

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

FORM 10-Q

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

For the quarterly period ended June 30, 2019

OR

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

For the transition period from _____ to _____

Commission file number 1-812

UNITED TECHNOLOGIES CORPORATION

DELAWARE

06-0570975

10 Farm Springs Road, Farmington, Connecticut 06032
(860) 728-7000

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock (\$1 par value) (CUSIP 913017 10 9)	UTX	New York Stock Exchange
1.125% Notes due 2021 (CUSIP 913017 CD9)	UTX 21D	New York Stock Exchange
1.250% Notes due 2023 (CUSIP U91301 AD0)	UTX 23	New York Stock Exchange
1.150% Notes due 2024 (CUSIP 913017 CU1)	UTX 24A	New York Stock Exchange
1.875% Notes due 2026 (CUSIP 913017 CE7)	UTX 26	New York Stock Exchange
2.150% Notes due 2030 (CUSIP 913017 CV9)	UTX 30	New York Stock Exchange
Floating Rate Notes due 2019 (CUSIP 913017 CS6)	UTX 19C	New York Stock Exchange
Floating Rate Notes due 2020 (CUSIP 913017 CT4)	UTX 20B	New York Stock Exchange

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405) 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 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 Exchange Act). Yes . No .

At June 30, 2019 there were 862,831,280 shares of Common Stock outstanding.

**UNITED TECHNOLOGIES CORPORATION
AND SUBSIDIARIES
CONTENTS OF QUARTERLY REPORT ON FORM 10-Q
Quarter Ended June 30, 2019**

	<u>Page</u>
<u>PART I – FINANCIAL INFORMATION</u>	<u>4</u>
<u>Item 1. Unaudited Financial Statements:</u>	<u>4</u>
<u>Condensed Consolidated Statement of Operations for the quarters ended June 30, 2019 and 2018</u>	<u>4</u>
<u>Condensed Consolidated Statement of Operations for the six months ended June 30, 2019 and 2018</u>	<u>5</u>
<u>Condensed Consolidated Statement of Comprehensive Income for the quarters and six months ended June 30, 2019 and 2018</u>	<u>6</u>
<u>Condensed Consolidated Balance Sheet at June 30, 2019 and December 31, 2018</u>	<u>7</u>
<u>Condensed Consolidated Statement of Cash Flows for the six months ended June 30, 2019 and 2018</u>	<u>8</u>
<u>Condensed Consolidated Statement of Changes in Equity for the quarters and six months ended June 30, 2019 and 2018</u>	<u>9</u>
<u>Notes to Condensed Consolidated Financial Statements</u>	<u>10</u>
<u>Report of Independent Registered Public Accounting Firm</u>	<u>36</u>
<u>Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>37</u>
<u>Item 3. Quantitative and Qualitative Disclosures About Market Risk</u>	<u>52</u>
<u>Item 4. Controls and Procedures</u>	<u>52</u>
<u>PART II – OTHER INFORMATION</u>	<u>56</u>
<u>Item 1. Legal Proceedings</u>	<u>56</u>
<u>Item 1A. Risk Factors</u>	<u>56</u>
<u>Item 2. Unregistered Sales of Equity Securities and Use of Proceeds</u>	<u>57</u>
<u>Item 6. Exhibits</u>	<u>58</u>
<u>SIGNATURES</u>	<u>59</u>

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 products 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 web sites in this Form 10-Q are provided for convenience only. Information available through these web sites is not incorporated by reference into this Form 10-Q.

PART I – FINANCIAL INFORMATION**Item 1. Financial Statements****UNITED TECHNOLOGIES CORPORATION
AND SUBSIDIARIES****CONDENSED CONSOLIDATED STATEMENT OF OPERATIONS**
(Unaudited)

<i>(dollars in millions, except per share amounts)</i>	Quarter Ended June 30,	
	2019	2018
Net Sales:		
Product sales	\$ 14,033	\$ 11,520
Service sales	5,601	5,185
	<u>19,634</u>	<u>16,705</u>
Costs and Expenses:		
Cost of products sold	10,863	9,154
Cost of services sold	3,550	3,268
Research and development	743	589
Selling, general and administrative	2,106	1,759
	<u>17,262</u>	<u>14,770</u>
Other income, net	212	941
Operating profit	2,584	2,876
Non-service pension (benefit)	(216)	(192)
Interest expense, net	360	234
Income from operations before income taxes	2,440	2,834
Income tax expense	441	695
Net income from operations	1,999	2,139
Less: Noncontrolling interest in subsidiaries' earnings from operations	99	91
Net income attributable to common shareowners	\$ 1,900	\$ 2,048
Earnings Per Share of Common Stock - Basic:		
Net income attributable to common shareowners	\$ 2.22	\$ 2.59
Earnings Per Share of Common Stock - Diluted:		
Net income attributable to common shareowners	\$ 2.20	\$ 2.56

