange contracts	**$**	**46**	$	115

NOTE 15: FAIR VALUE MEASUREMENTS

In accordance with the provisions of ASC 820, the followingtables provide the valuation hierarchy classification of assets and liabilities that are carried at fair value and measured on a recurring and nonrecurring basis in our Consolidated Balance Sheet as of December 31, 2019 and 2018:

	December 31, 2019			
(dollars in millions)	Total	Level 1	Level 2	Level 3
Recurring fair value measurements:				
Available-for-sale securities	$ 57	$ 57	$ —	$ —
Derivative assets	56	—	56	—
Derivative liabilities	(287)	—	(287)	—

	December 31, 2018			
(dollars in millions)	Total	Level 1	Level 2	Level 3
Recurring fair value measurements:				
Available-for-sale securities	$ 51	$ 51	$ —	$ —
Derivative assets	85	—	85	—
Derivative liabilities	(286)	—	(286)	—

Valuation Techniques. Our available-for-sale securities include equity investments that are traded in active markets, either domestically or internationally, and are measured at fair value using closing stock prices from active markets. Our derivative assets and liabilities include foreign exchange contracts that are measured at fair value using internal models based on observable market inputs such as forward rates, interest rates, our own credit risk and our counterparties' credit risks. As of December 31, 2019, there were no significant transfers in or out of Level 1 or Level 2.

As of December 31, 2019, there has not been any significant impact to the fair value of our derivative liabilities due to our own credit risk. Similarly, there has not been any significant adverse impact to our derivative assets based on our evaluation of our counterparties' credit risks.

The following table provides carrying amounts and fair values of financial instruments that are not carried at fair value in our Consolidated Balance Sheet at December 31, 2019 and 2018:

	December 31, 2019		December 31, 2018	
(dollars in millions)	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Long-term receivables	$ 344	$ 347	$ 334	$ 314
Customer financing notes receivable	283	283	272	265
Short-term borrowings	(2,364)	(2,364)	(1,469)	(1,469)
Long-term debt (excluding finance leases)	(41,199)	(46,202)	(43,996)	(44,003)
Long-term liabilities	(336)	(322)	(508)	(467)

The following table provides the valuation hierarchy classification of assets and liabilities that are not carried at fair value in our Consolidated Balance Sheet as of December 31, 2019 and 2018:

	December 31, 2019			
(dollars in millions)	Total	Level 1	Level 2	Level 3
Long-term receivables	$ 347	$ —	$ 347	$ —
Customer financing notes receivable	283	—	283	—
Short-term borrowings	(2,364)	—	—	(2,364)
Long-term debt (excluding finance leases)	(46,202)	—	(45,802)	(400)
Long-term liabilities	(322)	—	(322)	—

(dollars in millions)	December 31, 2018 Total	Level 1	Level 2	Level 3
Long-term receivables	$ 314	$ —	$ 314	$ —
Customer financing notes receivable	265	—	265	—
Short-term borrowings	(1,469)	—	(1,258)	(211)
Long-term debt (excluding finance leases)	(44,003)	—	(43,620)	(383)
Long-term liabilities	(467)	—	(467)	—

NOTE 16: VARIABLE INTEREST ENTITIES

Pratt & Whitney holds a 61% program share interest in the International Aero Engines AG (IAE) collaboration with MTU Aero Engines AG (MTU) and Japanese Aero Engines Corporation (JAEC) and a 49.5% ownership interest in IAE. IAE's business purpose is to coordinate the design, development, manufacturing and product support of the V2500 engine program through involvement with the collaborators. Additionally, Pratt & Whitney, JAEC and MTU are participants in International Aero Engines, LLC (IAE LLC), whose business purpose is to coordinate the design, development, manufacturing and product support for the PW1100G-JM engine for the Airbus A320neo aircraft and the PW1400G-JM engine for the Irkut MC21 aircraft. Pratt & Whitney holds a 59% program share interest and a 59% ownership interest in IAE LLC. IAE and IAE LLC retain limited equity with the primary economics of the programs passed to the participants. As such, we have determined that IAE and IAE LLC are variable interest entities with Pratt & Whitney the primary beneficiary. IAE and IAE LLC have, therefore, been consolidated. The carrying amounts and classification of assets and liabilities for variable interest entities in our Consolidated Balance Sheet as of December 31, 2019 and 2018 are as follows:

(dollars in millions)	**2019**	2018
Current assets	**$ 4,573**	$ 4,732
Noncurrent assets	**1,919**	1,600
Total assets	**$ 6,492**	$ 6,332
Current liabilities	**$ 4,916**	$ 4,946
Noncurrent liabilities	**2,149**	1,898
Total liabilities	**$ 7,065**	$ 6,844

NOTE 17: GUARANTEES

We extend a variety of financial, market value and product performance guarantees to third parties. As of December 31, 2019 and 2018, the following financial guarantees were outstanding:

	December 31, 2019		December 31, 2018	
(dollars in millions)	**Maximum Potential Payment**	**Carrying Amount of Liability**	Maximum Potential Payment	Carrying Amount of Liability
Commercial aerospace financing arrangements (see Note 4)	**$ 333**	**$ 7**	$ 348	$ 9
Credit facilities and debt obligations	**—**	**—**	116	—
Performance guarantees	**48**	**—**	55	5

We also have obligations arising from sales of certain businesses and assets, including those from representations and warranties and related indemnities for environmental, health and safety, tax and employment matters. The maximum potential payment related to these obligations is not a specified amount as a number of the obligations do not contain financial caps. The carrying amount of liabilities related to these obligations was $166 million and $175 million at December 31, 2019 and 2018, respectively. For additional information regarding the environmental indemnifications, see Note 18.

We accrue for costs associated with guarantees when it is probable that a liability has been incurred and the amount can be reasonably estimated. The most likely cost to be incurred is accrued based on an evaluation of currently available facts, and where no amount within a range of estimates is more likely, the minimum is accrued. In accordance with the Guarantees Topic of the FASB ASC, we record these liabilities at fair value.

We provide service and warranty policies on our products and extend performance and operating cost guarantees beyond our normal service and warranty policies on some of our products, particularly commercial aircraft engines. In addition, we

incur discretionary costs to service our products in connection with specific product performance issues. Liabilities for performance and operating cost guarantees are based upon future product performance and durability, and are largely estimated based upon historical experience. Adjustments are made to accruals as claim data and historical experience warrant. The changes in the carrying amount of service and product warranties and product performance guarantees for the years ended December 31, 2019 and 2018 are as follows:

(dollars in millions)	**2019**	2018
Balance as of January 1	**$ 1,449**	$ 1,146
Warranties and performance guarantees issued	**635**	604
Settlements made	**(512)**	(493)
Other[1]	**(24)**	192
Balance as of December 31	**$ 1,548**	$ 1,449

1 Other in 2018 is driven by the Rockwell Collins acquisition.

NOTE 18: CONTINGENT LIABILITIES

Except as otherwise noted, while we are unable to predict the final outcome, based on information currently available, we do not believe that resolution of any of the following matters will have a material adverse effect upon our competitive position, results of operations, cash flows or financial condition.

Environmental. Our operations are subject to environmental regulation by federal, state and local authorities in the United States and regulatory authorities with jurisdiction over our foreign operations. As described in Note 1 to the Consolidated Financial Statements, we have accrued for the costs of environmental remediation activities, including but not limited to investigatory, remediation, operating and maintenance costs and performance guarantees, and periodically reassess these amounts. We believe that the likelihood of incurring losses materially in excess of amounts accrued is remote. As of December 31, 2019 and 2018, we had approximately $896 million and $830 million, respectively reserved for environmental remediation. Additional information pertaining to environmental matters is included in Note 1 to the Consolidated Financial Statements.

