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, 2018

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	Name of each exchange on which registered
Common Stock ($1 par value) (CUSIP 913017 10 9)	**New York Stock Exchange**
1.125% Notes due 2021 (CUSIP 913017 CD9)	**New York Stock Exchange**
1.250% Notes due 2023 (CUSIP U91301 AD0)	**New York Stock Exchange**
1.150% Notes due 2024 (CUSIP 913017 CU1)	**New York Stock Exchange**
1.875% Notes due 2026 (CUSIP 913017 CE7)	**New York Stock Exchange**
2.150% Notes due 2030 (CUSIP 913017 CV9)	**New York Stock Exchange**
Floating Rate Notes due 2019 (CUSIP 913017 CS6)	**New York Stock Exchange**
Floating Rate Notes due 2020 (CUSIP 913017 CT4)	**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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).
Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§232.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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, 2018 was approximately $99,985,852,722, 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, 2019, there were 861,748,797 shares of Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Parts I, II and IV hereof incorporate by reference portions of the United Technologies Corporation 2018 Annual Report to Shareowners. Part III hereof incorporates by reference portions of the United Technologies Corporation Proxy Statement for the 2019 Annual Meeting of Shareowners.

UNITED TECHNOLOGIES CORPORATION
AND SUBSIDIARIES

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UNITED TECHNOLOGIES CORPORATION

Annual Report on Form 10-K for
Year Ended December 31, 2018

Whenever reference is made in this Form 10-K to specific sections of United Technologies Corporation's 2018 Annual Report to Shareowners (2018 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 2018 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 (formerly known as UTC Climate, Controls & Security), Pratt & Whitney, and Collins Aerospace Systems (a new segment comprised of the former UTC Aerospace Systems segment and the Rockwell Collins businesses following UTC's acquisition of Rockwell Collins, Inc. in November 2018), 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 2018, our commercial and industrial sales (generated principally by the commercial businesses) were approximately 47 percent of our consolidated sales, and our commercial aerospace sales and military aerospace sales (generated exclusively by our aerospace businesses) were approximately 39 percent and 14 percent, respectively, of our consolidated sales. International sales for 2018, including U.S. export sales, were 62 percent of our net sales.

On November 26, 2018, the Company announced its 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. The Company expects to complete the separation transactions by mid-year 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 in certain jurisdictions and/or a tax opinion from external counsel (as applicable), the filing with the Securities and Exchange Commission (SEC) and effectiveness of Form 10 registration statements, and satisfactory completion of financing.

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 Investor Relations 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 2016 through 2018, including financial information about foreign and domestic operations and export sales, appears in Note 19 to the Consolidated Financial Statements in our 2018 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 19 to the Consolidated Financial Statements in our 2018 Annual Report. Similarly, total segment backlog as discussed below includes intercompany backlog. Beginning in 2018, for each of our segments, we have elected to quantify backlog in a manner that is consistent with the definition of remaining performance obligation (RPO) under Accounting Standards Codification (ASC) Topic 606: *Revenue from Contracts with Customers*. This change did not result in a material impact to the RPO balances of Otis, Carrier or Collins Aerospace Systems. However, as described below, Pratt & Whitney's RPO was adjusted to exclude airline engine orders previously included in backlog for which we have not received the associated firm manufacturing purchase orders. See Note 3 to the Consolidated Financial Statements in our 2018 Annual Report for further discussion of the accounting for RPO under 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. 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.

Sales generated by Otis’ international operations was 73 percent of total Otis net sales in both 2018 and 2017. At December 31, 2018, Otis’ RPO was $16.4 billion as compared to a backlog of $16.2 billion at December 31, 2017. Of the total Otis RPO at December 31, 2018, approximately $8.8 billion is expected to be realized as sales in 2019.

Carrier

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.

Carrier sells its HVAC and refrigeration products and solutions either directly, including to building contractors and owners, transportation companies, retail stores and food service companies, or indirectly through joint ventures, independent sales representatives, distributors, wholesalers, dealers, and retail outlets. 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 retail distribution.

Certain Carrier HVAC businesses are seasonal, and sales and service activity can be impacted by weather. 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 and contract terms on Carrier products.

Sales generated by Carrier’s international operations, including U.S. export sales, were 54 percent and 55 percent of total Carrier net sales in 2018 and 2017, respectively. At December 31, 2018, Carrier’s RPO was $5.3 billion as compared to a backlog of $4.4 billion at December 31, 2017. Of the total Carrier RPO at December 31, 2018, approximately 70% is expected to be realized as sales in 2019.

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, 2018, the interests of third-party participants in Pratt & Whitney-directed commercial jet engine programs ranged from approximately 13 percent to 50 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 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 the Engine Alliance (EA), a joint venture with GE Aviation, which markets and manufactures the GP7000 engine for the Airbus A380 aircraft. 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 2018 Annual Report for a description of our accounting for collaborative arrangements.

Pratt & Whitney produces the PurePower PW1000G Geared Turbofan engine family, the first of which, the PW1100G-JM, entered into service in January 2016. The PurePower PW1000G 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. PurePower PW1000G engine models also power the Airbus A220 passenger aircraft and Embraer's E-Jet E2 family of aircraft. Additionally, the PurePower PW1000G engine models have been selected to power the new Mitsubishi Regional Jet, and the new Irkut MC-21 passenger aircraft, which are both scheduled to enter service in 2020. As previously disclosed, Gulfstream announced the selection of the PurePower PW800 engine to exclusively power Gulfstream's new G500 and G600 business jets. The Gulfstream G500 entered service in 2018, and the Gulfstream G600 is scheduled to enter service in 2019. P&WC's PurePower 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 36 percent and 38 percent of total Pratt & Whitney segment sales in 2018 and 2017, respectively, before taking into account discounts or financial incentives offered to customers. Sales to the U.S. Government were approximately 23 percent and 21 percent of total Pratt & Whitney segment sales in 2018 and 2017, respectively.

Sales generated by Pratt & Whitney's international operations, including U.S. export sales, were 63 percent and 61 percent of total Pratt & Whitney net sales in 2018 and 2017, respectively. At December 31, 2018, Pratt & Whitney's RPO was $71.1 billion, including $10.0 billion of U.S. Government contracts and subcontracts. At December 31, 2017, Pratt &

Whitney's backlog was $64.3 billion, including $6.0 billion of U.S. Government contracts and subcontracts. As noted above, in conjunction with our adoption of ASC Topic 606: *Revenue from Contracts with Customers,* we have elected to quantify backlog in a manner that is consistent with the definition of RPO. In prior years, backlog included engine orders from airlines, for which the contractual manufacturing purchase orders had not yet been received from the applicable airframe customers. Effective with the adoption of ASC Topic 606, we no longer include in backlog airline engine orders for which we have not received the associated firm manufacturing purchase orders. The decline in Pratt & Whitney's RPO at December 31, 2018 as a result of this change has been more than offset by other order activity during the year.

Of the total Pratt & Whitney RPO at December 31, 2018, approximately $10.9 billion is expected to be realized as sales in 2019. 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 2018 Annual Report for a description of our Revenue Recognition accounting policy which includes discussion of the accounting for long-term contracts and Note 3 for further discussion on RPO under ASC Topic 606: *Revenue from Contracts with Customers*.

Collins Aerospace Systems

On November 26, 2018, the Company completed the acquisition of Rockwell Collins pursuant to the merger agreement dated September 4, 2017. As a result of the acquisition, Rockwell Collins became a wholly owned subsidiary of the Company and was combined with the legacy UTC Aerospace Systems business segment to form a new business segment, Collins Aerospace Systems. 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.

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, space and undersea 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. Collins Aerospace Systems' largest customers are Boeing and Airbus with a combined 31 percent and 33 percent of total Collins Aerospace Systems segment sales in 2018 and 2017, respectively. Sales to the U.S. Government were 19 percent and 17 percent of total Collins Aerospace Systems net sales in 2018 and 2017, respectively.

In 2018, Collins Aerospace Systems' products supported the first flight of the Airbus Beluga XL, as well as the certifications of the Embraer E190-E2, Bombardier Global 7500, and Challenger 604. Collins Aerospace Systems also supported the United States Army's HMS (Handheld, Manpack, and Small Form Fit) Manpack and the United States Air Force's T-1A Jayhawk and ACES 5 ejection seat certifications. On-going certification efforts include the Embraer E195-E2 and KC390, as well as the Boeing KC-46 and COMAC C919. Collins Aerospace Systems' products supported the 2018 entry into service for the Airbus A350-1000 and A330neo, Boeing 787-10, Embraer E190-E2, Gulfstream G500, as well as the Bombardier Global 7500.

Significant product development activity continues, including major systems for the COMAC CR929, Boeing 777X and T-X Trainer, Mitsubishi Regional Jet, KAI (Korea Aerospace Industries) KF-X Fighter Jet, Embraer Praetor 500 and 600, Iridium NEXT, next generation flight deck technologies, Tactical Combat Training Systems Increment II, and the United States Air Force's Modernized GPS User Equipment Program. Collins Aerospace Systems is also the operations support prime contractor for NASA's space suit/life support system, and produces environmental monitoring and control, life support, power management and distribution, and thermal control systems for the International Space Station and the Orion crew exploration vehicle.

Sales generated by Collins Aerospace Systems' international operations, including U.S. export sales, was 56 percent of total Collins Aerospace Systems segment sales in both 2018 and 2017. 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. At December 31, 2017, backlog was $13.9 billion, including $3.0 billion of U.S. Government contracts and subcontracts. Of the total Collins Aerospace Systems RPO at December 31, 2018, approximately $12.3 billion is expected to be realized as sales in 2019. See Note 1 to the Consolidated Financial Statements in our 2018 Annual Report for a description of our Revenue Recognition accounting policy which includes discussion of the accounting for long-term contracts and Note 3 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 2018 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, backlog 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 5 and 17 to the Consolidated Financial Statements in our 2018 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 $2.0 billion or 3 percent of our total sales for 2018 were made under cost-reimbursement type contracts.

Our contracts with the U.S. Government are also subject to audits. Like many defense contractors, we have received audit reports, which recommend that certain contract prices should be reduced, or that certain payments should be delayed, refunded or withheld to comply with various government regulations, including reports alleging that cost or pricing data we submitted in negotiation of the contract prices or that cost accounting practices may not have conformed to government regulations. Some of these audit reports involved substantial amounts. We have made voluntary refunds in those cases we believe appropriate, have settled some allegations and, in some cases, continue to negotiate with the government and/or litigate. For further discussion of risks related to government contracting, 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 2018 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 2018 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 and energy efficiency standards and fire safety regulations are important to our Carrier businesses, and elevator safety codes are important to the businesses of Otis, 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 2018 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 using bidding 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 requirements, 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 U.K.'s pending withdrawal from the EU, 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 2018 Annual Report.

Employees and Employee Relations

At December 31, 2018, our total number of employees was approximately 240,000, which includes approximately 30,000 employees added as a result of the acquisition of Rockwell Collins. Approximately 63 percent of total employees are based outside the U.S. During 2018, we negotiated 8 domestic collective bargaining agreements, the largest of which covered certain workers at Pratt & Whitney's West Palm Beach facility. In 2019, numerous collective bargaining agreements are subject to renegotiation, the largest of which covers certain workers at Carrier's Collierville, Tennessee facility. 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 2019 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 2018 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 2018 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" and other words of similar meaning in connection with a discussion of future operating or financial performance or the separation transactions. 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 and other measures of financial performance or potential future plans, strategies or transactions of United Technologies or the independent companies following United Technologies' expected separation into three independent companies, the anticipated benefits of the acquisition of Rockwell Collins or of the separation transactions, including estimated synergies resulting from the Rockwell Collins transaction, the expected timing of completion of 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 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 weather conditions and natural disasters and the financial condition of our customers and suppliers;
- challenges in the development, production, delivery, support, performance and realization of the anticipated benefits (including expected returns under customer contracts) of advanced technologies and new products and services;
- the scope, nature, impact or timing of the expected separation transactions and other acquisition and divestiture activity, including among other things integration of acquired businesses into UTC's existing 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 expected 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;
- 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;
- new business and investment opportunities;
- our 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 operate, including the effect of changes in U.S. trade policies or the U.K.'s pending withdrawal from the European Union (EU), on general market conditions, global trade policies and currency exchange rates in the near term and beyond;
- the effect of changes in tax (including the U.S. tax reform enacted on December 22, 2017 and is commonly referred to as the Tax Cuts and Jobs Act of 2017 (TCJA)), environmental, regulatory (including among other things import/export) and other laws and regulations in the U.S. and other countries in which we operate;

- negative effects of the Rockwell Collins acquisition or the announcement or pendency of the separation transactions on the market price of UTC's common stock and/or on its financial performance;
- risks relating to the 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;
- our ability 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 expected qualification of the separation transactions as tax-free transactions for U.S. federal income tax purposes;
- the possibility that any consents or approvals required in connection with the expected 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 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 expected separation transactions will exceed our estimates; and
- the impact of the expected separation transactions on our businesses and the risk that the separation transactions may be more difficult, time-consuming or costly than expected, including the impact on our resources, systems, procedures and controls, diversion of management's attention 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 2018 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." 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 and industrial businesses, which generated approximately 47 percent of our consolidated sales in 2018, 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 also 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 53 percent of our consolidated sales in 2018, 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 service 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, 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 the RPO for commercial aerospace customers is scheduled for delivery beyond 2019, 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 complete. A reduction in capital 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 and 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 63 percent of our 2018 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 2018 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 U.K.'s pending withdrawal from the EU, 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, that carry high levels of currency, political, compliance and economic risk. We expect that sales to 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.

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.

On November 26, 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 the satisfaction of a number of customary conditions, including, among others, final

approval by UTC's Board of Directors, receipt of tax rulings in certain jurisdictions and/or a tax opinion from external counsel (as applicable), the filing with the SEC and effectiveness of Form 10 registration statements for Otis and Carrier and satisfactory completion of financing. 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 Smaller, Less Diversified Company Than UTC as It Exists Today.

The separation transactions will result in UTC, Otis and Carrier being smaller, less diversified companies with more limited businesses concentrated in their respective industries. Of note, 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 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 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 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 or continued supply and services arrangements, 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.

The Rockwell Collins acquisition 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 synergies.

The ultimate success of the Rockwell Collins acquisition will depend, in part, on UTC's ability to successfully combine and integrate the businesses of UTC and Rockwell Collins, and realize the anticipated benefits, including revenue and cost synergies, innovation opportunities and operational efficiencies, from the acquisition. If UTC 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 UTC's common stock may decline as a result.

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

- the diversion of management's attention from ongoing business concerns and performance shortfalls at Collins Aerospace Systems as a result of the devotion of management's attention to the integration;
- managing a larger combined aerospace systems business;
- maintaining employee morale and retaining key management and other employees;
- retaining existing business and operational relationships, including customers, suppliers and other counterparties, as may be impacted by contracts containing consent and/or other provisions that may be triggered by the acquisition, and attracting new business and operational relationships;
- the possibility of faulty assumptions underlying expectations regarding the integration process;
- consolidating corporate and administrative infrastructures and eliminating duplicative operations;
- coordinating geographically separate organizations;

- unanticipated issues in integrating information technology, communications and other systems;
- increased competitive pressure from customers; and
- unforeseen expenses or delays associated with the acquisition.

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 of refinancing outstanding debt 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 and contractual commitments. 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 free operating 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, 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.

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 PurePower PW1000G Geared Turbofan engine to power various aircraft, including the A320neo family of aircraft, which entered into service in January 2016. The level of orders received for the PurePower 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' production 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 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, we may experience delays in completing the development and introduction of new products. Delays 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 or pending required certifications.

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 required by the contract 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.

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 might develop new technologies or offerings that might cause our existing technologies and offerings to become obsolete. In addition, the possibility exists that competitors 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.

Our contracts with the U.S. Government are also subject to audit. Like many defense contractors, we have received audit reports recommending that certain contract prices should be reduced, or that certain payments should be delayed, refunded or withheld to comply with various government regulations, including reports alleging that cost or pricing data we submitted in negotiation of the contract prices was incomplete or that cost accounting practices may not have conformed to government regulations. Some of these audit reports involve substantial amounts, of which those that allege noncompliance with the cost accounting practices associated with our military engine business could, if the audit reports' theories were to prevail in litigation, increase the costs absorbed by our commercial engine business in the future.

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 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 and compliance with U.S. and foreign laws, competition laws and laws governing improper business practices. We or one of our business units 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, other damages (in certain cases, treble damages). As a global business, we are subject to complex laws and regulations in the U.S. and 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 or our subsidiaries' 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 our employees or agents from violating the FCPA or similar laws. As a result, we could be subject to 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 2018 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 investigations, there could be additional investigations launched in the future by governmental authorities in various jurisdictions, and existing investigations could be expanded. The global and diverse nature of our operations means that these risks will continue to exist and additional investigations, 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 investigations, 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 2018 Annual Report for further discussion on income taxes and related contingencies, including our accounting and assessment of the effect of the 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 2018 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 as well as 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. 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, 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 operate in approximately 120 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 47% of our significant properties are leased, and 53% are owned. Approximately 49% of our significant properties are located in the United States.

Our fixed assets as of December 31, 2018 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, 2018 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 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 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.

Rockwell Collins' Voluntary Disclosure

In 2018, and before its acquisition by UTC, Rockwell Collins voluntarily disclosed to the United States Department of Justice (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, which is ongoing, resulted from Rockwell Collins’ post-acquisition compliance review of B/E Aerospace. UTC continues to cooperate fully with the DOJ and SEC. Because the matter is ongoing, we cannot predict the outcome or the consequences thereof at this time. Rockwell Collins previously disclosed this matter in its public SEC filings, beginning in April 2018.

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 2018 Annual Report. Except as indicated herein or in Note 18 to the Consolidated Financial Statements in our 2018 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".

The Performance Graph and Comparative Stock Data appearing in our 2018 Annual Report, filed as Exhibit 13 to this Form 10-K, containing the following data relating to our common stock: total shareholder return, principal market, quarterly high and low sales prices, approximate number of shareowners and frequency and amount of dividends, are incorporated herein by reference. 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, 2018 of equity securities that are registered by us pursuant to Section 12 of the Exchange Act.

2018	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	61	$ 128.65	61	$ 2,211
November 1 - November 30	65	126.27	65	$ 2,203
December 1 - December 31	2,027	117.70	2,027	$ 1,964
Total	2,153	$ 118.27	2,153	

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, 2018, the maximum dollar value of shares that may yet be purchased under this current program was $1,964 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, 2018.

Item 6. Selected Financial Data

The Five-Year Summary appearing in our 2018 Annual Report, filed as Exhibit 13 to this Form 10-K, is incorporated herein by reference. See "Notes to Consolidated Financial Statements" in our 2018 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 2018 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 2018 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 2018 Annual Report, filed as Exhibit 13 to this Form 10-K.

Item 8. Financial Statements and Supplementary Data

The 2018 and 2017 Consolidated Balance Sheet, and other consolidated financial statements for the years ended 2018, 2017 and 2016, together with the report thereon of PricewaterhouseCoopers LLP dated February 7, 2019 in our 2018 Annual Report, filed as Exhibit 13 to this Form 10-K, are incorporated herein by reference. The 2018 and 2017 unaudited Selected Quarterly Financial Data appearing in our 2018 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 Executive 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, 2018. 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, 2018. The effectiveness of our internal control over financial reporting as of December 31, 2018 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in its report which appears in our 2018 Annual Report.

On November 26, 2018, the Company completed its merger of Rockwell Collins. Accordingly, the acquired assets and liabilities of Rockwell Collins are included in our consolidated balance sheet as of December 31, 2018 and the results of its operations and cash flows are reported in our consolidated statements of operations and cash flows from November 26, 2018 through December 31, 2018. We have elected to exclude Rockwell Collins from the scope of our report on internal control over financial reporting as of December 31, 2018. Rockwell Collins is a wholly-owned subsidiary whose total assets and total revenues excluded from the scope of our report represent 5 percent and 1 percent, respectively of the related consolidated financial statement amounts as of and for the year ended December 31, 2018.

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 2019 Annual Meeting of Shareowners titled "Election of Directors" (under the subheading "Nominees") and "Corporate Governance" (including under the subheading "Board Committees").

Executive Officers of the Registrant

The following persons are executive officers of United Technologies Corporation:

Name	Title	Other Business Experience Since 1/1/2014	Age as of 2/7/2019
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	62
Robert J. Bailey	Corporate Vice President, Controller, United Technologies Corporation (since September 2016)	Vice President & Chief Financial Officer, Pratt & Whitney	54
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	52
Charles D. Gill	Executive Vice President & General Counsel, United Technologies Corporation (since 2007)*	Senior Vice President and General Counsel, United Technologies Corporation	54
David L. Gitlin	President and Chief Operating Officer, Collins Aerospace Systems (since November 2018)	President, UTC Aerospace Systems; President, Aircraft Systems, UTC Aerospace Systems	49
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	58
Akhil Johri	Executive Vice President & Chief Financial Officer, United Technologies Corporation (since January 2015)*	Senior Vice President and Chief Financial Officer, United Technologies Corporation; Chief Financial Officer, Pall Corporation	57
Robert F. Leduc	President, Pratt & Whitney (since January 2016)	President, Sikorsky Aircraft; President, Boeing Programs and Space, Hamilton Sundstrand/UTC Aerospace Systems	62
Judith F. Marks	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.	55
Robert J. McDonough	President, Carrier (since September 2015)	Chief Operating Officer, Americas, UTC Building & Industrial Systems	59
Robert K. Ortberg	Chief Executive Officer, Collins Aerospace Systems (since November 2018)	Chairman, President and Chief Executive Officer of Rockwell Collins, Inc.	58
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	52

*Certain executive officers' titles changed in November 2015 without any change in his or her responsibilities.

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 2019 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 2019 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 and the Equity Compensation Plan Information required by Item 12 is incorporated herein by reference to the sections of our Proxy Statement for the 2019 Annual Meeting of Shareowners titled "Share Ownership" and "Executive Compensation".

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 2019 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 2019 Annual Meeting of Shareowners titled "Appointment of an Independent Auditor for 2019," 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 2018 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, 2018	33
Consolidated Statement of Comprehensive Income for the three years ended December 31, 2018	34
Consolidated Balance Sheet as of December 31, 2018 and 2017	35
Consolidated Statement of Cash Flows for the three years ended December 31, 2018	36
Consolidated Statement of Changes in Equity for the three years ended December 31, 2018	37
Notes to Consolidated Financial Statements	38
Selected Quarterly Financial Data (Unaudited)	87

(2) Financial Statement Schedule for the three years ended December 31, 2018:

	Page Number in Form 10-K
SCHEDULE I—Report of Independent Registered Public Accounting Firm on Financial Statement Schedule	S-I
SCHEDULE II—Valuation and Qualifying Accounts	S-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.
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 October 10, 2018, 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 October 10, 2018.
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.
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.
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.
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.
10.8	United Technologies Corporation Board of Directors Deferred Stock Unit Plan, as Amended and Restated, effective as of April 29, 2019.*

10.9	Retainer Payment Election Form for United Technologies Corporation Board of Directors Deferred Stock Unit Plan (referred to above in Exhibit 10.8).*
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).*
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 10.12) (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 10.12) (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 10.12), 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.
10.15	Schedule of Terms for performance share unit awards relating to the United Technologies Corporation Long-Term Incentive Plan (referred to above in Exhibit 10.12) (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 10.12) (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 10.12), 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.
10.18	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)*
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).*

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).*
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;*Amendment No.3 to Rockwell Collins' Master Trust, as amended.*
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.*

13	Excerpts from UTC's 2018 Annual Report to Shareowners for the year ended December 31, 2018.*
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.*
23	Consent of PricewaterhouseCoopers LLP.*
24	Powers of Attorney of Lloyd J. Austin III, Diane M. Bryant, 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, Brian C. Rogers, and Christine Todd Whitman.*
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	XBRL Instance Document.* (File name: utx-20181231.xml)
101.SCH	XBRL Taxonomy Extension Schema Document.* (File name: utx-20181231.xsd)
101.CAL	XBRL Taxonomy Calculation Linkbase Document.* (File name: utx-20181231_cal.xml)
101.DEF	XBRL Taxonomy Definition Linkbase Document.* File name: : utx-20181231_def.xml)
101.LAB	XBRL Taxonomy Label Linkbase Document.* (File name: utx-20181231_lab.xml)
101.PRE	XBRL Taxonomy Presentation Linkbase Document.* (File name: utx-20181231_pre.xml)

Notes to Exhibits List:

* Submitted electronically herewith.

Exhibits 10.1 through 10.37 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, 2018, (ii) Consolidated Statement of Comprehensive Income for the three years ended December 31, 2018, (iii) Consolidated Balance Sheet as of December 31, 2018 and 2017, (iv) Consolidated Statement of Cash Flows for the three years ended December 31, 2018, (v) Consolidated Statement of Changes in Equity for the three years ended December 31, 2018, (vi) Notes to Consolidated Financial Statements, and (vii) Financial Schedule of Valuation and Qualifying Accounts.

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/ AKHIL JOHRI
Akhil Johri
Executive Vice President & Chief Financial Officer

By: /s/ ROBERT J. BAILEY
Robert J. Bailey
Corporate Vice President, Controller

Date: February 7, 2019

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

Signature	Title	Date
/s/ GREGORY J. HAYES **(Gregory J. Hayes)**	Director, Chairman, President and Chief Executive Officer (Principal Executive Officer)	February 7, 2019
/s/ AKHIL JOHRI **(Akhil Johri)**	Executive Vice President & Chief Financial Officer (Principal Financial Officer)	February 7, 2019
/s/ ROBERT J. BAILEY **(Robert J. Bailey)**	Corporate Vice President, Controller (Principal Accounting Officer)	February 7, 2019
/s/ LLOYD J. AUSTIN III * **(Lloyd J. Austin III)**	Director	
/s/ DIANE M. BRYANT * **(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	
/s/ CHRISTINE TODD WHITMAN * **(Christine Todd Whitman)**	Director	

*By: /s/ CHARLES D. GILL

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

Date: February 7, 2019

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 7, 2019 appearing in the 2018 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 7, 2019

SCHEDULE II

UNITED TECHNOLOGIES CORPORATION AND SUBSIDIARIES
Valuation and Qualifying Accounts
Three years ended December 31, 2018
(Millions of Dollars)

Allowances for Doubtful Accounts and Other Customer Financing Activity:		
Balance, December 31, 2015	$	553
Provision charged to income		64
Doubtful accounts written off (net)		(105)
Other adjustments		(45)
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**
Future Income Tax Benefits—Valuation allowance:		
Balance, December 31, 2015	$	591
Additions charged to income tax expense		32
Reductions credited to income tax expense		(61)
Other adjustments		(17)
Balance, December 31, 2016		545
Additions charged to income tax expense		45
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**

Exhibit 10.10

UNITED TECHNOLOGIES CORPORATION
BOARD OF DIRECTORS
DEFERRED RESTRICTED STOCK UNIT AWARD FOR A NEW DIRECTOR
ELECTION FORM

Insert Director Name

A new non-employee member of the Board of Directors receives a one-time award of deferred restricted stock units having a grant date value of $100,000, based on the closing price of UTC common stock on the date of election to the Board (the “RSU Award”). The RSU Award is intended to promote a closer identity of interests between Non-Employee Directors and shareowners by providing non-employee Directors with an equity-based interest in the Company’s future performance.

The RSU Award is subject to a restriction on transferability and may not be sold, assigned, pledged or transferred while you remain a Director of UTC. Accordingly, by your acceptance of the RSU Award, you agree that you will not sell, assign, pledge or transfer your RSU Award prior to your retirement or resignation as a Director of UTC. Your RSU Award will be credited with dividend equivalents, which will vest immediately but will otherwise be subject to the same transfer restrictions applicable to the RSU Award.

The RSU Award will vest in increments of 20 percent per year. The effective date of the grant of your RSU Award will be **Insert Date**. The first 20 percent will vest effective as of the next UTC Annual Shareowner Meeting. An additional 20 percent will vest effective as of the UTC Annual Shareholder Meeting for each succeeding year while you continue on the Board up to 100 percent vest.

At the time you retire or resign from the Board, your vested RSU Award will be converted into shares of UTC Common Stock and distributed to you, unless you elect to receive your RSU Award in annual installments as provided below.

Upon retirement or termination from the Board, I elect to receive distribution of my RSU Award in **(please check one):**

o A full and immediate distribution of all shares

o 10 annual installments

o 15 annual installments

In compliance with IRS rules, if you make or alter this election after you join the Board, you must do so at least one year prior to retiring or resigning from the Board, and your distribution will begin five years from the date the award would otherwise be scheduled for distribution.

Any portion of your RSU Award not vested as of the date you resign or retire from the Board will be forfeited without payment of any compensation to you. However, in the event of a Change-in-Control or a Restructuring event as defined by the United Technologies Corporation Long Term Incentive Plan, or upon your death or your resignation from the Board due to disability, or if you retire or resign to accept full-time employment in public or charitable service, the remaining value of your RSU Award that has not previously vested will immediately vest and convert into shares of UTC Common Stock and be distributed in accordance with your election on file.

Recognition of Ordinary Income under U.S. Tax Law

For federal income tax purposes, you will be required to include as income the value of any shares of UTC Common Stock distributed to you following your departure from the Board. Additional deferred stock units credited as a result of dividend payments are not included in your income until they are distributed to you.

The foregoing is only a brief summary of the federal income tax consequences of your RSU Award. You are urged to consult with your tax advisor for advice regarding your individual circumstances. UTC will report and withhold such income as required by state, federal, or other applicable laws.

Please confirm your agreement by returning a signed and dated copy of this award statement via the enclosed Federal Express return envelope by Insert Date.

I acknowledge receipt of this Deferred Restricted Stock Unit Award. I accept this Award subject to the terms detailed herein, and the United Technologies Corporation Board of Directors Deferred Stock Unit Plan.

____
Signature

____
Printed Name

____
Date

Exhibit 10.8

UNITED TECHNOLOGIES CORPORATION

BOARD OF DIRECTORS

DEFERRED STOCK UNIT PLAN

As Amended and Restated Effective April 29, 2019

UNITED TECHNOLOGIES CORPORATION BOARD OF DIRECTORS
DEFERRED STOCK UNIT PLAN

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APPENDIX United Technologies Corporation Board of Directors Deferred Stock Unit Plan as in effect on October 3, 2004 (the "Prior Plan")

APPENDIX B United Technologies Corporation 2005 Long Term Incentive Plan Statement of Award

ARTICLE I
INTRODUCTION AND PURPOSE

1.01 Purpose of Plan

The United Technologies Corporation Board of Directors Deferred Stock Unit Plan (the "Plan") has been established to provide an arrangement for non-employee directors to receive an annual Deferred Stock Unit Award and a New Director Restricted Stock Unit Award and to defer their Annual Retainer in the form of deferred stock units equal in value to shares of the Corporation's common stock for the purpose of aligning the interests of non-employee directors with those of the Corporation's shareowners.

1.02 Effective Date of Plan and Amendments

(a) The Plan as originally adopted on January 1, 1996 was amended and restated effective January 1, 2005 for the purpose of complying with Section 409A of the Internal Revenue Code with respect to deferrals that were earned or vested after December 31, 2004. Amounts that were earned or vested (within the meaning of Section 409A) prior to January 1, 2005, and any subsequent increases in these amounts that are permitted to be treated as grandfathered benefits under Section 409A, are generally subject to and shall continue to be governed by the terms of the Prior Plan set forth in Appendix A.

(b) The Plan was amended and restated in 2010 for the purposes of: (i) revising the retainer structure; (ii) establishing share ownership guidelines for non-employee directors; and (iii) providing that distributions from this Plan and the Prior Plan will be comprised of shares of UTC Common Stock rather than cash. Changes effected by this amendment and restatement were generally effective as of October 13, 2010.

(c) The Plan was amended effective February 1, 2013, for the purpose of revising the retainer fee and annual deferred stock unit award amounts.

(d) The Plan was amended and restated for the purposes of: (i) revising the retainer fee and annual deferred stock unit award amounts as integrated into this Plan effective

April 27, 2015; and (ii) establishing a retainer fee and deferred stock unit award for the position of non-executive Chairman of the Board effective November 23, 2014.

e) The Plan was amended and restated effective April 24, 2017 for the purposes of: (i) revising the retainer fee and annual deferred stock unit award amounts; (ii) establishing that non-employee

directors serving in multiple leadership roles would receive the additional awards specified for each role; and (iii) certain other changes related to the administration of the Plan.

f) The Plan is hereby amended and restated effective April 29, 2019 for the purpose of revising the retainer fee and annual deferred stock unit award amounts.

ARTICLE II
DEFINITIONS

Unless the context clearly indicates otherwise, the following terms, when used in capitalized form in the Plan, shall have the meanings set forth below:

Account means a bookkeeping account established for a Participant under Article IV that is credited with Deferred Stock Units representing compensation earned or vested after 2004. Any compensation earned and vested before 2005 shall be credited to a Participant's account(s) under the Prior Plan and shall be subject to the provisions set forth in Appendix A.

Annual Meeting means the Corporation's Annual Meeting of Shareowners.

Annual Retainer means the annual retainer fee payable to a Participant under Section 3.01 for services to the Company in the capacities indicated.

Annual Deferred Stock Unit Award means the annual grant of Deferred Stock Units made to Participants in accordance with Section 3.02.

Board Cycle means the period beginning as of the Annual Meeting and ending at the start of the next Annual Meeting.

Beneficiary means a Participant's beneficiary, designated in writing in a form and manner satisfactory to the Committee, or if a Participant fails to designate a beneficiary, or if all of the Participant's designated Beneficiaries predecease the Participant, the Participant's estate.

Board means the Board of Directors of the Corporation.

Closing Price means, with respect to any date specified by the Plan, the closing price of UTC

Common Stock on the composite tape of New York Stock Exchange on such date (or if there was no reported sale of UTC Common Stock on such date, on the next following day on which there was such a reported sale).

Code means the Internal Revenue Code of 1986, as amended from time to time, and any successor thereto. References to any section of the Internal Revenue Code shall include any final regulations or other published guidance interpreting that section.

Committee means the Committee on Nominations and Governance of the Board.

Conversion Date means the date Deferred Stock Units are converted to shares of UTC Common Stock immediately prior to the delivery of such shares to a Participant or Beneficiary in accordance with Article V herein.

Corporation means United Technologies Corporation.

Deferred Annual Retainer means any portion of a Participant's Annual Retainer deferred in accordance with Article V.

Deferred Stock Unit means a hypothetical share of UTC Common Stock convertible into an actual share of UTC Common Stock following a Separation from Service and immediately prior to a distribution to be made in accordance with Article V. Each Deferred Stock Unit is equal in value to a share of UTC Common Stock. Deferred Stock Units are "restricted stock units" awarded under the LTIP and distributed and administered in accordance with the terms of this Plan.

Distribution Anniversary Date means an anniversary of the Distribution Commencement Date.

Distribution Commencement Date means the first business day of the first month following the month in which the Participant has a Separation from Service.

Election means an irrevocable election by a Participant either to defer all or a portion of the Annual Retainer otherwise payable in cash or to specify how an Account will be distributed (i.e., as a lump sum, in 10 annual installments, or in 15 annual installments).

LTIP means the 2005 United Technologies Corporation Long Term Incentive Plan, as amended

from time to time.

Participant means a non-employee member of the Board.

Plan means this United Technologies Corporation Board of Directors Deferred Stock Unit Plan, as amended and restated herein, effective December 23, 2014 and as it may be subsequently amended from time to time.

Plan Year means the calendar year.

Prior Plan means the United Technologies Corporation Board of Directors Deferred Stock Unit Plan as in effect on October 3, 2004, and as modified thereafter from time to time in a manner that does not constitute a "material modification" for purposes of Section 409A, as set forth in Appendix A hereto.

New Director Restricted Stock Unit Award means the one-time Deferred Stock Unit award granted to a Participant upon election to the Board as provided in Section 3.03.

Separation from Service means a Participant's resignation, removal, or retirement from the Board (for a reason other than death) that constitutes a good-faith, complete termination of the Participant's relationship with the Corporation and that also qualifies as a "separation from service" for purposes of Section 409A of the Code.

UTC Common Stock shall mean the common stock of the Corporation.

ARTICLE III
ELIGIBLE COMPENSATION

3.01 Annual Retainer

(a) *Annual Retainer Amount.* Effective April 29, 2019, subject to subsection (b) of this Section 3.01, each Participant will receive a base Annual Retainer of $124,000. In addition to the base Annual Retainer, Participants serving in leadership roles on the Board and/or its committees shall receive the following additional Annual Retainer amounts: $32,000 for the Lead Director; $16,000 for the Audit Committee Chair; $12,000 for members of the Audit Committee; $10,000 for the Chair of the Compensation Committee, the Chair of the Finance Committee, and the Chair of the Committee on Governance and Public Policy. In the event that a Participant serves in more than one role listed above,

the Participant will receive the additional amounts specified for each role. The Annual Retainer is subject to change from time to time at the discretion of the Committee.

(b) *New Participants.* If a Participant is elected to the Board before September 30 of a Board Cycle, the Participant will receive the full amount of the then applicable Annual Retainer. Such amount will be eligible for deferral in accordance with Article V. If a Participant is elected to the Board after September 30 of a Board Cycle, the Participant will receive 50% of the applicable Annual Retainer Amount set forth in subsection (a) above.

3.02 Annual Deferred Stock Unit Award

(a) *Annual Deferred Stock Unit Award.* Effective April 29, 2019, subject to subsection (b) of this Section 3.02, each Participant will receive a base annual Deferred Stock Unit Award of $186,000, valued at the time of issuance, credited to the Participant's Account. In addition to the base annual Deferred Stock Unit Award, Participants serving in leadership roles on the Board and/or its committees shall receive the following additional annual Deferred Stock Units: $48,000 for the Lead Director; $24,000 for the Audit Committee Chair; $18,000 for members of the Audit Committee; $15,000 for the Chair of the Compensation Committee, the Chair of the Finance Committee, and the Chair of the Committee on Governance and Public Policy. In the event that a Participant serves in more than one role listed above, the Participant shall receive the additional Deferred Stock Units awards specified for each role. The Annual Deferred Stock Unit Award is subject to change from time to time at the discretion of the Committee.

(b) *New Participants.* If a Participant is elected to the Board before September 30 of a Board Cycle, the Participant will receive an Annual Deferred Stock Unit Award equal in value to the amounts specified in sub-section (a) above. If a Participant is elected to the Board after September 30 of a Board Cycle, the Participant will receive an Annual Deferred Stock Unit Award equal to 50% of the value specified in subsection (a).

3.03 New Director Restricted Stock Unit Award

Effective as of the date of the Participant's election to the Board, the Participant shall receive an unvested award of restricted Deferred Stock Units, equal in value to $100,000 as of such date. The amount of a New Director Restricted Stock Unit Award is subject to change at the discretion of the Committee.

ARTICLE IV

ACCOUNTS AND CREDITS

4.01 Annual Deferred Stock Unit Award

The Annual Deferred Stock Unit Award shall be credited automatically to an Account established for the Participant, effective as of the date of the Annual Meeting. Participants may not elect to receive the Annual Deferred Stock Unit Award as current cash compensation.