See accompanying Notes to Condensed Consolidated Financial Statements

**UNITED TECHNOLOGIES CORPORATION
AND SUBSIDIARIES**

CONDENSED CONSOLIDATED STATEMENT OF OPERATIONS
(Unaudited)

<i>(dollars in millions, except per share amounts)</i>	Six Months Ended June 30,	
	2019	2018
Net Sales:		
Product sales	\$ 26,908	\$ 21,778
Service sales	11,091	10,169
	37,999	31,947
Costs and Expenses:		
Cost of products sold	21,149	17,170
Cost of services sold	6,971	6,532
Research and development	1,471	1,143
Selling, general and administrative	4,103	3,470
	33,694	28,315
Other income, net	324	1,172
Operating profit	4,629	4,804
Non-service pension (benefit)	(424)	(383)
Interest expense, net	791	463
Income from operations before income taxes	4,262	4,724
Income tax expense	838	1,217
Net income from operations	3,424	3,507
Less: Noncontrolling interest in subsidiaries' earnings from operations	178	162
Net income attributable to common shareowners	\$ 3,246	\$ 3,345
Earnings Per Share of Common Stock - Basic:		
Net income attributable to common shareowners	\$ 3.80	\$ 4.23
Earnings Per Share of Common Stock - Diluted:		
Net income attributable to common shareowners	\$ 3.76	\$ 4.18

See accompanying Notes to Condensed Consolidated Financial Statements

**UNITED TECHNOLOGIES CORPORATION
AND SUBSIDIARIES**

CONDENSED CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
(Unaudited)

<i>(dollars in millions)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net income from operations	\$ 1,999	\$ 2,139	\$ 3,424	\$ 3,507
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	(423)	(679)	98	(140)
Pension and postretirement benefit plans adjustments	24	80	57	153
ASU 2016-01 adoption impact (Note 12)	—	—	—	(5)
Change in unrealized cash flow hedging	25	(186)	33	(172)
Other comprehensive (loss) income, net of tax	(374)	(785)	188	(164)
Comprehensive income	1,625	1,354	3,612	3,343
Less: Comprehensive income attributable to noncontrolling interest	(100)	(53)	(182)	(157)
Comprehensive income attributable to common shareowners	\$ 1,525	\$ 1,301	\$ 3,430	\$ 3,186

See accompanying Notes to Condensed Consolidated Financial Statements

**UNITED TECHNOLOGIES CORPORATION
AND SUBSIDIARIES**

CONDENSED CONSOLIDATED BALANCE SHEET
(Unaudited)

<i>(dollars in millions)</i>	June 30, 2019	December 31, 2018
Assets		
Cash and cash equivalents	\$ 6,819	\$ 6,152
Accounts receivable, net	13,695	14,271
Contract assets, current	4,334	3,486
Inventory, net	10,934	10,083
Other assets, current	1,276	1,511
Total Current Assets	37,058	35,503
Customer financing assets	3,293	3,023
Future income tax benefits	1,712	1,646
Fixed assets	24,689	24,084
Less: Accumulated depreciation	(12,397)	(11,787)
Fixed assets, net	12,292	12,297
Operating lease right-of-use assets	2,740	—
Goodwill	48,358	48,112
Intangible assets, net	25,963	26,424
Other assets	7,574	7,206
Total Assets	\$ 138,990	\$ 134,211
Liabilities and Equity		
Short-term borrowings	\$ 1,139	\$ 1,469
Accounts payable	11,109	11,080
Accrued liabilities	10,753	10,223
Contract liabilities, current	6,219	5,720
Long-term debt currently due	6,202	2,876
Total Current Liabilities	35,422	31,368
Long-term debt	37,910	41,192
Future pension and postretirement benefit obligations	3,663	4,018
Operating lease liabilities	2,258	—
Other long-term liabilities	16,651	16,914
Total Liabilities	95,904	93,492
Commitments and contingent liabilities (Note 15)		
Redeemable noncontrolling interest	109	109
Shareowners' Equity:		
Common Stock	22,718	22,514
Treasury Stock	(32,549)	(32,482)
Retained earnings	60,548	57,823
Unearned ESOP shares	(71)	(76)
Accumulated other comprehensive loss	(9,892)	(9,333)
Total Shareowners' Equity	40,754	38,446
Noncontrolling interest	2,223	2,164
Total Equity	42,977	40,610
Total Liabilities and Equity	\$ 138,990	\$ 134,211

See accompanying Notes to Condensed Consolidated Financial Statements

**UNITED TECHNOLOGIES CORPORATION
AND SUBSIDIARIES**

CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS
(Unaudited)