Government. In the ordinary course of business, the Company and its subsidiaries and our properties are subject to regulatory and governmental examinations, information gathering requests, inquiries, investigations and threatened legal actions and proceedings. For example, we are now, and believe that, in light of the current U.S. Government contracting environment, we will continue to be the subject of one or more U.S. Government investigations. Such U.S. Government investigations often take years to complete and could result in administrative, civil or criminal liabilities, including repayments, fines, treble and other damages, forfeitures, restitution or penalties, or could lead to suspension or debarment of U.S. Government contracting privileges. For instance, if we or one of our business units were charged with wrongdoing as a result of any of these investigations or other government investigations (including violations of certain environmental or export laws) the U.S. Government could suspend us from bidding on or receiving awards of new U.S. Government contracts pending the completion of legal proceedings. If convicted or found liable, the U.S. Government could fine and debar us from new U.S. Government contracting for a period generally not to exceed three years. The U.S. Government also reserves the right to debar a contractor from receiving new government contracts for fraudulent, criminal or other seriously improper conduct. The U.S. Government could void any contracts found to be tainted by fraud.

Our contracts with the U.S. Government are also subject to audits. Like many defense contractors, we have received audit reports recommending the reduction of certain contract prices because, for example, cost or pricing data or cost accounting practices used to price and negotiate those contracts may not have conformed to government regulations. Some of these audit reports recommend that certain payments be repaid, delayed, or withheld, and may involve substantial amounts. We have made voluntary refunds in those cases we believe appropriate, have settled some allegations and, in some cases, continue to negotiate and/or litigate. The Company may be, and has been, required to make payments into escrow of disputed liabilities while the related litigation is pending. If the litigation is resolved in the Company’s favor, any such payments will be returned to the Company with interest. In addition, we accrue for liabilities associated with those matters that are probable and can be reasonably estimated. The most likely settlement amount to be incurred is accrued based upon a range of estimates. Where no amount within a range of estimates is more likely, then we accrue the minimum amount.

Legal Proceedings.

Cost Accounting Standards Claims

As previously disclosed, in April 2019, a Divisional Administrative Contracting Officer (DACO) of the United States Defense Contract Management Agency (DCMA) asserted a claim against Pratt & Whitney to recover overpayments of approximately $1.73 billion plus interest (approximately $563 million through December 31, 2019). The claim is based on Pratt & Whitney's alleged noncompliance with cost accounting standards from January 1, 2007 to March 31, 2019, due to its method of allocating independent research and development costs to government contracts. Pratt & Whitney believes that the claim is without merit and filed an appeal to the Armed Services Board of Contract Appeals (ASBCA) on June 7, 2019.

As previously disclosed, in December 2013, a DCMA DACO asserted a claim against Pratt & Whitney to recover overpayments of approximately $177 million plus interest (approximately $98.4 million through December 31, 2019). The claim is based on Pratt & Whitney's alleged noncompliance with cost accounting standards from January 1, 2005 to December 31, 2012, due to its method of determining the cost of collaborator parts used in the calculation of material overhead costs for government contracts. In 2014, Pratt & Whitney filed an appeal to the ASBCA. An evidentiary hearing was held and completed in June 2019. The parties are now engaged in post-hearing briefing, and a decision from the ASBCA will follow. We continue to believe that the claim is without merit. In December 2018, a DCMA DACO issued a second claim against Pratt & Whitney that similarly alleges that its method of determining the cost of collaborator parts does not comply with the cost accounting standards for calendar years 2013 through 2017. This second claim demands payment of $269 million plus interest

(approximately $56.2 million through December 31, 2019), which we also believe is without merit and which Pratt & Whitney appealed to the ASBCA in January 2019.

German Tax Litigation

As previously disclosed, UTC has been involved in administrative review proceedings with the German Tax Office, which concern approximately €215 million (approximately $239 million) of tax benefits that we have claimed related to a 1998 reorganization of the corporate structure of Otis operations in Germany. Upon audit, these tax benefits were disallowed by the German Tax Office. UTC estimates interest associated with the aforementioned tax benefits is an additional approximately €118 million (approximately $131 million). On August 3, 2012, we filed suit in the local German Tax Court (Berlin-Brandenburg). In March 2016, the local German Tax Court dismissed our suit, and we appealed this decision to the German Federal Tax Court (FTC). Following a hearing on July 24, 2018, the FTC remanded the matter to the local German Tax Court for further proceedings. In 2015, UTC made tax and interest payments to German tax authorities of €275 million (approximately $300 million) in order to avoid additional interest accruals pending final resolution of this matter.

Asbestos Matters

As previously disclosed, like many other industrial companies, we and our subsidiaries have been named as defendants in lawsuits alleging personal injury as a result of exposure to asbestos integrated into certain of our products or business premises. While we have never manufactured asbestos and no longer incorporate it in any currently-manufactured products, certain of our historical products, like those of many other manufacturers, have contained components incorporating asbestos. A substantial majority of these asbestos-related claims have been dismissed without payment or were covered in full or in part by insurance or other forms of indemnity. Additional cases were litigated and settled without any insurance reimbursement. The amounts involved in asbestos related claims were not material individually or in the aggregate in any year.

The amounts recorded by UTC for asbestos-related liabilities are based on currently available information and assumptions that we believe are reasonable and are made with input from outside actuarial experts. The estimated range of total liabilities to resolve all pending and unasserted potential future asbestos claims through 2059 is approximately $330 million to $400 million. Where no amount within a range of estimates is more likely, the minimum is accrued. We have recorded the minimum amount of $330 million, which is principally recorded in Other long-term liabilities on our Consolidated Balance Sheet as of December 31, 2019. This amount is on a pre-tax basis, not discounted, and excludes the Company’s legal fees to defend the asbestos claims, which will continue to be expensed by the Company as they are incurred. In addition, the Company has an insurance recovery receivable for probable asbestos related recoveries of approximately $140 million, which is included primarily in Other assets on our Consolidated Balance Sheet as of December 31, 2019.

The amounts recorded by UTC for asbestos-related liabilities and insurance recoveries are based on currently available information and assumptions that we believe are reasonable. Our actual liabilities or insurance recoveries could be higher or lower than those recorded if actual results vary significantly from the assumptions. Key variables in these assumptions include the number and type of new claims to be filed each year, the outcomes or resolution of such claims, the average cost of resolution of each new claim, the amount of insurance available, allocation methodologies, the contractual terms with each insurer with whom we have reached settlements, the resolution of coverage issues with other excess insurance carriers with whom we have not yet achieved settlements, and the solvency risk with respect to our insurance carriers. Other factors that may affect our future liability include uncertainties surrounding the litigation process from jurisdiction to jurisdiction and from case to case, legal rulings that may be made by state and federal courts, and the passage of state or federal legislation. At the end of each year, the Company will evaluate all of these factors and, with input from an outside actuarial expert, make any necessary adjustments to both our estimated asbestos liabilities and insurance recoveries.

Other.

As described in Note 17 to the Consolidated Financial Statements, we extend performance and operating cost guarantees beyond our normal warranty and service policies for extended periods on some of our products. We have accrued our estimate of the liability that may result under these guarantees and for service costs that are probable and can be reasonably estimated.