4.02 Elective Annual Retainer

The Annual Retainer will be paid on the date of the Annual Meeting unless the Participant makes a timely irrevocable election in accordance with Article V to defer the receipt of the Annual Retainer as Deferred Stock Units subject to the terms of this Plan in lieu of a current cash payment.

4.03 New Director Restricted Stock Unit Award

Effective as of the date of the Participant's election to the Board, the Corporation will credit the amount of the New Director Restricted Stock Unit Award to a New Director Restricted Stock Unit Account established for the Participant. The New Director Restricted Stock Unit Account will consist of restricted Deferred Stock Units awarded under the LTIP and may not be settled prior to the Participant's Separation from Service. The value of the New Director Restricted Stock Unit Account is subject to forfeiture if a Separation from Service occurs before the first Annual Meeting following the date of election to the Board. Thereafter, the percentage of the New Director Restricted Stock Unit Award subject to forfeiture will be reduced by 20 percentage points as of the date of each succeeding Annual Meeting until the fifth annual meeting when 100% of the value of the New Director Restricted Stock Unit Award will be vested. There will be no forfeiture of interest in the New Director Restricted Stock Unit Account in the event the Separation of Service occurs by reason of the Participant's death, Disability, or for any reason following a "Change in Control" as such terms are defined in the LTIP while the Participant is a member of the Board, or in the event of the Participant's resignation or retirement from the Board for the purpose of accepting full-time employment in public or charitable service. A Participant's New Director Restricted Stock Unit Account will be credited with dividend equivalents in the form of additional Deferred Stock Units, which will vest immediately, but will otherwise be subject to the same restrictions applicable to the Deferred Stock Units credited to the Account.

4.04 Accounts

(a) *Post-December 31, 2004 Credits.* All (i) Annual Retainer deferrals, (ii) Annual Deferred Stock Unit Awards and (iii) New Director Restricted Stock Unit Awards earned or vested after December

31, 2004, shall be maintained in a Participant's Account established under and subject to the terms and conditions of the Plan, as amended and restated effective January 1, 2005 and as amended from time to time. Separate Accounts for post-December 31, 2004 Deferred Stock Units will be maintained for each Participant. Sub-accounts may be maintained within Participants' Accounts to the extent the Committee determines such an arrangement to be necessary or useful in the administration of the Plan.

(b) *Pre-January 1, 2005 Credits.* All Deferred Stock Unit and New Director Restricted Stock Unit Awards earned and vested prior to January 1, 2005, and any subsequent increases in these amounts that are permitted to be treated as grandfathered benefits under Section 409A of the Code (e.g., increases in unit value and dividend equivalents), shall be maintained in separate account(s) under the Prior Plan and shall remain subject to the terms and conditions of the Prior Plan as in effect on October 3, 2004. Prior Plan accounts shall be equal to the value earned and vested on December 31, 2004, as subsequently adjusted in accordance with the terms of the Prior Plan. The Prior Plan and Prior Plan accounts are not intended to be subject to Section 409A of the Code. No amendment to Appendix A that would constitute a "material modification" for purposes of Section 409A shall be effective unless the amending instrument states that it is intended to materially modify Appendix A and to cause the Prior Plan to become subject to Section 409A.

4.05 Deferred Stock Unit Accounts

Calculation of Deferred Stock Units. A Participant's Account (including his or her New Director Restricted Stock Unit Account) shall be credited with the number of Deferred Stock Units in accordance with the following rules:

(a) *Initial Crediting of Deferred Stock Units.* The New Director Restricted Stock Unit Award, the Annual Deferred Stock Unit Award and Deferred Annual Retainer (if any) credited to a Participant's Account for a Plan Year under Sections 4.01, 4.02 and 4.03 shall result in a number of Deferred Stock Units (including fractional Deferred Stock Units) credited to Participant's Account equal to the sum of the dollar amounts of the Annual Deferred Stock Unit Award, the New Director Restricted Stock Unit Award (if applicable) and the Deferred Annual Retainer (if any) divided by the Closing Price on the date of the Annual Meeting or the date a Participant is elected to the Board, if applicable.

(b) *Deemed Reinvestment of Dividends.* The number of Deferred Stock Units credited to a Participant's Account shall be increased on each date on which a dividend is paid on UTC

Common Stock. The number of additional Deferred Stock Units credited to a Participant's Account as a result of such dividend payment shall be determined by (i) multiplying the total number of Deferred Stock Units (including fractional Deferred Stock Units) credited to the Participant's Account on the dividend payment date by the amount of the dividend paid per share of UTC Common Stock on the dividend payment date, and (ii) dividing the product so determined by the Closing Price on the dividend payment date.

(c) *Effect of Recapitalization.* In the event of a transaction or event described in this subparagraph (c) (a "Recapitalization Event"), the number of Deferred Stock Units credited to a Participant's Account shall be adjusted in the same manner as outstanding shares of UTC Common Stock. A Recapitalization Event includes a dividend (other than regular quarterly dividends) or other extraordinary distribution to holders of UTC Common Stock (whether in the form of cash, shares, other securities, or other property), extraordinary cash dividend, recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, repurchase, or exchange of shares or other securities, the issuance or exercisability of stock purchase rights, the issuance of warrants or other rights to purchase shares or other securities, or other similar corporate transaction or event that has a material effect on the shares of UTC Common Stock and requires conforming adjustment to the value and/or number of Deferred Stock Units to prevent dilution or enlargement of the value of Participants' Accounts.

4.06 Hypothetical Nature of Accounts and Investments

Each Account established under this Article IV shall be maintained for bookkeeping purposes only. Neither the Plan nor any of the Accounts established under the Plan shall hold any actual funds, shares or other assets. The Deferred Stock Units established hereunder shall be used solely to determine the amounts to be distributed hereunder, shall not be or represent an equity security of the Company, shall not be convertible into or otherwise entitle a Participant to acquire an equity security of the Company prior to a Conversion Date as provided for under the terms of this Plan and shall not carry any voting or dividend rights. Deferred Stock Units awarded under this Plan shall be evidenced by a certificate substantially in the form set forth in Appendix B.

ARTICLE V

ELECTION PROCEDURES AND DISTRIBUTIONS

5.01 Annual Retainer Deferral Election

Participants who elect to defer the receipt of the Annual Retainer as Deferred Stock Units for any year must make a written deferral election for that year on an Election form provided by the Committee.

5.02 Annual Retainer Deferral Election Deadline

A written Election form must be completed and submitted to the Office of the Corporate Secretary no later than December 31st of the calendar year prior to the year for which the Annual Retainer will be earned or, for new Participants, no later than 30 days after their election to the Board. If a Participant fails to timely submit a properly completed Election form, the Participant's Annual Retainer earned in the next succeeding year shall be paid in cash as provided in Section 4.02. The Participant's deferral election shall be irrevocable following the Election deadline.

5.03 Distribution Commencement Date

Conversion of Deferred Stock Units into shares of UTC Common Stock and distribution from a Participant's Account shall occur as of the Participant's Distribution Commencement Date, or, if the Participant has changed his or her distribution election as provided in Section 5.05, on the fifth anniversary of the Participant's elected Distribution Date. If a Participant dies at any time before distribution to the Participant commences, distribution of the entire value of the Participant's Account shall be made to the Participant's Beneficiary on the first business day of the third month following the month of the Participant's death.

A distribution is treated as being made on the date when it is due under the Plan if the distribution occurs on the date specified by the Plan, or on a later date that is either (a) in the same calendar year (for a distribution whose specified due date is on or before September 30), or (b) by the 15th day of the third calendar month following the date specified by the Plan (for a distribution with a specified due date that is on or after October 1). A distribution is also treated as having been made on the date when it is due under the Plan if the distribution is made not more than 30 days before the due date specified by the Plan. A Participant may not, directly or indirectly, designate the taxable year of a distribution made in reliance on the administrative rules in this Section 5.03.

5.04 Election of Form and Amount of Distribution

(a) *Full Distribution.* Following a Separation from Service, a Participant shall receive a number of

shares of UTC Common Stock equal to the of the number of whole Deferred Stock Units credited to his or her Account unless the Participant timely elected to receive distributions from his or her Account in 10 or 15 annual installments in accordance with subsection (b), below. A distribution of shares of UTC Common Stock shall occur as provided in Section 5.03. Fractional Deferred Stock Units will be paid in cash.

(b) *10 or 15 Annual Installments.* A Participant may elect to receive distributions from his or her Account in 10 or 15 installments in lieu of a full distribution of shares under subsection (a) above. Annual installment distributions shall be in shares of UTC Common Stock unless the Participant has allocated the value of all or any portion of his or her Account into the fixed income option in accordance with Section 5.06 in which case distributions shall be payable to the Participant in cash. Installment distributions shall commence as of the Distribution Commencement Date and continue as of each Distribution Anniversary Date thereafter until all installments have been paid. The first annual installment shall equal one-tenth (1/10) (if Participant elects 10 installment payments) or one-fifteenth (1/15th) (if Participant elects 15 installment payments) of the value of the Participant's Account, determined as of the Distribution Commencement Date. Each successive annual installment shall equal the value of the Participant's Account, determined as of the Distribution Anniversary Date, multiplied by a fraction, the numerator of which is one, and the denominator of which shall be the number of remaining annual installments. If a Participant dies after the Distribution Commencement Date but before all installments have been made, the entire remaining value of the Participant's Account shall be distributed to the Participant's Beneficiary on the first business day of the third month following the month of the Participant's death.

(c) *Form of Distribution Election.* A valid election to receive annual distributions under subsection (b) shall be made in writing on an Election form, completed and submitted to the Office of the Corporate Secretary no later than December 31st of the calendar year prior to the year for which the Annual Retainer or Deferred Stock Unit Award is earned, or for new Participants, prior to the date the Participant is elected to the Board, and in no event later than 30 days after such election. A valid distribution Election for a New Director Restricted Stock Unit Award under subsection (b) shall be made in writing on an Election form, completed and submitted to the Office of the Corporate Secretary prior to the date Participant is elected to the Board, and in no event later than 30 days after such election. If a Participant does not make a valid distribution Election, the Participant shall be deemed to have elected to receive his or her Account in a full and immediate distribution as provided in subsection (a). Except as provided below in Section 5.05 (Change in Payment Election), a Participant's distribution Election shall become irrevocable on the Election deadline date.

5.05 Change in Distribution Election

A Participant may make a one-time irrevocable Election to change the form of distribution that the Participant elected under Section 5.04. A change to the form of distribution must meet the following requirements:

i. The new Election must be made at least twelve months prior to the Distribution Commencement Date (and the new election shall be ineffective if the Distribution Commencement Date occurs within twelve months after the date of the new Election);

ii. The new Election will not take effect until twelve months after the date when the Participant submits a new Election form to the Office of the Corporate Secretary;

iii. The new Distribution Commencement Date must be five years later than the date on which the distribution would otherwise have commenced; and

iv. The new form of distribution must be one of the forms of payment provided under Section 5.04(a) or (b).

5.06 Investment of Annual Retainer Account Election

A Participant may elect, prior to the Distribution Commencement Date or subsequent Distribution Anniversary Date, to convert all or any portion of the Deferred Stock Units in his or her Account to a hypothetical fixed interest investment for the remaining portion of the installment distribution period by making a written election on the Election form provided by the Committee. If a Participant makes such election to have his or her Account treated as if the Account were invested in cash during the remainder of the distribution period, the Account will be credited with a hypothetical interest at a rate equal to the average interest rate on 10-Year Treasury Bonds during the January through October period in the calendar year prior to the Plan Year in which the interest is credited, plus 1%.

ARTICLE VI
ADMINISTRATION

6.01 In General

The Committee shall have the discretionary authority to interpret the Plan and to decide any and

all matters arising under the Plan, including without limitation the right to determine eligibility for participation, benefits, and other rights under the Plan; the right to determine whether any Election or notice requirement or other administrative procedure under the Plan has been adequately observed; the right to determine the proper recipient of any distribution under the Plan; the right to remedy possible ambiguities, inconsistencies, or omissions by general rule or particular decision; and the right otherwise to interpret the Plan in accordance with its terms. Except as otherwise provided in Section 6.04, the Committee's determination on any and all questions arising out of the interpretation or administration of the Plan shall be final, conclusive, and binding on all parties.

6.02 Plan Amendment and Termination

(a) The Committee may amend, suspend, or terminate the Plan at any time; provided that no amendment, suspension, or termination of the Plan shall, without a Participant's consent, reduce the Participant's benefits accrued under the Plan before the date of such amendment, suspension, or termination.

(b) In the event of suspension of the Plan, no additional deferrals shall be made under the Plan, but all previous deferrals shall accumulate and be distributed in accordance with the otherwise applicable provisions of this Plan, the Prior Plan and the applicable Elections on file.

(c) Upon the termination of the Plan with respect to all Participants, and termination of all arrangements sponsored by the Corporation or its affiliates that would be aggregated with the Plan under Section 409A of the Code, the Corporation shall have the right, in its sole discretion, and notwithstanding any Elections made by the Participant, to distribute the Participant's vested Account in full, to the extent permitted under Section 409A. All distributions that may be made pursuant to this Section 6.02(c) shall be made no earlier than the thirteenth month and no later than the twenty-fourth month after the termination of the Plan. The Corporation may not accelerate distributions pursuant to this Section 6.02(c) if the termination of the Plan is proximate to a downturn in the Corporation's financial health within the meaning of Treas. Reg. section 1.409A-3(j)(4)(ix)(C)(1). If the Corporation exercises its discretion to accelerate distributions under this Section 6.02(c), it shall not adopt any new arrangement that would have been aggregated with the Plan under Section 409A within three years following the date of the Plan's termination.

6.03 Reports to Participants

The Committee shall furnish an annual statement to each Participant reporting the value of the

Participant's Account and his or her account(s) under the Prior Plan as of the end of the most recent Plan Year.

6.04 Delegation of Authority

The Committee may delegate to officers of the Corporation any and all authority with which it is vested under the Plan, and the Committee may allocate its responsibilities under the Plan among its members.

6.05 Distribution of Shares

The Deferred Stock Units granted under the Plan shall be issued under the LTIP, but subject to administration and distribution in accordance with the terms of this Plan. All shares of UTC Common Stock so distributed in accordance with the terms of the Plan shall be transferred to a brokerage account designated by the Participant entitled to receive the shares.

6.06 Share Ownership Requirements

Participants are expected to own shares of UTC Common Stock and have Deferred Stock Units equal in aggregate value to at least five times the then applicable base Annual Retainer amount set forth in Section 3.01 no later than the 5th Annual Meeting following a Participant's election to the Board. In the event such ownership requirement is not achieved by such date, Annual Retainer fees shall be deferred until combined holdings satisfy this Section 6.06.

ARTICLE VII
MISCELLANEOUS

7.01 Rights Not Assignable

No payment due under the Plan shall be subject in any manner to anticipation, alienation, sale, transfer, assignment, pledge, encumbrance, or charge in any other way. Any attempt to anticipate, alienate, sell, transfer, assign, pledge, encumber, or charge such payment in any other way shall be void. No such payment or interest therein shall be liable for or subject to the debts, contracts, liabilities, or torts of any Participant or Beneficiary. If any Participant or Beneficiary becomes bankrupt or attempts to anticipate, alienate, sell, transfer, assign, pledge, encumber, or charge in any other way any payment under the Plan, the Committee may direct that such payment be suspended and that all future payments to which such Participant or Beneficiary otherwise would be entitled be held and applied for the benefit of such person, the person's children or other dependents, or any of them, in such manner and in such proportions as the Committee may deem proper.

7.02 Certain Rights Reserved

Nothing in the Plan shall confer upon any person the right to continue to serve as a member of the Board or to participate in the Plan other than in accordance with its terms.

7.03 Withholding Taxes

The Committee may make any appropriate arrangements to deduct from all credits and payments under the Plan any taxes that the Committee determines to be required by law to be withheld from such credits and payments.

7**.04 Compliance with Section 409A**

This Paragraph 7.04 shall apply notwithstanding any other provision of this Plan. To the extent that rights or payments under this Plan are subject to Section 409A of the Internal Revenue Code, the Plan shall be construed and administered in compliance with the conditions of Section 409A and regulations and other guidance issued pursuant to Section 409A for deferral of income taxation until the time the compensation is paid. Any distribution election that would not comply with Section 409A of the Code shall not be effective for purposes of this Plan. To the extent that a provision of this Plan does not comply with Section 409A of the Code, such provision shall be void and without effect. The Corporation does not warrant that the Plan will comply with Section 409A of the Code with respect to any Participant or with respect to any payment, however. In no event shall the Corporation; any director, officer, or employee of the Corporation (other than the Participant); or any member of the Committee be liable for any additional tax, interest, or penalty incurred by a Participant or Beneficiary as a result of the Plan’s failure to satisfy the requirements of Section 409A of the Code, or as a result of the Plan’s failure to satisfy any other requirements of applicable tax laws.

7.05 Incompetence

If the Committee determines, upon evidence satisfactory to the Committee, that any Participant or Beneficiary to whom a distribution is due under the Plan is unable to care for his or her affairs because of illness or accident or otherwise, any distribution is due under the Plan (unless prior claim therefore shall have been made by a duly authorized guardian or other legal representative) may be distributed, upon appropriate indemnification of the Committee and the Company, to the spouse of the Participant or Beneficiary or other person deemed by the Committee to have incurred expenses for the benefit of and on behalf of such Participant or Beneficiary. Any such distribution of shares or cash payment (as the case may be) shall be a complete discharge of any liability under the Plan with respect to the amount so

distributed or paid.

7.06 Inability to Locate Participants and Beneficiaries

Each Participant and Beneficiary entitled to receive a distribution under the Plan shall keep the Committee advised of his or her current address. If the Committee is unable to locate a Participant or Beneficiary to whom a distribution is due under the Plan, the total amount payable to such Participant or Beneficiary shall be forfeited as of the last day of the calendar year in which the distribution first becomes due.

7.07 Successors

The provisions of the Plan shall bind and inure to the benefit of the Corporation and its successors and assigns. The term "successors" as used in the preceding sentence shall include any corporation or other business entity that by merger, consolidation, purchase, or otherwise acquires all or substantially all of the business and assets of the Corporation, and any successors and assigns of any such corporation or other business entity.

7.08 Usage

(a) *Titles and Headings.* The titles to Articles and the headings of Sections, subsections, and paragraphs in the Plan are placed herein for convenience of reference only and shall be of no force or effect in the interpretation of the Plan.

(b) *Number.* The singular form shall include the plural, where appropriate.

7.09 Severability

If any provision of the Plan is held unlawful or otherwise invalid or unenforceable in whole or in part, such unlawfulness, invalidity, or unenforceability shall not affect any other provision of the Plan or part thereof, each of which shall remain in full force and effect. If the making of any payment or the provision of any other benefit required under the Plan is held unlawful or otherwise invalid or unenforceable, such unlawfulness, invalidity or unenforceability shall not prevent any other payment or benefit from being made or provided under the Plan, and if the making of any payment in full or the provision of any other benefit required under the Plan in full would be unlawful or otherwise invalid or unenforceable, then such unlawfulness, invalidity, or unenforceability shall not prevent such payment or benefit from being made or provided in part, to the extent that it would not be unlawful, invalid, or unenforceable, and the maximum payment or benefit that would not be unlawful, invalid, or

unenforceable shall be made or provided under the Plan.

7.10 Governing Law

The Plan and all determinations made and actions taken under the Plan shall be governed by and construed in accordance with the laws of the State of Connecticut.

UNITED TECHNOLOGIES CORPORATION

By ____

Attest: _______________________________

Date: _______________________________

APPENDIX A

This Appendix A sets forth the United Technologies Corporation Board of Directors Deferred Stock Unit Plan as in effect on October 3, 2004 (“Prior Plan”), and as modified thereafter from time to time in a manner that does not constitute a "material modification" for purposes of Section 409A. Amounts that were earned or vested (within the meaning of Section 409A) prior to January 1, 2005, and any subsequent increases in these amounts that are permitted to be treated as grandfathered benefits under Section 409A, are generally subject to and shall continue to be governed by the terms of this Prior Plan.

Effective October 13, 2010, Stock Units credited to Participants under this Prior Plan shall be convertible into shares of UTC Common Stock that will be issued under the LTIP. Notwithstanding any provision of this Prior Plan to the contrary, all distributions with respect to Stock Units under this Prior Plan shall be distributed in shares of Common Stock. The settlement of Stock Units in shares of Common Stock in lieu of cash shall in no event: (i) increase the value of any Participant’s Account; (ii) modify any Participant’s distribution election; or (iii) alter the procedures in effect under this Prior Plan with respect to elections and distributions other than the substitution of shares for cash.

UNITED TECHNOLOGIES CORPORATION

BOARD OF DIRECTORS

DEFERRED STOCK UNIT PLAN

UNITED TECHNOLOGIES CORPORATION
BOARD OF DIRECTORS
DEFERRED STOCK UNIT PLAN
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ARTICLE I
INTRODUCTION

1.01 Purpose of Plan

The purpose of the Plan is to enhance the Company's ability to attract and retain non-employee members of the Board whose training, experience and ability will promote the interests of the Company and to directly align the interests of such non-employee Directors with the interests of the Company's shareowners by providing compensation based on the value of UTC Common Stock. The Plan is designed to permit such non-employee directors to defer the receipt of all or a portion of the cash compensation otherwise payable to them for services to the Company as members of the Board.

1 .02 Effective Date of Plan

Except as otherwise provided by Section 3.01, the Plan shall apply only to a Participant's annual Director's retainer Fees with respect to service on and after January 1, 1996.

ARTICLE II
DEFINITIONS

Unless the context clearly indicates otherwise, the following terms, when used in capitalized form in the Plan, shall have the meanings set forth below:

Account shall mean a bookkeeping account established for a Participant under Section 4.01.

Article shall mean an article of the Plan.

Beneficiary shall mean a Participant's beneficiary, designated in writing and in a form and manner satisfactory to the Committee, or if a Participant fails to designate a beneficiary, or if the Participant's designated Beneficiary predeceases the Participant, the Participant's estate.

Board shall mean the Board of Directors of the Company.

Closing Price shall mean, with respect to any date specified by the Plan, the closing price of UTC Common Stock on the composite tape of New York Stock Exchange issues (or if there was no reported sale of UTC Common Stock on such date, on the next preceding day on which there was such a reported sale).

Committee shall mean the Nominating Committee of the Board.

Company shall mean United Technologies Corporation.

Director's Fees shall mean the annual retainer fee payable to a Participant for services to the Company as a member of the Board. Director's Fees do not include special meeting fees.

Participant shall mean each member of the Board (other than a member of the Board who is also an employee of the Company or a subsidiary thereof) who is or becomes a member of the Board on or after January 1, 1996.

Payment Anniversary Date shall mean an anniversary of the Payment Commencement Date.

Payment Commencement Date shall mean the first business day of the first month following the month in which the Participant terminates service as a member of the Board.

Plan shall mean this United Technologies Corporation Board of Directors Deferred Stock Unit Plan, as set forth herein and as amended from time to time.

Plan Year shall mean the calendar year.

Section shall mean a section of the Plan.

Stock Unit shall mean a hypothetical share of UTC Common Stock as described in Section 4.02.

UTC Common Stock shall mean the common stock of the Company.

ARTICLE Ill
CREDITS

3.01 Transition Credits

As soon as practicable on or after January 1, 1996, the Company shall credit to the Account of each Participant a number of Stock Units determined in accordance with the schedules set forth in Appendix I and Appendix II to the Plan. The credits set forth in Appendix I shall be provided in lieu of any benefits to which the Participant otherwise would have been entitled under the United Technologies Corporation Directors Retirement Plan as of its termination on December 31, 1995. The credits set forth in Appendix II shall be provided in lieu of any benefits to which the Participant otherwise would be entitled

under certain deferred compensation arrangements entered into prior to January 1, 1996. The number of units set forth in Appendix II shall equal the number of tax deferred stock units (if any) credited to the Participant under any such prior deferred compensation arrangement, determined as of December 31, 1995.

3.02 Automatic Credits

As of the beginning of each Plan Year, the Company shall credit Stock Units to each Participant's Account equal in value to 60% of the Participant's Director's Fees for the Plan Year, as determined in accordance with Section 4.02(a)(1).

3.03 Elective Credits

A Participant may elect, with respect to each Plan Year, to defer the entire portion (but not a partial portion) of the 40% of the Participant's Director's Fees that are not automatically deferred in accordance with Section 3.02 and that otherwise would be paid to the Participant in cash. If the Participant makes such an election, the Company shall credit Stock Units to the Participant's Account equal in value to 40% of the Participant's Director's Fees for the Plan Year, as determined in accordance with Section 4.02(a)(I), as of the beginning of the Plan Year with respect to which the election is made (or, if later, as of the first day in the Plan Year on which the individual becomes a Participant). An election under this Section 3.03 shall be made in a form and manner satisfactory to the Committee and shall be effective for a Plan Year only if made before the beginning of the Plan Year; provided that an individual who becomes a Participant after the first day of a Plan Year may make the election for that Plan Year within 30 days of becoming a Participant.

ARTICLE IV
ACCOUNTS AND INVESTMENTS

4.01 Accounts

A separate Account under the Plan shall be established for each Participant. Such Account shall be (a) credited with the amounts credited in accordance with Article Ill, (b) credited (or charged, as the case may be) with the investment results determined in accordance with Section 4.02, and (c) charged with the amounts paid by the Plan to or on behalf of the Participant in accordance with Article V. Within each Participant's Account, separate subaccounts shall be maintained to the extent the Committee determines them to be necessary or useful in the administration of the Plan.

4.02 Stock Units

(a) **Deemed Investment in UTC Common Stock.** Except as provided in subsection (b), below, a Participant's Account shall be treated as if it were invested in Stock Units that are equivalent in value to the fair market value of shares of UTC Common Stock in accordance with the following rules:

(1) *Conversion into Stock Units.* Any Director's Fees credited to a Participant's Account for a Plan Year under Section 3.02 or 3.03 shall be converted into Stock Units (including fractional Stock Units) by dividing the amount credited by the Closing Price on the first business day of the Plan Year; provided that in the case of an individual who becomes a Participant after the first day of a Plan Year, the Closing Price shall be determined as of the day on which the individual becomes a Participant.

(2) *Deemed Reinvestment Of Dividends.* The number of Stock Units credited to a Participant's Account shall be increased on each date on which a dividend is paid on UTC Common Stock. The number of additional Stock Units credited to a Participant's Account as a result of such increase shall be determined by (i) multiplying the total number of Stock Units (excluding fractional Stock Units) credited to the Participant's Account immediately before such increase by the amount of the dividend paid per share of UTC Common Stock on the dividend payment date, and (ii) dividing the product so determined by the Closing Price on the dividend payment date.

(3) *Conversion Out of Stock Units.* The dollar value of the Stock Units credited to a Participant's Account on any date shall be determined by multiplying the number of Stock Units (including fractional Stock Units) credited to the Participant's Account by the Closing Price on that date.

(4) *Effect of Recapitalization.* In the event of a transaction or event described in this paragraph (4), the number of Stock Units credited to a Participant's Account shall be adjusted in such manner as the Committee, in its sole discretion, deems equitable. A transaction or event is described in this paragraph (4) if (i) it is a dividend (other than regular quarterly dividends) or other distribution (whether in the form of cash, shares, other securities, or other property), extraordinary cash dividend, recapitalization, stock split, reverse stock split reorganization, merger, consolidation, split-up, spin-off, repurchase, or exchange of shares or other securities, the issuance or exercisability of stock purchase rights, the issuance of warrants or other rights to purchase shares or other securities, or other similar corporate transaction or event and (ii) the Committee determines that such transaction or event affects the shares of UTC Common Stock, such that an adjustment pursuant to this paragraph (4) is appropriate to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan.

(b) *Change in Deemed Investment Election.* A Participant who elects to receive distribution of his or her Accounts in annual installments will continue to have such Account credited with Stock Units during the installment period unless the Participant irrevocably elects to have his or her Account treated, as of the Payment Commencement Date, as if the Account were invested in cash. If a Participant makes such election, the Account will be credited with a rate of interest equal to the average interest rate on 10-Year Treasury Bonds as of the January through October Period in the calendar year prior to the Plan Year in which the interest is credited, plus I %. An election under this subsection (b) shall be made in a form and manner satisfactory to the Committee and shall be effective only if made before the Payment Commencement Date.

4.03 Hypothetical Nature of Accounts and Investments

Each Account established under this Article IV shall be maintained for bookkeeping purposes only. Neither the Plan nor any of the Accounts established under the Plan shall hold any actual funds or assets. The Stock Units established hereunder shall be used solely to determine the amounts to be paid hereunder, shall not be or represent an equity security of the Company, shall not be convertible into or otherwise entitle a Participant to acquire an equity security of the Company and shall not carry any voting or dividend rights.

ARTICLE V
PAYMENTS

5.01 Entitlement to Payment

Credits to a Participant’s Account under Section 3.02 or 3.03 shall be in lieu of payment to the Participant of the related Director’s Fees. Any payment under the Plan with respect to an Account shall be made solely in cash and as further provided in this Article V. The right of any person to receive one or more payments under the Plan shall be an unsecured claim against the general assets of the Company.

5.02 Payment Commencement Date

Payments to a Participant with respect to the Participant’s Account shall begin as of the Participant’s Payment Commencement Date; provided that if a Participant dies before the Participant’s Payment Commencement Date, payment of the entire value of the Participant’s Account shall be made in a lump sum to the Participant’s Beneficiary as soon as practicable after the Committee receives all documents and other information that it requests in connection with the payment.

5.03 Form and Amount of Payment

(a) *Fifteen Annual Installments.* A Participant shall receive his or her benefits in 15 annual installments unless the Participant elects to receive his or her benefits under the Plan in the form of a lump-sum payment or in less than 15 annual installments in accordance with subsection (b), below. Annual installments shall be payable to the Participant in cash beginning as of the Payment Commencement Date and continuing as of each Payment Anniversary Date thereafter until all installments have been paid. The first annual installment shall equal one- fifteenth (1/15th) of the value of the Stock Units credited to the Participant's Account, determined as of the Payment Commencement Date. Each successive annual installment shall equal the value of the Stock Units credited to the Participant's Account, determined as of the Payment Anniversary Date, multiplied by a fraction, the numerator of which is one, and the denominator of which is the excess of 15 over the number of installment payments previously made (i.e., 1/14th, 1/13th, etc.). If the Participant dies after the Participant's Payment Commencement Date but before all 15 installments have been paid, the remaining installments shall be paid to the Participant's Beneficiary in accordance with the schedule in this subsection (a).

(b) *Lump Sum, or Less Than 15 Annual Installments.* A Participant may elect to receive his or her benefits under the Plan in the form of a lump-sum payment or in two to fourteen installments in lieu of the fifteen installment payments determined under subsection (a), above. The lump sum shall be payable to the Participant in cash as of the Payment Commencement Date and shall equal the value of the Stock Units credited to the Participant's Account, determined as of the Payment Commencement Date. Installments shall be paid in the manner set forth in subsection (a) above, except that for purposes of determining the amount of the first annual installment, the denominator of the fraction shall equal the number of scheduled annual installments. An election under this subsection (b) shall be made in a form and manner satisfactory to the Committee and shall be effective only if made at least two years before the Participant's Payment Commencement Date.

ARTICLE VI
ADMINISTRATION

6.01 In General

The Committee shall have the discretionary authority to interpret the Plan and to decide any and all matters arising under the Plan, including without limitation the right to determine eligibility for participation, benefits, and other rights under the Plan; the right to determine whether any election or notice requirement or other administrative procedure under the Plan has been adequately observed; the right to determine the proper recipient of any distribution under the Plan; the right to remedy possible

ambiguities, inconsistencies, or omissions by general rule or particular decision; and the right otherwise to interpret the Plan in accordance with its terms. Except as otherwise provided in Section 6.03, the Committee's determination on any and all questions arising out of the interpretation or administration of the Plan shall be final, conclusive, and binding on all parties.

6.02 Plan Amendment and Termination

The Committee may amend, suspend, or terminate the Plan at any time; provided that no amendment, suspension, or termination of the Plan shall, without a Participant's consent, reduce the Participant's benefits accrued under the Plan before the date of such amendment, suspension, or termination. If the Plan is terminated in accordance with this Section 6.02, the terms of the Plan as in effect immediately before termination shall determine the right to payment in respect of any amounts that remain credited to a Participant's or Beneficiary's Account upon termination.

6.03 Reports to Participants

The Committee shall furnish an annual statement to each Participant (or Beneficiary) reporting the value of the Participant's (or Beneficiary's) Account as of the end of the most recent Plan Year.

6.04 Delegation of Authority

The Committee may delegate to officers of the Company any and all authority with which it is vested under the Plan, and the Committee may allocate its responsibilities under the Plan among its member.

ARTICLE VII
MISCELLANEOUS

7.01 Rights Not Assignable

No payment due under the Plan shall be subject in any manner to anticipation, alienation, sale, transfer, assignment, pledge, encumbrance, or charge in any other way. Any attempt to anticipate, alienate, sell, transfer, assign, pledge, encumber, or charge such payment in any other way shall be void. No such payment or interest therein shall be liable for or subject to the debts, contracts, liabilities, or torts of any Participant or Beneficiary. If any Participant or Beneficiary becomes bankrupt or attempts to anticipate, alienate, sell, transfer, assign, pledge, encumber, or charge in any other way any payment under the Plan, the Committee may direct that such payment be suspended and that all future payments to which such Participant or Beneficiary otherwise would be entitled be held and applied for the benefit of such person, the person's children or other dependents, or any of them, in such manner and in such proportions as the

Committee may deem proper.

7.02 Certain Rights Reserved

Nothing in the Plan shall confer upon any person the right to continue to serve as a member of the Board or to participate in the Plan other than in accordance with its terms.

7.03 Withholding Taxes

The Committee may make any appropriate arrangements to deduct from all credits and payments under the Plan any taxes that the Committee reasonably determines to be required by law to be withheld from such credits and payments.

7.04 Incompetence

If the Committee determines, upon evidence satisfactory to the Committee, that any Participant or Beneficiary to whom a benefit is payable under the Plan is unable to care for his or her affairs because of illness or accident or otherwise, any payment due under the Plan (unless prior claim therefore shall have been made by a duly authorized guardian or other legal representative) may be paid, upon appropriate indemnification of the Committee and the Company, to the spouse of the Participant or Beneficiary or other person deemed by the Committee to have incurred expenses for the benefit of and on behalf of such Participant or Beneficiary. Any such payment shall be a complete discharge of any liability under the Plan with respect to the amount so paid.

7.05 Inability to Locate Participants and Beneficiaries

Each Participant and Beneficiary entitled to receive a payment under the Plan shall keep the Committee advised of his or her current address. If the Committee is unable for a period of 36 months to locate a Participant or Beneficiary to whom a payment is due under the Plan, commencing with the first day of the month as of which such payment first comes due, the total amount payable to such Participant or Beneficiary shall be forfeited. Should such a Participant or Beneficiary subsequently contact the Committee requesting payment, the Committee shall, upon receipt of all documents and other information that it might request in connection with the payment, restore and pay the forfeited payment in a lump sum, the value of which shall not be adjusted to reflect any interest or other type of investment earnings or gains for the period of forfeiture.

7.06 Successors

The provisions of the Plan shall bind and inure to the benefit of the Company and its successors

and assigns. The term “successors” as used in the preceding sentence shall include any corporation or other business entity that by merger, consolidation, purchase, or otherwise acquires all or substantially all of the business and assets of the Company, and any successors and assigns of any such corporation or other business entity.

7.07 Usage

(a) *Titles and Headings.* The titles to Articles and the headings of Sections, subsections, and paragraphs in the Plan are placed herein for convenience of reference only and shall be of no force or effect in the interpretation of the Plan

(b) *Number.* The singular form shall include the plural, where appropriate.

7.08 Severability

If any provision of the Plan is held unlawful or otherwise invalid or unenforceable in whole or in part, such unlawfulness, invalidity, or unenforceability shall not affect any other provision of the Plan or part thereof, each of which shall remain in full force and effect. If the making of any payment or the provision of any other benefit required under the Plan is held unlawful or otherwise invalid or unenforceable, such unlawfulness, invalidity or unenforceability shall not prevent any other payment or benefit from being made or provided under the Plan, and if the making of any payment in full or the provision of any other benefit required under the Plan in full would be unlawful or otherwise invalid or unenforceable, then such unlawfulness, invalidity, or unenforceability shall not prevent such payment or benefit from being made or provided in part, to the extent that it would not be unlawful, invalid, or unenforceable, and the maximum payment or benefit that would not be unlawful, invalid, or unenforceable shall be made or provided under the Plan.

7.09 Governing Law

The Plan and all determinations made and actions taken under the Plan shall be governed by and construed in accordance with the laws of the State of Connecticut.

UNITED TECHNOLOGIES CORPORATION

By ____

Attest:

____

Date:

____

APPENDIX B

UNITED TECHNOLOGIES CORPORATION
2005 LONG TERM INCENTIVE PLAN
STATEMENT OF AWARD

Effective ______________, __________________________________ has been awarded _____________ Deferred Stock Units ("DSUs") under the United Technologies Corporation Board of Directors Deferred Stock Unit Plan (the "Deferred Stock Unit Plan"). DSUs awarded hereunder constitute long term incentive awards under the United Technologies Corporation 2005 Long Term Incentive Plan, as amended (the "LTIP"). DSUs are convertible into shares of UTC Common Stock that will be issued under the LTIP. The conversion of DSUs into shares and the distribution of such shares shall be subject to and in accordance with the terms of the Deferred Stock Unit Plan.

Exhibit 10.9

UNITED TECHNOLOGIES CORPORATION
BOARD OF DIRECTORS
2019 ANNUAL COMPENSATION DISTRIBUTION ELECTION FORM

Upon election, non-employee members of the Board of Directors receive annual compensation comprised of an Annual Retainer and an Annual Award of Deferred Stock Units ("DSUs"). The compensation arrangements for non-employee Directors are as follows:

	Total Combined Award	Annual Retainer Award	Annual DSU Award
Base Compensation	310,000	124,000	186,000

Directors elected after September 30, but before the next Annual Meeting, receive half of the Base Compensation. Non-employee Directors serving in leadership roles on the Board and/or its committees additionally receive the following awards:

	Total Combined Award	Annual Retainer Award	Annual DSU Award
Lead Director	80,000	32,000	48,000
Audit Chair	40,000	16,000	24,000
Audit Members	30,000	12,000	18,000
Compensation Chair	25,000	10,000	15,000
Finance Chair	25,000	10,000	15,000
Governance Chair	25,000	10,000	15,000

Directors serving in multiple leadership roles will receive the additional awards applicable to each role.

I hereby elect to receive my entire 2019 Annual Retainer Award as follows **(please check one)**:

☐ Cash

☐ Deferred Stock Units

Upon retirement or termination from the Board, I elect to receive distribution of my total 2019 DSUs in **(please check one):**

☐ 15 Annual Installments

☐ 10 Annual Installments

☐ A full and immediate distribution of all shares

The number of DSUs will be determined by dividing your Annual DSU Award (including your Annual Retainer Award if you so elect above) by the closing price of UTC common stock on the date of the Annual Meeting or, if you are elected to the Board between Annual Meetings, on the date your election is effective. Fractional DSUs will be credited to your account. All whole or partial DSUs will be eligible for dividend equivalents equal to UTC's declared dividend and will be credited to your account as additional DSUs on the date the dividend is paid.