<i>(dollars in millions)</i>	Six Months Ended June 30,	
	2019	2018
Operating Activities:		
Net income from operations	\$ 3,424	\$ 3,507
Adjustments to reconcile net income from operations to net cash flows provided by operating activities:		
Depreciation and amortization	1,864	1,173
Deferred income tax provision	6	45
Stock compensation cost	156	117
Gain on sale of Taylor Company	—	(795)
Change in:		
Accounts receivable	769	(1,661)
Contract assets, current	(491)	(617)
Inventory	(1,108)	(962)
Other current assets	51	301
Accounts payable and accrued liabilities	(58)	2,010
Contract liabilities, current	381	440
Global pension contributions	(79)	(59)
Canadian government settlement	(38)	(221)
Other operating activities, net	(1,266)	(723)
Net cash flows provided by operating activities	3,611	2,555
Investing Activities:		
Capital expenditures	(830)	(709)
Investments in businesses (Note 1)	(32)	(134)
Dispositions of businesses (Note 1)	133	1,094
Increase in customer financing assets, net	(331)	(344)
Increase in collaboration intangible assets	(169)	(181)
Receipts from settlements of derivative contracts	61	82
Other investing activities, net	(49)	(46)
Net cash flows used in investing activities	(1,217)	(238)
Financing Activities:		
Issuance of long-term debt	56	2,429
Repayment of long-term debt	(65)	(2,092)
(Decrease) increase in short-term borrowings, net	(327)	642
Proceeds from Common Stock issued under employee stock plans	11	6
Dividends paid on Common Stock	(1,219)	(1,070)
Repurchase of Common Stock	(69)	(52)
Other financing activities, net	(153)	(74)
Net cash flows used in financing activities	(1,766)	(211)
Effect of foreign exchange rate changes on cash and cash equivalents	16	(18)
Net increase in cash, cash equivalents and restricted cash	644	2,088
Cash, cash equivalents and restricted cash, beginning of year	6,212	9,018
Cash, cash equivalents and restricted cash, end of period	6,856	11,106
Less: Restricted cash	37	38
Cash and cash equivalents, end of period	\$ 6,819	\$ 11,068

See accompanying Notes to Condensed Consolidated Financial Statements

**UNITED TECHNOLOGIES CORPORATION
AND SUBSIDIARIES**
CONDENSED CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
(Unaudited)

<i>(dollars in millions, except per share amounts; shares in thousands)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Equity beginning balance	\$ 41,946	\$ 32,492	\$ 40,610	\$ 31,421
Common Stock				
Beginning balance	22,564	17,641	22,514	17,574
Common Stock issued under employee plans	154	106	211	174
Purchase of subsidiary shares from noncontrolling interest, net	—	—	—	(1)
Redeemable noncontrolling interest fair value adjustment	—	—	(7)	—
Ending balance	22,718	17,747	22,718	17,747
Treasury Stock				
Beginning balance	(32,511)	(35,619)	(32,482)	(35,596)
Common Stock issued under employee plans	1	1	4	3
Common Stock repurchased	(39)	(27)	(71)	(52)
Ending balance	(32,549)	(35,645)	(32,549)	(35,645)
Retained Earnings				
Beginning balance	59,279	55,533	57,823	55,242
Net Income	1,900	2,048	3,246	3,345
Dividends on Common Stock	(610)	(535)	(1,219)	(1,070)
Dividends on ESOP Common Stock	(18)	(17)	(36)	(35)
Redeemable noncontrolling interest fair value adjustment	(11)	—	(7)	(2)
New Revenue Standard adoption impact	—	—	—	(480)
ASU 2018-02 adoption impact (Note 12)	—	—	745	—
Other	8	(2)	(4)	27
Ending balance	60,548	57,027	60,548	57,027
Unearned ESOP Shares				
Beginning balance	(75)	(84)	(76)	(85)
Common Stock issued under employee plans	4	3	5	4
Ending balance	(71)	(81)	(71)	(81)
Accumulated Other Comprehensive (Loss) Income				
Beginning balance	(9,519)	(6,937)	(9,333)	(7,525)
Other comprehensive (loss) income, net of tax	(373)	(747)	186	(159)
ASU 2018-02 adoption impact (Note 12)	—	—	(745)	—
Ending balance	(9,892)	(7,684)	(9,892)	(7,684)
Noncontrolling Interest				
Beginning balance	2,208	1,958	2,164	1,811
Net Income	99	91	178	162
Redeemable noncontrolling interest in subsidiaries' earnings	2	(3)	5	(5)
Other comprehensive income (loss), net of tax	1	(38)	4	(5)
Dividends attributable to noncontrolling interest	(101)	(73)	(145)	(139)
Purchase of subsidiary shares from noncontrolling interest, net	(1)	—	(1)	(1)
Disposition of noncontrolling interest, net	—	—	—	(8)
Capital contributions	18	42	18	162
Other	(3)	5	—	5
Ending balance	2,223	1,982	2,223	1,982
Equity at June 30	\$ 42,977	\$ 33,346	\$ 42,977	\$ 33,346
Supplemental share information				
Shares of Common Stock issued under employee plans	799	235	1,827	1,310
Shares of Common Stock repurchased	297	214	553	402
Dividends per share of Common Stock	\$ 0.740	\$ 0.700	\$ 1.470	\$ 1.400