We also have other commitments and contingent liabilities related to legal proceedings, self-insurance programs and matters arising out of the normal course of business. We accrue contingencies based upon a range of possible outcomes. If no amount within this range is a better estimate than any other, then we accrue the minimum amount. Of note, the design, development, production and support of new aerospace technologies is inherently complex and subject to risk. Since the PW1000G Geared TurboFan engine entered into service in 2016, technical issues have been identified and experienced with the engine, which is usual for new engines and new aerospace technologies. Pratt & Whitney has addressed these issues through various improvements and modifications. These issues have resulted in financial impacts, including increased warranty provisions, customer contract settlements, and reductions in contract performance estimates. Additional technical issues may

also arise in the normal course, which may result in financial impacts that could be material to the Company's financial position, results of operations and cash flows.

In the ordinary course of business, the Company and its subsidiaries are also routinely defendants in, parties to or otherwise subject to many pending and threatened legal actions, claims, disputes and proceedings. These matters are often based on alleged violations of contract, product liability, warranty, regulatory, environmental, health and safety, employment, intellectual property, tax and other laws. In some of these proceedings, claims for substantial monetary damages are asserted against the Company and its subsidiaries and could result in fines, penalties, compensatory or treble damages or non-monetary relief. We do not believe that these matters will have a material adverse effect upon our competitive position, results of operations, cash flows or financial condition.

NOTE 19: LEASES

ASU 2016-02, *Leases (Topic 842)* and its related amendments (collectively, the New Lease Accounting Standard) are effective for reporting periods beginning after December 15, 2018. We adopted the New Lease Accounting Standard effective January 1, 2019 and elected the modified retrospective approach in which results for periods before 2019 were not adjusted for the new standard and the cumulative effect of the change in accounting was recognized through retained earnings at the date of adoption.

We have elected certain of the practical expedients available under the New Lease Accounting Standard. We have applied the practical expedient which allows prospective transition to the New Lease Accounting Standard on January 1, 2019. Under the transition practical expedient, we did not reassess lease classification, embedded leases or initial direct costs. We have applied the practical expedient for short-term leases. We have lease agreements with lease and non-lease components. We have elected the practical expedients to combine these components for certain equipment leases. Additionally, for certain equipment leases, we apply a portfolio approach to effectively account for the operating lease right-of-use assets and liabilities. The adoption of the New Lease Accounting Standard did not have a material effect on our Consolidated Statement of Operations or Consolidated Statement of Cash Flows. Upon adoption, we recorded a $2.6 billion right-of-use asset and a $2.7 billion lease liability. The adoption of the New Lease Accounting Standard had an immaterial impact on retained earnings.

Operating lease expense for the year ended December 31, 2019 was approximately $720 million.

Supplemental cash flow information related to operating leases was as follows:

(dollars in millions)		**Year ended December 31, 2019**
Operating cash flows used in the measurement of operating lease liabilities	**$**	**746**
Operating lease right-of-use assets obtained in exchange for operating lease obligations		**416**

Operating lease right-of-use assets and liabilities are reflected on our Consolidated Balance Sheet as follows:

(dollars in millions, except lease term and discount rate)		**December 31, 2019**
Operating lease right-of-use assets	**$**	**2,599**
Accrued liabilities	$	(544)
Operating lease liabilities		(2,144)
Total operating lease liabilities	**$**	**(2,688)**

Supplemental balance sheet information related to operating leases was as follows:

	December 31, 2019
Weighted Average Remaining Lease Term (in years)	**7.9**
Weighted Average Discount Rate	**3.5 %**

Undiscounted maturities of operating lease liabilities as of December 31, 2019 are as follows:

(dollars in millions)		
2020	$	641
2021		542
2022		410
2023		306
2024		234
Thereafter		1,014
Total undiscounted lease payments		**3,147**
Less imputed interest		(459)
Total discounted lease payments	**$**	**2,688**

Prior to the adoption of the New Lease Accounting Standard, rental commitments on an undiscounted basis were approximately $2.9 billion at December 31, 2018 under long-term non-cancelable operating leases and were payable as follows: $683 million in 2019, $544 million in 2020, $407 million in 2021, $301 million in 2022, $235 million in 2023 and $746 million thereafter.

NOTE 20: SEGMENT FINANCIAL DATA

Our operations for the periods presented herein are classified into four principal segments. The segments are generally determined based on the management structure of the businesses and the grouping of similar operating companies, where each management organization has general operating autonomy over diversified products and services.

Otis products include elevators, escalators, moving walkways and service sold to customers in the commercial, residential and infrastructure property sectors around the world.

Carrier products and related services include HVAC and refrigeration systems, building controls and automation, fire and special hazard suppression systems and equipment, security monitoring and rapid response systems, provided to a diversified international customer base principally in the industrial, commercial and residential property and commercial transportation sectors.

Pratt & Whitney products include commercial, military, business jet and general aviation aircraft engines, parts and services sold to a diversified customer base, including international and domestic commercial airlines and aircraft leasing companies, aircraft manufacturers, and U.S. and foreign governments. Pratt & Whitney also provides product support and a full range of overhaul, repair and fleet management services.

Collins Aerospace Systems provides technologically advanced aerospace products and aftermarket service solutions for aircraft manufacturers, airlines, regional, business and general aviation markets, military and space operations. Products include electric power generation, power management and distribution systems, air data and aircraft sensing systems, engine control systems, intelligence, surveillance and reconnaissance systems, engine components, environmental control systems, fire and ice detection and protection systems, propeller systems, engine nacelle systems, including thrust reversers and mounting pylons, interior and exterior aircraft lighting, aircraft seating and cargo systems, actuation systems, landing systems, including landing gear, wheels and brakes, and space products and subsystems, integrated avionics systems, precision targeting, electronic warfare and range and training systems, flight controls, communications systems, navigation systems, oxygen systems, simulation and training systems, food and beverage preparation, storage and galley systems, lavatory and wastewater management systems. Aftermarket services include spare parts, overhaul and repair, engineering and technical support, training and fleet management solutions, and information management services.

We have reported our financial and operational results for the periods presented herein under the four principal segments noted above, consistent with how we have reviewed our business operations for decision-making purposes, resource allocation and performance assessment during 2019.

Segment Information. Total sales by segment include intersegment sales, which are generally made at prices approximating those that the selling entity is able to obtain on external sales. Segment information for the years ended December 31 is as follows:

	Net Sales			Operating Profits		
(dollars in millions)	**2019**	2018	2017	**2019**	2018	2017
Otis	**$ 13,113**	$ 12,904	$ 12,341	**$ 1,948**	$ 1,915	$ 2,002
Carrier	**18,608**	18,922	17,812	**2,697**	3,777	3,165
Pratt & Whitney	**20,892**	19,397	16,160	**1,668**	1,269	1,300
Collins Aerospace Systems	**26,028**	16,634	14,691	**4,100**	2,303	2,191
Total segment	**78,641**	67,857	61,004	**10,413**	9,264	8,658
Eliminations and other	**(1,595)**	(1,356)	(1,167)	**(932)**	(236)	(81)
General corporate expenses	**—**	—	—	**(515)**	(475)	(439)
Consolidated	**$ 77,046**	$ 66,501	$ 59,837	**$ 8,966**	$ 8,553	$ 8,138

(dollars in millions)	Total Assets			Capital Expenditures			Depreciation & Amortization		
	2019	2018	2017	**2019**	2018	2017	**2019**	2018	2017
Otis	**$ 9,973**	$ 9,374	$ 9,421	**$ 145**	$ 172	$ 133	**$ 337**	$ 190	$ 177
Carrier	**22,789**	22,189	22,657	**243**	263	326	**513**	357	372
Pratt & Whitney	**31,271**	29,341	26,768	**822**	866	923	**980**	852	672
Collins Aerospace Systems	**74,049**	73,115	34,567	**959**	515	527	**1,749**	883	823
Total segment	**138,082**	134,019	93,413	**2,169**	1,816	1,909	**3,579**	2,282	2,044
Eliminations and other	**1,634**	192	3,507	**87**	86	105	**204**	151	96
Consolidated	**$ 139,716**	$ 134,211	$ 96,920	**$ 2,256**	$ 1,902	$ 2,014	**$ 3,783**	$ 2,433	$ 2,140

Geographic External Sales and Operating Profit. Geographic external sales and operating profits are attributed to the geographic regions based on their location of origin. U.S. external sales include export sales to commercial customers outside the U.S. and sales to the U.S. Government, commercial and affiliated customers, which are known to be for resale to customers outside the U.S. Long-lived assets are net fixed assets attributed to the specific geographic regions.