Upon retirement or termination from the Board, DSUs held in your account will be converted into shares of UTC common stock and distributed to you, unless you elected 10 or 15 annual installments, in which case DSUs will be converted to shares of stock in accordance with the installment schedule. During the installment period, the value of your account will not be taxable until each installment distribution is received. In the event of your death before distribution, the full value of your account will be distributed to your estate unless a Beneficiary Designation form is on file. DSUs will be governed by the terms and conditions of the United Technologies Corporation Board of Directors Deferred Stock Unit Plan.

______________________________ ______________________________ ______________

Signature **Print Name** **Date**

Please return by ______________to: Office of the Corporate Secretary, United Technologies Corporation

Email: christina.monteith@utc.com or Fax: (860) 660-0250

Exhibit 10.23

United Technologies Corporation
2018 Long-Term Incentive Plan

Restricted Stock Unit Award

Schedule of Terms

(Rev. January 2019)

This Schedule of Terms describes the material features of the Participant's Restricted Stock Unit Award (the "RSU Award" or the "Award") granted under the United Tech-nologies 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. The LTIP Prospectus contains further information about the LTIP and this Award and is available on the Company's internal employee website and at www.ubs.com/onesource/UTX.

Certain Definitions

A Restricted Stock Unit (an "RSU") represents the right to receive one share of Common Stock of United Technologies Corporation (the "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 through the applicable vesting date schedule set forth on the Award Agreement (see "Vesting" below), or upon an earlier Termination of Service under limited circumstances that result in accelerated vesting (see "Termination of Service" below). "Company" means United Technologies Corporation (the "Corporation"), together with its subsidiaries, divisions and affiliates. "Termination Date" means the date a Participant's employment ends, or, if different, the date a Participant ceases providing services to the Company as an employee, consultant or in any other capacity. 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 the Termination Date. All references to termination of employment in this Schedule of Terms will be deemed to refer to "Termination of Service" as defined in the LTIP. "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.

Acknowledgement and Acceptance of Award

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

Participants must acknowledge and accept the terms and conditions of this RSU Award electronically via the UBS *One Source* website at www.ubs.com/onesource/UTX. Participants based in certain countries may be required to acknowledge and accept the terms and conditions of this 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, Slovenia, and Ukraine.

Dividends

RSUs granted under this Award will earn dividend equivalent units each time the Company 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 vest on the same date 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 will vest in accordance with the schedule set forth in the Award Statement, subject to the Participant's continued employment with the Company through each applicable vesting date. RSUs will be forfeited in the event of Termination of Service prior to the vesting date, except in certain earlier terminations involving Retirement, Involuntary Termination, Disability, Change-in-Control Termination or Death (see "Termination of Service" below).

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 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 be paid in cash if the Committee so determines, including where local law restricts the distribution of Common Stock.

Termination of Service

The treatment of RSUs upon Termination of Service depends upon the reason for termination, as detailed in the following sections. RSUs held for less than one year as of the Termination Date will be forfeited, except in the event of Death, Disability or Change-in-Control Termination, as discussed below.

Retirement. If the Participant’s termination results from Retirement, unvested RSUs held for at least one year as of the Termination Date will vest and convert into shares of Common Stock (or cash) to be delivered to the Participant as soon as administratively practicable thereafter. For this purpose, Retirement means either a Normal Retirement or Early Retirement as defined below:

- “Normal Retirement” means retirement on or after age 65;
- “Early Retirement” means retirement on or after:
    - Age 55 with 10 or more years of continuous service as of the Termination Date; or
    - Age 50, but before age 55, and the Participant’s age and continuous service as of the Termination Date adds up to 65 or more (“Rule of 65”), and provided that the Company consents to the Participant’s early retirement.

A Participant will not receive Retirement treatment with respect to any Award in the event of involuntary termination by the Company for Cause.

Service used to determine eligibility for Normal or Early Retirement means “Continuous Service” as determined under the UTC Employee Retire-ment Plan. The calculation to determine Early Retirement will include partial years, rounded down to the nearest full month.

Involuntary Termination for Cause. If the Participant’s termination results from an involuntary termination by the Company for Cause (as defined in the LTIP), unvested RSUs will be forfeited as of the Termi-nation Date regardless of the Participant’s Retirement eligibility. In addition, value realized from previously vested RSUs is subject to repayment in the event of termination for Cause or certain other occurrences (see “Forfeiture of Award and Repayment of Realized gains” below).

Involuntary Termination. If the Participant’s termination results from an involuntary termination by the Company for reasons other than Cause, unvested RSUs held for at least one year as of the Termination Date will receive pro-rata vesting treatment, subject to the Participant providing the Company with a release of claims against the Company in a form and manner satisfactory to the Company. The pro-rata

vesting of an RSU Award held for at least one year will be based on the number of months worked during the vesting period, including partial months, relative to the full vesting period. RSUs not vested under this pro-rata vesting formula will be forfeited as of the Termi-nation Date.

Absences from employment because of notice periods, garden leaves, or similar paid leaves associated with a Termination of Service will not be recognized as service in determining the pro-rata vesting percentage.

Pro-rata vesting will occur for involuntary terminations resulting from workforce reductions, location closings, restructurings, layoffs or similar events, as determined by the Committee.

Retirement eligible Participants will vest in accordance with the Retirement provisions set forth above. Change-in-Control Terminations are subject to vesting treatment as set forth in the Change-in-Control provisions below. A Participant who is involuntarily terminated for Cause is not eligible for pro-rata vesting of Awards.

Voluntary Termination. A Participant who voluntarily terminates employment (other than for Retirement or a Change-in-Control Termination) is not entitled to pro-rata vesting and will forfeit all unvested RSUs.

Disability. If a Participant incurs a Disability (as defined in the LTIP), unvested RSUs will not be forfeited while a Participant remains disabled under a Company sponsored long-term disability plan. Unvested RSUs will remain eligible to vest on the earlier of (1) the vesting date specified in the Award Agreement; or (2) 29 months following the date a Participant incurs a Disability.

Death. If a Participant dies while actively employed by the Company, or on Disability, 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.

Rehire. If the Company rehires a Participant within 90 days following the Termination Date, unvested RSUs that were forfeited and cancelled because of such termination will be reinstated. If the Company rehires a Participant after 90 days following the Termination Date, the RSUs will remain forfeited and cancelled.

Change-in-Control Termination. If a Participant's termination results from an involuntary termination by the Company for reasons other than for Cause, or due to the Participant's voluntary termination for "Good Reason", in each case, within 24 months following a Change-in-Control in accordance with Section 10(d) of the LTIP (such Termination of Service, a "CIC Termination"), then all unvested RSUs will vest as of the Termination Date and be converted into shares of Common Stock (or cash) to be delivered to the Participant as soon as administratively practicable after the Termination Date, subject to the six-month delay noted below under "Specified Employees", if applicable.

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 Termination of Service, and the RSUs will vest by reason of such Participant's Termination of Service, 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 Participant's Termination Date. 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

RSUs will be immediately forfeited and a Participant will be obligated to repay to the Company the value realized from previously vested RSUs upon the occurrence of any of the following events:

(i) Termination for Cause (as defined in the LTIP);

(ii) A determination that the Participant engaged in conduct that could have constituted the basis for a Termination for Cause, including determinations made within three years following the Termination Date;

(iii) Within twenty-four months following a Participant's Termination Date, the Participant:

(A) Solicits a Company employee, or individual who had been a Company employee within the previous three months, for an opportunity outside of the Company; or

(B) Publicly disparages the Company, its employees, directors, products or otherwise makes a public statement that is materially detrimental to the interests of the Company or such individuals; or

(iv) At any time during the twelve-month period following Termination Date: (i) the Participant becomes employed by, consults for, or otherwise renders services to any business entity or person engaged in activities that compete with the Corporation or the business unit that employed the Participant; or (ii) that is a material customer of or a material supplier to the Corporation or the business unit that employed the Participant, unless, in either case, the Participant has first obtained the consent of the Chief Human Resources Officer or her or his delegate. This restriction applies to competitors, customers and suppliers of each business unit that employed the Participant within the two-year period prior to the Termination Date. The determination of status of competitors, customers and suppliers will be made by the Chief Human Resources Officer in her or his sole discretion.

The Participant agrees that the foregoing restrictions are reasonable and that the value of LTIP awards 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 this Award shall constitute compensation in satisfaction of these covenants. Further details concerning the forfeiture of awards and the obligation to repay gains realized from LTIP awards are set forth in Section 14(i) of the LTIP, which can be located at www.ubs.com/onesource/UTX.

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.

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. Further details concerning Change-in-Control are set forth in Section 10 of the LTIP, which can be located at www.ubs.com/onesource/UTX.

Awards Not to Affect Certain Transactions

RSU Awards do not in any way affect the right of the Corporation or its shareowners to effect: (a) any adjustments, recapitalizations, reorganizations or other changes in the Corporation's capital or business structure; (b) any merger or consolidation of the Corporation; (c) 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; (d) the dissolution or liquidation of the Corporation; (e) any sale or transfer of all or any part of its assets or business; or (f) any other corporate act or proceeding.

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 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 RSU Award having a Fair Market Value on the date of withholding equal to 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 a 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 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 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.

Nonassignability

Unless otherwise approved by the Committee or its delegate, no assignment or transfer of any right or interest of a Participant in any RSU Award, whether voluntary or involuntary, by operation of law or otherwise, is permitted except by: (i) will or the laws of descent and distribution; or (ii) certain intra-family transfers or transfers pursuant to qualified domestic relations orders subject to procedures and requirements established by the Committee and compliance with SEC rules. 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 UTC 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 he or she 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 you do not want to have your personal data shared, you may choose to not accept this Award.

Company Compliance Policies

Award Recipients 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 and Corporate Policy Manual are available online on the Company's internal home page.

Interpretations

This Schedule of Terms provides a summary of terms applicable to the 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. In the event that any provision of this Schedule of Terms or any Award Agreement is inconsistent with the terms of the LTIP, the terms of the LTIP shall govern. Capitalized terms used but not otherwise defined herein shall have the meanings as defined in the LTIP. Any question concerning administration or interpretation arising under the Schedule of Terms or any Award Agreement will 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 can 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.

Exhibit 10.24

United Technologies Corporation
2018 Long-Term Incentive Plan

Stock Appreciation Right

Schedule of Terms

(Rev. January 2019)

This Schedule of Terms describes the material features of the Participant's Stock Appreciation Right Award (the "SAR Award" or the "Award") granted under the United Tech-nologies 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. The LTIP Prospectus contains further information about the LTIP and this Award and is available on the Company's internal employee website and at www.ubs.com/onesource/UTX.

Certain Definitions

A Stock Appreciation Right (a "SAR") provides the Participant with the right to receive the appreciation in the Common Stock of United Technologies Corporation (the "Common Stock") measured from the date of grant to the date of exercise. The appreciation, upon exercise, is generally paid to the Participant in the form of shares of Common Stock. SARs are generally exercisable if the Participant remains employed by the Company through the applicable vesting date schedule set forth on the Award Agreement (see "Vesting" below), or upon an earlier Termination of Service under limited circumstances that result in accelerated vesting (see "Termination of Service" below). "Company" means United Technologies Corporation (the "Corporation"), together with its subsidiaries, divisions and affiliates. "Termination Date" means the date a Participant's employment ends, or, if different, the date a Participant ceases providing services to the Company as an employee, consultant, or in any other capacity. 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 the Termination Date. All references to termination of employment in this Schedule of Terms will be deemed to refer to "Termination of Service" as defined in the LTIP. "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.

Acknowledgement and Acceptance of Award

The number of SARs awarded and the SAR grant price are set forth in the Award Agreement. An LTIP Award recipient (a "Participant") must affirmatively acknowledge and accept the terms and conditions of the SAR Award within 150 days following the Grant Date. A failure to acknowledge and accept the SAR Award within such 150-day period will result in forfeiture of the SAR Award, effective as of the 150th day following the Grant Date.

Participants must acknowledge and accept the terms and conditions of this SAR Award electronically via the UBS *One Source* website at www.ubs.com/onesource/UTX. Participants based in certain countries may be required to acknowledge and accept the terms and conditions of this SAR 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, Slovenia, and Ukraine.

Exercise Price (or "Grant Price")

The Grant Price represents the Fair Market Value of the Corporation's Common Stock on the date of grant. Fair Market Value means, as of any given date, the closing price of the Corporation's Common Stock on the New York Stock Exchange.

Vesting and Expiration

SARs will vest and expire (if unexercised) with the schedule set forth in the Award Agreement, subject to the Participant's continued employment with the Company through each applicable vesting date. SARs will be forfeited in the event of Termination of Service prior to the vesting date, except in certain earlier terminations involving Retirement, Involuntary Termination, Disability, Change-in-Control Termination, or Death (see "Termination of Service" below).

SARs may be exercised on or after the vesting date until the earlier of the:

(i) Expiration date specified in the Award Agreement, at which time the SARs and all asso-ciated rights lapse; or

(ii) Last day permitted on or following Termination of Service as specified in "Termination of Service" below.

SARs may also be forfeited and value realized from exercised SARs may be recouped by the Company under certain circumstances (see “Forfeiture of Award and Repayment of Realized Gains” below).

No Shareowner Rights

A SAR is the right to the appreciation in Common Stock subject to continued employment and certain other conditions. The holder of a SAR has no voting, dividend or other rights accorded to owners of Common Stock, unless and until SARs are exercised and settled in Common Stock.

Exercise and Payment

While a Participant is employed by the Company, the Participant may exercise SARs on or after the vesting date until the expiration date. The value a Participant will realize upon the exercise of a SAR is the difference between the price of the Common Stock at the time of exercise and the Grant Price. The Participant will generally receive shares of Common Stock as soon as administratively practicable following exercise. SARs may be paid in cash if the Committee so determines, including where local law restricts the distribution of Common Stock.

It is the responsibility of the Participant, or a designated representative, to track the expiration of the Award and exercise SARs in a timely manner. The Company assumes no responsibility for, and will make no adjustments with respect to, SARs that expire unexercised. Any communication from the Plan Administrator or the Company to the Participant with respect to expiration is provided as a courtesy only.

Termination of Service

The treatment of SARs upon Termination of Service depends upon the reason for termination, as detailed in the following sections. SARs held for less than one year as of the Termination Date will be forfeited, except in the event of Death, Disability, or Change-in-Control Termination, as discussed below.

Retirement. If the Participant’s termination results from Retirement, unvested SARs held for at least one year as of the Termination Date will vest and become exercisable. For this purpose, Retirement means either a Normal Retirement or Early Retirement as defined below:

- “Normal Retirement” means retirement on or after age 65;
- “Early Retirement” means retirement on or after:
    - Age 55 with 10 or more years of continuous service as of the Termination Date; or
    - Age 50, but before age 55, and the Participant’s age and continuous service as of the Termination Date adds up to 65 or more (“Rule of 65”), and provided that the Company consents to the Participant’s early retirement.

Upon Retirement, SARs may be exercised as detailed in the chart below:

Retirement Type	Company Consents to Retirement *	Exercise Period
Normal Retirement (age 65)	N/A	SARs may be exercised until the expiration of their term
Early Retirement on or after age 55 + 10 years of continuous service as of the Termination Date	Yes	SARs may be exercised until the expiration of their term
	No	SARs may be exercised for three (3) years following the Termination Date or until the expiration of the SAR, whichever is earlier
Early Retirement prior to age 55 + years of service = 65+ as of the Termination Date	Yes	SARs may be exercised for five (5) years following the Termination Date or until the expiration of the SAR, whichever is earlier
	No	SARs may be exercised for three (3) years following the Termination Date or until the expiration of the SAR, whichever is earlier

* The Company’s consent to the Participant’s Retirement will be at the sole discretion of the Company based on its ability to effectively transition the Participant’s responsibilities as of the Termination Date and such other factors as it may deem appropriate.

A Participant will not receive Retirement treatment with respect to any Award in the event of involuntary termination by the Company for Cause.

Service used to determine eligibility for Normal or Early Retirement means “Continuous Service” as determined under the UTC Employee Retire-ment Plan. The calculation to determine Early Retirement will include partial years, rounded down to the nearest full month.

Involuntary Termination for Cause. If the Participant’s termination results from an involuntary termination by the Company for Cause (as defined in the LTIP), both vested and unvested SARs will be forfeited as of the Termination Date regardless of the Participant’s Retirement eligibility. In addition, value realized from previously exercised SARs is subject to repayment in the event of termination for Cause or certain other occurrences (see “Forfeiture of Award and Repayment of Realized Gains” below).

Involuntary Termination. If the Participant’s termination results from an involuntary termination by the Company for reasons other than Cause, unvested SARs held for at least one year as of the Termination Date will receive pro-rata vesting treatment, subject to the Participant providing the Company with a release of claims against the Company in a form and manner satisfactory to the Company. The pro-rata vesting of a SAR Award will be based on the number of months worked during the vesting period, including partial months, relative to the full vesting period. SARs not vested under this pro-rata vesting formula will be forfeited as of the Termination Date.

Upon involuntary termination for reasons other than Cause, vested SARs may be exercised for one (1) year following the Termination Date or until the expiration of the SAR, whichever is earlier. Unexercised SARs will expire without value at the close of the NYSE on the first anniversary of the Termination Date, or the expiration date, whichever comes first. In the event that the date falls on a weekend or market holiday, the SARs will be cancelled at the end of the last trading day.

Absences from employment because of notice periods, garden leaves, or similar paid leaves associated with a Termination of Service will not be recognized as service in determining the pro-rata vesting percentage.

Pro-rata vesting will occur for involuntary terminations resulting from workforce reductions, location closings, restructurings, layoffs or similar events, as determined by the Committee.

Retirement eligible Participants will vest in accordance with the Retirement provisions set forth above.

Change-in-Control Terminations are subject to vesting treatment as set forth in the Change-in-Control provisions below. A Participant who is involuntarily terminated for Cause is not eligible for pro-rata vesting of Awards.

Voluntary Termination. A Participant who voluntarily terminates employment (other than for Retirement or a Change-in-Control Termination) is not entitled to pro-rata vesting and will forfeit all unvested SARs. Vested SARs may be exercised for up to ninety (90) days or until the expiration of the SAR (if earlier) from the Termination Date. Unexercised SARs will expire without value at the close of the NYSE on the ninetieth (90th) day following the Termination Date, or the expiration date, whichever comes first. In the event that the date falls on a weekend or market holiday, the SARs will be cancelled at the end of the last trading day.

Disability. If a Participant incurs a Disability (as defined in the LTIP), vested SARs may be exercised for up to three (3) years from the Termination Date (or until the expiration of the SAR, if earlier). While a Participant remains disabled under a Company sponsored long-term disability plan, unvested SARs will remain eligible to vest on the earlier of (1) the vesting date specified in the Award Agreement; or (2) 29 months following the date a Participant incurs a Disability, and may then be exercised for three years following the vesting date.

Death. If a Participant dies while actively employed by the Company, or on Disability, all unvested SARs immediately vest as of the date of death and become exercisable. A Participant's estate will have three years from the date of death (or until the expiration of the SAR, if earlier) to exercise all outstanding SARs, provided however, that if a SAR expires prior to the expiration of the three year extension period, the SAR will be deemed to be exercised by the recipient's estate as of the SAR expiration date with net proceeds (where applicable) held for distribution to the estate.

Different tax rules may apply when the estate or heir exercises the deceased employee's SARs. A personal tax or financial advisor should be consulted under this scenario.

Rehire. If the Company rehires a Participant within 90 days following the Termination Date, unexercised vested SARs and unvested SARs that were forfeited and cancelled because of such termi-nation will be reinstated. Unexercised SARs that received accelerated vesting at termination will be subject to the original vesting schedule upon rehire within 90 days following the Termination Date. If the Company rehires a Participant after 90 days following the Termination Date, the SARs will remain forfeited and cancelled.

Change-in-Control Termination. If a Participant's termination results from an involuntary termination by the Company for reasons other than for Cause, or due to the Participant's voluntary termination for "Good Reason," in each case, within 24 months following a Change-in-Control in accordance with Section 10(d) of the LTIP (such Termination of Service, a "CIC Termination"), then all unvested SARs will vest and become exercisable as of the Termination Date and all vested SARs will be exercisable until the third anniversary of the Termination Date (or until the expiration of the SAR, if earlier).

Forfeiture of Award and Repayment of Realized Gains

SARs, whether or not vested, will be immediately for-feited and a Participant will be obligated to repay to the Company the value realized from the prior exercise of SARs upon the occurrence of any of the following events:

(i) Termination for Cause (as defined in the LTIP);

(ii) A determination that the Participant engaged in conduct that could have constituted the basis for a Termination for Cause, including determinations made within three years following the Termination Date;

(iii) Within twenty-four months following a Participant's Termination Date, the Participant:

(A) Solicits a Company employee, or individual who had been a Company employee within the previous three months, for an opportunity outside of the Company; or

(B) Publicly disparages the Company, its employees, directors, products, or otherwise makes a public statement that is materially detrimental to the interests of the Company or such individuals; or

(iv) At any time during the twelve-month period following the Termination Date: (i) the Participant becomes employed by, consults for, or otherwise renders services to any business entity or person engaged in activities that compete with the Corporation or the business unit that employed the Participant; or (ii) that is a material customer of or a material supplier to the Corporation or the business unit that employed the Participant, unless, in either case, the Participant has first obtained the consent of the Chief Human Resources Officer or her or his delegate. This restriction applies to competitors, customers, and suppliers of each business unit that employed the Participant within the two-year period prior to the Termination Date. The determination of status of competitors, customers, and suppliers will be made by the Chief Human Resources Officer (or her or his delegate) in her or his sole discretion.

The Participant agrees that the foregoing restrictions are reasonable and that the value of the LTIP awards 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 this Award shall constitute compensation in satisfaction of these covenants. Further details concerning the forfeiture of Awards and the obligation to repay gains realized from LTIP Awards are set forth in Section 14(i) of the LTIP, which can be located at www.ubs.com/onesource/UTX.

Adjustments

If the Corporation engages in a transaction affecting 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 affecting the value of Common Stock, SAR 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.

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 out-standing 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 equiv-alent cash value (as determined by the Committee), or providing for other adjustments or modifications to outstanding Awards as the Committee may deem appropriate. Further details concerning Change-in-Control are set forth in Section 10 of the LTIP, which can be located at www.ubs.com/onesource/UTX.

Awards Not to Affect Certain Transactions

SAR Awards do not in any way affect the right of the Corporation or its shareowners to effect: (a) any adjustments, recapitalizations, reorganizations or other changes in the Corporation's capital or business structure; (b) any merger or consolidation of the Corporation; (c) 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; (d) the dissolution or liquidation of the Corporation; (e) any sale or transfer of all or any part of its assets or business; or (f) any other corpo-rate act or proceeding.

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 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 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 SAR Award having a Fair Market Value on the date of exercise equal to 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 a Participant or from a Participant's regular compensation to effect compliance with all Tax-Related Items, including withholding and reporting with respect to the exercise of any SAR. Acceptance of an Award constitutes affirmative consent by a 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 appro-priate taxes as required by any country where they are subject to tax. In those instances where 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.

Nonassignability

Unless otherwise approved by the Committee or its delegate, no assignment or transfer of any right or interest of a Participant in any SAR Award, whether voluntary or involuntary, by operation of law or otherwise, is permitted except by: (i) will or the laws of descent and distribution; or (ii) certain intra-family transfers or transfers pursuant to qualified domestic relations orders subject to procedures and requirements established by the Committee and compliance with SEC rules. 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 SAR 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 UTC 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 Execu-tive Officer and the Chief Human Resources Officer (and to such subordinates as he or she 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 you do not want to have your personal data shared, you may choose to not accept this Award.

Company Compliance Policies

Award Recipients 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 and Corporate Policy Manual are available online on the Company's internal home page.

Interpretations

This Schedule of Terms provides a summary of terms applicable to the SAR 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. In the event that any provision of this Schedule of Terms or any Award Agreement is inconsistent with the terms of the LTIP, the terms of the LTIP shall govern. Capitalized terms used but not otherwise defined herein shall have the meanings as defined in the LTIP. Any question concerning administration or interpretation arising under the Schedule of Terms or any Award Agreement will 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 can 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.

Exhibit 10.25

United Technologies Corporation
2018 Long-Term Incentive Plan

Performance Share Unit Award

Schedule of Terms (Rev. January 2019)

This Schedule of Terms describes the material features of the Participant's Performance Share Unit Award (the "PSU Award" or the "Award") granted under the United Tech-nologies 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. The LTIP Prospectus contains further information about the LTIP and this Award and is available on the Company's internal employee website and at www.ubs.com/onesource/UTX.

Certain Definitions

A Performance Share Unit (a "PSU") represents the right to receive one share of Common Stock of United Technologies Corporation (the "Common Stock") (or a cash payment equal to the Fair Market Value thereof). PSUs generally vest and are converted into shares of Common Stock if, and to the extent, the associated pre-established performance targets are achieved and the Participant remains employed by the Company through the end of the applicable performance measurement period (see "Vesting" below), or upon an earlier Termination of Service under limited circumstances that result in accelerated vesting (see "Termination of Service" below). "Company" means United Technologies Corporation (the "Corporation"), together with its subsidiaries, divisions and affiliates. "Termination Date" means the date a Participant's employment ends, or, if different, the date a Participant ceases providing services to the Company as an employee, consultant, or in any other capacity. 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 the Termination Date. All references to termination of employment in this Schedule of Terms will be deemed to refer to "Termination of Service" as defined in the LTIP. "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.

Acknowledgement and Acceptance of Award

The number of PSUs awarded is set forth in the Award Agreement. An LTIP Award recipient (a "Participant") must affirmatively acknowledge and accept the terms and conditions of the PSU Award within 150 days following the Grant Date. A failure to acknowledge and accept the PSU Award within such 150-day period will result in forfeiture of the PSU Award, effective as of the 150th day following the Grant Date.

Participants must acknowledge and accept the terms and conditions of this PSU Award electronically via the UBS *One Source* website at www.ubs.com/onesource/UTX. Participants based in certain countries may be required to acknowledge and accept the terms and conditions of this PSU 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, Slovenia, and Ukraine.

Vesting

PSU Awards will vest in accordance with the schedule set forth in the Award Agreement, subject to performance relative to pre-established Performance Goals, and the Participant's continued employment with the Company through the applicable performance measurement period. Potential Performance Goals are provided in the LTIP. PSU Awards may be subject to multiple Performance Goals. The Award Agreement will specify the applicable Performance Goals, performance period, vesting date, minimum performance required for vesting, range of vesting and relative weighting for each Performance Goal.

2019 Performance Goals include: (i) diluted earnings per share growth ("EPS Growth"); (ii) total shareowner return ("TSR") relative to the companies within the S&P 500 index; and (iii) return on invested capital ("ROIC").

EPS is net income from continuing operations divided by average diluted shares outstanding, subject to adjustments for restructuring, non-recurring and other significant, defined non-operational items. The Committee may adjust the EPS calculation (positively or negatively) to exclude the impact of certain items unrelated to operational performance. Such adjustment may be made when necessary to maintain the validity of the Performance Goal, as originally established. The 2019 PSU, will include three EPS Growth goals which will be measured annually; however, awards will not vest until the completion of the 3-year performance period.

TSR is the percentage change in share price over the cumulative three-year performance period (plus reinvested dividends). TSR is calculated using the trailing 60-day average share price prior to and at the end of the 3-year period as calculated by Standard & Poor's. Relative TSR is the rank of UTC's 3-year TSR versus the companies within the S&P 500 Index at the beginning of the 3-year performance period. If Relative TSR is negative for the 3-year performance period, the TSR payout percentage may not exceed 100% of target, even if relative performance exceeds the target-level Performance Goal.

ROIC is the ratio of net operating profit after tax ("NOPAT") to Invested Capital. NOPAT excludes non-controlling interest, non-service pension, acquisitions and divestiture earnings, one-timers, restructuring, material one-time tax charges and the impact of foreign exchange fluctuations. Invested Capital excludes accumulated other comprehensive income, cash and equivalents, acquisition and divestiture borrowings, short-term borrowings and material one-time tax charges. ROIC will be measured on an average quarterly basis over the 3-year performance period of the Award. ROIC is based on continuing operations and subject to adjustment for the impact of restructuring charges and other significant non-operational, and non-recurring items when necessary to maintain the validity of the Performance Goal, as originally established.

PSUs will be forfeited in the event of Termination of Service prior to the vesting date except in certain earlier terminations involving Retirement, Involuntary Termination, Disability, Change-in-Control

Termination or Death (see “Termination of Service” below).

PSUs may also be forfeited and value realized from previously vested PSUs may be recouped by the Company under certain circumstances (see “Forfeiture of Award and Repayment of Realized Gains” below).

No Shareowner Rights

A PSU 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, achievement of performance targets, and certain other conditions. The holder of a PSU has no voting, dividend or other rights accorded to owners of Common Stock unless and until PSUs are converted into shares of Common Stock.

Payment / Conversion of PSUs

Vested PSUs will be converted into shares of Common Stock to be delivered to the Participant as soon as administratively practicable following, when the Committee determines if, and to what extent, PSUs have vested as a result of the achievement of Performance Goals. If Performance Goals are not met, the PSUs that do not vest will be cancelled without value. PSUs may be paid in cash if the Committee so determines, including where local law restricts the distribution of Common Stock.

Termination of Service

The treatment of PSUs upon Termination of Service depends upon the reason for termination, as detailed in the following sections. PSUs held for less than one year as of the Termination Date will be forfeited, except in the event of Death, Disability, or Change-in-Control Termination, as discussed below.

Retirement. If the Participant’s termination results from Retirement, unvested PSUs held for at least one year as of the Termination Date will remain outstanding and, if and to the extent the Committee determines that Performance Goals have been achieved, will vest and convert into shares of Common Stock (or cash) to be delivered to the Participant as soon as administratively practicable thereafter. For this purpose, Retirement means either a Normal Retirement or Early Retirement as defined below:

- “Normal Retirement” means retirement on or after age 65;

- “Early Retirement” means retirement on or after:

    - Age 55 with 10 or more years of continuous service as of the Termination Date; or
    - Age 50, but before age 55, and the Participant’s age and continuous service as of the Termination Date adds up to 65 or more (“Rule of 65”), and provided that the Company consents to the Participant’s early retirement.

A Participant will not receive Retirement treatment with respect to any Award in the event of involuntary termination by the Company for Cause.

Service used to determine eligibility for Normal or Early Retirement means “Continuous Service” as determined under the UTC Employee Retirement Plan. The calculation to determine Early Retirement will include partial years, rounded down to the nearest full month.

Involuntary Termination for Cause. If the Participant’s termination results from an involuntary termination by the Company for Cause (as defined in the LTIP), unvested PSUs will be forfeited as of the Termination Date regardless of the Participant’s Retirement eligibility. In addition, value realized from previously vested PSUs is subject to repayment in the event of termination for Cause or certain other occurrences (see “Forfeiture of Award and Repayment of Realized Gains” below).

Involuntary Termination. If the Participant's termination results from an involuntary termination by the Company for reasons other than Cause, unvested PSUs held for at least one year as of the Termination Date will receive pro-rata vesting treatment, subject to the Participant providing the Company with a release of claims against the Company in a form and manner satisfactory to the Company. The pro-rata vesting of a PSU Award held for at least one year will be based on the number of months worked during the vesting period, including partial months, relative to the full vesting period. The pro-rata PSUs will remain outstanding and eligible to vest per the terms of the Award. PSUs not deemed eligible to vest under this pro-rata vesting formula will be forfeited as of the Termination Date. Absences from employment because of notice periods, garden leaves, or similar paid leaves associated with a Termination of Service will not be recognized as service in determining the pro-rata vesting percentage.

Pro-rata vesting eligibility will occur for involuntary terminations resulting from workforce reductions, location closings, restructurings, layoffs or similar events, as determined by the Committee.

Retirement eligible Participants will be eligible to vest in accordance with the Retirement provisions set forth above. Change-in-Control Terminations are subject to vesting treatment as set forth in the Change-in-Control provisions below. A Participant who is involuntarily terminated for Cause is not eligible for pro-rata vesting of Awards.

Voluntary Termination. A Participant who voluntarily terminates employment (other than for Retirement or a Change-in-Control Termination) is not entitled to pro-rata vesting and will forfeit all unvested PSUs.

Disability. If a Participant incurs a Disability (as defined in the LTIP), unvested PSUs will not be forfeited while a Participant remains disabled under a Company-sponsored long-term disability plan. Unvested PSUs will remain eligible to vest on the earlier of (1) the vesting date specified in the Award Agreement; or (2) 29 months following the date a Participant incurs a Disability.

Death. If a Participant dies while actively employed by the Company, or on Disability, all PSUs will vest as of the date of death and be converted (at target performance) to shares of Common Stock to be delivered to the Participant's estate, net of taxes (where applicable), as soon as administratively practicable.

Rehire. If the Company rehires a Participant within 90 days following the Termination Date, unvested PSUs that were forfeited and cancelled because of such termi-nation will be reinstated. If the Company rehires a Participant after 90 days following the Termination Date, the PSUs will remain forfeited and cancelled.

Change-in-Control Termination. If a Participant's termination results from an involuntary termination by the Company for reasons other than for Cause, or due to the Participant's voluntary termination for "Good Reason", in each case, within 24 months following a Change-in-Control in accordance with Section 10(d) of the LTIP (such Termination of Service, a "CIC Termination"), then all unvested PSUs will vest at the greater of: (1) the applicable target
level as of the Termination Date; or (2) the level of achievement as determined by the Committee not later than the date of the Change-in-Control, taking into account performance through the latest date preceding the Change-in-Control as to which performance can, as a practical matter be determined (but not later than the end of the applicable performance period) and be converted into shares of Common Stock (or cash) to be delivered to the Participant as soon as administratively practicable after the Termination Date, subject to the six-month delay noted below under "Specified Employees," if applicable.

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 Termination of Service, and PSUs are accelerated and will vest by reason of such Participant's Termination of Service (e.g., Change-in-Control Termination), 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, PSUs will be held in the Participant's UBS account and will vest on the first day of the seventh month following the Participant's Termination Date. Upon vest, PSUs will convert into an equal number of shares of Common Stock (or cash). The value of the PSUs will be determined as of the vest date.

Forfeiture of Award and Repayment of Realized Gains

PSUs will be immediately for-feited and a Participant will be obligated to repay to the Company the value realized from previously vested PSUs upon the occurrence of any of the following events:

(i)Termination for Cause (as defined in the LTIP);

(ii) The Committee determines that Award vesting was based on incorrect performance measurement calculations. In such event, vesting (and recoupment, if applicable) will be adjusted consistent with the actual corrected results;

(iii) A determination that the Participant engaged in conduct that could have constituted the basis for a Termination for Cause, including determinations made within three years following the Termination Date;

(iv) Within twenty-four months following a Participant's Termination Date, the Participant:

(A) Solicits a Company employee, or individual who had been a Company employee within the previous three months, for an opportunity outside of the Company; or

(B) Publicly disparages the Company, its employees, directors, products, or otherwise makes a public statement that is materially detrimental to the interests of the Company or such individuals; or

(v) At any time during the twelve-month period following a Participant's Termination Date: (i) the Participant becomes employed by, consults for, or otherwise renders services to any business entity or person engaged in activities that compete with the Corporation or the business unit that employed the Participant; or (ii) that is a material customer of or a material supplier to the Corporation or the business unit that employed the Participant, unless, in either case, the Participant has first obtained the consent of the Chief Human Resources Officer or her or his delegate. This restriction applies to competitors, customers, and suppliers of each business unit that employed the Participant within the two-year period prior to the Termination Date. The determination of status of competitors, customers, and suppliers will be made by the Chief Human Resources Officer (or her or his delegate) in her or his sole discretion.

The Participant agrees that the foregoing restrictions are reasonable and that the value of the LTIP awards 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 this Award shall constitute compensation in satisfaction of these covenants. Further details concerning the forfeiture of awards and the obligation to repay gains realized from LTIP awards are set forth in Section 14(i) of the LTIP, which can be located at www.ubs.com/onesource/UTX.

Adjustments

If the Corporation engages in a transaction affecting 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 affecting the value of Common Stock, PSU 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.

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 out-standing 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 equiv-alent cash value (as determined by the Committee), or providing for other adjustments or modifications to outstanding Awards or Performance Goals, as the Committee may deem appropriate. Further details concerning Change-in-Control are set forth in Section 10 of the LTIP, which can be located at www.ubs.com/onesource/UTX.

Awards Not to Affect Certain Transactions

PSU Awards do not in any way affect the right of the Corporation or its shareowners to effect: (a) any adjustments, recapitalizations, reorganizations or other changes in the Corporation's capital or business structure; (b) any merger or consolidation of the Corporation; (c) 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; (d) the dissolution or liquidation of the Corporation; (e) any sale or transfer of all or any part of its assets or business; or (f) any other corpo-rate act or proceeding.

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 PSUs. 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 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 PSU Award having a Fair Market Value on the date of withholding equal to 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 a 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 PSU. 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 appro-priate taxes as required by any country where they are subject to tax. In those instances where 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 the 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.comonesource/UTX.

Deferral of Gain (U.S. based executives)

A Participant who is qualified to participate in the UTC LTIP PSU Deferral Plan may irrevocably elect to defer the conversion of vested PSUs into shares of Common Stock to a date that is at least five years after the scheduled vesting date. The election to defer the conversion of shares must be made no later than the end of the second year of the performance measurement period, or such earlier date as may be specified by the Committee. Vested PSUs subject to a deferral election will be converted to unfunded deferred share units that will convert into shares of Common Stock on the distribution date as specified in the deferral election and the LTIP PSU Deferral Plan. Deferred share units will be credited with dividend equivalents. Under U.S. income tax law, a Participant will generally not be taxed until the resulting deferred share units are converted to shares of Common Stock and distributed. Deferred share units will not be funded by the Company. In this regard, a Participant's rights to deferred share units are those of a general unsecured creditor of the Company. Details of the deferral of PSUs into deferred share units will be provided with the election materials. The opportunity to make such an election is subject to changes in Federal tax law. The Committee reserves the right to discontinue offering PSU deferral elections at any time for any reason it deems appropriate in its sole discretion.

Nonassignability

Unless otherwise approved by the Committee or its delegate, no assignment or transfer of any right or interest of a Participant in any PSU Award, whether voluntary or involuntary, by operation of law or otherwise, is permitted except by: (i) will or the laws of descent and distribution; or (ii) certain intra-family transfers or transfers pursuant to qualified domestic relations orders subject to procedures and requirements established by the Committee and compliance with SEC rules. 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 PSU 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 UTC 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 he or she 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 you do not want to have your personal data shared, you may choose to not accept this Award.

Company Compliance Policies

Award Recipients 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 and Corporate Policy Manual are available online on the Company's internal home page.

Interpretations

This Schedule of Terms provides a summary of terms applicable to the PSU 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. In the event that any provision of this Schedule of Terms or any Award Agreement is inconsistent with the terms of the LTIP, the terms of the LTIP shall govern. Capitalized terms used but not otherwise defined herein shall have the meanings as defined in the LTIP. Any question concerning administration or interpretation arising under the Schedule of Terms or any Award Agreement will 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 can 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.