(dollars in millions)	External Net Sales			Operating Profits			Long-Lived Assets		
	2019	2018	2017	**2019**	2018	2017	**2019**	2018	2017
United States Operations	**$ 48,288**	$ 39,481	$ 33,912	**$ 5,505**	$ 4,941	$ 4,126	**$ 7,498**	$ 7,111	$ 5,323
International Operations									
Europe	**13,664**	12,857	11,879	**2,476**	2,141	1,959	**1,889**	1,908	1,817
Asia Pacific	**9,391**	8,847	8,770	**1,662**	1,476	1,491	**1,359**	1,349	1,113
Other	**7,298**	6,672	6,443	**770**	706	1,082	**1,412**	1,363	1,389
Eliminations and other	**(1,595)**	(1,356)	(1,167)	**(1,447)**	(711)	(520)	**597**	566	544
Consolidated	**$ 77,046**	$ 66,501	$ 59,837	**$ 8,966**	$ 8,553	$ 8,138	**$ 12,755**	$ 12,297	$ 10,186

Sales from U.S. operations include export sales as follows:

(dollars in millions)	**2019**	2018	2017
Europe	**$ 7,122**	$ 6,285	$ 5,273
Asia Pacific	**6,479**	5,429	3,634
Other	**3,847**	2,514	2,217
Total	**$ 17,448**	$ 14,228	$ 11,124

Sales by primary geographical market for the year ended December 31, 2019 is as follows:

(dollars in millions)	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total
Primary Geographical Markets					
United States	$ 3,589	$ 9,574	$ 16,148	$ 18,977	**$ 48,288**
Europe	3,919	5,326	498	3,921	**13,664**
Asia Pacific	4,591	2,811	1,164	825	**9,391**
Other*	1,014	897	3,082	2,305	**7,298**
Total segment	**$ 13,113**	**$ 18,608**	**$ 20,892**	**$ 26,028**	**$ 78,641**
Eliminations and other					**(1,595)**
Consolidated					**$ 77,046**

Sales by primary geographical market for the year ended December 31, 2018 is as follows:

(dollars in millions)	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total
Primary Geographical Markets					
United States	$ 3,433	$ 9,402	$ 14,852	$ 11,794	$ 39,481
Europe	4,055	5,710	594	2,498	12,857
Asia Pacific	4,354	2,849	1,277	367	8,847
Other*	1,062	961	2,674	1,975	6,672
Total segment	$ 12,904	$ 18,922	$ 19,397	$ 16,634	$ 67,857
Eliminations and other					(1,356)
Consolidated					**$ 66,501**

*Other includes sales to other regions as well as intersegment sales.

Segment sales disaggregated by product type and product versus servicefor the year ended December 31, 2019 are as follows:

(dollars in millions)	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total
Product Type					
Commercial and industrial, non aerospace	$ 13,113	$ 18,608	$ 102	$ 51	**$ 31,874**
Commercial aerospace	—	—	14,516	19,005	**33,521**
Military aerospace	—	—	6,274	6,972	**13,246**
Total segment	**$ 13,113**	**$ 18,608**	**$ 20,892**	**$ 26,028**	**$ 78,641**
Eliminations and other					**(1,595)**
Consolidated					**$ 77,046**
Sales Type					
Product	$ 5,669	$ 15,360	$ 12,977	$ 21,440	**$ 55,446**
Service	7,444	3,248	7,915	4,588	**23,195**
Total segment	**$ 13,113**	**$ 18,608**	**$ 20,892**	**$ 26,028**	**$ 78,641**
Eliminations and other					**(1,595)**
Consolidated					**$ 77,046**

Segment sales disaggregated by product type and product versus service for the year ended December 31, 2018 are as follows:

(dollars in millions)	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total
Product Type					
Commercial and industrial, non aerospace	$ 12,904	$ 18,922	$ 55	$ 60	$ 31,941
Commercial aerospace	—	—	14,027	12,564	26,591
Military aerospace	—	—	5,315	4,010	9,325
Total segment	$ 12,904	$ 18,922	$ 19,397	$ 16,634	$ 67,857
Eliminations and other					(1,356)
Consolidated					$ 66,501
Sales Type					
Product	$ 5,636	$ 15,682	$ 11,410	$ 13,915	$ 46,643
Service	7,268	3,240	7,987	2,719	21,214
Total segment	$ 12,904	$ 18,922	$ 19,397	$ 16,634	$ 67,857
Eliminations and other					(1,356)
Consolidated					$ 66,501

Major Customers. Net Sales include sales under prime contracts and subcontracts to the U.S. Government, primarily related to Pratt & Whitney and Collins Aerospace Systems products, as follows:

(dollars in millions)	**2019**	2018	2017
Pratt & Whitney	**$ 5,614**	$ 4,489	$ 3,347
Collins Aerospace Systems	**4,802**	2,779	2,299
Other	**227**	175	152
Total	**$ 10,643**	$ 7,443	$ 5,798

Sales to Airbus prior to discounts and incentives, primarily related to Pratt & Whitney and Collins Aerospace Systems products, were approximately $9,879 million, $10,025 million and $8,908 million for the years ended December 31, 2019, 2018 and 2017, respectively.

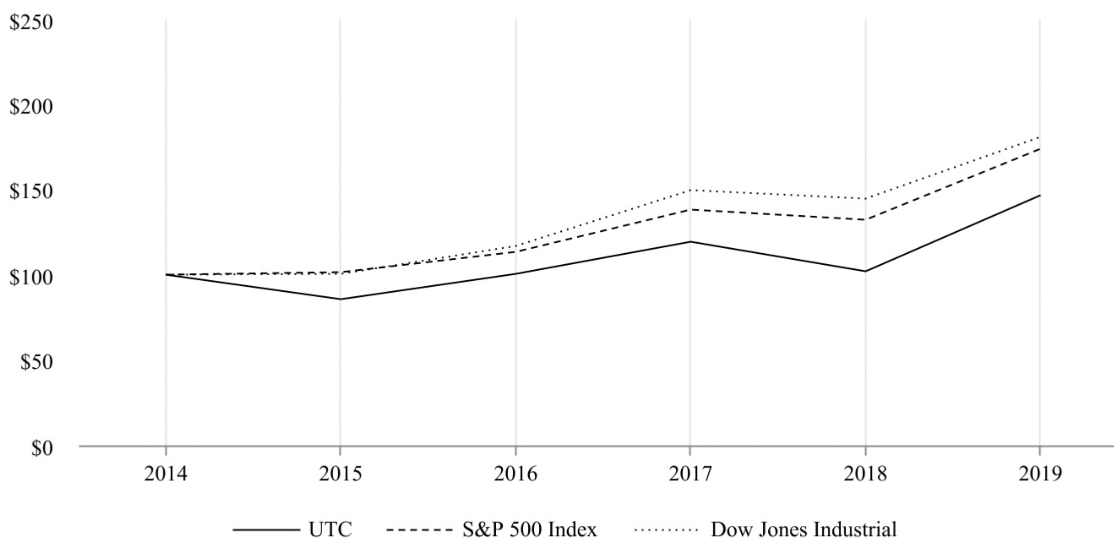
SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

(dollars in millions, except per share amounts)	**2019 Quarters**				2018 Quarters			
	First	**Second**	**Third**	**Fourth**	First	Second	Third	Fourth
Net Sales	**$ 18,365**	**$ 19,634**	**$ 19,496**	**$ 19,551**	$ 15,242	$ 16,705	$ 16,510	$ 18,044
Gross margin	**4,658**	**5,221**	**5,285**	**4,817**	3,962	4,283	3,974	4,297
Net income attributable to common shareowners	**1,346**	**1,900**	**1,148**	**1,143**	1,297	2,048	1,238	686
Earnings per share of Common Stock:								
Basic - net income	**$ 1.58**	**$ 2.22**	**$ 1.34**	**$ 1.33**	$ 1.64	$ 2.59	$ 1.56	$ 0.83
Diluted - net income	**$ 1.56**	**$ 2.20**	**$ 1.33**	**$ 1.32**	$ 1.62	$ 2.56	$ 1.54	$ 0.83

PERFORMANCE GRAPH (UNAUDITED)

The following graph presents the cumulative total shareholder return for the five years ending December 31, 2019 for our common stock, as compared to the Standard & Poor's 500 Stock Index and to the Dow Jones 30 Industrial Average. Our common stock price is a component of both indices. These figures assume that all dividends paid over the five-year period were reinvested, and that the starting value of each index and the investment in common stock was $100.00 on December 31, 2014.

COMPARISON OF CUMULATIVE FIVE YEAR TOTAL RETURN



United Technologies Corporation **Exhibit 21**
Subsidiary and Affiliate Listing
December 31, 2019

Entity Name	Place of Incorporation
9G Elevator Pte. Ltd.	Singapore
Allyn Holdings, Inc.	Delaware
AMI Industries, Inc.	Colorado
Arabian Air Conditioning Company	Saudi Arabia
Ardmore Holdings S.a.r.l.	Luxembourg
Ashworth Holdings Sarl	Luxembourg
Augusta (Gibraltar) Holdings I Limited	Gibraltar
Automated Logic Corporation	Georgia
B/E Aerospace (UK) Limited	United Kingdom
B/E Aerospace B.V.	Netherlands
B/E Aerospace B.V. - Phillipines	Phillipines
B/E Aerospace Holdings GmbH	Germany
B/E Aerospace, Inc.	Delaware
BE Aerospace (UK) Europe Holdings Limited	United Kingdom
BE Aerospace Global Holding B.V.	Netherlands
BE Aerospace Global Holdings Limited	United Kingdom
BE Aerospace Holdings (UK) Limited	United Kingdom
BE Aerospace International Holdings Limited	United Kingdom
BE Aerospace Investments Holdings II S.a r.l.	Grand-Duchy of Luxembourg
BE Aerospace Investments Holdings II S.A.R.L - Barbados	Barbados
BE Aerospace Investments Holdings Ltd.	Cayman Islands
BE Aerospace Thermal and Power Management Holdings (UK) Limited	United Kingdom
BEA (Barbados) DRE SRL	Barbados
BEA (Barbados) Global Holdings SRL	Barbados
BEA (Barbados) International Holdings SRL	Barbados
BEA Jersey Limited	Jersey
Bedford Holdings B.V.	Netherlands
Beesail Limited	England
Belgium Parkview BVBA	Belgium
BET Security and Communications Limited	United Kingdom
Blades Technology Ltd.	Israel
Caricor Ltd.	Delaware
Carrier Asia Limited	Hong Kong
Carrier Corporation	Delaware
Carrier Enterprise, LLC	Delaware
Carrier HVACR Investments B.V.	Netherlands
Carrier Mexico, S.A. de C.V.	Mexico
Carrier Refrigeration ECR Holding Luxembourg, S.a r.l.	Grand-Duchy of Luxembourg
Carrier Refrigeration Switzerland Ltd	Switzerland
Carrier Transicold Europe	France
Ceesail Limited	England

United Technologies Corporation
Subsidiary and Affiliate Listing
December 31, 2019

Entity Name	Place of Incorporation
Chubb Fire & Security Limited	England
Chubb Fire & Security Pty Ltd	Australia
Chubb Fire Limited	England
Chubb France	France
Chubb Group Limited	England
Chubb Group Security Limited	England
Chubb International (Netherlands) BV	Netherlands
Chubb International Holdings Limited	England
Chubb Limited	England
Chubb Nederland B.V.	Netherlands
Commonwealth Luxembourg Holdings S.à r.l.	Grand-Duchy of Luxembourg
Concord Luxembourg S.à r.l.	Grand-Duchy of Luxembourg
CTU Of Delaware, Inc.	Delaware
Delancey Holdings B.V.	Netherlands
Delavan Inc	Delaware
Detector Electronics Corporation	Minnesota
Devonshire Switzerland Holdings GmbH	Switzerland
Eagle Services Asia Private Limited	Singapore
Elevadores Otis Ltda.	Brazil
Empresas Carrier, S. de R.L. de C.V.	Mexico
Goodrich Actuation Systems Limited	United Kingdom
Goodrich Aerospace Canada Ltd	Ontario
Goodrich Aftermarket Services Limited	United Kingdom
Goodrich Canada, Inc	Delaware
Goodrich Control Systems	United Kingdom
Goodrich Control Systems, Inc.	Delaware
Goodrich Corporation	New York
Goodrich Inertial Limited	United Kingdom
Goodrich Limited	United Kingdom
Goodrich Luxembourg S.A.R.L.	Grand-Duchy of Luxembourg
Goodrich Pump & Engine Control Systems, Inc.	Delaware
Goodrich Systems Limited	United Kingdom
Goodrich XCH Luxembourg B.V./S.a.r.l. (Dual Dutch/Lux Citizenship)	Netherlands
Hamilton Sundstrand Aviation Services, Inc.	Delaware
Hamilton Sundstrand Corporation	Delaware
Hamilton Sundstrand de Puerto Rico, Inc.	Delaware
Hamilton Sundstrand Holdings, Inc.	Delaware
Hamilton Sundstrand International Holdings (Luxembourg) S.à r.l.	Grand-Duchy of Luxembourg
HEJ Holding, Inc.	Delaware
Highland Holdings S.a.r.l	Luxembourg