Exhibit 10.37

RE: Compensation & Covenants Agreement

Dear Kelly:

Reference is made to the Agreement and Plan of Merger (the "Merger Agreement") by and among United Technologies Corporation ("UTC" and together with its subsidiaries, affiliates, and divisions, the "Company"), Riveter Merger Sub Corp. ("Merger Sub"), and Rockwell Collins, Inc. ("Rockwell") dated as of September 4, 2017, pursuant to which Merger Sub will merge with and into Rockwell (the "Merger"), with Rockwell surviving as a wholly owned subsidiary of UTC. This letter (the "Letter") memorializes our agreement regarding the terms of your employment with the Company and your related compensation and benefits from and after the Effective Date. This Letter becomes effective upon and following the closing of the Merger (the "Closing"). In the event that (i) your employment with Rockwell terminates for any reason prior to the date on which the Closing occurs (the "Effective Date"), or (ii) the Merger Agreement is terminated without the occurrence of the Merger, this Letter will be null and void and will have no further force of effect and none of the parties will have any obligations hereunder. Capitalized terms used but not otherwise defined herein will have the meanings given to them in the Merger Agreement.

Employment Terms. Effective as of the Effective Date, the principal terms of your compensation and benefits in connection with your employment with the Company will be as set forth on Exhibit A to this Letter (the "Term Sheet" and together with the Letter, this "Agreement").

Restrictive Covenants. As a condition of your continued employment with the Company following the Effective Date and your entitlement to receive the compensation and benefits set forth in the Term Sheet, you (i) are entering into the Intellectual Property Agreement attached hereto as Exhibit B, and (ii) hereby agree to the following restrictive covenants (collectively, the "Restrictive Covenants"):

ž *Confidentiality.* You acknowledge that in the course of your employment with the Company, including Rockwell and its subsidiaries, you have acquired, and will acquire, Confidential Information and that such Confidential Information has been, and will be, disclosed to you in confidence and for benefit of the Company only. You agree that, except as you may otherwise be directed under this Agreement or as required by applicable law, regulation or legal proceeding, you will (i) keep such Confidential Information confidential at all times, (ii) not disclose or communicate Confidential Information to any third party, and (iii) not make use of Confidential Information on your own behalf or on behalf of any third party. In the event that you become legally compelled to disclose any Confidential Information, you agree that you will provide the Company with prompt written notice of the applicable order so that the Company may seek a protective order or other appropriate legal remedy to which it may be entitled. When Confidential Information becomes generally available to the public other than by your acts or omissions, it is no longer subject to the restrictions in this paragraph. Notwithstanding any provision of this Agreement to the contrary, the provisions of this Agreement are not intended to, and shall be interpreted in a manner that does not, limit or restrict you from exercising your legally protected whistleblower rights (including pursuant to Rule 21F under the Securities

- Exchange Act of 1934, as amended). The term "Confidential Information" as used in this Agreement means (A) confidential or proprietary information, including, without limitation, information received from third parties under confidential or proprietary conditions; (B) information subject to attorney-client or work-product privilege of the Company, and (C) other technical, business or financial information, the use or disclosure of which might reasonably be construed to be contrary to the interests of the Company or any of its affiliates, including, without limitation, product development plans, marketing strategies, price and cost data and strategies related to customer and supplier relationships.

- *Noncompetition.* To further ensure the protection of Confidential Information, you agree that during your employment with the Company and for a period of two years following your termination of employment with the Company for any reason (collectively, the "Restricted Period"), you will not, without UTC's prior written consent, directly or indirectly engage in, acquire a financial interest in, enter the employment of, render any services in any form (including entering into consulting relationships or similar arrangements) to, or otherwise become actively involved (whether as an individual, partner, shareholder, officer, director, or principal) with any of the following companies (including their subsidiaries, affiliates and successors in interest): (i) Airbus SE; (ii) The Boeing Co.; (iii) Bombardier Inc.; (iv) Embraer S.A.; (v) Garmin; (vi) GE Aviation; (vii) Harris Corp.; (viii) Honeywell International Inc.; (ix) L-3 Technologies; (x) Meggitt plc; (xi) Safran S.A. and (xii) SITA (each a "Restricted Company"). UTC will not unreasonably withhold its consent to your request to provide services to, or affiliate with, a Restricted Company**;** provided, it shall not be a breach of this Agreement for you to own, as a passive investor, in each case not more than one percent (1%) of the total shares of all classes of stock outstanding of any one or more of the Restricted Companies**.** Without limiting the generality of the preceding sentence, you agree that it is reasonable for UTC to withhold its consent on the basis that it has determined that your proposed relationship with a Restricted Company may (A) risk the misuse of Company Information, (B) provide undue advantage to a competitor, customer or supplier, (C) diminish the value of UTC's acquisition of Rockwell, or (D) otherwise damage UTC's competitive position. Your request to provide services to, or affiliate with, a Restricted Company should describe the reasons why your proposed relationship with the Restricted Company does not present any of the risks described in clauses (A)-(D) of the preceding sentence. Because UTC's aerospace businesses (including Rockwell's business) are global in nature with competitors, customers and suppliers located throughout the world, you agree that this restriction applies to the world-wide operations of the Restricted Companies and, further, that there are no geographic limitations on the scope of the employee and customer nonsolicitation restrictions set forth below. Your request for consent should be submitted in writing and directed to UTC's Chief Executive Officer. UTC will respond to any such request within ten business days.

  - *Employee Nonsolicitation.* During the Restricted Period, you will not directly or indirectly solicit, or assist in soliciting, or take any action which would reasonably be expected to encourage or to induce, any employee of the Company to leave the employ of the Company, including providing information or making referrals to personnel recruitment agencies or other third parties.

  - *Customer Nonsolicitation; Noninterference.* During the Restricted Period, you shall not (i) directly or indirectly solicit, or assist in soliciting, any actual or prospective customer of the Company to reduce, terminate or change the terms of business conducted with the Company, or (ii) interfere with, or attempt to interfere with, business relationships (whether formed before, on or after the date of this Agreement) between the Company and any third parties, including employees, consultants, customers, clients, vendors, suppliers, partners, joint venture affiliates or investors of the Company.

You agree that the restrictions on, and other provisions relating to, your activities contained in the Restrictive Covenants are fully reasonable and necessary to protect the goodwill, Confidential

Information, and other legitimate interests of the Company. You also acknowledge and agree that, were you to breach the provisions of the Restrictive Covenants, the harm to the Company would be irreparable.

You therefore agree that in the event of such a breach or threatened breach, the Company shall, in addition to any other remedies available to it, have the right to obtain preliminary and permanent injunctive relief against any such breach without having to post bond. You further agree that, in addition to any other relief awarded to the Company as a result of your breach of the provisions of this Agreement, in the event of your material breach of any of the Restrictive Covenants, the Company shall be entitled to cancel the Retention Award (as described on Exhibit A) or recover the gross proceeds thereof. You and UTC agree that any breach of the section of this Letter entitled "Noncompetition" will be deemed to be a material breach for purposes of the foregoing sentence. You and UTC further agree that the terms of the Restrictive Covenants are reasonable. However, if any portion of the Restrictive Covenants is held by competent authority to be unenforceable, the relevant portion 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.

Code Section 4999. Notwithstanding any other provision of this Agreement, in the event it shall be determined that any payment or distribution by the Company to you or for your benefit (whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (a "Payment")) would be subject to the excise tax imposed by Section 4999 of the Internal Revenue Code of 1986, as amended (the "Code") or any interest or penalties incurred by you with respect to such excise tax (such excise tax, together with any such interest and penalties, are hereinafter collectively referred to as the "Excise Tax"), then you shall be entitled to elect to reduce the Payments by an amount that would reduce or eliminate the Excise Tax. You shall, in your sole discretion, determine the amount of such reduced Payments and the Payments that are to be reduced; provided, however, that no Payment may be reduced in any manner that would result in a violation of Section 409A of the Code. Any such election and determinations of reduced Payments by you shall be irrevocable and shall be communicated in writing to UTC no later than 30 days after the Accounting Firm (as defined below) notifies you in writing that an Excise Tax will be due and payable upon a Payment absent your election. All determinations required to be made under this paragraph, including whether and when an Excise Tax would otherwise be imposed upon a Payment and the assumptions to be utilized in arriving at such determination, shall be made by Golden Parachute Tax Solutions LLC (the "Accounting Firm"), which shall provide detailed supporting calculations in writing both to UTC and to you within thirty (30) business days of the date of your "separation from service" (within the meaning of Section 409A). All fees and expenses of the Accounting Firm shall be borne solely by the Company. In no event will the Company provide you with any additional payments to compensate you for the payment of any Excise Tax.

Section 409A. It is intended that the payments and benefits provided under this Agreement will be exempt from the application of, or comply with, the requirements of Section 409A of the Code. This Agreement will be construed in a manner that effects such intent to the greatest extent possible. However, the Company shall not be held liable for any taxes, interests or penalties that you owe with respect to any payments or benefits provided under this Agreement. With respect to any amounts payable hereunder in installments, each installment shall be treated as a separate payment for purposes of Section 409A of the Code. For purposes of any payment due hereunder upon a termination of employment that is subject to the provisions of Section 409A of the Code, such phrase or any similar phrase shall mean a "separation from service" as defined by the default provisions of Treasury Regulation 1.409A-1(h). Notwithstanding any other provision of this Agreement to the contrary, if you are a "specified employee" within the meaning of Section 409A of the Code (as determined in accordance with the methodology established by the Company), amounts that constitute "nonqualified deferred compensation" subject to Section 409A of the Code that would otherwise be payable by reason of your separation from service during the six-month period immediately following such separation from service shall instead be paid or provided on the first business day following the date that is six months following your separation from service. If you die following your separation from service and prior to the payment of any amounts delayed on account of Section 409A of the Code, such amounts shall be paid to the personal representative of your estate within 30 days following the date of your death.

Governing Law; Arbitration. This Agreement shall be subject to and governed by the laws of the State of Connecticut, without regard to its principles of conflicts of law. Any dispute arising between you and the Company 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 (i) binding on the parties, (ii) furnished in writing, separately and specifically stating the findings of fact and conclusions of law on which the decision is based, (iii) kept confidential by the arbitrator and the parties, and (iv) 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.

Entire Agreement; Amendments. This Agreement represents the complete understanding between you and the Company regarding the subject matter of this Agreement. As of the Effective Date, subject to the Company granting to you the Retention Award in accordance with the terms of this Agreement, this Agreement will supersede the Change of Control Agreement between you and Rockwell dated as of June 30, 2009 in its entirety and such Agreement will have no further force or effect. Nothing herein shall amend or otherwise adversely affect your rights and entitlements pursuant to Section 5.7 (Directors' and Officers' Indemnification and Insurance) of the Merger Agreement. No amendment to this Agreement shall be binding upon either party unless in writing and signed by or on behalf of such party. 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.

Employment At Will; Tax Withholding. This Agreement does not provide a guarantee of employment for any specific duration or a guarantee of any fixed terms or conditions of employment. Your employment with the Company will be "at will", which means that either you or the Company may terminate your employment relationship at any time, with or without cause or notice. The Company reserves the right to withhold applicable taxes from any amounts paid pursuant to this Agreement to the extent required by applicable law. You, or your estate, shall be responsible for any and all tax liability imposed on amounts paid hereunder.

Sincerely,

____
Elizabeth B. Amato
Executive Vice President & Chief Human Resources Officer

Acknowledged and Agreed:

____
Robert K. Ortberg

Exhibit A

Term Sheet

Position; Duties; Reporting; Location:	Effective on the Effective Date, you will serve as Chief Executive Officer of UTC's Collins Aerospace Systems business unit and as a member of the Executive Leadership Group of UTC (the "ELG"), reporting to the Chairman & Chief Executive Officer of UTC (the "Reporting Person"), and with such duties and responsibilities as are commensurate with your position and assigned by the Reporting Person from time to time. Following the Effective Date and until such time as you and the Reporting Person otherwise agree, your primary work location shall be in West Palm Beach, Florida, subject to such travel and offsite visits as are necessary for the performance of your duties.
Annual Base Salary:	As of the Effective Date, your annual base salary will be $1,170,500.
Annual Incentive Award:	As of the Effective Date, you will be eligible to receive an annual cash incentive award with a target award value equal to 125% of the annual base salary, prorated and adjusted for the year in which the Closing occurs to reflect the portion of the year between Closing and December 31, 2018. Your actual annual incentive award payout will be determined by the Compensation Committee of the Board of Directors of UTC (the "Committee") or its designee pursuant to the terms of the applicable incentive plan and based on the achievement of applicable performance goals. If Closing occurs on or before September 28, 2018, you will receive a prorated bonus for the period between September 30, 2017 (the first day of the Rockwell Collins fiscal year) and Closing based on your current 150% of annual base salary target multiplied by your average annual bonus percentage payout under the Rockwell Incentive Compensation Plan for the last three full fiscal years prior to the Closing. For the avoidance of doubt, this payment is in satisfaction of UTC's obligation under the Merger Agreement with respect to bonus payments attributable to the period between September 30, 2017 and Closing.
Annual Long-Term Incentive Awards:	Commencing with UTC's 2019 fiscal year, you will be eligible for an annual long-term incentive award from UTC consistent with your status as a member of the ELG. Your award for UTC's 2019 fiscal year will have a target grant date value of not less than $6 million. The form and terms and conditions of your annual long-term incentive awards will be determined by the Committee; provided that, under the terms of each applicable annual long-term incentive award, for purposes of determining if you are eligible for Normal Retirement or Early Retirement under your LTIP awards, you will be credited with your prior Rockwell service.

Employee Benefits:	As of the Effective Date, you will be eligible for employee benefits on a basis no less favorable than those provided to similarly situated executives of UTC, although until fully integrated into the UTC benefits platform, you may continue to be provided with some or all of your benefits under the Rockwell platform. You will also be eligible for certain fringe benefits commensurate with your status as a member of the Company's Executive Leadership Program (the "ELG") which currently include a leased car allowance, financial planning assistance and executive physicals. Notwithstanding the foregoing, you will not be eligible to receive termination or separation pay benefits under any severance or separation plan or policy of UTC (including any plan or policy applicable to members of the ELG), Rockwell, or their affiliates upon any termination of employment on or after the Effective Date.

Retention Award:

Within 10 business days following the Effective Date, you will be granted an award of UTC restricted stock units with a grant date value of $9.875 million (the "Retention Award") subject to the terms and conditions set forth in the Restricted Stock Unit Award Schedule of Terms (the "Retention RSU Terms") attached as Exhibit C to this Agreement. The Retention Award will vest in full on the third anniversary of the Effective Date, subject to your continued employment through such vesting date, except (i) as otherwise provided in the Retention RSU Terms, and (ii) that the Retention Award will vest in full upon UTC's termination of your employment without Cause or your resignation for Good Reason (each such term as defined below). Vesting of the Retention Award upon a qualifying termination of your employment is contingent upon you signing a general release of claims in favor of the Company in a form reasonably satisfactory to UTC (but not imposing any covenant (other than a covenant not to sue under the release) restricting your conduct after such termination that you had not agreed to in this Agreement prior to such termination) and such release becoming effective and irrevocable in accordance with its terms no later than 60 days following such termination of employment (the "Release Requirement"). For purposes of determining whether you are eligible for Normal Retirement or Early Retirement under the Retention RSU Terms, you will be credited with your prior service with Rockwell.

"Cause" shall mean: (i) your willful and continued failure to perform substantially your duties with the Company (other than any such failure resulting from incapacity due to physical or mental illness), after a written demand for substantial performance is delivered to you by the Chief Executive Officer of UTC which specifically identifies the manner in which he believes that you have not substantially performed your duties, or (ii) your willful engagement in illegal conduct or gross misconduct which is materially and demonstrably injurious to the Company. For purposes of this provision, no act or failure to act, on your part, shall be considered "willful" unless it is done, or omitted to be done, by you in bad faith or without reasonable belief that your action or omission was in the best interests of the Company. Any act, or failure to act, based upon authority given pursuant to the instructions of the Chief Executive Officer or a senior officer of UTC or based upon the advice of counsel for UTC shall be conclusively presumed to be done, or omitted to be done, by you in good faith and in the best interests of the Company. The cessation of your employment shall not be deemed to be for Cause unless and until there shall have been delivered to you a copy of a resolution duly adopted by the affirmative vote of not less than two-thirds of the membership of the Committee at a meeting of the Committee (after reasonable notice is provided to you and you are given an opportunity, together with counsel, to be heard before the Committee), finding that, in the good faith opinion of the Committee, you are guilty of the conduct described in subparagraph (i) or (ii) above, and specifying the particulars thereof in detail.

At the Closing, the annual restricted stock unit award and performance share award granted to you by Rockwell in November 2017 (collectively, the "Rollover Awards") will be treated in accordance with Section 2.3(b)(ii) of the Merger Agreement and will otherwise continue to be subject to their terms and conditions in effect as of immediately prior to the Closing, except that for purposes of such awards, the definition of "Good Reason" shall be replaced with the definition set forth below.

"Good Reason" shall mean the occurrence of any of the following without your prior consent: (i) the assignment to you of any duties that are inconsistent in any material respect (including status, offices, title and reporting requirements) with your position as set forth in this Term Sheet, excluding for this purpose any isolated, insubstantial and inadvertent action not taken in bad faith and which is remedied by the Company promptly after receipt of notice thereof given by you; (ii) UTC requiring you to be based at any office or location other than (A) the location specified in this Term Sheet, (B) an office or location that is less than 35 miles from such location, or (C) any office or location with respect to which the distance from your residence is less than the distance from your residence to such location; (iii) any failure by UTC to maintain your compensation at a level consistent with the terms of the Term Sheet, other than an isolated, insubstantial and inadvertent failure not occurring in bad faith and which is remedied by UTC promptly after receipt of notice thereof given by you; and (iv) a failure by UTC to grant the Retention Award in accordance with the terms of the Term Sheet; provided that, in order to resign for Good Reason, (x) you must deliver written notice to UTC describing in reasonable detail the circumstances alleged to constitute Good Reason within 45 days after the initial occurrence thereof, (y) UTC must have 30 days after receipt of written notice from you in which to cure such circumstances, and (z) if such circumstances are not cured, you must actually resign within 30 days following the expiration of such cure period.

Rockwell Awards:

Exhibit B

INTELLECTUAL PROPERTY AGREEMENT

As a condition and in consideration of my employment by, as applicable, UNITED TECHNOLOGIES CORPORATION, or any of its direct or indirect subsidiaries or affiliates, or their successors or assigns, including but not limited to the UTC Business identified in the signature block below (hereinafter collectively "UTC") and the compensation I receive from UTC for such employment, I, the EMPLOYEE named below, willingly execute this Intellectual Property Agreement ("Agreement") and agree to the following terms and conditions:

1. Former Employer Proprietary Information. I will not bring with me, disclose, access, reference or use in any way in my work for UTC any confidential or otherwise proprietary information, files, documents, materials, equipment or property of others, including any trade secret information of my prior employers. I represent and acknowledge that no employee or representative of UTC has requested me to do so, and that no employee or representative will have the authority to instruct me to do so at any time. I further represent that my work for UTC and compliance with this Agreement will not breach any obligation I have to, or agreement that I previously entered into with, any prior employer, including any non-disclosure, non-compete or other restrictive covenant agreement.

2. UTC Proprietary Information.

(a) I acknowledge that during my employment I will obtain, receive and/or gain access to certain valuable trade secret, confidential or otherwise proprietary information not generally known to the public, developed by, for or at the expense of UTC, or assigned or entrusted to UTC by me or others (collectively, "Proprietary Information"). In addition, I acknowledge that I may receive and/or gain access to Proprietary Information in oral, written and/or electronic form. Proprietary Information includes, but is not limited to the following:

(i) Technical information, such as technical data, designs, drawings, documentation, models, schematics, specifications, methods, processes, procedures, techniques, databases, software and computer programs, formulas, compositions, plans, ideas, concepts, inventions, innovations, discoveries, improvements, and know-how;

(ii) Business information, such as business, marketing, sales, procurement and pricing plans and strategies, financial and budget data, asset allocations, customer lists, customer contact information, contractual business relationships, bid information, production plans, supply sources, business methods or tools, intellectual property plans and strategies, and acquisition and divestiture plans and details; and

(iii) All information entrusted to UTC by others, including but not limited to technical and business information provided directly or indirectly by customers, joint venture partners, collaborators, investors, bankers, insurers, vendors, suppliers, agents, or other similar persons.

(b) I understand that my employment creates a relationship of confidence and trust between me and UTC with respect to Proprietary Information. In exchange for UTC granting me access to Proprietary Information, I will not at any time, either during or after my employment, use, publish or otherwise disclose through any means verbally or in writing (including through social media, the Internet or any other electronic communication) any Proprietary Information, except as my UTC duties

may require, and in all such events solely for UTC's benefit and in accordance with applicable UTC policies and procedures. However, I understand that this Agreement does not limit or prohibit me from disclosing information regarding the terms and conditions of employment. I understand that if I am unsure about whether information constitutes Proprietary Information, I will seek the guidance of UTC legal counsel. At UTC's request or upon termination of my employment for any reason, I will immediately deliver to or leave with UTC all files, documents, materials, equipment, property and other items and information that belong to UTC or that by their nature are for the use of UTC personnel only, including but not limited to items and information constituting or containing Proprietary Information.

3. Employee Work Product.

(a) I will promptly disclose in confidence to UTC all ideas, concepts, inventions, innovations, discoveries, improvements, works of authorship (including but not limited to illustrations, writings, designs, drawings, documentation, plans, models, schematics, specifications, mask works, software and computer programs), trade secrets, Proprietary Information and other technical and business information authored, conceived, developed, reduced to practice or otherwise created by me, either alone or with others (collectively, "Inventions and Developments"), during the period of my employment with UTC. Additionally, I will maintain for U TC adequate and current written records of all Inventions and Developments that (i) relate to the existing, contemplated, or reasonably foreseeable future business or research or development activities of UTC, or (ii) result from or are related to any work I perform for UTC, or (iii) are otherwise made through the use of UTC time, equipment, supplies, facilities, materials or other resources, or Proprietary Information (such Inventions and Developments being referred to collectively in this Agreement as "Employee Work Product").

(b) I agree that UTC will be the sole owner of all rights, title and interest in and to Employee Work Product. I further acknowledge and agree that, to the maximum extent permissible by applicable law, all Employee Work Product that are protectable by copyright will be "works made for hire" as that term is defined in the United States Copyright Act. To the extent that any Employee Work Product is not a "work made for hire" or is not otherwise owned by UTC, I hereby irrevocably assign and promise to assign to UTC any interest I may have in such Employee Work Product. Both during and after my employment with UTC, I will promptly execute any papers and do any acts (at UTC's expense) that UTC may consider necessary to secure to UTC or its nominees any and all rights relating to Employee Work Product, including but not limited to rights in patents (and renewals or extensions of such rights) in any country. For purposes of my obligations under this Agreement, Employee Work Product includes any Invention or Development made by me, either alone or jointly with others, after termination of my employment with UTC, if I utilized any of UTC's Proprietary Information in creating such Invention or Development.

(c) **NOTICE Regarding Inventions**. The provisions in this Agreement requiring me to assign rights in inventions do not and will not apply to any Inventions and Developments that I developed entirely on my own time without using UTC's equipment, supplies, facilities, or trade secret information, except for those inventions that either: (i) relate at the time of conception or reduction to practice of the invention to UTC's business, or actual or demonstrably anticipated research or development of UTC; or (ii) result from any work performed by me for UTC. This **NOTICE Regarding Inventions** is provided in compliance

with California Labor Code §§ 2870-2872; Revised Code of Washington §§ 49.44.140-150; Delaware Code Title 19, § 805; Illinois Statutes chapter 765, paragraph 1060/2; Kansas Statute § 44-130; Minnesota Statute § 181.78; North Carolina General Statute § 66-57.1-.2; Utah Code §§ 34-39-1 to 3; and any other similar state laws and should be interpreted in a manner consistent with any applicable state law concerning the assignment of employee rights to inventions.

(d) To the extent that all rights I may have in any Employee Work Product are not fully and effectively transferred or assigned to UTC by this Agreement, or if any Employee Work Product (i) is based on or derived from rights owned, licensed or otherwise held by me and not assigned under this Agreement, including any such rights existing prior to my employment with UTC, or (ii) cannot be exploited without using rights owned, licensed or otherwise held by me, I hereby irrevocably grant and promise to grant to UTC a perpetual, worldwide, paid-up and royalty-free, nonexclusive and sublicensable right and license to freely exploit and exercise all such rights and the Employee Work Product in any manner.

1. Remedies. I acknowledge that nothing in this Agreement is intended to limit any remedy of UTC under any applicable law. I acknowledge that my violation of any provision of this Agreement could cause UTC irreparable harm which cannot be fully compensated by money, and that UTC may be entitled to injunctive or other equitable relief to prevent or stop such breach.

2. Miscellaneous. This Agreement supersedes all prior oral or written agreements between me and UTC relating generally to the same subject matter. This Agreement is effective as of the first day that I performed any work for UTC, and my obligations under this Agreement will survive any termination of my employment with UTC. This Agreement is binding upon me, and my heirs, executors, administrators, legal representatives and assigns. This Agreement may be modified only by an express written document signed by me and an authorized representative of UTC. This Agreement will be governed by and construed in accordance with the laws of the State of Connecticut, United States of America, without reference to conflicts of law principles. This Agreement does not alter my existing employment relationship with UTC, whether it is currently at-will or based on a written employment agreement. Additionally, this Agreement shall remain effective regardless of future changes in my duties, salary or compensation. If any provision of this Agreement (or any portion of this Agreement) is held to be invalid, illegal or otherwise unenforceable by a court of competent jurisdiction, I agree that the court should modify such provision to the extent necessary to render such provision enforceable, and the remaining provisions of this Agreement will remain in full force and effect. I agree that UTC may notify any of my prior or subsequent employers of this Agreement and my obligations under this Agreement.

I HAVE READ THIS AGREEMENT CAREFULLY AND I UNDERSTAND ITS TERMS. I ACCEPT THE OBLIGATIONS WHICH IT IMPOSES UPON ME VOLUNTARILY AND WITHOUT RESERVATION.

This Agreement is executed this ____ day of , _________20__, at , .
(Month) (City) (State)

EMPLOYEE

Signature   Residence

Print Name   City

Employee Number   State   Zip _______

UTC Business Unit

Exhibit C

United Technologies Corporation 2018 Long-Term Incentive Plan

Restricted Stock Unit Award to Certain Executives of Collins Aerospace Systems

Schedule of Terms

(Rev. July 2018)

This Schedule of Terms describes the material features of the Participant's Restricted Stock Unit Award (the "RSU Award" or the "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. The LTIP Prospectus contains further information about the LTIP and this Award.

Nature of Award

This RSU Award is granted following the merger of Rockwell Collins, Inc. with a wholly owned subsidiary of United Technologies Corporation ("UTC") to certain executives who will be critically important to the effective integration of the combined company and the future success of the Collins Aerospace Systems business unit.

The Participant has entered into a certain Compensation and Covenants Agreement with UTC pursuant to which the Participant has agreed to noncompetition, nonsolicitation, customer noninterference and

confidentiality restrictions. UTC grants this Award as part of the consideration for the Participant entering into the Compensation and Covenants Agreement.

Restricted Stock Unit

A Restricted Stock Unit (an "RSU") represents the right to receive one share of Common Stock (or the cash value thereof, at the election of the Committee). RSUs generally vest and are converted into shares of Common Stock if the Participant remains employed by the Company through the vesting date in accordance with the vesting schedule set forth on the Award Statement (see "Vesting" below) or upon the Participant's early termination of employment under circumstances that result in vesting (see "Termination of Service"). "Company" means UTC and its subsidiaries, divisions and affiliates.

Acknowledgement and Acceptance of Award

The number of RSUs awarded is set forth in the Award Statement. The Participant must affirmatively acknowledge and accept the terms and conditions of the RSU Award or the Award will be forfeited.

Participants must acknowledge and accept the terms and conditions of this RSU Award electronically via the UBS *One Source* website at www.ubs.com/onesource/UTX. Participants have 150 days from the date of grant to acknowledge and to accept the Award.

Dividends

RSUs under this Award will earn reinvested dividend equivalent units each time the Company pays a cash dividend to shareholders of record. The additional units will accrue during the vesting period and will vest and be settled on the same date as the underlying RSUs.

Vesting

RSUs vest upon the third anniversary of the Effective Date of the closing of the Rockwell Collins acquisition, as specified in the Award Statement. RSUs will be forfeited in the event of Termination of Service prior to vesting, except in certain terminations involving Retirement, Involuntary Termination, Termination for Good Reason, Disability or Death (see "Termination of Employment").

Under certain circumstances, Awards may be forfeited, including vested Awards and gains realized from prior Awards (see "Forfeiture of Award").

No shareowner rights

An RSU is the right to receive a share of Common Stock in the future, subject to continued employment, except as otherwise provided herein. The holder of an RSU has no voting or other rights accorded to owners of Common Stock.

Payment / Conversion of RSUs

RSUs will generally be converted into shares of Common Stock, effective as of the vesting date or as soon as administratively practicable following the vesting date. The converted shares will be unrestricted and freely transferable. RSUs may be paid in cash where local law restricts the distribution of Common Stock, as determined by the Committee.

Termination of Service

The treatment of RSUs upon Termination of Service is dependent upon the reason for termination, as detailed in the following sections.

The "Termination Date" is the date on which the Participant's Termination of Service (as defined in the LTIP) occurs.

Specified Employees. If Participant is a "specified employee" within the meaning of Section 409A of the Code (as determined in accordance with the methodology established by UTC) at the time of the Participant's Termination of Service, and the RSUs become vested by reason of the Participant's Termination of Service, then, to the extent necessary to avoid the application of any additional tax or penalty under Section 409A of the Code, the RSUs will not be converted to shares of Common Stock (or cash) until the first business day following the date that is six months following the Participant's "separation from service" (within the meaning of Section 409A of the Code and consistent with the terms of the Plan).

Release Requirement. Upon a Termination of Service that may result in accelerated vesting as described below, such vesting is contingent upon the Participant (or in the case of the Participant's death, the Participant's estate) signing a general release of claims in favor of UTC and its affiliates in a form reasonably satisfactory to UTC (but not imposing any covenant (other than a covenant not to sue under the release) restricting the Participant's conduct after such termination that the Participant had not agreed to in the Compensation and Covenants Agreement prior to such termination) and such release becoming effective and irrevocable in accordance with its terms no later than 60 days following the Participant's Termination of Service (the "Release Requirement").

Retirement. Upon Retirement, subject to the Participant's satisfaction of the Release Requirement, unvested RSUs for which the date of grant is at least one year prior to the Termination Date will vest as of the Termination Date and be converted into shares of Common Stock (or cash) as soon as administratively practicable thereafter, subject to the six-month delay noted above under "Termination of Service-Specified Employees" if applicable. The Participant is eligible for Retirement for purposes of this Award if the Participant experiences a Termination of Service by reason of Normal Retirement or Early Retirement as provided below:

- "Normal Retirement" means Termination of Service for any reason (other than for Cause (which term, as used in this Schedule of Terms, will have the meaning given to it in the Compensation and Covenants Agreement under the heading "Retention Award") or due to Disability) on or after age 65;
- "Early Retirement" means Termination of Service for any reason (other than for Cause or due to Disability) on or after:
    - Age 55 with 10 or more years of continuous service as of the Termination Date; or
    - Age 50, but before age 55, and the sum of age and continuous service as of the Termination Date adds up to 65 or more ("Rule of 65").

Upon Retirement, unvested RSUs that have been held for less than one year prior to the Termination Date will be canceled as of the Termination Date for no consideration.

Service used to determine eligibility for Retirement or the Rule of 65 will be based on "Continuous Service" as defined in the UTC Employee Retirement Plan, provided, however, that all service with Rockwell Collins, Inc. will be credited under the LTIP for all purposes, including determination of eligibility for Early Retirement.

Involuntary Termination for Cause. If the Participant's Termination of Service results from an involuntarily termination by the Company for Cause, unvested RSUs will be cancelled as of the Termination Date for no consideration.

Involuntary Termination Not for Cause Voluntary Termination for Good Reason. If the Participant's Termination of Service results from an involuntary termination by the Company for reasons other than for Cause, or due to the Participant's voluntary termination for Good Reason (which term, as used in this Schedule of Terms, will have the meaning given to it in the Compensation and Covenants Agreement under the heading "Retention Award"), then subject to the Participant's satisfaction of the Release Requirement, all unvested RSUs will vest as of the Termination Date and be converted into shares of Common Stock as soon as administratively practicable thereafter, subject to the six-month delay noted above under "Termination of Service-Specified Employees" if applicable.

Voluntary Termination. If the Participant's Termination of Service results from a voluntary termination (other than due to Good Reason or Retirement), unvested RSUs will be cancelled as of the Termination Date for no consideration.

Disability. If the Participant incurs a Disability, unvested RSUs will not be forfeited. As long as Participant remains disabled under the Company's long-term disability plan applicable to the Participant, RSUs not yet vested will remain eligible to vest in accordance with the normal vesting schedule specified in the Award Terms, or, if earlier, the Participant's death (subject to the satisfaction of the Release Requirement by the Participant's estate). The shares of Common Stock in respect of vested RSUs will be delivered to the Participant (or his estate) as soon as administratively practicable following the applicable vesting date.

Death. If the Participant dies while an active employee of the Company, then, subject to the satisfaction of the Release Requirement by the Participant's estate, the RSUs will vest as of the date of death and be converted to shares of Common Stock as soon as administratively practicable thereafter. The shares of Common Stock will be delivered to the estate of the Participant as soon as administratively practicable.

Rehire. If the Participant experiences a Termination of Service and is then rehired by the Company before the end of the 90-day period immediately following the Termination Date, unvested RSUs that were forfeited and cancelled because of the Termination of Service will be reinstated. If the Participant is rehired by the Company after the 90-day period immediately following the Termination Date, the Participant will be treated as a new employee and cancelled RSUs will not be reinstated.

Forfeiture of Award

Unless otherwise determined by the Committee, RSUs shall be forfeited and the Participant will be obligated to repay to the Company the gross value realized from the conversion of RSUs into shares of unrestricted Common Stock within 30 days following the receipt from the Corporation of written notice from the Corporation under the following circumstances:

(A) Termination of Service for Cause; or

(B) If the Participant materially breaches any of the Restrictive Covenants set forth in Participant’s Compensation and Covenants Agreement (i.e. Confidentiality, Noncompetition, Employee Nonsolicitation, and Customer Nonsolicitation; Noninterference); provided, however, that any breach of the Noncompetition covenant will be deemed material for purposes of this Section;

The Participant agrees that the terms of this section are reasonable. 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 this Award shall constitute compensation in satisfaction of the foregoing covenants.

Taxes / Withholding

Participant is responsible for all income taxes, social insurance, payroll tax, payment on account or other tax-related items attributable to any Award. The Fair Market Value of Common Stock on the New York Stock Exchange on the vesting date will be used to calculate income realized from the vesting of RSUs. The provisions of Section 14(d) (Required Taxes) of the LTIP shall 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 (an “Insider”) at the time that a taxable event with respect to the RSU Award occurs, then the Company’s withholding obligations with respect to such taxable event will be satisfied by the Company withholding from the shares of Common Stock delivered upon conversion of the RSU Award a number of shares of Common Stock having a Fair Market Value on the date of withholding equal to the amount required to be withheld for tax purposes (calculated using the minimum statutory withholding rate, except as otherwise approved by the Committee).

Nonassignability

Unless otherwise prescribed by the Committee, no assignment or transfer of any right or interest of a Participant in any RSU, whether voluntary or involuntary, by operation of law or otherwise, shall be permitted except by will or the laws of descent and distribution. Any 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 shall 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 or service of such Participant at any time for any reason, subject to the terms of the Compensation and Covenants Agreement (including exhibits thereto).

Administration

The Board of Directors of UTC has delegated the administration and interpretation of awards granted pursuant to the LTIP to the Compensation Committee. The Committee shall establish such procedures, as it deems necessary and appropriate to administer Awards in a manner that is consistent with the terms of the LTIP. The Compensation Committee has, consistent with its charter and subject to certain limitations, delegated to the Chief Executive Officer and the CHRO the authority to grant, administer and interpret Awards to the employees of the Company, except that Awards to Insiders and members of the Company's Executive Leadership Group will be granted, administered, and interpreted exclusively by the Committee.

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.

Government Contract Compliance

The Company's Policy on "Business Ethics and Conduct in Contracting with the United States Government" calls for compliance with the letter and spirit of government contracting laws and regulations. In the event of a material violation of government contracting laws or regulations directly attributable to the Participant's actions or omissions, the Committee reserves the right to revoke any outstanding Award.

Interpretations

Capitalized terms used but not otherwise defined herein shall have the respective meanings ascribed to them in the LTIP. This Schedule of Terms and each Award Statement are subject in all respects to the terms of the LTIP and the Compensation and Covenants Agreement. In the event that any provision of this Schedule of Terms or any Award Statement is inconsistent with the terms of the LTIP, the terms of the Compensation and Covenants Agreement (including the Schedule of Terms and each Award Statement thereunder) shall govern. Any question concerning administration or interpretation arising under the Schedule of Terms or any Award Statement shall be determined by the Committee or its delegates, subject to the arbitration provisions under "Governing Law; Arbitration" in the Compensation and Covenants Agreement. 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 Statement shall be governed by and construed in accordance with the laws of the State of Delaware.

Additional Information

Questions concerning the Plan or Awards and requests for Plan 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.

Exhibit 10.35(i)

ROCKWELL COLLINS, INC.

APPROVAL OF

AMENDMENT #2

to the

ROCKWELL COLLINS MASTER TRUST -

DEFERRED COMPENSATION AND NON-QUALIFIED SAVINGS AND NON-QUALIFIED PENSION PLANS

(as Amended and Restated effective October 11, 2007)

The undersigned, Laura A. Patterson, Vice President, Global Total Rewards & Labor Strategy, Rockwell Collins, Inc. (the “Company”), for and on behalf of the Company and pursuant to the authority provided to me by the Company’s Compensation Committee hereby approves Amendment #2 to the Rockwell Collins Master Trust **-** Deferred Compensation and Non-Qualified Savings and Non-Qualified Pension Plans (as Amended and Restated effective October 11, 2007) in the form attached hereto.

Dated this 1st day of November, 2018.

Laura A. Patterson
Vice President
Global Total Rewards & Labor Strategy

WELLS FARGO BANK, N.A.

APPROVAL OF

AMENDMENT #2

to the

ROCKWELL COLLINS MASTER TRUST -

DEFERRED COMPENSATION AND NON-QUALIFIED SAVINGS AND NON-QUALIFIED PENSION PLANS

(as Amended and Restated effective October 11, 2007)

The undersigned, Steven J. Gaglione, Vice President, Wells Fargo Bank, N.A. (the "Trustee"), for and on behalf of the Trustee and pursuant to the authority provided to me, hereby approves the Amendment #2 to the Rockwell Collins Master Trust - Deferred Compensation and Non-Qualified Savings and Non-Qualified Pension Plans (as Amended and Restated effective October 11, 2007) in the form attached hereto.