United Technologies Corporation
Subsidiary and Affiliate Listing

December 31, 2019

Entity Name	Place of Incorporation
IAE International Aero Engines AG	Switzerland
Kidde Fire Protection Inc.	Delaware
Kidde Products Limited	England
Kidde Technologies Inc.	Delaware
Kidde UK	England
Kidde US Holdings Inc.	Delaware
Koninklijke Fabriek Inventum B.V.	Netherlands
Latin American Holding, Inc.	Delaware
Matlock Holdings Ltd	UK
Menasco Aerosystems Inc.	Delaware
Microtecnica S.r.l.	Italy
Mulberry Holdings LLC	Delaware
Nicoll Holdings S.a.r.l	Luxembourg
Nippon Otis Elevator Company	Japan
Noresco, LLC	Delaware
NSI, Inc.	Delaware
Otis Electric Elevator Company Limited	China
Otis Elevator (China) Company Limited	China
Otis Elevator Company	New Jersey
Otis Elevator Korea	Korea, Republic of
Otis Far East Holdings Limited	Hong Kong
Otis Gesellschaft m.b.H	Austria
Otis Holdings GmbH & Co. OHG	Germany
Otis International Holdings GmbH	Germany
Otis Investments Limited	England
Otis Pacific Holdings B.V.	Netherlands
Otis S.C.S.	France
Parkview Treasury Services (UK) Limited	United Kingdom
Pratt & Whitney Aero Engines International Gmbh	Switzerland
Pratt & Whitney Canada Corp.	Nova Scotia
Pratt & Whitney Canada Holdings Corp.	Nova Scotia
Pratt & Whitney Canada Leasing, Limited Partnership	Québec
Pratt & Whitney Component Solutions, Inc.	Michigan
Pratt & Whitney Compressor Airfoil Holdings, Inc.	Delaware
Pratt & Whitney Engine Leasing, LLC	Delaware
Pratt & Whitney Engine Services, Inc.	Delaware
Pratt & Whitney Rzeszow S.A.	Poland
Pratt & Whitney Services, Inc.	Delaware
Pratt Aero Limited Partnership	Nova Scotia
Ratier-Figeac, SAS	France

Entity Name	Place of Incorporation
RIELLO GROUP S.P.A	Italy
RIELLO S.P.A.	Italy
Rockwell Collins International Financing S.A.R.L - Barbados	Barbados
Rockwell Collins Technologies LLC	Delaware
Rockwell Collins, Inc.	Delaware
Rohr, Inc.	Delaware
Rosemount Aerospace Inc.	Delaware
Sensitech Inc.	Delaware
Shanghai Pratt & Whitney Aircraft Engine Maintenance Company Limited	China
SICLI Holding SAS	France
Silver Lake Holdings S.à r.l.	Grand-Duchy of Luxembourg
Simmonds Precision Products, Inc.	New York
Sirius (Korea) Limited	England
Trenton Luxembourg S.à r.l.	Grand-Duchy of Luxembourg
Trumbull Holdings SCS	France
TSI Group Inc.	Delaware
United Technologies Corporation [DE]	Delaware
United Technologies Electronic Controls, Inc.	Delaware
United Technologies Far East Limited	Hong Kong
United Technologies France SAS	France
United Technologies Holding GmbH	Germany
United Technologies Holdings Italy Srl	Italy
United Technologies Holdings Limited	England
United Technologies Holdings SAS	France
United Technologies Intercompany Lending Ireland Designated Activity Company	Ireland
United Technologies International Corporation	Delaware
United Technologies International Corporation-Asia Private Limited	Singapore
United Technologies Luxembourg S.à r.l.	Grand-Duchy of Luxembourg
United Technologies Paris S.A.S.	France
United Technologies South Asia Pacific Pte. Ltd	Singapore
UT Finance Corporation	Delaware
UT Luxembourg Holding II S.à r.l.	Grand-Duchy of Luxembourg
UT Park View, Inc.	Delaware
UTC (US) LLC	Delaware
UTC Australia Commercial Holdings Pty Ltd	Australia
UTC Canada Corporation	New Brunswick
UTC Corporation	Delaware
UTC Fire & Security Americas Corporation, Inc.	Delaware
UTC Fire & Security Canada Inc.	Nova Scotia

Entity Name	Place of Incorporation
UTC Fire & Security Luxembourg S.a r.l.	Grand-Duchy of Luxembourg
UTC Investments Australia Pty Limited	Australia

UTCL Corp.	Nova Scotia
UTCL Investments B.V.	Netherlands
UTX Holdings S.C.S.	France
Walter Kidde Portable Equipment Inc.	Delaware
Zardoya Otis, S.A.	Spain

* Kidde Technologies Inc. also conducts business as Kidde Aerospace & Defense, Fenwal Safety Systems and Kidde Dual Spectrum.

Other subsidiaries of the Registrant have been omitted from this listing since, considered in the aggregate as a single subsidiary, they would not constitute a significant subsidiary, as defined by Rule 1-02 of Regulation S-K.

Exhibit 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-3 (No.333-234027) and in the Registration Statements on Form S-8 (Nos. 333-234086, 333-234085, 333-234084, 333-228649, 333-225839, 333-207193, 333-197704, 333-183123, 333-177517, 333-175781, 333-150643, 333-125293, 333-110020, 333-100724, 333-100723, 333-100718 and 033-51385) of United Technologies Corporation of our report dated February 6, 2020 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in the 2019 Annual Report to Shareowners, which is incorporated by reference in this Annual Report on Form 10-K. We also consent to the incorporation by reference of our report dated February 6, 2020 relating to the financial statement schedule, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Hartford, Connecticut
February 6, 2020

Exhibit 24

UNITED TECHNOLOGIES CORPORATION
Power of Attorney

The undersigned, as a member of the Board of Directors, or as an officer of UNITED TECHNOLOGIES CORPORATION, a Delaware corporation (the "Corporation"), or as a member of a committee of said Board, or in all of said capacities, hereby constitutes and appoints CHARLES D. GILL, PETER J. GRABER-LIPPERMAN and NEIL G. MITCHILL, or any one of them, his or her true and lawful attorneys and agents to do any and all acts and things and execute any and all instruments which the said attorneys and agents may deem necessary or advisable to enable the Corporation to comply with the Securities Exchange Act of 1934 and any rules and regulations and requirements of the Securities and Exchange Commission in respect thereof in connection with the filing of the Annual Report of the Corporation on Form 10-K for the fiscal year ended December 31, 2019, including specifically, but without limiting the generality of the foregoing, the power and authority to sign the name of the undersigned, in the capacities aforesaid or in any other capacity, to such Form 10-K Annual Report filed or to be filed with the Securities and Exchange Commission, and any and all amendments to the said Form 10-K Annual Report, and any and all instruments and documents filed as a part of or in connection with the said Form 10-K Annual Report or any amendments thereto; hereby ratifying and confirming all that the said attorneys and agents, or any one of them, have done, shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has signed this Power of Attorney this 3rd day of February, 2020.

/s/ LLOYD J. AUSTIN III

Lloyd J. Austin III

UNITED TECHNOLOGIES CORPORATION
Power of Attorney

The undersigned, as a member of the Board of Directors, or as an officer of UNITED TECHNOLOGIES CORPORATION, a Delaware corporation (the "Corporation"), or as a member of a committee of said Board, or in all of said capacities, hereby constitutes and appoints CHARLES D. GILL, PETER J. GRABER-LIPPERMAN and NEIL G. MITCHILL, or any one of them, his or her true and lawful attorneys and agents to do any and all acts and things and execute any and all instruments which the said attorneys and agents may deem necessary or advisable to enable the Corporation to comply with the Securities Exchange Act of 1934 and any rules and regulations and requirements of the Securities and Exchange Commission in respect thereof in connection with the filing of the Annual Report of the Corporation on Form 10-K for the fiscal year ended December 31, 2019, including specifically, but without limiting the generality of the foregoing, the power and authority to sign the name of the undersigned, in the capacities aforesaid or in any other capacity, to such Form 10-K Annual Report filed or to be filed with the Securities and Exchange Commission, and any and all amendments to the said Form 10-K Annual Report, and any and all instruments and documents filed as a part of or in connection with the said Form 10-K Annual Report or any amendments thereto; hereby ratifying and confirming all that the said attorneys and agents, or any one of them, have done, shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has signed this Power of Attorney this 3rd day of February, 2020.