Dated this 1st day of November, 2018.

Steven J. Gaglione
Vice President

AMENDMENT #2
to the
ROCKWELL COLLINS MASTER TRUST -

DEFERRED COMPENSATION AND NON-QUALIFIED SAVINGS AND NON-QUALIFIED PENSION PLANS

(As Amended and Restated effective October 11, 2007)

The Rockwell Collins Master Trust **-** Deferred Compensation and Non-Qualified Savings and Non-Qualified Pension Plans, as amended and restated effective October 11, 2007 (the "Trust"), is hereby amended, effective October 8, 2018, in the following respects.

1. Section 12 (Amendment or Termination) is amended in its entirety to read as follows:

   (a) This Trust Agreement may be amended by a written instrument executed by the Trustee and the Company. Notwithstanding the foregoing, no such amendment shall conflict with the terms of any Plan, as determined by the Company. Notwithstanding any other provision of this Trust Agreement to the contrary, no amendment may be made to this Trust Agreement that would (i) result in the imposition of penalty taxes or other adverse tax consequences under Section 409A to any participant or beneficiary in any Plan, (ii) result in a "material modification" within the meaning of Section 409A with respect to any Pre-2005 Plan, (iii) otherwise cause any Pre-2005 Plan to become subject to Section 409A, or (iv) add any other plan that is not listed on Appendix A hereto.

   (b) The Company may terminate this Trust prior to the time all benefit payments under the Plans have been made. All assets in the Trust at termination shall be returned to the Company.

Exhibit 10.35(ii)

ROCKWELL COLLINS, INC.
APPROVAL OF

AMENDMENT #3
to the
ROCKWELL COLLINS MASTER TRUST-
DEFERRED COMPENSATION AND NON-QUALIFIED
SAVINGS AND NON-QUALIFIED PENSION PLANS
(Amended and Restated as of January 1, 2007)

The undersigned, Laura A. Patterson, Vice President, Global Total Rewards & Labor Strategy, Rockwell Collins, Inc. (the “Company”), for and on behalf of the Company and pursuant to the authority provided to me by the Senior Vice President of Human Resources on September 3, 2014, hereby approves Amendment #3 to the Rockwell Collins Master Trust - Deferred Compensation and Non-Qualified Savings and Non-Qualified Pension Plans (as Amended and Restated effective January 1, 2007) in the form attached hereto.

Dated this 1st day of November, 2018.

Laura A. Patterson
Vice President
Global Total Rewards & Labor Strategy

WELLS FARGO BANK, N.A.
APPROVAL OF

AMENDMENT #3
to the
ROCKWELL COLLINS MASTER TRUST-
DEFERRED COMPENSATION AND NON-QUALIFIED
SAVINGS AND NON-QUALIFIED PENSION PLANS
(Amended and Restated as of October 11, 2007)

The undersigned, Steven J. Gaglione, Vice President of Wells Fargo Bank, N.A (the “Trustee”), for and on behalf of the Trustee and pursuant to the authority provided to me, hereby approves Amendment #3 to the Rockwell Collins Master Trust - Deferred Compensation and Non-Qualified Savings and Non-Qualified Pension Plans (as Amended and Restated effective October 11, 2007) in the form attached hereto.

Dated this 1st day of November, 2018.

Steven J. Gaglione
Vice President

Amendment #3
to the
ROCKWELL COLLINS MASTER TRUST-
DEFERRED COMPENSATION AND NON-QUALIFIED
SAVINGS AND NON-QUALIFIED PENSION PLANS
(Amended and Restated as of October 11, 2007)

WHEREAS, Rockwell Collins, Inc. (the "Company") currently maintains the Rockwell Collins Master Trust - Deferred Compensation and Non-Qualified Savings and Non-Qualified Pension Plans (as Amended and Restated effective October 11, 2007) (the "Trust");

WHEREAS, pursuant to Trust Section 12, the Company retains the authority to amend the Trust;

WHEREAS, the Company is being acquired by United Technologies Corporation ("UTC") (the "Acquisition") and such Acquisition shall occur upon completion of the required regulatory and other customary closing conditions ("UTC Effective Date");

WHEREAS, this Amendment #3 shall become effective on the UTC Effective Date;

WHEREAS, this Amendment #3 shall terminate and be of no force or effect if the Acquisition does not close; and

WHEREAS, it is desired to amend the Trust as set forth herein.

NOW, THEREFORE, BE IT RESOLVED, effective as of the UTC Effective Date, the Trust is hereby amended as follows:

1. All references in the Trust to "Company" shall be replaced with United Technologies Corporation.

2. The following new Subsection (h) is added to Section 1:

   "On the UTC Effective Date, all the transactions contemplated by the Agreement and Plan of Merger between Rockwell Collins, Inc. and United Technologies Corporation, and Riveter Merger Sub Corp., a Delaware Company and a wholly owned subsidiary of UTC, dated September 4, 2017 closed. On that date, the sponsorship of the Rockwell Collins Master Trust - Deferred Compensation and Non-Qualified Savings and Non-Qualified Pension Plans transferred to United Technologies Corporation."

Exhibit 13

Five-Year Summary

(dollars in millions, except per share amounts)	**2018**	2017	2016	2015	2014
For The Year					
Net sales	**$ 66,501**	$ 59,837	$ 57,244	$ 56,098	$ 57,900
Research and development	**2,462**	2,427	2,376	2,262	2,489
Restructuring costs	**307**	253	290	396	354
Net income from continuing operations [1]	**5,654**	4,920	5,436	4,356	6,468
Net income from continuing operations attributable to common shareowners [1]	**5,269**	4,552	5,065	3,996	6,066
Basic earnings per share—Net income from continuing operations attributable to common shareowners	**6.58**	5.76	6.19	4.58	6.75
Diluted earnings per share—Net income from continuing operations attributable to common shareowners	**6.50**	5.70	6.13	4.53	6.65
Cash dividends per common share	**2.84**	2.72	2.62	2.56	2.36
Average number of shares of Common Stock outstanding:					
Basic	**800**	790	818	873	898
Diluted	**810**	799	826	883	912
Cash flows provided by operating activities of continuing operations	**6,322**	5,631	6,412	6,755	6,979
Capital expenditures [2]	**1,902**	2,014	1,699	1,652	1,594
Acquisitions, including debt assumed & equity issued	**31,142**	231	712	556	530
Repurchases of Common Stock [3]	**325**	1,453	2,254	10,000	1,500
Dividends paid on Common Stock (excluding ESOP)	**2,170**	2,074	2,069	2,184	2,048
At Year End					
Working capital [2, 4]	**$ 4,135**	$ 8,467	$ 6,644	$ 4,088	$ 5,921
Total assets [2]	**134,211**	96,920	89,706	87,484	86,338
Long-term debt, including current portion [2, 5]	**44,068**	27,093	23,300	19,499	19,575
Total debt [2, 5]	**45,537**	27,485	23,901	20,425	19,701
Total debt to total capitalization [5]	**53%**	47%	45%	41%	38%
Total equity [5, 6]	**40,610**	31,421	29,169	28,844	32,564
Number of employees [7]	**240,200**	204,700	201,600	197,200	211,500

Note 1 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 Excludes assets and liabilities of discontinued operations held for sale, for all periods presented.

Note 3 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 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. As compared with 2014, 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 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, 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. The decrease in total equity in 2015, as compared with 2014, reflects the sale of Sikorsky and the share repurchase program. The decrease in total equity in 2014, as compared with 2013, reflects unrealized losses of approximately $2.9 billion, net of taxes, associated with the effect of market conditions on our pension plans.

Note 7 The increase in employees in 2018 is due to the addition of approximately 30,000 of Rockwell Collins employees. The decrease in employees in 2015, as compared with 2014, primarily reflects the 2015 divestiture of Sikorsky.

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 (formerly referred to as UTC Climate, Controls & Security), Pratt & Whitney, and Collins Aerospace Systems (a combination of the segment formerly referred to as UTC Aerospace Systems and Rockwell Collins). 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 November 26, 2018, we announced the completion of the acquisition of Rockwell Collins and our intention to separate our commercial businesses into independent entities. 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 by mid-year 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 in certain jurisdictions and/or a tax opinion from external counsel (as applicable), the filing with the Securities and Exchange Commission (SEC) and effectiveness of Form 10 registration statements, and satisfactory completion of financing.

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:

	2018	2017	2016
Commercial and industrial	**47%**	50%	50%
Military aerospace and space	**14%**	13%	12%
Commercial aerospace	**39%**	37%	38%
	100%	100%	100%

Our consolidated net sales were derived from original equipment manufacturing (OEM) and aftermarket parts and services as follows:

	2018	2017	2016
OEM	**54%**	53%	55%
Aftermarket parts and services	**46%**	47%	45%
	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 19 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. As of December 31, 2018, 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 2018 full year sales in and from the U.K. were approximately $3 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 8% in 2018, reflecting growth across all segments driven by:

- higher commercial aftermarket, commercial OEM, and military sales at Pratt & Whitney
- higher commercial aftermarket and military sales, and higher commercial aerospace OEM sales at Collins Aerospace Systems
- growth in North America residential HVAC, global commercial HVAC, and transport refrigeration sales at Carrier
- higher Otis service sales in North America and Asia, and higher Otis new equipment sales in Europe, Asia excluding China, and North America, partially offset by a decline in China

We expect organic sales growth in 2019 to be 3% to 5%, with foreign exchange expected to have an unfavorable impact of approximately 1%. 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 2018 and 2017 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, 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.

As noted above, on November 26, 2018, pursuant to the terms and conditions of the previously announced Agreement and Plan of Merger, dated September 4, 2017 (the “Merger Agreement”), among United Technologies Corporation (the “Company”), Riveter Merger Sub Corp., a Delaware corporation and a wholly owned subsidiary of the Company (“Merger Sub”), and Rockwell Collins, Inc. (“Rockwell Collins”), Merger Sub merged with and into Rockwell Collins (the “Merger”), with Rockwell Collins continuing as the surviving corporation of the Merger. As a result of the Merger, Rockwell Collins has become a wholly owned subsidiary of the Company and 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 Merger (the “Effective Time”) (other than shares held by Rockwell Collins, the Company, Merger Sub or any of their respective wholly owned subsidiaries) was converted into the right to receive (1) $93.33 in cash, without interest, and (2) .37525 shares of Company common stock (together, the “Merger Consideration”), less any applicable withholding taxes, with cash paid in lieu of fractional shares. At the Effective Time, each then-outstanding Rockwell Collins stock option was canceled in exchange for the right to receive the Merger Consideration in respect of each net option share subject to such option, less applicable tax withholding, with the number of net option shares calculated by subtracting from the total number of shares subject to such option a number of shares with a value equal to the aggregate applicable exercise price. At the Effective Time, each then-outstanding Rockwell Collins restricted stock award, and each Rockwell Collins restricted stock unit award, whether performance-based or time-based, granted prior to the date of the Merger Agreement or to a non-employee director of Rockwell Collins, became fully vested and was canceled in exchange for the right to receive the Merger Consideration in respect of each share of Rockwell Collins common stock subject to such award (with the number of shares subject to any performance-based restricted stock unit award deemed to be equal to the target number of shares), less applicable tax withholding. At the Effective Time, each then-outstanding Rockwell Collins restricted stock unit award, whether performance-based or time-based, granted on or after the date of the Merger Agreement was assumed by the Company and converted into a time-based restricted stock unit award of the Company with an equivalent value (as calculated in accordance with the formula set forth in the Merger Agreement, and with any performance-based restricted stock unit award deemed to be achieved at target level). At the Effective Time, each then-outstanding Rockwell Collins deferred stock unit award that was payable by its terms upon the consummation of the Merger was canceled in consideration for the right to receive (i) if payable in cash by its terms, a lump sum cash payment equal to the product of the value of the Merger Consideration and the number of shares of Rockwell Collins common stock relating to such deferred stock unit award, less applicable tax withholding, or (ii) if payable in shares by its terms, the Merger Consideration in respect of each share of Rockwell Collins common stock subject to such award, less applicable tax withholding. At the Effective Time, each then-outstanding Rockwell Collins deferred stock unit award that was not payable by its terms upon the consummation of the Merger was assumed by the Company and converted into a deferred stock unit award of the Company with an equivalent value (as calculated in accordance with the formula set forth in the Merger Agreement).

The total aggregate consideration payable in the Merger was $15.5 billion in cash 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 Merger.

In total, our investments in businesses in 2018 and 2017 totaled $31,142 million (including debt assumed of $7,784 million and stock issued of $7,960 million) and $231 million, respectively. In addition to Rockwell Collins, acquisitions completed in 2018 primarily include an acquisition at Carrier and at Pratt & Whitney. Our investments in businesses in 2017 included a number of small acquisitions primarily in our commercial businesses.

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.

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). We may consider future opportunities for repatriation of our non-U.S. earnings, and accelerated de-leveraging, in addition to investments in our operations, limited additional share repurchases to offset the effects of dilution related to our stock-based compensation programs - see Note 12.

Discontinued Operations

On November 6, 2015, we completed the sale of Sikorsky to Lockheed Martin Corp. for approximately $9.1 billion in cash. As noted above, the results of operations and the related cash flows of Sikorsky have been reclassified to Discontinued Operations in our Consolidated Statements of Operations, Comprehensive Income and Cash Flows for all periods presented. Proceeds from the sale were used to fund $6 billion of share repurchases through accelerated share repurchase (ASR) agreements entered into on November 11, 2015. In connection with the sale of Sikorsky, we made tax payments of approximately $2.5 billion in 2016. Net income from discontinued operations attributable to common shareowners for the year ended December 31, 2016 reflects the final purchase price adjustment for the sale of Sikorsky, and the net effects of filing Sikorsky's 2015 tax returns.

RESULTS OF OPERATIONS

Net Sales

(dollars in millions)	**2018**	2017	2016
Net sales	**$ 66,501**	$ 59,837	$ 57,244
Percentage change year-over-year	**11%**	5%	2%

The factors contributing to the total percentage change year-over-year in total net sales are as follows:

	2018	2017
Organic volume	**8%**	4%
Foreign currency translation	**1%**	—
Acquisitions and divestitures, net	**1%**	1%
Other	**1%**	—
Total % Change	**11%**	5%

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.

All four segments also experienced organic sales growth during 2017. Pratt & Whitney sales were up 9% organically, reflecting higher commercial aftermarket sales and higher military sales, partially offset by lower commercial engine sales. Organic sales at Carrier increased 4%, driven by growth in North America residential HVAC, global commercial HVAC, and commercial refrigeration sales. Organic sales at Collins Aerospace Systems grew 2%, primarily driven by an increase in commercial aerospace aftermarket sales partially offset by lower commercial aerospace OEM sales. Otis sales increased 2% organically, reflecting higher service sales in North America and Asia, and higher new equipment sales growth in North America and Europe, partially offset by a decline in China.

Cost of Products and Services Sold

(dollars in millions)	**2018**	2017	2016
Total cost of products and services sold	**$ 49,985**	$ 44,201	$ 41,471
Percentage change year-over-year	**13%**	7%	3%

The factors contributing to the total percentage change year-over-year in total cost of products and services sold are as follows:

	2018	2017
Organic volume	**9%**	7%
Foreign currency translation	**1%**	—
Acquisitions and divestitures, net	**1%**	—
Other	**2%**	—
Total % Change	**13%**	7%

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.

The organic increase in total cost of products and services sold in 2017 was primarily driven by the organic sales increases noted above and higher negative engine margin at Pratt & Whitney due to unfavorable mix and ramp-related costs.

Gross Margin

(dollars in millions)	**2018**	2017	2016
Gross margin	**$ 16,516**	$ 15,636	$ 15,773
Percentage of net sales	**24.8%**	26.1%	27.6%

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.

The 150 basis point decrease in gross margin as a percentage of sales in 2017, as compared with 2016, primarily reflects a 170 basis point decline in Pratt & Whitney's gross margin driven by higher negative engine margin due to unfavorable mix and ramp related costs; a 180 basis point decline in gross margin at Otis driven by unfavorable price and mix, primarily in China; and a 150 basis point decline in gross margin at Carrier reflecting adverse price and mix and the unfavorable impact of a product recall program. These decreases were partially offset by a 10 basis point increase in gross margin at Collins Aerospace driven by higher commercial aftermarket volumes.

Research and Development

(dollars in millions)	**2018**	2017	2016
Company-funded	**$ 2,462**	$ 2,427	$ 2,376
Percentage of net sales	**3.7%**	4.1%	4.2%
Customer-funded	**$ 1,517**	$ 1,514	$ 1,405
Percentage of net sales	**2.3%**	2.5%	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 the Embraer E-Jet E2, Airbus A320neo, Bombardier Global 7500, Mitsubishi Regional Jet, and Airbus A350 programs at Collins Aerospace

Systems. In 2018, company-funded research and development increased 1% over the prior year. This increase was primarily driven by Collins Aerospace (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 was consistent with the prior year, 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.

The year-over-year increase in company-funded research and development (2%) in 2017, compared with 2016, is primarily driven by continued investment in new products at Carrier (1%) and increased spending on strategic initiatives at Otis (1%). Customer-funded research and development increased 6% primarily driven by increased spending on U.S. Government development programs at Pratt & Whitney, partially offset by lower spend within Collins Aerospace Systems related to several commercial and military aerospace programs.

Selling, General and Administrative

(dollars in millions)	**2018**	2017	2016
Selling, general and administrative	**$ 7,066**	$ 6,429	$ 5,958
Percentage of net sales	**10.6%**	10.7%	10.4%

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.

Selling, general and administrative expenses increased 8% in 2017 and reflect an increase in expenses related to recent acquisitions (1%) and the impact of higher restructuring expenses (1%). The increase also reflects higher expenses at Pratt & Whitney (2%) driven by increased headcount and employee compensation related expenses; higher expenses at Otis (1%) resulting from higher labor and information technology costs; and higher expenses at Collins Aerospace Systems (1%) and Carrier (3%) primarily driven by employee compensation related expenses.

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)	**2018**	2017	2016
Other income, net	**$ 1,565**	$ 1,358	$ 782

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. 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%).

Other income, net increased $576 million in 2017, compared with 2016, primarily driven by $379 million of gains resulting from Carrier's sale of its investments in Watsco, Inc. (48%), as well as higher year-over year foreign exchange gains and losses (9%), and higher year-over-year gains on the sale of securities (8%) across the UTC businesses.

Interest Expense, Net

(dollars in millions)	2018	2017	2016
Interest expense	**$ 1,225**	$ 1,017	$ 1,161
Interest income	**(187)**	(108)	(122)
Interest expense, net	**$ 1,038**	$ 909	$ 1,039
Average interest expense rate - average outstanding borrowings during the year:			
Short-term borrowings	**1.5%**	1.1%	1.3%
Total debt	**3.5%**	3.5%	4.1%
Average interest expense rate - outstanding borrowings as of December 31:			
Short-term borrowings	**1.2%**	2.3%	0.6%
Total debt	**3.5%**	3.5%	3.7%

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 acquisition.

The decrease in interest expense during 2017, as compared with 2016, was primarily driven by the absence of a net extinguishment loss of approximately $164 million related to the December 1, 2016 redemption of certain outstanding notes. The unfavorable impact of the May 4, 2017 and November 1, 2016 issuance of notes representing $8 billion in aggregate principal was largely offset by the favorable impact of the significantly lower interest rates on these notes as compared to the 5.375% and 6.125% notes redeemed on December 1, 2016, representing $2.25 billion in aggregate principal, and the favorable impact of these early redemptions and the repayment at maturity of our 1.800% notes due 2017, representing $1.5 billion in aggregate principal. The average maturity of our long-term debt at December 31, 2017 is approximately 11 years. See Note 9 to our Consolidated Financial Statements for further discussion of our borrowing activity.

The year-over-year increase in the weighted-average interest rate for short-term borrowings was primarily driven by increases in LIBOR rates in 2018. The decrease in the weighted-average interest rate for short-term borrowings for 2017 versus 2016 was primarily due to higher average Euro-denominated commercial paper borrowings as compared to 2016. We had no Euro-denominated commercial paper borrowing outstanding at December 31, 2017, resulting in the higher weighted-average interest rate for short-term borrowings as of December 31, 2017, as compared to December 31, 2016.

Income Taxes

	2018	2017	2016
Effective income tax rate	**31.7%**	36.6%	23.8%

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 non-U.S. taxes that will become due when previously reinvested earnings of certain international subsidiaries are remitted, as discussed in Note 11. The Company has completed its accounting for the TCJA as described in Staff Accounting Bulletin (SAB 118). In 2019, the Company will continue to review and incorporate, as necessary, updates related to forthcoming U.S. Treasury Regulations, other interpretive guidance, and the finalization of the deemed inclusions to be reported on the Company's 2018 U.S. federal income tax return.

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 rates for 2017 and 2016 reflect tax benefits associated with lower tax rates on international earnings. 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 enacted on December 7, 2017 and the absence of certain credits, tax law changes and audit settlements included in 2016 described below.

The 2016 effective tax rate reflects $206 million of favorable adjustments related to the conclusion of the review by the Examination Division of the Internal Revenue Service of both the UTC 2011 and 2012 tax years and the Goodrich Corporation 2011 and 2012 tax years through the date of its acquisition. In addition, at the end of 2016, France enacted a tax law change reducing its corporate income tax rate which resulted in a tax benefit of $25 million.

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)	**2018**	2017	2016
Net income from continuing operations attributable to common shareowners	**$ 5,269**	$ 4,552	$ 5,065
Diluted earnings per share from continuing operations	**$ 6.50**	$ 5.70	$ 6.13

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 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. In 2016, foreign currency, including hedging at P&WC, had a favorable impact on our consolidated operational results of $0.05 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, 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.

Net income from continuing operations attributable to common shareowners for the year ended December 31, 2016 includes restructuring charges, net of tax benefit, of $192 million ($290 million pre-tax) as well as the net unfavorable impact of significant non-operational and/or non-recurring items, net of tax, of $203 million. Non-operational and/or nonrecurring items include a pension settlement charge resulting from pension de-risking actions, a net extinguishment loss related to the early redemption of certain outstanding notes, and the unfavorable impact of customer contract matters at Pratt & Whitney. These items were partially offset by favorable tax adjustments related to the conclusion of the review by the Examination Division of the Internal Revenue Service of the 2011 and 2012 tax years. The effect of restructuring charges and non-recurring items on diluted earnings per share for the year ended December 31, 2016 was a charge of $0.48 per share.

Net Loss Attributable to Common Shareowners from Discontinued Operations

(dollars in millions, except per share amounts)	**2018**	2017	2016
Net loss attributable to common shareowners from discontinued operations	**$ —**	$ —	$ (10)
Diluted earnings per share from discontinued operations	**$ —**	$ —	$ (0.01)

Net loss from discontinued operations attributable to common shareowners for the year ended December 31, 2016 reflects the final purchase price adjustment for the sale of Sikorsky, and the net effects of filing Sikorsky's 2015 tax returns.

RESTRUCTURING COSTS

(dollars in millions)	**2018**	2017	2016
Restructuring costs	**$ 307**	$ 253	$ 290

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.

2018 Actions. During 2018, we recorded net pre-tax restructuring charges of $207 million relating to ongoing cost reduction actions initiated in 2018. We are targeting to complete in 2019 and 2020 the majority of the remaining workforce and facility related cost reduction actions initiated in 2018. Approximately 95% 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 2018, we had cash outflows of approximately $84 million related to the 2018 actions. We expect to incur additional restructuring and other charges of $79 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 $270 million annually, of which, approximately $37 million was realized in 2018.

2017 Actions. During 2018 and 2017, we recorded net pre-tax restructuring charges of $94 million and $176 million, respectively, for actions initiated in 2017. We are targeting to complete in 2019 the majority of the remaining workforce and all facility related cost reduction actions initiated in 2017. Approximately 76% 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 2018, we had cash outflows of approximately $100 million related to the 2017 actions. We expect to incur additional restructuring charges of $91 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 $240 million annually.

In addition, during 2018, we recorded net pre-tax restructuring costs totaling $6 million for restructuring actions initiated in 2016 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)	**2018**	2017	2016	**2018**	2017	2016	**2018**	2017	2016
Otis	**$ 12,904**	$ 12,341	$ 11,893	**$ 1,915**	$ 2,002	$ 2,125	**14.8%**	16.2%	17.9%
Carrier	**18,922**	17,812	16,851	**3,777**	3,165	2,848	**20.0%**	17.8%	16.9%
Pratt & Whitney	**19,397**	16,160	14,894	**1,269**	1,300	1,501	**6.5%**	8.0%	10.1%
Collins Aerospace Systems	**16,634**	14,691	14,465	**2,303**	2,191	2,167	**13.8%**	14.9%	15.0%
Total segment	**67,857**	61,004	58,103	**9,264**	8,658	8,641	**13.7%**	14.2%	14.9%
Eliminations and other	**(1,356)**	(1,167)	(859)	**(236)**	(81)	(18)			
General corporate expenses	**—**	—	—	**(475)**	(439)	(402)			
Consolidated	**$ 66,501**	$ 59,837	$ 57,244	**$ 8,553**	$ 8,138	$ 8,221	**12.9%**	13.6%	14.4%

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 and excluding the effect of acquisitions and divestitures, Carrier equipment orders for 2018 increased 8% in comparison to 2017 driven by growth in transport refrigeration (39%) and residential HVAC (11%). At constant currency and excluding the impact of the New Revenue Standard, Otis new equipment orders increased 4% in comparison to the prior year as order growth in North America (11%), and China (6%) was offset by order declines in Europe (3%).

Total commercial business sales generated outside the U.S., including U.S. export sales, were 62% and 63% in 2018 and 2017, respectively. The following table shows sales generated outside the U.S., including U.S. export sales, for each of the commercial business segments:

	2018	2017
Otis	**73%**	73%
Carrier	**54%**	55%

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)	**2018**	2017	2016	**2018 Compared with 2017**		2017 Compared with 2016	
Net Sales	**$ 12,904**	$ 12,341	$ 11,893	**$ 563**	**5 %**	$ 448	4 %
Cost of Sales	**9,192**	8,612	8,085	**580**	**7 %**	527	7 %
	3,712	3,729	3,808				
Operating Expenses and Other	**1,797**	1,727	1,683				
Operating Profits	**$ 1,915**	$ 2,002	$ 2,125	**$ (87)**	**(4)%**	$ (123)	(6)%

	Factors Contributing to Total % Increase (Decrease) Year-Over-Year in:					
	2018			2017		
	Net Sales	**Cost of Sales**	**Operating Profits**	Net Sales	Cost of Sales	Operating Profits
Organic / Operational	**3%**	**5%**	**(4)%**	2%	5%	(7)%
Foreign currency translation	**1%**	**1%**	**2 %**	—	—	1 %
Acquisitions and divestitures, net	**—**	**—**	**—**	1%	1%	—
Restructuring costs	**—**	**—**	**(1)%**	—	—	—
Other	**1%**	**1%**	**(1)%**	1%	1%	—
Total % change	**5%**	**7%**	**(4)%**	4%	7%	(6)%

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%)

2017 Compared with 2016

The organic sales increase of 2% primarily reflects higher service sales (1%) driven by growth in North America and Asia, and higher new equipment sales (1%) driven by growth in North America and Europe, partially offset by a decline in China.

The operational profit decrease of 7% was driven by:

- unfavorable price and mix (11%), primarily in China
- higher selling, general and administrative expenses (2%), primarily labor and information technology costs
- higher research and development costs (1%)

These decreases were partially offset by:

- profit contribution from the higher sales volumes noted above (4%)
- favorable productivity (3%)

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.

				Total Increase (Decrease) Year-Over-Year for:			
(dollars in millions)	**2018**	2017	2016	**2018 Compared with 2017**		2017 Compared with 2016	
Net Sales	**$ 18,922**	$ 17,812	$ 16,851	**$ 1,110**	**6%**	$ 961	6%
Cost of Sales	**13,337**	12,630	11,695	**707**	**6%**	935	8%
	5,585	5,182	5,156				
Operating Expenses and Other	**1,808**	2,017	2,308				
Operating Profits	**$ 3,777**	$ 3,165	$ 2,848	**$ 612**	**19%**	$ 317	11%

	Factors Contributing to Total % Increase (Decrease) Year-Over-Year in:					
	2018			2017		
	Net Sales	**Cost of Sales**	**Operating Profits**	Net Sales	Cost of Sales	Operating Profits
Organic / Operational	**6 %**	**6 %**	**6 %**	4%	5%	(1)%
Foreign currency translation	**1 %**	**1 %**	**—**	1%	—	—
Acquisitions and divestitures, net	**(1)%**	**(1)%**	**(1)%**	1%	2%	—
Restructuring costs	**—**	**—**	**1 %**	—	—	(2)%
Other	**—**	**—**	**13 %**	—	1%	14 %
Total % change	**6 %**	**6 %**	**19 %**	6%	8%	11 %

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%).

2017 Compared with 2016

The organic sales increase of 4% was driven by growth in North America residential HVAC (1%), global commercial HVAC (1%), and commercial refrigeration (1%).

Operational profit decreased by 1% as the profit contribution from higher sales volumes, net of adverse price (6%) and the beneficial impact from restructuring savings (2%), were more than offset by the impact of unfavorable mix (7%) and unfavorable contract adjustments related to a large commercial project (1%). The 14% increase in “other” primarily reflects gains on the sale of investments (16%), primarily Watsco, Inc., and the absence of prior year acquisition and integration costs (1%), partially offset by the impact of a product recall program (3%).

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 Fleet Management Programs (FMPs) and other long-term maintenance programs. FMPs are comprehensive long-term spare part and maintenance agreements with our customers. We expect a continued shift to FMPs in lieu of transactional spare part sales as new engines enter customers' fleets on FMP and legacy fleets are retired. In 2018, as compared with 2017, total commercial aerospace aftermarket sales increased 12% at Pratt & Whitney and 17% at Collins Aerospace Systems.

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 $50 million, $110 million and $157 million in 2018, 2017 and 2016, respectively, primarily the result of unexpected increases in estimated costs related to Pratt & Whitney long term aftermarket contracts. 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 on OEM contracts in continuing operations in 2018 or 2017.

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 7% in the first eleven months of 2018.

Our military sales are affected by U.S. Department of Defense spending levels. Total sales to the U.S. Government were $7.4 billion in 2018, $5.8 billion in 2017, and $5.6 billion in 2016, and were 11% of total UTC sales in 2018, and 10% in both 2017 and 2016. 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 2018 and is expected to continue to benefit results in 2019.

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)	**2018**	2017	2016	**2018 Compared with 2017**		2017 Compared with 2016	
Net Sales	**$ 19,397**	$ 16,160	$ 14,894	**$ 3,237**	**20 %**	$ 1,266	9 %
Cost of Sales	**16,301**	13,093	11,814	**3,208**	**25 %**	1,279	11 %
	3,096	3,067	3,080				
Operating Expenses and Other	**1,827**	1,767	1,579				
Operating Profits	**$ 1,269**	$ 1,300	$ 1,501	**$ (31)**	**(2)%**	$ (201)	(13)%

	Factors Contributing to Total % Increase (Decrease) Year-Over-Year in:					
	2018			2017		
	Net Sales	**Cost of Sales**	**Operating Profits**	Net Sales	Cost of Sales	Operating Profits
Organic* / Operational*	**14%**	**17%**	**(8)%**	9 %	12 %	(12)%
Foreign currency (including P&WC net hedging)*	—	**1%**	—	1 %	—	9 %
Acquisitions and divestitures, net	**—**	**—**	—	—	—	(1)%
Restructuring costs	**—**	**—**	**1 %**	—	—	3 %
Other	**6%**	**7%**	**5 %**	(1)%	(1)%	(12)%
Total % change	**20%**	**25%**	**(2)%**	9 %	11 %	(13)%

* 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.

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%).

2017 Compared with 2016

The organic sales increase of 9% primarily reflects higher commercial aftermarket sales (8%) and higher military sales (4%), partially offset by lower commercial engine sales (2%), unfavorable year-over-year contract settlements (1%), and the absence of prior year sales of legacy hardware (1%). The 1% decrease in Other reflects the year-over-year impact of customer contract matters.

The operational profit decrease of 12% was primarily driven by:

- lower OEM profit contribution (27%) reflecting higher negative engine margin and other ramp-related costs and lower volume at P&WC partially offset by the profit contribution from higher military sales
- higher selling, general and administrative expenses and research and development costs (9%)
- unfavorable year-over-year contract settlements (5%)
- the absence of prior year sales of legacy hardware (3%)

These decreases were partially offset by:

- higher aftermarket profit contribution (29%) driven by increases in both commercial and military aftermarket sales
- the favorable impact of a licensing agreement (3%)

The 12% decrease in Other primarily reflects the year-over-year impact of customer contract matters (7%), the absence of the favorable impact of a prior year program termination (2%), and the absence of a prior year benefit from the licensing of certain intellectual property rights (2%).

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, space and undersea 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)	**2018**	2017	2016	**2018 Compared with 2017**		2017 Compared with 2016	
Net Sales	**$ 16,634**	$ 14,691	$ 14,465	**$ 1,943**	**13%**	$ 226	2%
Cost of Sales	**12,336**	10,838	10,689	**1,498**	**14%**	149	1%
	4,298	3,853	3,776				
Operating Expenses and Other	**1,995**	1,662	1,609				
Operating Profits	**$ 2,303**	$ 2,191	$ 2,167	**$ 112**	**5%**	$ 24	1%

	Factors Contributing to Total % Increase (Decrease) Year-Over-Year in:					
	2018			2017		
	Net Sales	**Cost of Sales**	**Operating Profits**	Net Sales	Cost of Sales	Operating Profits
Organic / Operational	**8%**	**7%**	**10 %**	2%	2 %	4 %
Foreign currency translation	**—**	**1%**	**(1)%**	—	—	—
Acquisitions and divestitures, net	**5%**	**6%**	**1 %**	—	(1)%	(1)%
Restructuring costs	**—**	**—**	**(4)%**	—	—	(2)%
Other	**—**	**—**	**(1)%**	—	—	—
Total % change	**13%**	**14%**	**5 %**	2%	1 %	1 %

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%)

2017 Compared with 2016

The organic sales growth of 2% primarily reflects an increase in commercial aerospace aftermarket sales (3%), partially offset by lower commercial aerospace OEM sales (1%).

The increase in operational profit of 4% primarily reflects higher commercial aerospace profit contribution driven by the commercial aftermarket sales growth noted above, partially offset by lower commercial aerospace OEM profit contribution (net, 7%). This net increase was partially offset by higher selling, general, and administrative expenses (3%).

Eliminations and other

(dollars in millions)	Net Sales			Operating Profits		
	2018	2017	2016	**2018**	2017	2016
Eliminations and other	**$ (1,356)**	$ (1,167)	$ (859)	**$ (236)**	$ (81)	$ (18)
General corporate expenses	**—**	—	—	**(475)**	(439)	(402)

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 2018 as compared with 2017 reflects an increase in the amount of inter-segment eliminations, principally between our aerospace businesses. The year-over-year decrease in operating profit for 2018 as compared with 2017, is driven by higher inter-segment profit eliminations resulting from increased inter-segment activity amongst our aerospace businesses, transaction costs related to the acquisition of Rockwell Collins and the strategic review of the Company's portfolio of businesses, and lower year-over-year gains on sales of securities.

The year-over-year increase in the amount of sales eliminations in 2017 as compared with 2016 reflects an increase in the amount of inter-segment sales eliminations, principally between our aerospace businesses. The year-over-year increase in operating profit for 2017 as compared with 2016 is largely driven by the absence of a $423 million pension settlement charge resulting from pension de-risking actions taken in the prior year, partially offset by transaction costs related to the merger agreement with Rockwell Collins, and an increase in the amount of inter-segment eliminations between our aerospace businesses. The year-over-year increase in general corporate expenses for 2017, as compared with 2016 primarily reflects higher expenses related to salaries, wages and employee benefits.

LIQUIDITY AND FINANCIAL CONDITION

(dollars in millions)	**2018**	2017
Cash and cash equivalents	**$ 6,152**	$ 8,985
Total debt	**45,537**	27,485
Net debt (total debt less cash and cash equivalents)	**39,385**	18,500
Total equity	**40,610**	31,421
Total capitalization (total debt plus total equity)	**86,147**	58,906
Net capitalization (total debt plus total equity less cash and cash equivalents)	**79,995**	49,921
Total debt to total capitalization	**53%**	47%
Net debt to net capitalization	**49%**	37%

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 continuing operations. For 2018 our cash flows from continuing operations, net of capital expenditures was $4.4 billion. 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, 2018, we had cash and cash equivalents of $6,152 million, of which approximately 72% 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. As previously discussed, on December 22, 2017, the TCJA was enacted. Prior to enactment of the TCJA, with few exceptions, U.S. income taxes had not been provided on undistributed earnings of UTC's international subsidiaries as the Company had intended to reinvest such earnings permanently outside the U.S. or to repatriate such earnings only when it was tax effective to repatriate. The Company no longer intends to reinvest certain undistributed earnings of its international subsidiaries that have been previously taxed in the U.S. and has recorded non U.S. taxes that will become due when earnings of certain international subsidiaries are remitted to the U.S. For the remainder of the Company's undistributed international earnings, unless tax effective to repatriate, UTC will continue to reinvest these earnings permanently. We have repatriated $6.2 billion of overseas cash for the year ended December 31, 2018.

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, 2018, 2017 and 2016, the amount of such restricted cash was approximately $60 million, $33 million and $32 million, respectively.

On November 26, 2018, we completed the acquisition of Rockwell Collins. Under the terms of the merger 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 Merger (other than shares held by Rockwell Collins, the Company, Merger Sub 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 of a share of Company common stock, par value $1.00 per share, and cash in lieu of fractional shares (together, the "Merger Consideration"), less any applicable withholding taxes. 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.

Our domestic pension funds experienced a negative return on assets of 5% during 2018 and a positive return on assets of 15.0% during 2017. Approximately 88% 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 (12%) is invested in less-liquid but market-valued investments, including real estate and private equity. 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. Across our global pension plans, higher discount rates for pension obligations and the acquisition of Rockwell Collins, partially offset by higher discount rates for interest cost and 2018 actual returns on plan assets, will result in a net periodic pension benefit in 2019 that is expected to be approximately $100 million favorable relative to 2018 amounts. As part of the Rockwell acquisition on November 26, 2018, we assumed approximately $3.7 billion of projected pension benefit obligations and $3.4 billion of plan assets.

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 increased 600 basis points from 47% at December 31, 2017 to 53% at December 31, 2018 primarily reflecting additional borrowings in 2018 used to finance the acquisition of Rockwell Collins as well as the acquisition of Rockwell Collins' outstanding debt. The average maturity of our long-term debt at December 31, 2018 is approximately 11 years.

At December 31, 2018, we had revolving credit agreements with various banks permitting aggregate borrowings of up to $4.35 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. Additionally, on November 26, 2018, we entered into a $1.5 billion revolving credit agreement, which will mature on May 25, 2019. As of December 31, 2018, 2017 and 2016, there were no borrowings under any of these revolving credit agreements. The undrawn portions of our revolving credit agreements are also available to serve as backup facilities for the issuance of commercial paper. In addition to the credit facilities referenced above, we expect to enter into additional credit facilities in 2019 for general corporate purposes, including to pay existing debt.

As of December 31, 2018, our maximum commercial paper borrowing authority was $4.35 billion. Commercial paper borrowings at December 31, 2018 of $1,257 million include approximately €750 million ($858 million) of euro-denominated commercial paper. We use our commercial paper borrowings for general corporate purposes, including the funding of potential acquisitions, discretionary 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 had the following issuances of debt in 2018, 2017 and 2016.

(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
November 1, 2016:	1.500% notes due 2019[2]	$	650
	1.950% notes due 2021[2]		750
	2.650% notes due 2026[2]		1,150
	3.750% notes due 2046[2]		1,100
	LIBOR plus 0.35% floating rate notes due 2019[2]		350
February 22, 2016:	1.125% notes due 2021[3]	€	950
	1.875% notes due 2026[3]		500
	EURIBOR plus 0.80% floating rate notes due 2018[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.

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 2018, 2017 and 2016:

(dollars in millions)

Repayment Date	Description of Notes	Aggregate Principal Balance	
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
December 1, 2016:	5.375% notes due in 2017[2]	$	1,000
	6.125% notes due in 2019[2]	$	1,250

1 This term loan was assumed in connection with the Rockwell Collins acquisition and subsequently repaid.

2 These notes were redeemed under our redemption notice issued on November 1, 2016. A combined net extinguishment loss of approximately $164 million was recognized within Interest expense, net in the accompanying Consolidated Statement of Operations.

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 or additional credit facilities provides potential sources of liquidity should they be required or appropriate.

Cash Flow—Operating Activities of Continuing Operations

(dollars in millions)	**2018**	2017	2016
Net cash flows provided by operating activities of continuing operations	**$ 6,322**	$ 5,631	$ 6,412

2018 Compared with 2017

Cash generated from continuing 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.

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. Total cash contributions to our global defined benefit pension plans were $147 million, $2,112 million and $303 million during 2018, 2017 and 2016, respectively. As of December 31, 2018, 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 97% funded on a projected benefit obligation basis as of December 31, 2018, and we are not required to make additional contributions through the end of 2024. We expect to make total contributions of approximately $100 million to our global defined benefit pension plans in 2019. Contributions to our global defined benefit pension plans in 2019 are expected to meet or exceed the current funding requirements.

2017 Compared with 2016

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. Including the effects of this contribution, cash generated from operating activities of continuing operations in 2017 was $781 million lower than 2016. Lower net income and the higher global pension contributions were partially offset by lower investments in working capital of approximately $1.1 billion and approximately $0.6 billion in favorable Other operating activities, net. The 2017 Other operating activities, net was driven by increases in net noncurrent income tax liabilities resulting from the TCJA enacted in December 2017 as discussed above, partially offset by gains on sales of investments included in net income, including Carrier's sale of investments in Watsco, Inc.

The 2017 cash outflows for working capital ($52 million) were primarily driven by increases in inventories of approximately $1.1 billion, primarily in our aerospace businesses supporting an increase in forecasted OEM deliveries and related aftermarket demand, including approximately $200 million of inventory costs attributable to new engine offerings recognized based on the average cost per unit expected over the life of each contract using the units-of-delivery method of percentage of completion accounting, as discussed in Note 6. Accounts receivable increases at Pratt & Whitney were partially offset by declines at Carrier. Factoring activity provided an increase of approximately $700 million in cash generated from operating activities of continuing operations in 2017, as compared to the prior year period. This increase does not reflect the factoring of certain aerospace receivables performed at customer request for which we are compensated by the customer for the extended payment cycle. These increases were largely offset by the net increase in accrued liabilities and accounts payable of approximately $1.6 billion, primarily driven by production volumes at Pratt & Whitney.

For 2016, cash outflows for working capital ($1,161 million) were primarily driven by increases in inventory in our aerospace businesses to support deliveries and other contractual commitments, including approximately $220 million of inventory costs attributable to new engine offerings recognized based on the average cost per unit expected over the life of each contract using the units-of-delivery method of percentage of completion accounting, as discussed in Note 6. Increases in accounts receivable at Pratt & Whitney and our commercial businesses were partially offset by increases in accounts payable and accrued liabilities across all of our businesses.

Cash Flow—Investing Activities of Continuing Operations

(dollars in millions)	**2018**	2017	2016
Net cash flows used in investing activities of continuing operations	**$ (16,973)**	$ (3,019)	$ (2,509)

2018 Compared with 2017

Cash flows used in investing activities of continuing operations 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. We may also arrange for third-party investors to assume a portion of our commitments. 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 may be required to be disbursed during 2019. 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, 2018, our collaborators' share of these commitments was approximately $5.3 billion of which as much as $468 million may be required to be disbursed to us during

2019. Refer to Note 5 to the Consolidated Financial Statements for additional discussion of our commercial aerospace industry assets and commitments.

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.

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 Financial Accounting Standards Board (FASB) Accounting Standards Codification (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, 2018 and 2017, we had net cash receipts of approximately $143 million and net cash payments of approximately $317 million, respectively, from the settlement of these derivative instruments.

2017 Compared with 2016

Cash flows used in investing activities of continuing operations for 2017 and 2016 primarily reflect capital expenditures, cash investments in customer financing assets, cash investments in businesses, and payments related to our collaboration intangible assets and contractual rights to provide product on new aircraft platforms. In 2017, we realized net proceeds of $596 million from Carrier's sale of investments in Watsco, Inc.

In 2017, we increased our collaboration intangible assets by approximately $380 million, of which approximately $340 million represented payments made under our 2012 agreement to acquire Rolls-Royce's ownership and collaboration interests in IAE. Capital expenditures for 2017 ($2,014 million) primarily relate to investments in production capacity at Pratt & Whitney and Collins Aerospace Systems, as well as new facilities at Pratt & Whitney and Carrier. Cash investments in businesses in 2017 ($231 million) consisted of a number of small acquisitions, primarily in our commercial businesses.

Cash Flow—Financing Activities of Continuing Operations

(dollars in millions)	**2018**	2017	2016
Net cash flows provided by (used in) financing activities of continuing operations	**$ 7,965**	$ (993)	$ (1,188)

2018 Compared with 2017

Our financing activities primarily include the issuance and repayment of short term and long term debt, payment of dividends and stock repurchases. 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.

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 approximately $1.3 billion of outstanding commercial paper at December 31, 2018.

At December 31, 2018, management had remaining authority to repurchase approximately $2.0 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 in connection with our employee savings plan. 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. On February 4, 2019, the Board of Directors declared a dividend of $0.735 per share payable March 10, 2019 to shareowners of record at the close of business on February 15, 2019.

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.

2017 Compared with 2016

The timing and levels of certain cash flow activities, such as acquisitions and repurchases of our stock, have resulted in the issuance of both long-term and short-term debt, including approximately $3.4 billion and $4.0 billion of net long-term debt issuances in 2017 and 2016, respectively. 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 approximately $300 million and $522 million of outstanding commercial paper at December 31, 2017 and 2016, respectively. Commercial paper borrowings at December 31, 2016 were comprised of approximately €500 million ($522 million) of Euro-denominated commercial paper. We had no Euro-denominated commercial paper borrowings outstanding at December 31, 2017.

At December 31, 2017, we made cash payments of approximately $1.45 billion to repurchase approximately 12.9 million shares of our common stock during the year ended December 31, 2017. In addition to the transactions under the ASR agreements discussed above, we repurchased approximately 22 million shares of our common stock for approximately $2.25 billion during the year ended December 31, 2016.

In both 2017 and 2016, we paid aggregate dividends on common stock of approximately $2.1 billion.

Cash Flow—Discontinued Operations

(dollars in millions)	**2018**	2017	2016
Net cash flows used in discontinued operations	$ —	$ —	$ (2,526)

Cash flows used in operating activities of discontinued operations in 2016 primarily reflect the payment of taxes associated with the net gain realized on the sale of Sikorsky to Lockheed Martin Corp. in November 2015.

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. Effective January 1, 2018, we adopted ASU 2014-09 and its related amendments (collectively, the New Revenue Standard) and elected the modified retrospective approach. Note 3 of the Consolidated Financial Statements contains further detail regarding the adoption of the New Revenue Standard and its impact on the Consolidated Financial Statements as of and for the year ended December 31, 2018. Under the New Revenue Standard, costs incurred for engineering and development of aerospace products under contracts with customers must be 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. As described in Note 1, the New Revenue Standard changed the revenue recognition practices for a number of revenue streams across our businesses. Several of our businesses which previously accounted for revenue on a point in time basis are now required to use an over-time revenue recognition model when their contracts meet one or more of the mandatory criteria established in the New Revenue Standard. Revenue is now 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 and margin 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.

Income Taxes. The future tax benefit arising from deductible temporary differences and tax carryforwards was $4.7 billion at December 31, 2018 and $3.8 billion at December 31, 2017. 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. 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 provision items recorded in regards to TCJA.

Goodwill and Intangible Assets. Our investments in businesses net of cash acquired in 2018 totaled $31.1 billion (including debt assumed of $7.8 billion and stock issued of $8 billion). 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, as discussed above and in Note 2 to the Consolidated Financial Statements. As a result of the acquisition of Rockwell Collins, goodwill and intangible assets were recorded in the amount of $20.5 billion and $10.8 billion, respectively. 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 product 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, 2018 was approximately $11.3 billion, of which approximately $2.7 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. On July 1, 2017, we early adopted ASU 2017-04, which eliminates Step 2 of the goodwill impairment test, which required a hypothetical purchase price allocation to measure goodwill impairment. A goodwill impairment loss is now 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 which

have significant assumptions. 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, 2018 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 PurePower 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, 2018:

(dollars in millions)	Increase in Discount Rate of 25 bps	Decrease in Discount Rate of 25 bps
Pension plans		
Projected benefit obligation	$ (1,006)	$ 1,056
Net periodic pension (benefit) cost	(39)	41
Other postretirement benefit plans[1]		
Accumulated postretirement benefit obligation	(13)	14

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 2018 pension expense by approximately $87 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 increased in 2018 as compared with 2017 and, as a result, the weighted-average discount rate used to measure pension liabilities increased from 3.4% in 2017 to 4.0% in 2018. The weighted-average discount

rates used to measure service cost and interest cost were 3.3% and 3.0% in 2018, respectively. In December 2009, we amended the salaried retirement plans (qualified and non-qualified) to change the retirement formula effective January 1, 2015. The formula changed from a final average earnings (FAE) and credited service formula to 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. Employees hired after 2009 are not eligible for any defined benefit pension plan and will instead receive an enhanced benefit under the UTC Savings Plan. As of July 26, 2012 the same amendment was applied to legacy Goodrich salaried employees. Across our global pension plans, higher discount rates for pension obligations and the acquisition of Rockwell Collins, partially offset by higher discount rates for interest cost and 2018 actual returns on plan assets, will result in a net periodic pension benefit in 2019 that is expected to be approximately $100 million favorable relative to 2018 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, 2018 is as follows:

		Payments Due by Period			
(dollars in millions)	**Total**	2019	2020-2021	2022-2023	Thereafter
Long-term debt—principal	**$ 44,416**	$ 2,876	$ 7,587	$ 7,433	$ 26,520
Long-term debt—future interest	**18,394**	1,515	2,735	2,336	11,808
Operating leases	**2,916**	683	951	536	746
Purchase obligations	**13,948**	9,926	3,693	289	40
Other long-term liabilities	**3,832**	1,017	1,192	541	1,082
Total contractual obligations	**$ 83,506**	$ 16,017	$ 16,158	$ 11,135	$ 40,196

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 18% 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, 2018 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 acquisition of Rockwell Collins in 2018 and Goodrich in 2012, we recorded assumed liabilities of approximately $970 million 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, 2018 was approximately $252 million. Total future consumption of the contractual obligations is expected to be as follows: $381 million in 2019, $295 million in 2020, $217 million in 2021, $163 million in 2022, $134 million in 2023 and $500 million thereafter. These amounts are not included in the table above.

The above table also does not reflect unrecognized tax benefits of $1,619 million, the timing of which is uncertain, except for approximately $30 million that may become payable during 2019. 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, 2018:

		Amount of Commitment Expiration per Period			
(dollars in millions)	**Committed**	2019	2020-2021	2022-2023	Thereafter
Commercial aerospace financing commitments	**$ 4,556**	$ 862	$ 1,710	$ 1,513	$ 471
Other commercial aerospace commitments	**10,914**	815	1,379	1,293	7,427
Commercial aerospace financing arrangements	**348**	—	21	5	322
Credit facilities and debt obligations (expire 2019 to 2028)	**116**	101	—	—	15
Performance guarantees	**55**	7	—	39	9
Total commercial commitments	**$ 15,989**	$ 1,785	$ 3,110	$ 2,850	$ 8,244

In connection with our 2012 agreement to acquire Rolls-Royce's ownership and collaboration interests in IAE, 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, 5 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, 2018, 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 $26 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, 2018 we have approximately €4.95 billion of euro-denominated long-term debt and €750 million of euro-denominated commercial paper borrowings outstanding, which qualify as a net investment hedge against our investments in European businesses. As of December 31, 2018, 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, 2018.

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 741 locations, mostly in the United States, at which we may have some liability for remediating contamination. We have resolved our liability at 352 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 93% 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 128 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, 2018 and 2017, we had $830 million reserved for environmental remediation. Cash outflows for environmental remediation were $48 million in 2018, $42 million in 2017 and $44 million in 2016. We estimate that ongoing environmental remediation expenditures in each of the next two years will not exceed approximately $100 million.

ASBESTOS MATTERS

As a result of the definitization of the insurance coverage for existing and potential future asbestos claims through the negotiation and establishment of settlement agreements during 2015, as well as the stabilization of company and industry experience, we established a reserve for our potential asbestos exposure, recording a noncash pretax charge to earnings of $237 million in the fourth quarter of 2015.

Our estimated total liability to resolve all pending and unasserted potential future asbestos claims through 2059 is approximately $335 million and is principally recorded in Other long-term liabilities on our Consolidated Balance Sheet as of December 31, 2018. 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 $155 million, which is included

primarily in Other assets on our Consolidated Balance Sheet as of December 31, 2018. 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 2018 Annual Report to Shareowners (2018 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" and other words of similar meaning in connection with a discussion of future operating or financial performance or the separation transactions. 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 and other measures of financial performance or potential future plans, strategies or transactions of United Technologies or the independent companies following United Technologies' expected separation into three independent companies, the anticipated benefits of the acquisition of Rockwell Collins or of the separation transactions, including estimated synergies resulting from the Rockwell Collins transaction, the expected timing of completion of 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 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 weather conditions and natural disasters and the financial condition of our customers and suppliers;
- challenges in the development, production, delivery, support, performance and realization of the anticipated benefits (including expected returns under customer contracts) of advanced technologies and new products and services;
- the scope, nature, impact or timing of the expected separation transactions and other acquisition and divestiture activity, including among other things integration of acquired businesses into UTC's existing 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 expected 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;
- 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;
- new business and investment opportunities;
- our 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 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 the U.S. tax reform enacted on December 22, 2017 and is commonly referred to as the Tax Cuts and Jobs Act of 2017 (TCJA)), environmental, regulatory (including among other things import/export) and other laws and regulations in the U.S. and other countries in which we operate;
- negative effects of the Rockwell Collins acquisition or of the announcement or pendency of the separation transactions on the market price of UTC's common stock and on its financial performance;
- risks relating to the 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;
- our ability 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 expected qualification of the separation transactions as tax-free transactions for U.S. federal income tax purposes;
- the possibility that any consents or approvals required in connection with the expected 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 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 expected separation transactions will exceed our estimates; and
- the impact of the expected separation transactions on our businesses and the risk that the separation transactions may be more difficult, time-consuming or costly than expected, including the impact on our resources, systems, procedures and controls, diversion of management’s attention and the impact on relationships with customers, suppliers, employees and other business counterparties.

In addition, our Annual Report on Form 10-K for 2018 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 2018 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 2018 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." 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.

On November 26, 2018, the Company completed its merger of Rockwell Collins. Accordingly, the acquired assets and liabilities of Rockwell Collins are included in our consolidated balance sheet as of December 31, 2018 and the results of its operations and cash flows are reported in our consolidated statements of operations and cash flows from November 26, 2018 through December 31, 2018. We have elected to exclude Rockwell Collins from the scope of our report on internal control over financial reporting as of December 31, 2018. Rockwell Collins is a wholly-owned subsidiary whose total assets and total revenues excluded from the scope of our report represent 5 percent and 1 percent, respectively of the related consolidated financial statement amounts as of and for the year ended December 31, 2018.

Management has assessed the effectiveness of UTC's internal control over financial reporting as of December 31, 2018. 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, 2018. The effectiveness of UTC's internal control over financial reporting, as of December 31, 2018, 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/ Akhil Johri

Akhil Johri
Executive 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 “Corporation”) as of December 31, 2018 and 2017, 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, 2018, including the related notes (collectively referred to as the “consolidated financial statements”). We also have audited the Corporation's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Corporation as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principles

As discussed in Notes 3 and 12 to the consolidated financial statements, the Corporation changed the manner in which it accounts for revenue from contracts with customers and the manner in which it accounts for net periodic benefit cost in 2018.

Basis for Opinions

The Corporation'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 Corporation’s consolidated financial statements and on the Corporation'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 Corporation 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.

As described in Management’s Report on Internal Control over Financial Reporting, management has excluded Rockwell Collins, Inc. from its assessment of internal control over financial reporting as of December 31, 2018 because it was acquired by the Corporation in a purchase business combination during 2018. We have also excluded Rockwell Collins, Inc. from our audit of internal control over financial reporting. Rockwell Collins, Inc. is a wholly-owned subsidiary whose total assets and

total revenues excluded from management's assessment and our audit of internal control over financial reporting represent 5% and 1%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2018.

Definition and Limitations of Internal Control over Financial Reporting

A corporation'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 corporation'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 corporation; (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 corporation are being made only in accordance with authorizations of management and directors of the corporation; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the corporation'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.

PricewaterhouseCoopers LLP
Hartford, Connecticut
February 7, 2019

We have served as the Corporation's auditor since 1947.

Consolidated Statement of Operations

(dollars in millions, except per share amounts; shares in millions)	**2018**	2017	2016
Net Sales:			
Product sales	**$ 45,434**	$ 41,361	$ 40,735
Service sales	**21,067**	18,476	16,509
	66,501	59,837	57,244
Costs and Expenses:			
Cost of products sold	**36,754**	31,224	30,304
Cost of services sold	**13,231**	12,977	11,167
Research and development	**2,462**	2,427	2,376
Selling, general and administrative	**7,066**	6,429	5,958
	59,513	53,057	49,805
Other income, net	**1,565**	1,358	782
Operating profit	**8,553**	8,138	8,221
Non-service pension (benefit) cost	**(765)**	(534)	49
Interest expense, net	**1,038**	909	1,039
Income from continuing operations before income taxes	**8,280**	7,763	7,133
Income tax expense	**2,626**	2,843	1,697
Net income from continuing operations	**5,654**	4,920	5,436
Less: Noncontrolling interest in subsidiaries' earnings from continuing operations	**385**	368	371
Income from continuing operations attributable to common shareowners	**5,269**	4,552	5,065
Discontinued operations:			
Income from operations	**—**	—	1
Gain on disposal	**—**	—	13
Income tax expense	**—**	—	(24)
Net loss from discontinued operations	**—**	—	(10)
Net income attributable to common shareowners	**$ 5,269**	$ 4,552	$ 5,055
Earnings Per Share of Common Stock—Basic:			
Net income from continuing operations attributable to common shareowners	**$ 6.58**	$ 5.76	$ 6.19
Net income attributable to common shareowners	**$ 6.58**	$ 5.76	$ 6.18
Earnings Per Share of Common Stock—Diluted:			
Net income from continuing operations attributable to common shareowners	**$ 6.50**	$ 5.70	$ 6.13
Net income attributable to common shareowners	**$ 6.50**	$ 5.70	$ 6.12
Weighted average number of shares outstanding:			
Basic shares	**800.4**	790.0	818.2
Diluted shares	**810.1**	799.1	826.1

See accompanying Notes to Consolidated Financial Statements

Consolidated Statement of Comprehensive Income

(dollars in millions)	**2018**	2017	2016
Net income from continuing operations	**$ 5,654**	$ 4,920	$ 5,436
Net loss from discontinued operations	**—**	—	(10)
Net income	**5,654**	4,920	5,426
Other comprehensive (loss) income, net of tax			
Foreign currency translation adjustments			
Foreign currency translation adjustments arising during period	**(516)**	620	(1,089)
Less: Reclassification adjustments for gain on sale of an investment in a foreign entity recognized in Other income, net	**(2)**	(10)	—
	(518)	610	(1,089)
Tax (expense)	**(4)**	—	—
	(522)	610	(1,089)
Pension and postretirement benefit plans			
Net actuarial (loss) gain arising during period	**(1,819)**	241	(785)
Prior service (cost) credit arising during period	**(22)**	2	(13)
Amortization of actuarial loss and prior service cost	**344**	529	535
Other	**105**	(116)	542
	(1,392)	656	279
Tax benefit (expense)	**326**	(263)	(189)
	(1,066)	393	90
Unrealized (loss) gain on available-for-sale securities			
Unrealized holding gain arising during period	**—**	5	190
Reclassification adjustments for gain included in Other income, net	**—**	(566)	(94)
ASU 2016-01 adoption impact (Note 10)	**(5)**	—	—
	(5)	(561)	96
Tax benefit (expense)	**—**	213	(36)
	(5)	(348)	60
Change in unrealized cash flow hedging			
Unrealized cash flow hedging (loss) gain arising during period	**(307)**	347	75
(Gain) loss reclassified into Product sales	**(16)**	(39)	171
	(323)	308	246
Tax benefit (expense)	**78**	(74)	(69)
	(245)	234	177
Other comprehensive (loss) income, net of tax	**(1,838)**	889	(762)
Comprehensive income	**3,816**	5,809	4,664
Less: comprehensive income attributable to noncontrolling interest	**(355)**	(448)	(324)
Comprehensive income attributable to common shareowners	**$ 3,461**	$ 5,361	$ 4,340

See accompanying Notes to Consolidated Financial Statements

Consolidated Balance Sheet

(dollars in millions, except per share amounts; shares in thousands)	**2018**	2017
Assets		
Cash and cash equivalents	**$ 6,152**	$ 8,985
Accounts receivable (net of allowance for doubtful accounts of $488 and $456)	**14,271**	12,595
Contract assets, current	**3,486**	—
Inventories and contracts in progress, net	**10,083**	9,881
Other assets, current	**1,511**	1,397
Total Current Assets	**35,503**	32,858
Customer financing assets	**3,023**	2,372
Future income tax benefits	**1,646**	1,723
Fixed assets, net	**12,297**	10,186
Goodwill	**48,112**	27,910
Intangible assets, net	**26,424**	15,883
Other assets	**7,206**	5,988
Total Assets	**$ 134,211**	$ 96,920
Liabilities and Equity		
Short-term borrowings	**$ 1,469**	$ 392
Accounts payable	**11,080**	9,579
Accrued liabilities	**10,223**	12,316
Contract liabilities, current	**5,720**	—
Long-term debt currently due	**2,876**	2,104
Total Current Liabilities	**31,368**	24,391
Long-term debt	**41,192**	24,989
Future pension and postretirement benefit obligations	**4,018**	3,036
Other long-term liabilities	**16,914**	12,952
Total Liabilities	**93,492**	65,368
Commitments and contingent liabilities (Notes 5 and 18)		
Redeemable noncontrolling interest	**109**	131
Shareowners' Equity:		
Capital Stock:		
Preferred Stock, $1 par value; 250,000 shares authorized; None issued or outstanding	**—**	—
Common Stock, $1 par value; 4,000,000 shares authorized; 1,446,961 and 1,444,187 shares issued	**22,514**	17,574
Treasury Stock— 585,479 and 645,057 common shares at average cost	**(32,482)**	(35,596)
Retained earnings	**57,823**	55,242
Unearned ESOP shares	**(76)**	(85)
Total Accumulated other comprehensive loss	**(9,333)**	(7,525)
Total Shareowners' Equity	**38,446**	29,610
Noncontrolling interest	**2,164**	1,811
Total Equity	**40,610**	31,421
Total Liabilities and Equity	**$ 134,211**	$ 96,920

See accompanying Notes to Consolidated Financial Statements

Consolidated Statement of Cash Flows

(dollars in millions)	**2018**	2017	2016
Operating Activities of Continuing Operations:			
Net income from continuing operations	**$ 5,654**	$ 4,920	$ 5,436
Adjustments to reconcile income from continuing operations to net cash flows provided by operating activities of continuing operations:			
Depreciation and amortization	**2,433**	2,140	1,962
Deferred income tax provision	**735**	62	398
Stock compensation cost	**251**	192	152
Gain on sale of Taylor Company	**(799)**	—	—
Change in:			
Accounts receivable	**(2,426)**	(448)	(941)
Contract assets, current	**(604)**	—	—
Inventories and contracts in progress	**(537)**	(1,074)	(719)
Other current assets	**161**	(101)	49
Accounts payable and accrued liabilities	**2,446**	1,571	450
Contract liabilities, current	**205**	—	—
Global pension contributions	**(147)**	(2,112)	(303)
Canadian government settlement	**(429)**	(285)	(237)
Other operating activities, net	**(621)**	766	165
Net cash flows provided by operating activities of continuing operations	**6,322**	5,631	6,412
Investing Activities of Continuing Operations:			
Capital expenditures	**(1,902)**	(2,014)	(1,699)
Increase in customer financing assets	**(988)**	(1,197)	(438)
Decrease in customer financing assets	**606**	222	217
Investments in businesses (Note 2)	**(15,398)**	(231)	(710)
Dispositions of businesses (Note 2)	**1,105**	70	211
Proceeds from sale of investments in Watsco, Inc.	**—**	596	—
Increase in collaboration intangible assets	**(400)**	(380)	(388)
Receipts (payments) from settlements of derivative contracts	**143**	(317)	249
Other investing activities, net	**(139)**	232	49
Net cash flows used in investing activities of continuing operations	**(16,973)**	(3,019)	(2,509)
Financing Activities of Continuing Operations:			
Issuance of long-term debt	**13,455**	4,954	6,469
Repayment of long-term debt	**(2,520)**	(1,604)	(2,452)
Decrease in short-term borrowings, net	**(356)**	(271)	(331)
Proceeds from Common Stock issued under employee stock plans	**36**	31	13
Dividends paid on Common Stock	**(2,170)**	(2,074)	(2,069)
Repurchase of Common Stock	**(325)**	(1,453)	(2,254)
Other financing activities, net	**(155)**	(576)	(564)
Net cash flows provided by (used in) financing activities of continuing operations	**7,965**	(993)	(1,188)
Discontinued Operations:			
Net cash used in operating activities	**—**	—	(2,532)
Net cash provided by investing activities	**—**	—	6
Net cash flows used in discontinued operations	**—**	—	(2,526)
Effect of foreign exchange rate changes on cash and cash equivalents	**(120)**	210	(120)
Net (decrease) increase in cash, cash equivalents and restricted cash	**(2,806)**	1,829	69
Cash, cash equivalents and restricted cash, beginning of year	**9,018**	7,189	7,120
Cash, cash equivalents and restricted cash, end of year	**6,212**	9,018	7,189
Less: Restricted cash, included in Other assets	**60**	33	32
Cash and cash equivalents of continuing operations, end of year	**$ 6,152**	$ 8,985	$ 7,157
Supplemental Disclosure of Cash Flow Information:			
Interest paid, net of amounts capitalized	**$ 1,027**	$ 974	$ 1,157
Income taxes paid, net of refunds	**$ 1,714**	$ 1,326	$ 4,096

See accompanying Notes to Consolidated Financial Statements

Consolidated Statement of Changes in Equity

(dollars in millions, except per share amounts; shares in thousands)	**2018**	2017	2016
Equity at January 1	**$ 31,421**	$ 29,169	28,844
Common Stock			
Balance at January 1	**17,574**	17,285	16,033
Common Stock issued under employee plans	**423**	331	262
Common Stock repurchased	**—**	1	998
Common Stock issued for Rockwell Collins outstanding common stock & equity awards	**4,523**	—	—
(Purchase) sale of subsidiary shares from noncontrolling interest, net	**(6)**	4	(8)
Redeemable noncontrolling interest fair value adjustment	**—**	(47)	—
Balance at December 31	**22,514**	17,574	17,285
Treasury Stock			
Balance at January 1	**(35,596)**	(34,150)	(30,907)
Common Stock issued under employee plans	**6**	7	9
Common Stock repurchased	**(329)**	(1,453)	(3,252)
Common Stock issued for Rockwell Collins outstanding common stock & equity awards	**3,437**	—	—
Balance at December 31	**(32,482)**	(35,596)	(34,150)
Retained Earnings			
Balance at January 1	**55,242**	52,873	49,956
Net Income	**5,269**	4,552	5,055
Dividends on Common Stock	**(2,170)**	(2,074)	(2,069)
Dividends on ESOP Common Stock	**(71)**	(72)	(74)
Redeemable noncontrolling interest fair value adjustment	**7**	(42)	(1)
New Revenue Standard adoption impact	**(480)**	—	—
Other	**26**	5	6
Balance at December 31	**57,823**	55,242	52,873
Unearned ESOP Shares			
Balance at January 1	**(85)**	(95)	(105)
Common Stock issued under employee plans	**9**	10	10
Balance at December 31	**(76)**	(85)	(95)
Accumulated Other Comprehensive (Loss) Income			
Balance at January 1	**(7,525)**	(8,334)	(7,619)
Other comprehensive (loss) income, net of tax	**(1,808)**	809	(715)
Balance at December 31	**(9,333)**	(7,525)	(8,334)
Noncontrolling Interest			
Balance at January 1	**1,811**	1,590	1,486
Net Income	**385**	368	371
Redeemable noncontrolling interest in subsidiaries' earnings	**(4)**	(17)	(6)
Other comprehensive (loss) income, net of tax	**(30)**	56	(27)
Dividends attributable to noncontrolling interest	**(315)**	(336)	(345)
(Purchase) sale of subsidiary shares from noncontrolling interest, net	**(23)**	—	24
(Disposition) acquisition of noncontrolling interest, net	**(8)**	14	98
Redeemable noncontrolling interest reclassification to noncontrolling interest	**—**	—	(12)
Capital contributions	**342**	135	—
Other	**6**	1	1
Balance at December 31	**2,164**	1,811	1,590
Equity at December 31	**$ 40,610**	$ 31,421	$ 29,169

Supplemental share information			
Shares of Common Stock issued under employee plans	**2,775**	3,205	2,485
Shares of Common Stock repurchased	**2,727**	12,900	32,300
Dividends per share of Common Stock	**$ 2.84**	$ 2.72	$ 2.62

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, 2018 and 2017, the amount of such restricted cash was approximately $60 million and $33 million, respectively.

Accounts Receivable. Current and long-term accounts receivable as of December 31, 2018 includes retainage of $116 million and unbilled receivables of $678 million, which primarily includes unbilled receivables with commercial aerospace customers. Current and long-term accounts receivable as of December 31, 2017 include retainage of $118 million and unbilled receivables of $2,770 million, which includes approximately $1,109 million of unbilled receivables under commercial aerospace long-term aftermarket contracts. See Note 5 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. Upon adoption of Accounting Standards Update (ASU) 2014-09, *Revenue from Contracts with Customers*, and its related amendments (collectively, the New Revenue Standard) on January 1, 2018, the majority of unbilled receivables have been reclassified to contract assets as described below. Unbilled receivables where we have an unconditional right to payment are included in Accounts receivable as of December 31, 2018.

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; prior to the New Revenue Standard, these amounts were included as unbilled receivables in Accounts receivable.

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 3 for further discussion of contract assets and liabilities.

Marketable Equity Securities. Equity securities that have a readily determinable fair value and that we do not intend to trade are classified as available-for-sale and carried at fair value.

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. As discussed in Note 10, 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.

Inventories and Contracts in Progress. Inventories and contracts in progress are 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 $119 million and $106 million at December 31, 2018 and 2017, 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. Under prior accounting within commercial aerospace, the unit of accounting for certain contracts was the contract, and early-contract OEM unit costs in excess of the average unit costs expected over the contract were capitalized and amortized over lower-cost units later in the contract. As described in the "Revenue Recognition" section of Note 1 below, these costs were eliminated through retained earnings on January 1, 2018 and will not be amortized into future earnings based on the adoption of *Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers*.

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.

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 a collaboration asset, 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 50 years
Purchased service contracts	5 to 25 years
Patents & trademarks	4 to 40 years
Exclusivity assets	5 to 25 years

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, including unbilled receivables related to long-term aftermarket contracts in 2017, 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 represent notes and lease receivables other than receivables related to operating leases, and are recognized as "Customer financing assets" in our Consolidated Balance Sheet. The following table summarizes the balance by class of aerospace business-related long-term receivables as of December 31, 2018 and 2017:

(dollars in millions)	**2018**	2017
Long-term trade accounts receivable	**$ 269**	$ 973
Notes and leases receivable	**258**	424
Total long-term receivables	**$ 527**	$ 1,397

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 and $170 million of our long-term receivables were considered to bear high credit risk as of December 31, 2018 and 2017, respectively. See Note 5 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 $16 million and $17 million as of December 31, 2018 and 2017, respectively, are individually evaluated for impairment. At both December 31, 2018 and 2017, 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, if incurred.

Revenue Recognition. ASU 2014-09 and its related amendments are effective for reporting periods beginning after December 15, 2017. We adopted the New Revenue Standard 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. See Note 3 for a discussion of the effect of the New Revenue Standard on our statements of financial position and results of operations.

We account for revenue in accordance with Accounting Standards Codification (ASC) Topic 606: Revenue from Contracts with Customers. 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.

Point in time revenue recognition. Timing of the satisfaction of performance obligations varies across our businesses due to our diverse product and service mix, customer base, and contractual terms. 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 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 are recognized in "Other assets" in our Consolidated Balance Sheet. 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 $50 million, $110 million, and $157 million in 2018, 2017 and 2016, 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 of a collaborator's 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 may make participation payments to certain 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.

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, 2018 we have approximately €4.95 billion of euro-denominated long-term debt and €750 million of euro-denominated commercial paper borrowings outstanding, which qualify 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 of the collaborators' share of program costs is recorded as a reduction of the related expense item at that time. As of December 31, 2018, the collaborators' interests in all commercial engine programs ranged from 13% to 50%, 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 income statement classification and amounts attributable to transactions arising from the collaborative arrangements between participants for each period presented. Selling, general and administrative amounts for 2016 have been revised to present these amounts on a basis consistent with 2017 and 2018 presentation.

(dollars in millions)		**2018**		2017		2016
Collaborator share of sales:						
Cost of products sold	**$**	**1,688**	$	1,789	$	1,700
Cost of services sold		**1,765**		929		675
Collaborator share of program costs (reimbursement of expenses incurred):						
Cost of products sold		**(209)**		(143)		(108)
Research and development		**(225)**		(190)		(184)
Selling, general and administrative		**(87)**		(74)		(57)

Accounting Pronouncements. In October 2016, the FASB issued ASU 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory*. This ASU requires the income tax consequences of an intra-entity transfer of an asset, other than inventory, to be recognized when the transfer occurs. Two common examples of assets included in the scope of this update are intellectual property and property, plant, and equipment. The provisions of this ASU are effective for years beginning after December 15, 2017, with early adoption permitted. We adopted the new standard effective January 1, 2018.

In February 2016, the FASB issued ASU 2016- 02, Leases (Topic 842). In 2018, the FASB continued to issue various updates to ASU 2016-02 as follows:

- ASU 2018-10, Codification Improvements to Topic 842, Leases - makes various targeted enhancements and clarifications to the leasing standard

- ASU 2018-11, Leases (Topic 842): Targeted Improvements - allows entities to initially apply the new leases standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption

ASU 2016-02 and its related updates (collectively, the New Lease Accounting Standard) are effective for reporting periods beginning after December 15, 2018, and interim periods therein, using either of the following transition methods; (i) a full retrospective adoption reflecting the application of the standard in each prior reporting period, or (ii) a prospective adoption election with the cumulative effect of adopting recognized through retained earnings at the date of adoption. We are preparing to adopt the New Lease Accounting Standard effective January 1, 2019 and will use the prospective method of adoption with the cumulative effect of adoption recognized through retained earnings at the date of adoption.

The New Lease Accounting Standard establishes a right-of-use (ROU) model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the Consolidated Statement of Operations. In addition, this standard 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 plan to elect all of the practical expedients available under the New Lease Accounting Standard upon adoption. Although we continue to evaluate the impact of the New Lease Accounting Standard on our statement of financial position, we do not expect that the standard will have a material effect on our cash flows or results of operations. Upon adoption we will record a ROU asset and lease liability, representing our obligation to make lease payments for operating leases, measured on a discounted basis. The ROU asset and lease liability will also reflect future payments under certain information technology service contracts, which we have determined contain embedded leases, which require balance sheet presentation under the New Lease Accounting Standard. We expect the ROU asset and lease liability recorded will be less than 5% of our total assets. In preparation for the adoption, we are implementing new software solutions and designing new business processes and controls over the financial reporting of leases, which will facilitate our reporting under the New Lease Accounting Standard in the first quarter of 2019.

In January 2017, the FASB issued ASU 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business*. This ASU provides a new framework that will assist in the evaluation of whether business combination transactions should be accounted for as an acquisition of a business or as a group of assets, and specifies the minimum required inputs and processes necessary to be a business. The provisions of this ASU are effective for years beginning after December 15, 2017, with early adoption permitted. We adopted the new standard effective January 1, 2018. Refer to Note 2: Business Acquisitions.

In May 2017, the FASB issued ASU 2017-09, *Compensation—Stock Compensation (Topic 718): Scope of Modification Accounting*. This ASU provides that an entity should account for the effects of a modification unless the fair value, the vesting conditions of the modified award and the classification of the modified award (equity or liability instrument) are the same as the

original award immediately before the modification. The provisions of this ASU are effective for years beginning after December 15, 2017, with early adoption permitted. We adopted the new standard effective January 1, 2018. The adoption of this standard did not have a material impact on the consolidated financial statements.

In August 2017, the FASB issued ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities*. This ASU will make more financial and nonfinancial hedging strategies eligible for hedge accounting. It also amends the presentation and disclosure requirements and changes how companies assess effectiveness. It is intended to more closely align hedge accounting with a company's risk management strategies, simplify the application of hedge accounting, and increase transparency as to the scope and results of hedging programs. The provisions of this ASU are effective for years beginning after December 15, 2018, with early adoption permitted for any interim period after issuance of the ASU. We adopted the new standard effective January 1, 2018. The adoption of this standard did not have a material impact on the consolidated financial statements.

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 newly-enacted U.S. Tax Cuts and Jobs Act (TCJA). The new standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years, with early adoption permitted. We will elect to reclassify the income tax effects of TCJA from AOCI to retained earnings effective January 1, 2019. We are still evaluating the impact of our pending adoption of the new standard on our consolidated financial statements. We do not expect this ASU to have a material impact on our cash flows and results of operations.

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. The provisions of this ASU are effective for years beginning after December 15, 2019, with early adoption permitted. We do not expect this ASU to have a significant impact on our consolidated financial statements, as it only includes changes to disclosure requirements.