/s/ JOHN V. FARACI

John V. Faraci

UNITED TECHNOLOGIES CORPORATION
Power of Attorney

The undersigned, as a member of the Board of Directors, or as an officer of UNITED TECHNOLOGIES CORPORATION, a Delaware corporation (the "Corporation"), or as a member of a committee of said Board, or in all of said capacities, hereby constitutes and appoints CHARLES D. GILL, PETER J. GRABER-LIPPERMAN and NEIL G. MITCHILL, or any one of them, his or her true and lawful attorneys and agents to do any and all acts and things and execute any and all instruments which the said attorneys and agents may deem necessary or advisable to enable the Corporation to comply with the Securities Exchange Act of 1934 and any rules and regulations and requirements of the Securities and Exchange Commission in respect thereof in connection with the filing of the Annual Report of the Corporation on Form 10-K for the fiscal year ended December 31, 2019, including specifically, but without limiting the generality of the foregoing, the power and authority to sign the name of the undersigned, in the capacities aforesaid or in any other capacity, to such Form 10-K Annual Report filed or to be filed with the Securities and Exchange Commission, and any and all amendments to the said Form 10-K Annual Report, and any and all instruments and documents filed as a part of or in connection with the said Form 10-K Annual Report or any amendments thereto; hereby ratifying and confirming all that the said attorneys and agents, or any one of them, have done, shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has signed this Power of Attorney this 3rd day of February, 2020.

/s/ JEAN-PIERRE GARNIER

Jean-Pierre Garnier

UNITED TECHNOLOGIES CORPORATION
Power of Attorney

The undersigned, as a member of the Board of Directors, or as an officer of UNITED TECHNOLOGIES CORPORATION, a Delaware corporation (the "Corporation"), or as a member of a committee of said Board, or in all of said capacities, hereby constitutes and appoints CHARLES D. GILL, PETER J. GRABER-LIPPERMAN and NEIL G. MITCHILL, or any one of them, his or her true and lawful attorneys and agents to do any and all acts and things and execute any and all instruments which the said attorneys and agents may deem necessary or advisable to enable the Corporation to comply with the Securities Exchange Act of 1934 and any rules and regulations and requirements of the Securities and Exchange Commission in respect thereof in connection with the filing of the Annual Report of the Corporation on Form 10-K for the fiscal year ended December 31, 2019, including specifically, but without limiting the generality of the foregoing, the power and authority to sign the name of the undersigned, in the capacities aforesaid or in any other capacity, to such Form 10-K Annual Report filed or to be filed with the Securities and Exchange Commission, and any and all amendments to the said Form 10-K Annual Report, and any and all instruments and documents filed as a part of or in connection with the said Form 10-K Annual Report or any amendments thereto; hereby ratifying and confirming all that the said attorneys and agents, or any one of them, have done, shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has signed this Power of Attorney this 3rd day of February, 2020.

/s/ CHRISTOPHER J. KEARNEY

Christopher J. Kearney

UNITED TECHNOLOGIES CORPORATION
Power of Attorney

The undersigned, as a member of the Board of Directors, or as an officer of UNITED TECHNOLOGIES CORPORATION, a Delaware corporation (the "Corporation"), or as a member of a committee of said Board, or in all of said capacities, hereby constitutes and appoints CHARLES D. GILL, PETER J. GRABER-LIPPERMAN and NEIL G. MITCHILL, or any one of them, his or her true and lawful attorneys and agents to do any and all acts and things and execute any and all instruments which the said attorneys and agents may deem necessary or advisable to enable the Corporation to comply with the Securities Exchange Act of 1934 and any rules and regulations and requirements of the Securities and Exchange Commission in respect thereof in connection with the filing of the Annual Report of the Corporation on Form 10-K for the fiscal year ended December 31, 2019, including specifically, but without limiting the generality of the foregoing, the power and authority to sign the name of the undersigned, in the capacities aforesaid or in any other capacity, to such Form 10-K Annual Report filed or to be filed with the Securities and Exchange Commission, and any and all amendments to the said Form 10-K Annual Report, and any and all instruments and documents filed as a part of or in connection with the said Form 10-K Annual Report or any amendments thereto; hereby ratifying and confirming all that the said attorneys and agents, or any one of them, have done, shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has signed this Power of Attorney this 3rd day of February, 2020.

/s/ ELLEN J. KULLMAN

Ellen J. Kullman

UNITED TECHNOLOGIES CORPORATION
Power of Attorney

The undersigned, as a member of the Board of Directors, or as an officer of UNITED TECHNOLOGIES CORPORATION, a Delaware corporation (the "Corporation"), or as a member of a committee of said Board, or in all of said capacities, hereby constitutes and appoints CHARLES D. GILL, PETER J. GRABER-LIPPERMAN and NEIL G. MITCHILL, or any one of them, his or her true and lawful attorneys and agents to do any and all acts and things and execute any and all instruments which the said attorneys and agents may deem necessary or advisable to enable the Corporation to comply with the Securities Exchange Act of 1934 and any rules and regulations and requirements of the Securities and Exchange Commission in respect thereof in connection with the filing of the Annual Report of the Corporation on Form 10-K for the fiscal year ended December 31, 2019, including specifically, but without limiting the generality of the foregoing, the power and authority to sign the name of the undersigned, in the capacities aforesaid or in any other capacity, to such Form 10-K Annual Report filed or to be filed with the Securities and Exchange Commission, and any and all amendments to the said Form 10-K Annual Report, and any and all instruments and documents filed as a part of or in connection with the said Form 10-K Annual Report or any amendments thereto; hereby ratifying and confirming all that the said attorneys and agents, or any one of them, have done, shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has signed this Power of Attorney this 3rd day of February, 2020.

/s/ MARSHALL O. LARSEN

Marshall O. Larsen

UNITED TECHNOLOGIES CORPORATION
Power of Attorney

The undersigned, as a member of the Board of Directors, or as an officer of UNITED TECHNOLOGIES CORPORATION, a Delaware corporation (the "Corporation"), or as a member of a committee of said Board, or in all of said capacities, hereby constitutes and appoints CHARLES D. GILL, PETER J. GRABER-LIPPERMAN and NEIL G. MITCHILL, or any one of them, his or her true and lawful attorneys and agents to do any and all acts and things and execute any and all instruments which the said attorneys and agents may deem necessary or advisable to enable the Corporation to comply with the Securities Exchange Act of 1934 and any rules and regulations and requirements of the Securities and Exchange Commission in respect thereof in connection with the filing of the Annual Report of the Corporation on Form 10-K for the fiscal year ended December 31, 2019, including specifically, but without limiting the generality of the foregoing, the power and authority to sign the name of the undersigned, in the capacities aforesaid or in any other capacity, to such Form 10-K Annual Report filed or to be filed with the Securities and Exchange Commission, and any and all amendments to the said Form 10-K Annual Report, and any and all instruments and documents filed as a part of or in connection with the said Form 10-K Annual Report or any amendments thereto; hereby ratifying and confirming all that the said attorneys and agents, or any one of them, have done, shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has signed this Power of Attorney this 3rd day of February, 2019.