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 years beginning 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, 2020, with early adoption permitted. We are currently evaluating the impact of this ASU.

In August 2018, the SEC issued the final rule under SEC Release No. 33-10532, "Disclosure Update and Simplification," that amends certain of its disclosure requirements that have become redundant, duplicative, overlapping, outdated or superseded. The amendments include removing the requirement to disclose the historical and pro forma ratio of earnings to fixed charges (Exhibit 12) and replacing the requirement to disclose the high and low trading prices of entity's ordinary shares with a requirement to disclose the ticker symbol of its shares. Additionally, the final rule extends to interim periods the annual disclosure requirement of presenting changes in each caption of stockholders' equity and the amount of dividends per share. These disclosures are required to be provided for the current and comparative year-to-date interim periods. The final rule is effective for all filings on or after November 5, 2018. The Company has adopted all relevant disclosure requirements for its annual report on Form 10-K for the year ended December 31, 2018.

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 GAAP). Therefore, these amendments likely will result in more decision makers not having a variable interest through their decision-making arrangements. 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. If fewer decision-making fees are considered variable interests, the focus on determining which party within a related party group under common control may have a controlling financial interest will be shifted to the variable interest holders in the group with more significant economic interests. 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 are currently evaluating the impact of this ASU.

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 generally accepted accounting principles (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 are currently evaluating the impact of this ASU.

NOTE 2: BUSINESS ACQUISITIONS, DISPOSITIONS, GOODWILL AND INTANGIBLE ASSETS

Business Acquisitions. Our investments in businesses net of cash acquired in 2018, 2017 and 2016 totaled $31,142 million (including debt assumed of $7,784 million and stock issued of $7,960 million), $231 million and $712 million (including debt assumed of $2 million), respectively. 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. Our investments in businesses in 2016 consisted of the acquisition of a majority interest in an Italian heating products and services company by Carrier, the acquisition of a Japanese services company by Otis and a number of small acquisitions, primarily in our commercial businesses.

On November 26, 2018, we completed the acquisition of Rockwell Collins, 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 merger 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 Merger (other than shares held by Rockwell Collins, the Company, Merger Sub 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 of a share of Company common stock, par value $1.00 per share, and cash in lieu of fractional shares (together, the “Merger Consideration”), less any applicable withholding taxes. 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 at the time of the Merger. 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[1]	$	15,533
Fair value of UTC common stock issued for Rockwell Collins outstanding common stock & equity awards		7,960
Total consideration transferred	$	23,493

[1]Cash consideration paid for Rockwell Collins net of cash acquired is $14.9 billion.

The cash consideration utilized for the Rockwell Collins acquisition was partially financed through the previously disclosed issuance of $11 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.

Preliminary Allocation of Consideration Transferred to Net Assets Acquired:

The following amounts represent the preliminary determination of the fair value of identifiable assets acquired and liabilities assumed from the Rockwell Collins acquisition. The final determination of the fair value of certain assets and liabilities will be completed up to a one year measurement period from the date of acquisition as required by FASB ASC Topic 805, *“Business Combinations”*. As of December 31, 2018, the valuation studies necessary to determine the fair market value of the assets acquired and liabilities assumed are preliminary, including the validation of the underlying cash flows used to determine the fair value of the identified intangible assets. The size and breadth of the Rockwell Collins acquisition necessitates use of the one year measurement period to adequately analyze all the factors used in establishing the asset and liability fair values as of the acquisition date, including, but not limited to, intangible assets, inventory, real property, leases, deferred tax liabilities related to the unremitted earnings of foreign subsidiaries, certain reserves and the related tax impacts of any changes made. Any potential adjustments made could be material in relation to the preliminary values presented below:

(dollars in millions)	
Cash and cash equivalents	$ 640
Accounts receivable, net	1,660
Inventory, net	1,527
Contract assets, current	302
Other assets, current	297
Future income tax benefits	41
Fixed assets, net	1,691
Intangible assets:	
Customer relationships	8,320
Tradenames/trademarks	1,870
Developed technology	600
Other assets	192
Total identifiable assets acquired	17,140
Short-term borrowings	2,254
Accounts payable	378
Accrued liabilities	1,679
Contract liabilities, current	301
Long-term debt	5,530
Future pension and postretirement benefit obligation	502
Other long-term liabilities	3,465
Noncontrolling interest	6
Total liabilities acquired	14,115
Total identifiable net assets	3,025
Goodwill	20,468
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 $269 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. The preliminary 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 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 20 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 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)		Estimated Fair Value	Estimated Life
Acquired customer relationships	$	8,320	10-20 years
Acquired tradenames/trademarks		1,870	indefinite
Acquired developed technology		600	15 years
	$	10,790	

We also identified customer contractual obligations on certain programs with terms less favorable 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 $970 million. 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 for the next five years is expected to be as follows: $148 million in 2019, $138 million in 2020, $130 million in 2021, $125 million in 2022, and $116 million in 2023.

Acquisition-Related Costs:

Acquisition-related costs have been expensed as incurred. In 2018 and 2017, approximately $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. In connection with the financing of the Rockwell Collins acquisition, approximately $46 million of net interest costs (interest expense of $114 million and interest income of $68 million) have been recorded in 2018.

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 period from the completion of the acquisition through 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 which 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:

(dollars in millions)	Year Ended December 31, 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 Reflects the amortization expense on the Rockwell Collins inventory step up which would be completed within the first two quarters of 2017 and eliminated the inventory step-up amortization recorded by UTC in 2018. 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 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 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 deferral of revenue recognized on OEM product engineering and development, partially offset by changes in timing of sales recognition for contracts requiring an over time method of revenue recognition.
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 relating 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. 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).

In accordance with conditions imposed for regulatory approval of the Rockwell Collins acquisition, Rockwell Collins must dispose of certain businesses. These businesses have been 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 have been accounted for as held for sale at fair value less cost to sell. As of December 31, 2018, assets of $175 million are included within Other assets, current and liabilities of $40 million are included within Accrued liabilities on the Consolidated Balance Sheet. The major classes of assets and liabilities primarily include net Inventory of $51 million and net Fixed assets of $37 million. On January 18, 2019, Rockwell Collins completed the sale of one of the businesses which was held for sale as of December 31, 2018 for approximately $20 million. The remaining two businesses are expected in 2019 and are subject to regulatory approvals and other customary closing conditions.

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 are each expected to 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 by mid-year 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 in certain jurisdictions and/or a tax opinion from external counsel (as applicable), the filing with the Securities and Exchange Commission (SEC) and effectiveness of Form 10 registration statements, and satisfactory completion of financing.

Goodwill. Changes in our goodwill balances for the year ended in 2018 were as follows:

(dollars in millions)	Balance as of January 1, 2018	Goodwill resulting from business combinations	Foreign currency translation and other	**Balance as of December 31, 2018**
Otis	$ 1,737	$ 7	$ (56)	**$ 1,688**
Carrier	10,009	194	(368)	**9,835**
Pratt & Whitney	1,511	58	(2)	**1,567**
Collins Aerospace Systems	14,650	20,468	(117)	**35,001**
Total Segments	27,907	20,727	(543)	**48,091**
Eliminations and other	3	18	—	**21**
Total	$ 27,910	$ 20,745	$ (543)	**$ 48,112**

Collins Aerospace Systems goodwill increased $20.4 billion principally as a result of the Rockwell Collins acquisition. The goodwill results from the workforce acquired with the business as well as the significant synergies that are expected to be realized through the consolidation of manufacturing facilities and overhead functions. No amount of this goodwill is deductible for tax purposes. The goodwill acquired will be allocated to the six reporting units within the Collins Aerospace Systems segment.

The $543 million net reduction in goodwill within Foreign Currency Translation and Other includes a $151 million reduction of goodwill attributable to Carrier's sale of Taylor Company. The $18 million increase in goodwill within Eliminations and other is due to an acquisition of a digital analytics company.

Intangible Assets. Identifiable intangible assets are comprised of the following:

	2018		2017	
(dollars in millions)	**Gross Amount**	**Accumulated Amortization**	Gross Amount	Accumulated Amortization
Amortized:				
Service portfolios	**$ 2,164**	**$ (1,608)**	$ 2,178	$ (1,534)
Patents and trademarks	**361**	**(236)**	399	(233)
Collaboration intangible assets	**4,509**	**(649)**	4,109	(384)
Customer relationships and other	**22,525**	**(4,560)**	13,352	(4,100)
	29,559	**(7,053)**	20,038	(6,251)
Unamortized:				
Trademarks and other	**3,918**	**—**	2,096	—
Total	**$ 33,477**	**$ (7,053)**	$ 22,134	$ (6,251)

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. The acquired intangible assets related to Rockwell Collins are primarily being amortized on a straight-line basis which approximates the pattern of economic benefit. Amortization of intangible assets was $976 million, $834 million and $778 million in 2018, 2017 and 2016, 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 2019 through 2023, which reflects the pattern of expected economic benefit on certain aerospace intangible assets:

(dollars in millions)	2019	2020	2021	2022	2023
Amortization expense	$ 1,476	$ 1,438	$ 1,456	$ 1,464	$ 1,670

NOTE 3: REVENUE RECOGNITION

ASU 2014-09 and its related amendments (collectively, the New Revenue Standard) are effective for reporting periods beginning after December 15, 2017. We adopted the New Revenue Standard 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.

The New Revenue Standard changed the revenue recognition practices for a number of revenue streams across our businesses, although the most significant impacts are concentrated in our aerospace units. Several businesses, which previously accounted for revenue on a point in time basis are now required to use an over-time model when their contracts meet one or more of the mandatory criteria established in the New Revenue Standard. Revenue is now recognized based 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. Incurred costs represent work performed, which corresponds with and best depicts the transfer of control to the customer. For these businesses, unrecognized sales related to the satisfied portion of the performance obligations of contracts in process as of the date of adoption of approximately $220 million were recorded through retained earnings. The ongoing effect of recording revenue on an over-time basis within these businesses is not expected to be materially different than the previous revenue recognition method.

In addition to the foregoing, our aerospace businesses, in certain cases, also changed the timing of manufacturing cost recognition and certain engineering and development costs. In most circumstances, our commercial aerospace businesses identify the performance obligation as the individual OEM unit; revenue and cost to manufacture each unit are recognized upon OEM unit delivery. Under the prior accounting, the unit of accounting was the contract and early-contract OEM unit costs in excess of the average unit costs expected over the contract were capitalized and amortized over lower-cost units later in the contract. With the adoption of the New Revenue Standard, deferred unit costs in excess of the contract average of $438 million as of January 1, 2018 were eliminated through retained earnings, and as such, will not be amortized into future earnings.

Under the New Revenue Standard, costs incurred for engineering and development of aerospace products under contracts with customers must be 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. Under prior accounting, we generally expensed costs of engineering and development of aerospace products. The new standard also requires that customer funding of OEM product engineering and development be deferred in instances where economic benefit does not transfer to the customer and recognized as revenue when the OEM products are delivered. Engineering and development costs which do not qualify for capitalization as contract fulfillment costs are expensed as incurred. Prior to the New Revenue Standard, any customer funding received for such development efforts was recognized when earned, with the corresponding costs recognized as cost of sales.

With the adoption of the New Revenue Standard, we capitalized engineering and development costs of approximately $700 million as contract fulfillment cost assets through retained earnings as of January 1, 2018. We also established previously recognized customer funding of approximately $850 million as a contract liability through retained earnings as of the adoption date.

The New Revenue Standard also requires disclosure of remaining performance obligations, which is a concept that is similar to that of backlog. Beginning in 2018, we replaced our definition of backlog with that of remaining performance obligations under the New Revenue Standard. We have historically included in backlog engine orders from airlines for which such purchase orders have not yet been received from the aircraft manufacturer. Effective with the adoption of the New Revenue Standard, we will no longer include in backlog airline engine orders for which we have not yet received the associated firm manufacturing purchase order.

The New Revenue Standard had an immaterial impact on our 2018 net income. Adoption of the New Revenue Standard has resulted in Statement of Operations classification changes between Net Sales, Cost of sales, Research & development, and Other income. The New Revenue Standard also resulted in the establishment of Contract asset and Contract liability balance sheet accounts, and in the reclassification of balances to these new accounts from Accounts receivable, Inventories and contracts in progress, net, and Accrued liabilities. In addition to the following disclosures, Note 19 provides incremental disclosures required by the New Revenue Standard, including disaggregation of revenue into categories that depict how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors.

The following schedules quantify the impact of the New Revenue Standard on the statement of operations for the year ended December 31, 2018. The effect of the new standard represents the increase (decrease) in the line item based on the adoption of the New Revenue Standard.

(dollars in millions)	Year Ended December 31, 2018, under previous standard [1]	Effect of the New Revenue Standard	Year Ended December 31, 2018 as reported
Net Sales:			
Product sales	$ 45,128	$ 306	$ 45,434
Service sales	20,821	246	21,067
	65,949	552	66,501
Costs and Expenses:			
Cost of products sold	36,481	273	36,754
Cost of services sold	13,068	163	13,231
Research and development	2,549	(87)	2,462
Selling, general and administrative	7,066	—	7,066
	59,164	349	59,513
Other income, net	1,573	(8)	1,565
Operating profit	8,358	195	8,553
Non-service pension (benefit)	(765)	—	(765)
Interest expense, net	1,038	—	1,038
Income from operations before income taxes	8,085	195	8,280
Income tax expense	2,577	49	2,626
Net income from operations	5,508	146	5,654
Less: Noncontrolling interest in subsidiaries' earnings from operations	380	5	385
Net income attributable to common shareowners	$ 5,128	$ 141	$ 5,269

[1] Includes the as reported results of Rockwell Collins. Because Rockwell Collins adopted the New Revenue Standard prior to the merger, its reported results have been excluded from the quantification of the effect of the New Revenue Standard shown above for the period from November 26, 2018 through December 31, 2018.

The New Revenue Standard resulted in an increase to Product and Service sales and Cost of products and services sold primarily due to the change to an over-time revenue model for certain U.S Government and commercial aerospace equipment contracts, and aerospace aftermarket service work at Pratt & Whitney and Collins Aerospace Systems. The New Revenue Standard also resulted in an increase in Cost of products sold primarily related to the timing of manufacturing cost recognition on early-contract OEM units sold, with costs in excess of the contract average unit costs recorded through Cost of products sold.

The lower amounts of research and development expense recognized under the New Revenue Standard reflect the capitalization of costs of engineering and development of aerospace products as contract fulfillment costs under contracts with customers to the extent recoverable.

The following schedule quantifies the impact of the New Revenue Standard on our balance sheet as of December 31, 2018.

(dollars in millions)	December 31, 2018 under previous standard[1]	Effect of the New Revenue Standard	December 31, 2018 as reported
Assets			
Accounts receivable, net	$ 15,636	$ (1,365)	$ 14,271
Contract assets, current	331	3,155	3,486
Inventories	12,169	(2,086)	10,083
Other assets, current	1,519	(8)	1,511
Future income tax benefits	1,614	32	1,646
Intangible assets, net	26,495	(71)	26,424
Other assets	6,056	1,150	7,206
Liabilities and Equity			
Accrued liabilities	$ 15,522	$ (5,299)	$ 10,223
Contract liabilities, current	345	5,375	5,720
Other long term liabilities	15,841	1,073	16,914
Noncontrolling interest	2,158	6	2,164
Retained earnings	58,162	(339)	57,823

[1] Includes the as reported balance sheet amounts of Rockwell Collins. Because Rockwell Collins adopted the New Revenue Standard prior to the merger, its reported balance sheet amounts have been excluded from the quantification of the effect of the New Revenue Standard shown above.

The decrease in Retained earnings of $339 million in the table above reflects $480 million of adjustments to the balance sheet as of January 1, 2018, resulting from the adoption of the New Revenue Standard and $141 million higher reported net income under the New Revenue Standard during 2018. The declines in Accounts receivable, net, Inventories, Other assets, current, and Intangible assets, net, reflect reclassifications to contract assets, and specifically for Inventories, earlier recognition of costs of products sold for contracts requiring an over-time method of revenue recognition. The increase in Other assets reflects the establishment of non-current contract assets and contract fulfillment cost assets. Capitalized net contract fulfillment costs as of December 31, 2018 are $914 million.

The decline in accrued liabilities is primarily due to the reclassification of payments from customers in advance of work performed as contract liabilities. The Other long term liabilities increase primarily reflects the establishment of non-current contract liabilities for certain customer funding of OEM product engineering and development, which will be recognized as revenue when the OEM products are delivered to the customer.

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, 2018 are as follows:

(dollars in millions)	December 31, 2018
Contract assets, current	$ 3,486
Contract assets, noncurrent (included within Other assets)	1,142
Total contract assets	4,628
Contract liabilities, current	(5,720)
Contract liabilities, noncurrent (included within Other long-term liabilities)	(5,069)
Total contract liabilities	(10,789)
Net contract liabilities	$ (6,161)

We established contract assets of $3,609 million in connection with our adoption of the New Revenue Standard on January 1, 2018. Contract assets increased $1,019 million from January 1, 2018 to December 31, 2018 as a result of the acquisition of Rockwell Collins ($308 million) and due to revenue recognition in excess of customer billings, primarily on Pratt & Whitney commercial aftermarket and military engines contracts.

We established contract liabilities of $9,974 million in connection with our adoption of the New Revenue Standard. Contract liabilities increased $815 million from January 1, 2018 through December 31, 2018, as a result of the acquisition of Rockwell Collins ($313 million) and due to customer billings in excess of revenue on Otis new equipment contracts and on Pratt & Whitney commercial aftermarket contracts. We recognized revenue of $4,211 million related to contract liabilities as of January 1, 2018.

Remaining performance obligations ("RPO") are the aggregate amount of total contract transaction price that is unsatisfied or partially unsatisfied. As of December 31, 2018, our total RPO is approximately $115.5 billion. Of this total, we expect approximately 46% will be recognized as sales over the following 24 months.

NOTE 4: EARNINGS PER SHARE

(dollars in millions, except per share amounts; shares in millions)	**2018**	2017	2016
Net income attributable to common shareowners:			
Net income from continuing operations	**$ 5,269**	$ 4,552	$ 5,065
Net loss from discontinued operations	**—**	—	(10)
Net income attributable to common shareowners	**$ 5,269**	$ 4,552	$ 5,055
Basic weighted average number of shares outstanding	**800.4**	790.0	818.2
Stock awards and equity units (share equivalent)	**9.7**	9.1	7.9
Diluted weighted average number of shares outstanding	**810.1**	799.1	826.1
Earnings Per Share of Common Stock—Basic:			
Net income from continuing operations	**$ 6.58**	$ 5.76	$ 6.19
Net loss from discontinued operations	**—**	—	(0.01)
Net income attributable to common shareowners	**6.58**	5.76	6.18
Earnings Per Share of Common Stock—Diluted:			
Net income from continuing operations	**$ 6.50**	$ 5.70	$ 6.13
Net loss from discontinued operations	**—**	—	(0.01)
Net income attributable to common shareowners	**6.50**	5.70	6.12

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 2018, 2017 and 2016, there were 5.1 million, 5.9 million and 14.5 million anti-dilutive stock awards excluded from the computation, respectively.

NOTE 5: COMMERCIAL AEROSPACE INDUSTRY ASSETS AND COMMITMENTS

We have receivables and other financing assets with commercial aerospace industry customers totaling $11,695 million and $9,477 million at December 31, 2018 and 2017, respectively. These include customer financing assets related to commercial aerospace industry customers, consisting of products under lease of $2,736 million and $1,913 million, and notes and leases receivable of $299 million and $652 million, at December 31, 2018 and 2017, 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 $348 million as of December 31, 2018. 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, 2018 were approximately $15.5 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, 2018:

(dollars in millions)	**Committed**	2019	2020	2021	2022	2023	Thereafter
Notes and leases receivable	**$ 299**	$ 25	$ 97	$ 53	$ 22	$ 23	$ 79
Commercial aerospace financing commitments	**$ 4,556**	$ 862	$ 709	$ 1,001	$ 873	$ 640	$ 471
Other commercial aerospace commitments	**10,914**	815	706	673	708	585	7,427
Collaboration partners' share	**(5,261)**	(468)	(448)	(562)	(513)	(412)	(2,858)
Total commercial commitments	**$ 10,209**	$ 1,209	$ 967	$ 1,112	$ 1,068	$ 813	$ 5,040

In connection with our 2012 agreement to acquire Rolls-Royce's ownership and collaboration interests in IAE, 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, previously referred to as unbilled receivables and deferred revenue. Additionally, we have other contracts with commercial aerospace industry customers which can result in the generation of Contract assets and Contract liabilities. Contract assets related to long-term aftermarket and other contracts totaled $2,247 million at December 31, 2018 and are included in "Contract assets, current" and "Other assets" in the accompanying Consolidated Balance Sheet. Unbilled receivables totaled $1,109 million at December 31, 2017 and are included in “Accounts receivable” and “Other Assets” in the accompanying Consolidated Balance Sheet.

Contract liabilities totaled $7,083 million and are included in "Contract liabilities, current" and "Other long-term liabilities" in the accompanying Consolidated Balance Sheet. Deferred revenue totaled $5,048 million at December 31, 2017 and are included in "Accrued liabilities" and "Other long-term liabilities" in the accompanying Consolidated Balance Sheet.

In connection with the adoption of the New Revenue Standard, costs for engineering and development of aerospace products have been capitalized as contract fulfillment costs to the extent recoverable. Contract fulfillment costs related to commercial aerospace industry customers is $830 million as of December 31, 2018 and is included in "Other Assets" in the accompanying Consolidated Balance Sheet.

Reserves related to aerospace receivables and financing assets were $245 million and $175 million at December 31, 2018 and 2017, respectively. Reserves related to financing commitments and guarantees were $15 million and $23 million at December 31, 2018 and 2017, respectively.

In addition, in connection with the acquisition of Rockwell Collins in 2018 and Goodrich in 2012, we recorded assumed liabilities of approximately $970 million 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, 2018 and 2017 was approximately $252 million and $217 million, respectively. The balance of the contractual obligations at December 31, 2018 was $1,690 million, with future consumption expected to be as follows: $381 million in 2019, $295 million in 2020, $217 million in 2021, $163 million in 2022, $134 million in 2023 and $500 million thereafter.

NOTE 6: INVENTORIES & CONTRACTS IN PROGRESS, NET

(dollars in millions)	2018	2017
Raw materials	**$ 3,052**	$ 2,038
Work-in-process	**2,673**	3,366
Finished goods	**4,358**	3,845
Contracts in progress	**—**	10,205
	10,083	19,454
Less:		
Progress payments, secured by lien, on U.S. Government contracts	**—**	(236)
Billings on contracts in progress	**—**	(9,337)
	$ 10,083	$ 9,881

Raw materials, work-in-process and finished goods are net of valuation reserves of $1,270 million and $1,107 million as of December 31, 2018 and 2017, respectively. Contracts in progress principally relate to elevator and escalator contracts and include costs of manufactured components, accumulated installation costs and estimated earnings on incomplete contracts. Upon adoption of the New Revenue Standard, Contracts in progress have been reclassified to Contract assets.

Inventories as of December 31, 2017 included capitalized contract development costs of $127 million related to certain aerospace programs at Collins Aerospace Systems. Upon adoption of the New Revenue Standard, these costs are recorded as contract fulfillment costs included in Other assets. Under prior accounting within commercial aerospace, the unit of accounting for certain contracts was the contract, and early-contract OEM unit costs in excess of the average unit costs expected over the contract were capitalized and amortized over lower-cost units later in the contract. As of December 31, 2017, inventory included $438 million of such capitalized amounts. As described in the "Revenue Recognition" section of Note 1, upon adoption of the New Revenue Standard, these amounts are no longer included in inventory.

Our sales contracts in many cases are long-term contracts expected to be performed over periods exceeding 12 months. At December 31, 2018 and 2017, approximately 32% and 63% respectively, of total inventories and contracts in progress have been acquired or manufactured under such long-term contracts, with approximately 28% and 38% scheduled for delivery within the succeeding 12 months for 2018 and 2017, respectively. The decline in percentages above is due to the reclassification of Contracts in progress to Contract assets upon adoption of the New Revenue Standard.

NOTE 7: FIXED ASSETS

(dollars in millions)	Estimated Useful Lives	2018	2017
Land		**$ 425**	$ 412
Buildings and improvements	12-40 years	**6,486**	5,727
Machinery, tools and equipment	3-20 years	**15,119**	13,476
Other, including assets under construction		**2,054**	1,749
		24,084	21,364
Accumulated depreciation		**(11,787)**	(11,178)
		$ 12,297	$ 10,186

The increase in fixed assets is primarily driven by the acquisition of Rockwell Collins as described in Note 2 to the Consolidated Financial Statements. Depreciation expense was $1,240 million in 2018, $1,178 million in 2017 and $1,105 million in 2016.

NOTE 8: ACCRUED LIABILITIES

(dollars in millions)	**2018**	2017
Advances on sales contracts and service billings	**$ —**	$ 4,547
Accrued salaries, wages and employee benefits	**2,074**	1,741
Service and warranty accruals	**754**	629
Interest payable	**637**	439
Litigation and contract matters	**461**	435
Income taxes payable	**460**	285
Accrued property, sales and use taxes	**277**	258
Canadian government settlement - current portion	**34**	217
Accrued restructuring costs	**249**	212
Accrued workers compensation	**142**	204
Liabilities held for sale	**40**	—
Other	**5,095**	3,349
	$ 10,223	$ 12,316

The decline in advances on sales contracts and service billings is due to reclassification of amounts to Contract liabilities, current upon adoption of the New Revenue Standard.

On December 30, 2015, P&WC and federal and provincial Canadian government agencies entered into amendments of certain government research and development support arrangements. Under the amendments, P&WC agreed to make four annual payments of approximately CAD 327 million (approximately $243 million at December 2018), commencing in the first quarter of 2016, to fully settle and terminate P&WC's future contractual obligations to pay royalties to these agencies that had previously been contingent upon future engine deliveries and P&WC sales; to maintain its commitments to perform certain assembly, test and manufacturing operations in Canada; and to provide support of innovation and research and development through initiatives with post-secondary institutions and key industry associations in Canada over a 14 year period. As a result of the amendments to these contractual arrangements, Pratt & Whitney recorded a charge and related discounted obligation of $867 million in the fourth quarter of 2015.

The current portion of the Canadian government settlement included in the table above represents the final payment under this agreement to be paid in 2019. There were no Other long-term liabilities related to this settlement in the accompanying Consolidated Balance Sheet as of December 31, 2018 and approximately $256 million as of December 31, 2017.

NOTE 9: BORROWINGS AND LINES OF CREDIT

(dollars in millions)		**2018**		2017
Short-term borrowings:				
Commercial paper	**$**	**1,257**	$	300
Other borrowings		**212**		92
Total short-term borrowings	**$**	**1,469**	$	392

At December 31, 2018, we had revolving credit agreements with various banks permitting aggregate borrowings of up to $4.35 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. Additionally, on November 26, 2018, we entered into a $1.5 billion revolving credit agreement, which will mature on May 25, 2019. As of December 31, 2018, there were no borrowings on any of these agreements. The undrawn portions of these revolving credit agreements are also available to serve as backup facilities for the issuance of commercial paper. As of December 31, 2018, our maximum commercial paper borrowing limit was $4.35 billion. Commercial paper borrowings at December 31, 2018 include approximately €750 million ($858 million) of euro-denominated commercial paper. 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, 2018, approximately $2.2 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:

	2018	2017
Average interest expense rate - average outstanding borrowings during the year:		
Short-term borrowings	**1.5%**	1.1%
Total debt	**3.5%**	3.5%
Average interest expense rate - outstanding borrowings as of December 31:		
Short-term borrowings	**1.2%**	2.3%
Total debt	**3.5%**	3.5%

Long-term debt consisted of the following as of December 31:

(dollars in millions)		**2018**		2017
6.800% notes due 2018	$	—	$	99
EURIBOR plus 0.80% floating rate notes due 2018 (€750 million principal value) [2]		—		890
1.778% junior subordinated notes due 2018		—		1,100
LIBOR plus 0.350% floating rate notes due 2019 [3]		350		350
1.500% notes due 2019 [1]		650		650
1.950% notes due 2019[4]		300		—
EURIBOR plus 0.15% floating rate notes due 2019 (€750 million principal value) [2]		858		890
5.250% notes due 2019[4]		300		—
8.875% notes due 2019		271		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]		858		—
8.750% notes due 2021		250		250
3.100% notes due 2021[4]		250		—
3.350% notes due 2021[1]		1,000		—
LIBOR plus 0.650% floating rate notes due 2021[1,3]		750		—

1.950% notes due 2021 [1]	750	750
1.125% notes due 2021 (€950 million principal value) [1]	1,088	1,127
2.300% notes due 2022 [1]	500	500
2.800% notes due 2022[4]	1,100	—
3.100% notes due 2022 [1]	2,300	2,300
1.250% notes due 2023 (€750 million principal value) [1]	858	890
3.650% notes due 2023[1]	2,250	—
3.700% notes due 2023[4]	400	—
2.800% notes due 2024 [1]	800	800
3.200% notes due 2024[4]	950	—
1.150% notes due 2024 (€750 million principal value)[1]	858	—
3.950% notes due 2025[1]	1,500	—
1.875% notes due 2026 (€500 million principal value) [1]	573	593
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	—
7.100% notes due 2027	141	141
6.700% notes due 2028	400	400
4.125% notes due 2028[1]	3,000	—
7.500% notes due 2029 [1]	550	550
2.150% notes due 2030 (€500 million principal value)[1]	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	—
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	—
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	—
4.625% notes due 2048[1]	1,750	—
Project financing obligations	287	158
Other (including capitalized leases)	287	195
Total principal long-term debt	44,416	27,118
Other (fair market value adjustments, discounts and debt issuance costs)	(348)	(25)
Total long-term debt	44,068	27,093
Less: current portion	2,876	2,104
Long-term debt, net of current portion	$ 41,192	$ 24,989

1 We may redeem these notes at our option pursuant to their terms.

2 The three-month EURIBOR rate as of December 31, 2018 was approximately -0.309%. 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, 2018 was approximately 2.808%.

4 Rockwell Collins debt which remained outstanding following the Merger.

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 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 2018 and 2017:

(dollars in millions)

Repayment Date	Description of Notes		Aggregate Principal Balance
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 This term loan was 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 10% and 9% at December 31, 2018 and 2017, 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, 2018 is approximately 11 years. The schedule of principal payments required on long-term debt for the next five years and thereafter is:

(dollars in millions)	
2019	$ 2,876
2020	3,436
2021	4,151
2022	3,910
2023	3,523
Thereafter	26,520
Total	$ 44,416

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.

NOTE 10: EQUITY

A summary of the changes in each component of Accumulated other comprehensive (loss) income, net of tax for the years ended December 31, 2018 and 2017 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, 2016	$ (3,480)	$ (5,045)	$ 353	$ (162)	$ (8,334)
Other comprehensive income before reclassifications, net	540	78	3	264	885
Amounts reclassified, pre-tax	(10)	529	(566)	(39)	(86)
Tax (expense) benefit reclassified	—	(214)	215	9	10
Balance at December 31, 2017	$ (2,950)	$ (4,652)	$ 5	$ 72	$ (7,525)
Other comprehensive loss before reclassifications, net	**(486)**	**(1,736)**	**—**	**(307)**	**(2,529)**
Amounts reclassified, pre-tax	**(2)**	**344**	**—**	**(16)**	**326**
Tax (expense) benefit reclassified	**(4)**	**326**	**—**	**78**	**400**
ASU 2016-01 adoption impact	**—**	**—**	**(5)**	**—**	**(5)**
Balance at December 31, 2018	**$ (3,442)**	**$ (5,718)**	**$ —**	**$ (173)**	**$ (9,333)**

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 (see Note 12 for additional details).

Amounts reclassified that relate to unrealized gains (losses) on available-for-sale securities, pre-tax includes approximately $500 million of previously unrealized gains reclassified to other income as a result of sales of significant investments in available-for-sale securities in 2017, including Carrier's sale of investments in Watsco, Inc.

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)	**2018**	2017	2016
United States	**$ 3,630**	$ 2,990	$ 2,534
Foreign	**4,650**	4,773	4,599
	$ 8,280	$ 7,763	$ 7,133

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).

In 2018, the Company recorded a $744 million charge, representing TCJA related adjustments. The amounts primarily relate to non-U.S. taxes that will become due when previously reinvested earnings of certain international subsidiaries are remitted. The Company has completed its accounting for the TCJA as described in Staff Accounting Bulletin (SAB 118). In 2019, the Company will continue to review and incorporate, as necessary, updates related to forthcoming U.S. Treasury Regulations, other interpretive guidance, and the finalization of the deemed inclusions to be reported on the Company's U.S. federal income tax returns.

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 the fourth quarter, it has recorded the taxes associated therewith. 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, 2018, such undistributed earnings were approximately $18 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, 2018, 2017 and 2016 consisted of the following components:

(dollars in millions)	**2018**	2017	2016
Current:			
United States:			
Federal	**$ 442**	$ 1,577	$ 30
State	**211**	64	(21)
Foreign	**1,238**	1,140	1,290
	1,891	2,781	1,299
Future:			
United States:			
Federal	**57**	(27)	318
State	**62**	84	134
Foreign	**616**	5	(54)
	735	62	398
Income tax expense	**$ 2,626**	$ 2,843	$ 1,697
Attributable to items credited (charged) to equity	**$ 501**	$ (128)	$ (299)

Reconciliation of Effective Income Tax Rate. Differences between effective income tax rates and the statutory U.S. federal income tax rate are as follows:

	2018	2017	2016
Statutory U.S. federal income tax rate	**21.0%**	35.0 %	35.0 %
Tax on international activities	**0.9%**	(6.4)%	(8.1)%
Tax audit settlements	**—%**	(0.7)%	(2.9)%
U.S. tax reform	**9.0%**	8.9 %	—
Other	**0.8%**	(0.2)%	(0.2)%
Effective income tax rate	**31.7%**	36.6 %	23.8 %

The 2018 effective tax rate reflects a net tax charge of $744 million for TCJA related adjustments. The amount primarily relates to non-U.S. taxes that will become due when previously reinvested earnings of certain international subsidiaries are remitted. As noted above, the Company has completed its accounting related to these items as described in Staff Accounting Bulletin (SAB 118). The 2018 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, as described above, 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.

The decrease in the tax audit settlement represents a $55 million favorable adjustment in 2017 related to the expiration of certain statute of limitations offset by the absence of the favorable audit settlements in 2016 described below. The decrease in the benefit associated with international activities is related to international earnings taxed at lower statutory rates offset by the absence of certain credits included in 2016. On December 7, 2017, the province of Quebec enacted a retroactive tax law change resulting in a cost of $48 million offset by the 2016 French law changes described below.

The 2016 effective tax rate reflects $206 million of favorable adjustments related to the conclusion of the review by the Examination Division of the Internal Revenue Service of the UTC 2011 and 2012 tax years and the Goodrich Corporation 2011 and 2012 tax years through the date of its acquisition. In addition, at the end of 2016, France enacted a tax law change reducing its corporate income tax rate, which resulted in a tax benefit of $25 million.

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 amounts have been adjusted for the impact of the TCJA.

The tax effects of temporary differences and tax carryforwards which gave rise to future income tax benefits and payables at December 31, 2018 and 2017 are as follows:

(dollars in millions)	**2018**	2017
Future income tax benefits:		
Insurance and employee benefits	**$ 1,154**	$ 928
Other asset basis differences	**1,013**	798
Other liability basis differences	**1,482**	1,158
Tax loss carryforwards	**583**	544
Tax credit carryforwards	**1,050**	948
Valuation allowances	**(605)**	(582)
	$ 4,677	$ 3,794
Future income taxes payable:		
Intangible assets	**$ 4,462**	$ 2,100
Other asset basis differences	**2,159**	1,315
Other items, net	**123**	411
	$ 6,744	$ 3,826

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, 2018, 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:		
2019-2023	$ 32	$ 286
2024-2028	33	189
2029-2038	354	559
Indefinite	631	1,931
Total	$ 1,050	$ 2,965

Unrecognized Tax Benefits. At December 31, 2018, we had gross tax-effected unrecognized tax benefits of $1,619 million, of which $1,609 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, 2018, 2017 and 2016 is as follows:

(dollars in millions)	**2018**	2017	2016
Balance at January 1	**$ 1,189**	$ 1,086	$ 1,169
Additions for tax positions related to the current year	**192**	192	69
Additions for tax positions of prior years	**344**	73	167
Reductions for tax positions of prior years	**(91)**	(91)	(61)
Settlements	**(15)**	(71)	(258)
Balance at December 31	**$ 1,619**	$ 1,189	$ 1,086
Gross interest expense related to unrecognized tax benefits	**$ 37**	$ 34	$ 41
Total accrued interest balance at December 31	**$ 255**	$ 215	$ 185

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 2008.

During the quarter ended September 30, 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.

During the quarter ended December 31, 2016, the Company recognized a noncash gain of approximately $172 million, including a pre-tax interest adjustment of $22 million, as a result of the closure of the audit by the Examination Division of the Internal Revenue Service (IRS) of UTC tax years 2011 and 2012.

During the quarter ended September 30, 2016, the Company recognized a noncash gain of approximately $58 million, primarily tax, as a result of the closure of the audit by the Examination Division of the IRS of Goodrich Corporation tax years 2011 and 2012 through the date of acquisition by UTC.

As of December 31, 2018, UTC's tax years 2014, 2015 and 2016 were under audit by the Examination Division of the Internal Revenue Service (IRS) and the audit is expected to conclude during 2019. The Examination Division of the IRS is also auditing the 2014 tax year of a subsidiary acquired as part of UTC's acquisition of Rockwell Collins and the audit is expected to conclude during 2019. Another subsidiary of the Company is engaged in litigation in Italy which is currently pending before the Italian Supreme Court following favorable lower court decisions. The Italian Tax Authority recently announced an amnesty program; the Company expects to make a decision whether to take part in the first or second quarter of 2019. If we participate,

the Company would expect to recognize a non-cash gain, primarily tax, in the range of $90 million to $110 million before the end of the second quarter of 2019.