/s/ HAROLD W. MCGRAW III

Harold W. McGraw III

UNITED TECHNOLOGIES CORPORATION
Power of Attorney

The undersigned, as a member of the Board of Directors, or as an officer of UNITED TECHNOLOGIES CORPORATION, a Delaware corporation (the "Corporation"), or as a member of a committee of said Board, or in all of said capacities, hereby constitutes and appoints CHARLES D. GILL, PETER J. GRABER-LIPPERMAN and NEIL G. MITCHILL, or any one of them, his or her true and lawful attorneys and agents to do any and all acts and things and execute any and all instruments which the said attorneys and agents may deem necessary or advisable to enable the Corporation to comply with the Securities Exchange Act of 1934 and any rules and regulations and requirements of the Securities and Exchange Commission in respect thereof in connection with the filing of the Annual Report of the Corporation on Form 10-K for the fiscal year ended December 31, 2019, including specifically, but without limiting the generality of the foregoing, the power and authority to sign the name of the undersigned, in the capacities aforesaid or in any other capacity, to such Form 10-K Annual Report filed or to be filed with the Securities and Exchange Commission, and any and all amendments to the said Form 10-K Annual Report, and any and all instruments and documents filed as a part of or in connection with the said Form 10-K Annual Report or any amendments thereto; hereby ratifying and confirming all that the said attorneys and agents, or any one of them, have done, shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has signed this Power of Attorney this 3rd day of February, 2020.

/s/ MARGARET L. O'SULLIVAN

Margaret L. O'Sullivan

UNITED TECHNOLOGIES CORPORATION
Power of Attorney

The undersigned, as a member of the Board of Directors, or as an officer of UNITED TECHNOLOGIES CORPORATION, a Delaware corporation (the "Corporation"), or as a member of a committee of said Board, or in all of said capacities, hereby constitutes and appoints CHARLES D. GILL, PETER J. GRABER-LIPPERMAN and NEIL G. MITCHILL, or any one of them, his or her true and lawful attorneys and agents to do any and all acts and things and execute any and all instruments which the said attorneys and agents may deem necessary or advisable to enable the Corporation to comply with the Securities Exchange Act of 1934 and any rules and regulations and requirements of the Securities and Exchange Commission in respect thereof in connection with the filing of the Annual Report of the Corporation on Form 10-K for the fiscal year ended December 31, 2019, including specifically, but without limiting the generality of the foregoing, the power and authority to sign the name of the undersigned, in the capacities aforesaid or in any other capacity, to such Form 10-K Annual Report filed or to be filed with the Securities and Exchange Commission, and any and all amendments to the said Form 10-K Annual Report, and any and all instruments and documents filed as a part of or in connection with the said Form 10-K Annual Report or any amendments thereto; hereby ratifying and confirming all that the said attorneys and agents, or any one of them, have done, shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has signed this Power of Attorney this 3rd day of February, 2020.

/s/ DENISE L. RAMOS

Denise L. Ramos

UNITED TECHNOLOGIES CORPORATION
Power of Attorney

The undersigned, as a member of the Board of Directors, or as an officer of UNITED TECHNOLOGIES CORPORATION, a Delaware corporation (the "Corporation"), or as a member of a committee of said Board, or in all of said capacities, hereby constitutes and appoints CHARLES D. GILL, PETER J. GRABER-LIPPERMAN and NEIL G. MITCHILL, or any one of them, his or her true and lawful attorneys and agents to do any and all acts and things and execute any and all instruments which the said attorneys and agents may deem necessary or advisable to enable the Corporation to comply with the Securities Exchange Act of 1934 and any rules and regulations and requirements of the Securities and Exchange Commission in respect thereof in connection with the filing of the Annual Report of the Corporation on Form 10-K for the fiscal year ended December 31, 2019, including specifically, but without limiting the generality of the foregoing, the power and authority to sign the name of the undersigned, in the capacities aforesaid or in any other capacity, to such Form 10-K Annual Report filed or to be filed with the Securities and Exchange Commission, and any and all amendments to the said Form 10-K Annual Report, and any and all instruments and documents filed as a part of or in connection with the said Form 10-K Annual Report or any amendments thereto; hereby ratifying and confirming all that the said attorneys and agents, or any one of them, have done, shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has signed this Power of Attorney this 3rd day of February, 2020.

/s/ FREDRIC G. REYNOLDS

Fredric G. Reynolds

UNITED TECHNOLOGIES CORPORATION
Power of Attorney

The undersigned, as a member of the Board of Directors, or as an officer of UNITED TECHNOLOGIES CORPORATION, a Delaware corporation (the "Corporation"), or as a member of a committee of said Board, or in all of said capacities, hereby constitutes and appoints CHARLES D. GILL, PETER J. GRABER-LIPPERMAN and NEIL G. MITCHILL, or any one of them, his or her true and lawful attorneys and agents to do any and all acts and things and execute any and all instruments which the said attorneys and agents may deem necessary or advisable to enable the Corporation to comply with the Securities Exchange Act of 1934 and any rules and regulations and requirements of the Securities and Exchange Commission in respect thereof in connection with the filing of the Annual Report of the Corporation on Form 10-K for the fiscal year ended December 31, 2019, including specifically, but without limiting the generality of the foregoing, the power and authority to sign the name of the undersigned, in the capacities aforesaid or in any other capacity, to such Form 10-K Annual Report filed or to be filed with the Securities and Exchange Commission, and any and all amendments to the said Form 10-K Annual Report, and any and all instruments and documents filed as a part of or in connection with the said Form 10-K Annual Report or any amendments thereto; hereby ratifying and confirming all that the said attorneys and agents, or any one of them, have done, shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has signed this Power of Attorney this 3rd day of February, 2020.

/s/ BRIAN C. ROGERS

Brian C. Rogers

Exhibit 31.1

CERTIFICATION

I, Gregory J. Hayes, certify that:

1. I have reviewed this annual report on Form 10-K of United Technologies Corporation;

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

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

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

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

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

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

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

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

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

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

Date: February 6, 2020

/s/ GREGORY J. HAYES

Gregory J. Hayes
Chairman, President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Neil G. Mitchill, Jr., certify that:

1. I have reviewed this annual report on Form 10-K of United Technologies Corporation;

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

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

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

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

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

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

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

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

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

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

Date: February 6, 2020

/s/ NEIL G. MITCHILL, JR.

Neil G. Mitchill, Jr.

Acting Senior Vice President & Chief Financial Officer

Exhibit 31.3

CERTIFICATION

I, Robert J. Bailey, certify that:

1. I have reviewed this annual report on Form 10-K of United Technologies Corporation;

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

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

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

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

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

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

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

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

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

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

Date: February 6, 2020

/s/ ROBERT J. BAILEY

Robert J. Bailey

Corporate Vice President, Controller

Exhibit 32

Section 1350 Certifications
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), each of the undersigned officers of United Technologies Corporation, a Delaware corporation (the "Corporation"), does hereby certify that:

The Annual Report on Form 10-K for the year ended December 31, 2019 (the "Form 10-K") of the Corporation fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 and information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Corporation.

Date: February 6, 2020	/s/ GREGORY J. HAYES Gregory J. Hayes Chairman, President and Chief Executive Officer
Date: February 6, 2020	/s/ NEIL G. MITCHILL, JR. Neil G. Mitchill, Jr. Acting Senior Vice President & Chief Financial Officer
Date: February 6, 2020	/s/ ROBERT J. BAILEY Robert J. Bailey Corporate Vice President, Controller