It is reasonably possible that a net reduction within the range of $470 million to $845 million of unrecognized tax benefits may occur over the next 12 months as a result of 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)

	2016		
(dollars in millions)	**Previously Reported**	**Effect of Change Higher/(Lower)**	**As Revised**
Cost of product sold	$ 30,325	$ (21)	$ 30,304
Cost of services sold	11,135	32	11,167
Research and development	2,337	39	2,376
Selling, general and administrative	6,060	(102)	5,958
Other income	785	(3)	782
Non-service pension cost	—	49	49

Employee Savings Plans. We sponsor various employee savings plans. Our contributions to employer sponsored defined contribution plans were $403 million, $351 million and $318 million for 2018, 2017 and 2016, 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, 2018, 24.7 million common shares had been allocated to employees, leaving 9.4 million unallocated common shares in the ESOP Trust, with an approximate fair value of $1.0 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)	2018	2017
Change in Benefit Obligation:		
Beginning balance	**$ 36,999**	$ 34,923
Service cost	**372**	374
Interest cost	**1,117**	1,120
Actuarial (gain) loss	**(2,048)**	1,804
Total benefits paid	**(1,932)**	(1,782)
Net settlement, curtailment and special termination benefits	**(38)**	(49)
Plan amendments	**65**	4
Business combinations	**3,694**	—
Other	**(434)**	605
Ending balance	**$ 37,795**	$ 36,999
Change in Plan Assets:		
Beginning balance	**$ 35,689**	$ 30,555
Actual return on plan assets	**(1,667)**	4,258
Employer contributions	**238**	2,188
Benefits paid	**(1,932)**	(1,782)
Settlements	**(38)**	(41)
Business combinations	**3,355**	—
Other	**(392)**	511
Ending balance	**$ 35,253**	$ 35,689
Funded Status:		
Fair value of plan assets	**$ 35,253**	$ 35,689
Benefit obligations	**(37,795)**	(36,999)
Funded status of plan	**$ (2,542)**	$ (1,310)
Amounts Recognized in the Consolidated Balance Sheet Consist of:		
Noncurrent assets	**$ 686**	$ 957
Current liability	**(88)**	(70)
Noncurrent liability	**(3,140)**	(2,197)
Net amount recognized	**$ (2,542)**	$ (1,310)
Amounts Recognized in Accumulated Other Comprehensive Loss Consist of:		
Net actuarial loss	**$ 8,606**	$ 7,238
Prior service cost	**139**	37
Net amount recognized	**$ 8,745**	$ 7,275

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 the quarter ended September 30, 2017. In 2016, we entered into an agreement to purchase a group annuity contract to transfer approximately $768 million of our outstanding pension benefit obligations related to certain U.S. retirees or beneficiaries, which was finalized on October 12, 2016. We also offered certain former U.S. employees or beneficiaries (generally all former U.S. participants not yet in receipt of their vested pension benefits) an option to take a one-time lump-sum distribution in lieu of future monthly pension payments, which reduced our pension benefit obligations by approximately $935 million. These transactions reduced the assets of our defined benefit pension plans by approximately $1.5 billion. As a result of these 2016 transactions, we recognized a one-time pre-tax pension settlement charge of approximately $423 million in the fourth quarter of 2016.

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.

As approved in 2016, effective January 1, 2017, a voluntary lump-sum option is available for the frozen final average earnings benefits of certain U.S. salaried employees upon termination of employment after 2016. This option provides participants with the choice of electing to receive a lump-sum payment in lieu of receiving a future monthly pension benefit. This plan change reduced the projected benefit obligation by $170 million as of December 31, 2016.

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 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 23% 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 no contributions to our domestic defined benefit pension plans and made $147 million of cash contributions to our foreign defined benefit pension plans in 2018. In 2017, we made $1.9 billion of cash contributions to our domestic defined benefit pension plans and made $212 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)	**2018**	2017
Projected benefit obligation	**$ 25,884**	$ 22,360
Accumulated benefit obligation	**25,455**	22,159
Fair value of plan assets	**22,803**	20,438

Information for pension plans with projected benefit obligations in excess of plan assets:

(dollars in millions)	**2018**	2017
Projected benefit obligation	**$ 28,591**	$ 27,211
Accumulated benefit obligation	**27,968**	26,560
Fair value of plan assets	**25,362**	24,944

The accumulated benefit obligation for all defined benefit pension plans was $37.0 billion and $36.2 billion at December 31, 2018 and 2017, respectively.

The components of the net periodic pension (benefit) cost are as follows:

(dollars in millions)	**2018**	2017	2016
Pension Benefits:			
Service cost	**$ 372**	$ 374	$ 383
Interest cost	**1,117**	1,120	1,183
Expected return on plan assets	**(2,255)**	(2,215)	(2,202)
Amortization of prior service credit	**(41)**	(36)	(33)
Recognized actuarial net loss	**401**	575	572
Net settlement, curtailment and special termination benefits loss	**1**	3	498
Net periodic pension (benefit) cost - employer	**$ (405)**	$ (179)	$ 401

Other changes in plan assets and benefit obligations recognized in other comprehensive loss in 2018 are as follows:

(dollars in millions)		
Current year actuarial loss	**$**	**1,871**
Amortization of actuarial loss		**(401)**
Current year prior service cost		**65**
Amortization of prior service credit		**41**
Net settlement and curtailment loss		**2**
Other		**(108)**
Total recognized in other comprehensive loss	**$**	**1,470**
Net recognized in net periodic pension (benefit) cost and other comprehensive loss	**$**	**1,065**

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 2019 is as follows:

(dollars in millions)		
Net actuarial loss	$	214
Prior service cost		17
	$	231

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		
	2018	2017	**2018**	2017	2016
Discount rate					
PBO	**4.0%**	3.4%	**3.4%**	3.8%	4.1%
Interest cost[1]	**—**	—	**3.0%**	3.3%	3.4%
Service cost[1]	**—**	—	**3.3%**	3.6%	3.8%
Salary scale	**4.2%**	4.2%	**4.2%**	4.1%	4.2%
Expected return on plan assets	**—**	—	**6.8%**	7.3%	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 50% to 55% of growth seeking assets and 45% to 50% 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 dynamically increased 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 60% to 65% of the interest rate sensitivity of the pension plan liabilities.

As a result of the shift in the target asset mix in 2017 to higher income generating and hedging assets and lower growth seeking assets, we reduced the expected return on plan assets assumption for 2018 including the assumption of a 7% return on plan assets for our qualified domestic pension plans, down from 7.6% in 2017.

The fair values of pension plan assets at December 31, 2018 and 2017 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	**$ 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**
Public Equities					
Global Equities	$ 3,129	$ 3	$ —	$ —	$ 3,132
Global Equity Commingled Funds[1]	—	1,084	—	—	1,084
Enhanced Global Equities [2]	213	819	—	—	1,032
Global Equity Funds at net asset value [8]	—	—	—	7,599	7,599
Private Equities [3,8]	—	—	46	1,170	1,216
Fixed Income Securities					
Governments	1,445	69	—	—	1,514
Corporate Bonds	—	10,929	—	—	10,929
Fixed Income Securities[8]	—	—	—	3,519	3,519
Real Estate [4,8]	—	15	1,446	396	1,857
Other [5,8]	—	287	—	2,509	2,796
Cash & Cash Equivalents [6,8]	—	79	—	498	577
Subtotal	$ 4,787	$ 13,285	$ 1,492	$ 15,691	35,255
Other Assets & Liabilities[7]					434
Total at December 31, 2017					$ 35,689

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 approximately less than 1% of total plan assets at both December 31, 2018 and 2017. 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, 2016	$ 122	$ —	$ 1,285	$ 1,407
Realized gains	61	—	31	92
Unrealized (losses) gains relating to instruments still held in the reporting period	(47)	—	17	(30)
Purchases, sales, and settlements, net	(90)	—	113	23
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**

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 2024. We expect to make total contributions of approximately $100 million to our global defined benefit pension plans in 2019. 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: $2,371 million in 2019, $2,195 million in 2020, $2,240 million in 2021, $2,292 million in 2022, $2,327 million in 2023, and $11,939 million from 2024 through 2028.

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 87% of the benefit obligation. The postretirement plans are primarily unfunded. The assets are invested in approximately 50% growth seeking assets and 50% income generating assets.

(dollars in millions)	2018	2017
Change in Benefit Obligation:		
Beginning balance	**$ 767**	$ 805
Service cost	**2**	2
Interest cost	**26**	29
Actuarial gain	**(52)**	(4)
Total benefits paid	**(70)**	(87)
Business combinations	**186**	—
Plan amendments	**(43)**	(6)
Other	**(6)**	28
Ending balance	**$ 810**	$ 767
Change in Plan Assets:		
Beginning balance	**$ —**	$ —
Employer contributions	**69**	71
Benefits paid	**(70)**	(87)
Business combinations	**20**	—
Other	**1**	16
Ending balance	**$ 20**	$ —
Funded Status:		
Fair value of plan assets	**$ 20**	$ —
Benefit obligations	**(810)**	(767)
Funded status of plan	**$ (790)**	$ (767)
Amounts Recognized in the Consolidated Balance Sheet Consist of:		
Current liability	**$ (61)**	$ (72)
Noncurrent liability	**(729)**	(695)
Net amount recognized	**$ (790)**	$ (767)
Amounts Recognized in Accumulated Other Comprehensive Loss Consist of:		
Net actuarial gain	**$ (184)**	$ (143)
Prior service credit	**(47)**	(10)
Net amount recognized	**$ (231)**	$ (153)

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 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)	2018	2017	2016
Other Postretirement Benefits:			
Service cost	**$ 2**	$ 2	$ 3
Interest cost	**26**	29	34
Amortization of prior service credit	**(6)**	(1)	—
Recognized actuarial net gain	**(10)**	(9)	(4)
Net periodic other postretirement benefit cost	**$ 12**	$ 21	$ 33

Other changes in plan assets and benefit obligations recognized in other comprehensive loss in 2018 are as follows:

(dollars in millions)		
Current year actuarial gain	$	**(52)**
Current year prior service credit		**(43)**
Amortization of prior service credit		**6**
Amortization of actuarial net gain		**10**
Other		**1**
Total recognized in other comprehensive loss	$	**(78)**
Net recognized in net periodic other postretirement benefit cost and other comprehensive loss	$	**(66)**

The estimated amounts that will be amortized from accumulated other comprehensive loss into net periodic benefit cost in 2019 include actuarial net gains of $12 million and prior service credits of $42 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		
	2018	2017	**2018**	2017	2016
Discount rate	**4.1%**	3.4%	**3.4%**	3.8%	4.0%
Expected return on assets	**—**	—	**7.0%**	N/A	N/A

Assumed health care cost trend rates are as follows:

	2018	2017
Health care cost trend rate assumed for next year	**7.0%**	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:

	2018 One-Percentage-Point	
(dollars in millions)	Increase	Decrease
Effect on total service and interest cost	$ 1	$ (1)
Effect on postretirement benefit obligation	32	(28)

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: $81 million in 2019, $75 million in 2020, $72 million in 2021, $67 million in 2022, $61 million in 2023, and $253 million from 2024 through 2028.

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 2018 and 2017 is for the plan's year-end at June 30, 2017, and June 30, 2016, 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	**2018**	2017	Pending/ Implemented	**2018**	2017	2016	Surcharge Imposed	Expiration Date of Collective-Bargaining Agreement
National Elevator Industry Pension Plan	23-2694291	**Green**	Green	No	**$ 120**	$ 114	$ 100	No	July 8, 2022
Other funds					**31**	31	31		
					$ 151	$ 145	$ 131		

For the plan years ended June 30, 2017 and 2016, 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, 2018.

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 $20 million, $19 million and $17 million for 2018, 2017 and 2016, 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 no equity-based compensation awards granted under any other plan. As of December 31, 2018, approximately 58 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 as follows:

(dollars in millions)	**2018**	2017	2016
Continuing operations	**$ 251**	$ 192	$ 152
Discontinued operations	**—**	—	1
Total compensation cost recognized	**$ 251**	$ 192	$ 153

The associated future income tax benefit recognized was $42 million, $38 million and $49 million for the years ended December 31, 2018, 2017 and 2016, respectively. The amounts have been adjusted for the impact of the TCJA. Please refer to Note 11 for additional detail.

For the years ended December 31, 2018, 2017 and 2016, the amount of cash received from the exercise of stock options was $36 million, $29 million and $17 million, respectively, with an associated tax benefit realized of $59 million, $100 million and $69 million, respectively. In addition, for the years ended December 31, 2018, 2017 and 2016, the associated tax benefit realized from the vesting of performance share units and other restricted awards was $13 million, $12 million and $17 million, respectively. The 2018 amount was computed using current US Federal and State tax rates.

At December 31, 2018, there was $240 million of total unrecognized compensation cost related to non-vested equity awards granted under long-term incentive plans, of which $50 million relates to Rockwell Collins awards. This cost is expected to be recognized ratably over a weighted-average period of 2.6 years.

A summary of the transactions under all long-term incentive plans for the year ended December 31, 2018 follows:

	Stock Options		Stock Appreciation Rights		Performance Share Units		
(shares and units in thousands)	Shares	Average Price*	Shares	Average Price*	Units	Average Price**	Other Incentive Shares/Units
Outstanding at:							
December 31, 2017	1,745	$ 94.35	32,722	$ 92.54	1,876	$ 106.38	2,182
Granted[1]	**255**	**126.94**	**4,579**	**127.37**	**598**	**128.20**	**992**
Exercised / earned	**(389)**	**92.52**	**(4,781)**	**74.47**	**(181)**	**115.08**	**(406)**
Cancelled	**(8)**	**111.87**	**(454)**	**110.50**	**(487)**	**114.99**	**(72)**
Other - Rockwell Collins[2]	**—**	**$ —**	**—**	**$ —**	**—**	**$ —**	**351**
December 31, 2018	**1,603**	**$ 99.89**	**32,066**	**$ 99.95**	**1,806**	**$ 110.41**	**3,047**

* weighted-average exercise price

** weighted-average grant stock price

1 Other Incentive Shares include 193 thousand of units granted post-acquisition to specific Rockwell Collins executives

2 Represents Rockwell Collins awards converted to UTC RSU shares in accordance with merger acquisition

The weighted-average grant date fair value of stock options and stock appreciation rights granted during 2018, 2017 and 2016 was $20.24, $17.22 and $14.02, respectively. The weighted-average grant date fair value of performance share units, which vest upon achieving certain performance metrics, granted during 2018, 2017 and 2016 was $131.55, $111.00 and $91.63, respectively. The total fair value of awards vested during the years ended December 31, 2018, 2017 and 2016 was $149 million, $138 million and $165 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, 2018, 2017 and 2016 was $283 million, $320 million and $214 million, respectively. The total intrinsic value (which is the stock price at vesting) of performance share units and other restricted awards vested was $74 million, $49 million and $61 million during the years ended December 31, 2018, 2017 and 2016, respectively.

The following table summarizes information about equity awards outstanding that are vested and expected to vest and equity awards outstanding that are exercisable at December 31, 2018:

	Equity Awards Vested and Expected to Vest				Equity Awards That Are Exercisable			
(shares in thousands; aggregate intrinsic value in millions)	Awards	Average Price*	Aggregate Intrinsic Value	Remaining Term**	Awards	Average Price*	Aggregate Intrinsic Value	Remaining Term**
Stock Options/Stock Appreciation Rights	33,059	$ 98.97	$ 407	5.4 years	21,761	$ 92.08	$ 365	4.0 years
Performance Share Units/Restricted Stock[1]	4,821	—	513	1.7 years				

* weighted-average exercise price per share

** weighted-average contractual remaining term in years

1 Restricted Stock values include Rockwell Collins awards totaling 507 thousand, for which aggregate intrinsic value is 54 million for the remaining term of 2.2 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, 2018, 2017 and 2016. Lattice-based option models incorporate ranges of assumptions for inputs; those ranges are as follows:

	2018	2017	2016
Expected volatility	**17.5% - 21.1%**	19%	20%
Weighted-average volatility	**18%**	19%	20%
Expected term (in years)	**6.5 - 6.6**	6.5	6.5
Expected dividend yield	**2.2%**	2.4%	2.7%
Risk-free rate	**1.3% - 2.7%**	0.5% - 2.5%	0.2% - 2.6%

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 2018, we recorded net pre-tax restructuring costs totaling $307 million for new and ongoing restructuring actions. We recorded charges in the segments as follows:

(dollars in millions)		
Otis	$	69
Carrier		80
Pratt & Whitney		(7)
Collins Aerospace Systems		160
Eliminations and other		5
Total	$	307

Restructuring charges incurred in 2018 primarily relate to actions initiated during 2018 and 2017, and were recorded as follows:

(dollars in millions)		
Cost of sales	$	147
Selling, general & administrative		162
Non-service pension (benefit)		(2)
Total	$	307

2018 Actions. During 2018, we recorded net pre-tax restructuring costs totaling $207 million for restructuring actions initiated in 2018, consisting of $76 million in cost of sales, $133 million in selling, general and administrative expenses and $(2) million in non-service pension benefit. The 2018 actions relate to ongoing cost reduction efforts, including workforce reductions and consolidation of field operations.

We are targeting to complete in 2019 and 2020 the majority of the remaining workforce and all facility related cost reduction actions initiated in 2018. 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 2018 restructuring actions:

(dollars in millions)		Severance		Facility Exit, Lease Termination & Other Costs		Total
Net pre-tax restructuring costs	$	191	$	16	$	207
Utilization, foreign exchange and other costs		(76)		7		(69)
Balance at December 31, 2018	**$**	**115**	**$**	**23**	**$**	**138**

The following table summarizes expected, incurred and remaining costs for the 2018 restructuring actions by segment:

(dollars in millions)		**Expected Costs**		**Cost Incurred During 2018**		**Remaining Costs at December 31, 2018**
Otis	$	55	**$**	**(48)**	**$**	**7**
Carrier		111		**(64)**		**47**
Pratt & Whitney		3		**(3)**		**—**
Collins Aerospace Systems		111		**(87)**		**24**
Eliminations and other		6		**(5)**		**1**
Total	**$**	**286**	**$**	**(207)**	**$**	**79**

2017 Actions. During 2018, we recorded net pre-tax restructuring costs totaling $94 million for restructuring actions initiated in 2017, consisting of $72 million in cost of sales and $22 million in selling, general and administrative expenses. The 2017 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 2017 restructuring actions:

(dollars in millions)	Severance	Facility Exit, Lease Termination and Other Costs	Total
Restructuring accruals at January 1, 2018	$ 84	$ 1	$ 85
Net pre-tax restructuring costs	62	32	94
Utilization, foreign exchange and other costs	(89)	(37)	(126)
Balance at December 31, 2018	**$ 57**	**$ (4)**	**$ 53**

The following table summarizes expected, incurred and remaining costs for the 2017 programs by segment:

(dollars in millions)	Expected Costs	Costs Incurred During 2017	**Costs Incurred During 2018**	**Remaining Costs at December 31, 2018**
Otis	$ 66	$ (43)	**$ (20)**	**$ 3**
Carrier	77	(76)	**—**	**1**
Pratt & Whitney	7	(7)	**—**	**—**
Collins Aerospace Systems	204	(43)	**(74)**	**87**
Eliminations and other	7	(7)	**—**	**—**
Total	$ 361	$ (176)	**$ (94)**	**$ 91**

2016 and Prior Actions. During 2018, we recorded net pre-tax restructuring costs totaling $6 million for restructuring actions initiated in 2016 and prior. As of December 31, 2018, we have approximately $58 million of accrual balances remaining related to 2016 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 $20.1 billion and $19.1 billion at December 31, 2018 and 2017, 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, 2018 and 2017:

(dollars in millions)	Balance Sheet Location	December 31, 2018	December 31, 2017
Derivatives designated as hedging instruments:			
Foreign exchange contracts	Asset Derivatives:		
	Other assets, current	**$ 10**	$ 77
	Other assets	**12**	101
	Total asset derivatives	**$ 22**	$ 178
	Liability Derivatives:		
	Accrued liabilities	**(83)**	(10)
	Other long-term liabilities	**(111)**	(8)
	Total liability derivatives	**$ (194)**	$ (18)
Derivatives not designated as hedging instruments:			
Foreign exchange contracts	Asset Derivatives:		
	Other assets, current	**44**	70
	Other assets	**19**	5
	Total asset derivatives	**$ 63**	$ 75
	Liability Derivatives:		
	Accrued liabilities	**(89)**	(57)
	Other long-term liabilities	**(3)**	(3)
	Total liability derivatives	**$ (92)**	$ (60)

The effect of cash flow hedging relationships on accumulated other comprehensive income for the years ended December 31, 2018 and 2017 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)	**2018**	2017
(Loss) Gain recorded in Accumulated other comprehensive loss	**$ (307)**	$ 347
Gain reclassified from Accumulated other comprehensive loss into Product sales	**$ (16)**	$ (39)

The table above reflects the effect of cash flow hedging relationships on the Consolidated Statement of Operations for the years ended December 31, 2018 and 2017. 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 €4.95 billion of euro-denominated long-term debt and €750 million of euro-denominated commercial paper borrowings outstanding, which qualify as a net investment hedge against our investments in European businesses. As of December 31, 2018, the net investment hedge is deemed to be effective.

Assuming current market conditions continue, a $48 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, 2018, all derivative contracts accounted for as cash flow hedges will mature by January 2023.

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)	**2018**	2017
Gain recognized in Other income, net	**$ 115**	$ 77

NOTE 15: FAIR VALUE MEASUREMENTS

In accordance with the provisions of ASC 820, the following tables 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, 2018 and 2017:

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)**	**—**

2017 *(dollars in millions)*	Total	Level 1	Level 2	Level 3
Recurring fair value measurements:				
Available-for-sale securities	$ 64	$ 64	$ —	$ —
Derivative assets	253	—	253	—
Derivative liabilities	(78)	—	(78)	—

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, 2018, there were no significant transfers in or out of Level 1 and Level 2.

As of December 31, 2018, 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, 2018 and 2017:

	December 31, 2018		December 31, 2017	
(dollars in millions)	**Carrying Amount**	**Fair Value**	Carrying Amount	Fair Value
Long-term receivables	**$ 334**	**$ 314**	$ 127	$ 121
Customer financing notes receivable	**272**	**265**	609	596
Short-term borrowings	**(1,469)**	**(1,469)**	(392)	(392)
Long-term debt (excluding capitalized leases)	**(43,996)**	**(44,003)**	(27,067)	(29,180)
Long-term liabilities	**(508)**	**(467)**	(362)	(330)

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, 2018 and 2017:

	December 31, 2018			
(dollars in millions)	**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 capitalized leases)	**(44,003)**	**—**	**(43,620)**	**(383)**
Long-term liabilities	**(467)**	**—**	**(467)**	**—**

(dollars in millions)	December 31, 2017 Total	Level 1	Level 2	Level 3
Long-term receivables	$ 121	$ —	$ 121	$ —
Customer financing notes receivable	596	—	596	—
Short-term borrowings	(392)	—	(300)	(92)
Long-term debt (excluding capitalized leases)	(29,180)	—	(28,970)	(210)
Long-term liabilities	(330)	—	(330)	—

NOTE 16: VARIABLE INTEREST ENTITIES

Pratt & Whitney holds a net 61% 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% net 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, 2018 and 2017 are as follows:

(dollars in millions)	**2018**	2017
Current assets	**$ 4,732**	$ 3,976
Noncurrent assets	**1,600**	1,534
Total assets	**$ 6,332**	$ 5,510
Current liabilities	**$ 4,946**	$ 3,601
Noncurrent liabilities	**1,898**	2,086
Total liabilities	**$ 6,844**	$ 5,687

NOTE 17: GUARANTEES

We extend a variety of financial, market value and product performance guarantees to third parties. As of December 31, 2018 and 2017, the following financial guarantees were outstanding:

	December 31, 2018		December 31, 2017	
(dollars in millions)	**Maximum Potential Payment**	**Carrying Amount of Liability**	Maximum Potential Payment	Carrying Amount of Liability
Commercial aerospace financing arrangements (see Note 5)	**$ 348**	**$ 9**	$ 336	$ 8
Credit facilities and debt obligations (expire 2019 to 2028)	**116**	**—**	256	15
Performance guarantees	**55**	**5**	56	2

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 $175 million and $179 million at December 31, 2018 and December 31, 2017, 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, 2018 and 2017 are as follows:

(dollars in millions)	**2018**	2017
Balance as of January 1[1]	**$ 1,146**	$ 1,199
Warranties and performance guarantees issued	**604**	323
Settlements made	**(493)**	(207)
Other [2]	**192**	9
Balance as of December 31	**$ 1,449**	$ 1,324

1 Change in beginning balance due to revenue recognition reclassification of extended warranty to net contract asset/liability.

2 Increase in Other is driven by 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.

Leases. We occupy space and use certain equipment and assets under lease arrangements. Rental commitments of approximately $2.9 billion at December 31, 2018 under long-term non-cancelable operating leases are 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. Rent expense was $422 million in 2018, $411 million in 2017 and $386 million in 2016.

Additional information pertaining to commercial aerospace rental commitments is included in Note 5 to the Consolidated Financial Statements.

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, 2018 and 2017, we had approximately $830 million reserved for environmental remediation, respectively. 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, which recommend that certain contract prices should be reduced to comply with various government regulations, including because cost or pricing data we submitted in negotiation of the contract prices or cost accounting practices may not have conformed to government regulations, or that certain payments be delayed or withheld. Some of these audit reports involved 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. 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 accrued the minimum amount.

Legal Proceedings.

Cost Accounting Standards Claims

As previously disclosed, in December 2013, a Divisional Administrative Contracting Officer of the United States Defense Contract Management Agency (DCMA) asserted a claim against Pratt & Whitney to recover overpayments of approximately $177 million plus interest (approximately $82.6 million through December 31, 2018). 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. On March 18, 2014, Pratt & Whitney filed an appeal to the Armed Services Board of Contract Appeals (ASBCA). We continue to believe that the claim is without merit and the matter is currently scheduled for trial later this year. On December 18, 2018, a Divisional Administrative Contracting Officer of the DCMA 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 $38.9 million), which we also believe is without merit and which Pratt & Whitney appealed to the ASBCA on January 9, 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 $247 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 $135 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.

Our estimated total liability to resolve all pending and unasserted potential future asbestos claims through 2059 is approximately $335 million and is principally recorded in Other long-term liabilities on our Consolidated Balance Sheet as of December 31, 2018. 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 $155 million, which is included primarily in Other assets on our Consolidated Balance Sheet as of December 31, 2018.

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 PurePower 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 have been identified, for which a reasonable estimate of the impact cannot currently be made, and such 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: 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, space and undersea 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 2018.

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)	**2018**	2017	2016	**2018**	2017	2016
Otis	**$ 12,904**	$ 12,341	$ 11,893	**$ 1,915**	$ 2,002	$ 2,125
Carrier	**18,922**	17,812	16,851	**3,777**	3,165	2,848
Pratt & Whitney	**19,397**	16,160	14,894	**1,269**	1,300	1,501
Collins Aerospace Systems	**16,634**	14,691	14,465	**2,303**	2,191	2,167
Total segment	**67,857**	61,004	58,103	**9,264**	8,658	8,641
Eliminations and other	**(1,356)**	(1,167)	(859)	**(236)**	(81)	(18)
General corporate expenses	**—**	—	—	**(475)**	(439)	(402)
Consolidated	**$ 66,501**	$ 59,837	$ 57,244	**$ 8,553**	$ 8,138	$ 8,221

	Total Assets			Capital Expenditures			Depreciation & Amortization		
(dollars in millions)	**2018**	2017	2016	**2018**	2017	2016	**2018**	2017	2016
Otis	**$ 9,374**	$ 9,421	$ 8,867	**$ 172**	$ 133	$ 94	**$ 190**	$ 177	$ 171
Carrier	**22,189**	22,657	21,787	**263**	326	340	**357**	372	354
Pratt & Whitney	**29,341**	26,768	22,971	**866**	923	725	**852**	672	550
Collins Aerospace Systems	**73,115**	34,567	34,093	**515**	527	452	**883**	823	807
Total segment	**134,019**	93,413	87,718	**1,816**	1,909	1,611	**2,282**	2,044	1,882
Eliminations and other	**192**	3,507	1,988	**86**	105	88	**151**	96	80
Consolidated	**$ 134,211**	$ 96,920	$ 89,706	**$ 1,902**	$ 2,014	$ 1,699	**$ 2,433**	$ 2,140	$ 1,962

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.

	External Net Sales			Operating Profits			Long-Lived Assets		
(dollars in millions)	**2018**	2017	2016	**2018**	2017	2016	**2018**	2017	2016
United States Operations	**$ 39,481**	$ 33,912	$ 32,335	**$ 4,941**	$ 4,126	$ 4,304	**$ 7,111**	$ 5,323	$ 4,822
International Operations									
Europe	**12,857**	11,879	11,151	**2,141**	1,959	1,826	**1,908**	1,817	1,538
Asia Pacific	**8,847**	8,770	8,260	**1,476**	1,491	1,486	**1,349**	1,113	999
Other	**6,672**	6,443	6,357	**706**	1,082	1,025	**1,363**	1,389	1,325
Eliminations and other	**(1,356)**	(1,167)	(859)	**(711)**	(520)	(420)	**566**	544	474
Consolidated	**$ 66,501**	$ 59,837	$ 57,244	**$ 8,553**	$ 8,138	$ 8,221	**$ 12,297**	$ 10,186	$ 9,158

Sales from U.S. operations include export sales as follows:

(dollars in millions)	**2018**	2017	2016
Europe	**$ 6,285**	$ 5,273	$ 5,065
Asia Pacific	**5,429**	3,634	3,449
Other	**2,514**	2,217	2,313
	$ 14,228	$ 11,124	$ 10,827

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**

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)	2018	2017	2016
Pratt & Whitney	**$ 4,489**	$ 3,347	$ 3,187
Collins Aerospace Systems	**2,779**	2,299	2,301
Other	**175**	152	138
	$ 7,443	$ 5,798	$ 5,626

Net sales to Airbus, primarily related to Pratt & Whitney and Collins Aerospace Systems products, were approximately $10,025 million, $8,908 million and $7,688 million for the years ended December 31, 2018, 2017 and 2016, respectively.

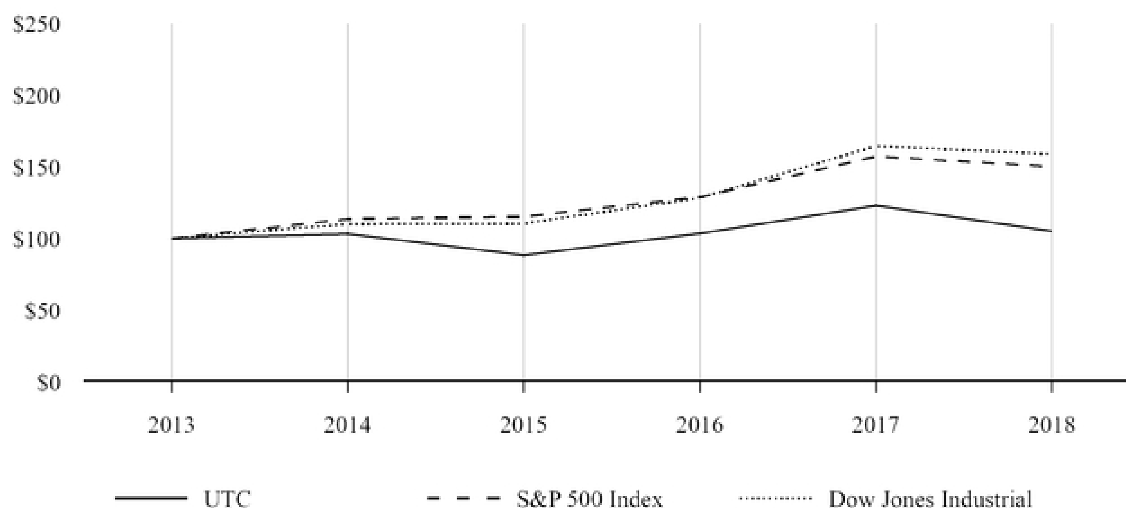
SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

(dollars in millions, except per share amounts)	2018 Quarters				2017 Quarters			
	First	**Second**	**Third**	**Fourth**	**First**	**Second**	**Third**	**Fourth**
Net Sales	**$ 15,242**	**$ 16,705**	**$ 16,510**	**$ 18,044**	$ 13,815	$ 15,280	$ 15,062	$ 15,680
Gross margin	**3,962**	**4,283**	**3,974**	**4,297**	3,679	4,116	3,956	3,885
Net income attributable to common shareowners	**1,297**	**2,048**	**1,238**	**686**	1,386	1,439	1,330	397
Earnings per share of Common Stock:								
Basic - net income	**$ 1.64**	**$ 2.59**	**$ 1.56**	**$ 0.83**	$ 1.75	$ 1.83	$ 1.69	$ 0.50
Diluted - net income	**$ 1.62**	**$ 2.56**	**$ 1.54**	**$ 0.83**	$ 1.73	$ 1.80	$ 1.67	$ 0.50

PERFORMANCE GRAPH (UNAUDITED)

The following graph presents the cumulative total shareholder return for the five years ending December 31, 2018 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, 2013.

COMPARISON OF CUMULATIVE FIVE YEAR TOTAL RETURN



United Technologies Corporation **Exhibit 21**
Subsidiary and Affiliate Listing
December 31, 2018

Entity Name	Place of Incorporation
Allyn Holdings, Inc.	Delaware
AMI Industries, Inc.	Colorado
Arabian Air Conditioning Company	Saudi Arabia
Augusta (Gibraltar) Holdings I Limited	Gibraltar
Augusta (Gibraltar) Holdings II S.C.S.	Grand-Duchy of Luxembourg
Automated Logic Corporation	Georgia
B/E Aerospace (UK) Limited	United Kingdom
B/E Aerospace Global Holdings Limited	United Kingdom
B/E Aerospace Holdings GmbH	Germany
B/E Aerospace, Inc.	Delaware
BE Aerospace Investment Holdings Ltd.	Cayman Islands
BE Aerospace Investments Holdings II S.a.r.l.	Grand-Duchy of Luxembourg
BEA (Barbados) Global Holdings SRL	Barbados
BEA (Barbados) DRE SRL	Barbados
Bedford Holdings B.V.	Netherlands
Beesail Limited	England
Belgium Parkview BVBA	Belgium
Berkeley Luxembourg S.à r.l.	Grand-Duchy of Luxembourg
BET Security and Communications Limited	United Kingdom
Blades Technology International, Inc.	Delaware
Blades Technology Ltd.	Israel
Bridgecam (Ireland) Limited	Ireland
Cambridge Luxembourg S.à r.l.	Grand-Duchy of Luxembourg
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 Technologies ULC	Alberta
Ceesail Limited	England
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

United Technologies Corporation
Subsidiary and Affiliate Listing
December 31, 2018

Entity Name	Place of Incorporation
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
Elmwood Holdings LLC	Delaware
Empresas Carrier, S. De R.L. De C.V.	Mexico
Fernwood Holdings S.C.S	Luxembourg
Goodrich Aerospace Canada Ltd	Ontario
Goodrich Aftermarket Services Limited	United Kingdom
Goodrich Control Systems	United Kingdom
Goodrich Corporation	New York
Goodrich Inertial Limited	United Kingdom
Goodrich Limited	United Kingdom
Goodrich Luxembourg S.A.R.L.	Grand-Duchy of Luxembourg
Goodrich Systems Limited	United Kingdom
Goodrich XCH Luxembourg B.V./S.a.r.l. (Dual Dutch/Lux Citizenship)	Netherlands
Gulf Security Technology Company Limited	China
Hamilton Sundstrand Aviation Services, Inc.	Delaware
Hamilton Sundstrand Corporation	Delaware
Hamilton Sundstrand Holdings, Inc.	Delaware
Hamilton Sundstrand International Holdings (Luxembourg) S.à r.l.	Grand-Duchy of Luxembourg
HEJ Holding, Inc.	Delaware
IAE International Aero Engines AG	Switzerland
Kidde Fire Protection Inc.	Delaware
Kidde International Limited	England
Kidde Products Limited	England
Kidde Technologies Inc.*	Delaware
Kidde UK	England
Kidde US Holdings Inc.	Delaware
Latin American Holding, Inc.	Delaware
Menasco Aerosystems Inc.	Delaware
Mulberry Holdings LLC	Delaware
Netherlands Parkview Coöperatief U.A.	Netherlands
Nippon Otis Elevator Company	Japan
Noresco, LLC	Delaware

United Technologies Corporation
Subsidiary and Affiliate Listing
December 31, 2018

Entity Name	Place of Incorporation
NSI, Inc.	Delaware
Otis Electric Elevator Company Limited	China
Otis Elevator (China) Company Limited	China
Otis Elevator (China) Investment Company Limited	China
Otis Elevator Company	New Jersey
Otis Elevator Korea	Korea, Republic of
Otis Far East Holdings Limited	Hong Kong
Otis Holdings GmbH & Co. OHG	Germany
Otis 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 Holdings LLC	Cayman Islands
Pratt & Whitney PurePower Engine Canada Distribution Corp.	Novia Scotia
Pratt & Whitney Rzeszow S.A.	Poland
Pratt & Whitney Services, Inc.	Delaware
Pratt Aero Limited Partnership	Nova Scotia
Ratier-Figeac, SAS	France
Riello Group S.P.A	Italy
Riello S.P.A.	Italy
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
United Technologies Corporation [DE]	Delaware
United Technologies Electronic Controls, Inc.	Delaware
United Technologies Far East Limited	Hong Kong

United Technologies Corporation
Subsidiary and Affiliate Listing
December 31, 2018

Entity Name	Place of Incorporation
United Technologies Finance (U.K.) Limited	England
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-Asia Private Limited	Singapore
United Technologies International SAS	France
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
UTC Fire & Security Corporation	Delaware
UTC Fire & Security Luxembourg S.a r.l.	Grand-Duchy of Luxembourg
UTC Investments Australia Pty Limited	Australia
UTCL Corp.	Nova Scotia
UTCL Holdings, Limited	New Brunswick
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. 333-211035) and in the Registration Statements on Form S-8 (Nos. 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 7, 2019 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in the 2018 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 7, 2019 relating to the financial statement schedule, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

Hartford, Connecticut

February 7, 2019

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 AKHIL JOHRI, 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, 2018, 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 4th day of February, 2019.

/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 AKHIL JOHRI, 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, 2018, 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 4th day of February, 2019.

/s/ DIANE M. BRYANT

Diane M. Bryant

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 AKHIL JOHRI, 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, 2018, 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 4th day of February, 2019.

/s/ JOHN V. FARACI

John V. Faraci

UNITED TECHNOLOGIES CORPORATION
Power of Attorney

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IN WITNESS WHEREOF, the undersigned has signed this Power of Attorney this 4th day of February, 2019.

/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 AKHIL JOHRI, 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, 2018, 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 4th day of February, 2019.

/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 AKHIL JOHRI, 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, 2018, 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 4th day of February, 2019.

/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 AKHIL JOHRI, 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, 2018, 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 4th day of February, 2019.

/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 AKHIL JOHRI, 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, 2018, 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 1st 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 AKHIL JOHRI, 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, 2018, 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 4th day of February, 2019.

/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 AKHIL JOHRI, 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, 2018, 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 4th day of February, 2019.

/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 AKHIL JOHRI, 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, 2018, 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 4th day of February, 2019.

/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 AKHIL JOHRI, 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, 2018, 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 4th day of February, 2019.

/s/ BRIAN C. ROGERS

Brian C. Rogers

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 AKHIL JOHRI, 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, 2018, 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 4th day of February, 2019.

/s/ CHRISTINE TODD WHITMAN

Christine Todd Whitman

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 7, 2019

/s/ GREGORY J. HAYES

Gregory J. Hayes

Chairman, President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Akhil Johri, 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 7, 2019

/s/ AKHIL JOHRI

Akhil Johri

Executive 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 7, 2019

/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, 2018 (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 7, 2019	/s/ GREGORY J. HAYES
		Gregory J. Hayes
		Chairman, President and Chief Executive Officer
Date:	February 7, 2019	/s/ AKHIL JOHRI
		Akhil Johri
		Executive Vice President & Chief Financial Officer
Date:	February 7, 2019	/s/ ROBERT J. BAILEY
		Robert J. Bailey
		Corporate Vice President, Controller