See accompanying Notes to Condensed Consolidated Financial Statements

**UNITED TECHNOLOGIES CORPORATION
AND SUBSIDIARIES**

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

The Condensed Consolidated Financial Statements at June 30, 2019 and for the quarters and six months ended June 30, 2019 and 2018 are unaudited, but in the opinion of management include all adjustments (consisting only of normal recurring adjustments) necessary for a fair statement of the results for the interim periods. The results reported in these Condensed Consolidated Financial Statements should not necessarily be taken as indicative of results that may be expected for the entire year. The financial information included herein should be read in conjunction with the financial statements and notes in our Annual Report to Shareowners (2018 Annual Report) incorporated by reference in our Annual Report on [Form 10-K](#) for calendar year 2018 (2018 Form 10-K).

Note 1: Acquisitions, Dispositions, Goodwill and Other Intangible Assets

Business Acquisitions. During the six months ended June 30, 2019, our investment in business acquisitions was \$32 million, which consisted of small acquisitions at Otis.

On June 9, 2019, UTC entered into a merger agreement with Raytheon Company (“Raytheon”) providing for an all-stock merger of equals transaction. The Raytheon merger agreement provides, among other things, that each share of Raytheon common stock issued and outstanding immediately prior to the closing of the Raytheon merger (except for shares held by Raytheon as treasury stock) will be converted into the right to receive 2.3348 shares of UTC common stock. Upon the closing of the Raytheon merger, Raytheon will become a wholly-owned subsidiary of UTC, and UTC will change its name to Raytheon Technologies Corporation. The Raytheon merger is expected to close in the first half of 2020 and is subject to customary closing conditions, including receipt of required regulatory approvals, the approval of both Raytheon’s and our shareowners, and the completion of UTC’s previously announced separation of its Otis and Carrier businesses.

On November 26, 2018, we completed the acquisition of Rockwell Collins (the "Rockwell Merger"), a leader in aviation and high-integrity solutions for commercial and military customers as well as leading-edge avionics, flight controls, aircraft interior and data connectivity solutions. Under the terms of the Rockwell 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 Rockwell Merger (other than shares held by Rockwell Collins, the Company, Riveter Merger Sub Corp or any of their respective wholly owned subsidiaries) was converted into the right to receive (1) \$93.33 in cash, without interest, and (2) 0.37525 shares of Company common stock (together, the “Merger Consideration”), less any applicable withholding taxes, with cash paid in lieu of fractional shares. The total aggregate consideration payable in the Rockwell 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 Rockwell 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	\$ 15,533
Fair value of UTC common stock issued for Rockwell Collins outstanding common stock & equity awards	7,960
Total consideration transferred	\$ 23,493

The cash consideration utilized for the Rockwell Merger was partially financed through the previously disclosed issuance of \$11.0 billion aggregate principal notes on August 16, 2018 for net proceeds of \$10.9 billion. For the remainder of the cash consideration, we utilized repatriated cash and cash equivalents and cash flow generated from operating activities.

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 the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 805, “*Business Combinations*”. As of June 30, 2019, 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 adjustments. Any potential adjustments could be material in relation to the preliminary values presented below:

(dollars in millions)

Cash and cash equivalents	\$	640
Accounts receivable, net		1,665
Inventory, net		1,511
Contract assets, current		289
Other assets, current		263
Future income tax benefits		37
Fixed assets, net		1,673
Intangible assets:		
Customer relationships		8,220
Tradenames/trademarks		1,870
Developed technology		600
Other assets		210
Total identifiable assets acquired		16,978
Short-term borrowings		2,254
Accounts payable		515
Accrued liabilities		1,618
Contract liabilities, current		301
Long-term debt		5,530
Future pension and postretirement benefit obligation		502
Other long-term liabilities		3,481
Noncontrolling interest		6
Total liabilities acquired		14,207
Total identifiable net assets		2,771
Goodwill		20,722
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 original equipment (OEM) and aftermarket cash flows, were determined by using an "income approach." Under this approach, the net earnings attributable to the asset or liability being measured are isolated using the discounted projected net cash flows. These projected cash flows are isolated from the projected cash flows of the combined asset group over the remaining economic life of the intangible asset or liability being measured. Both the amount and the duration of the cash flows are considered from a market participant perspective. Our estimates of market participant net cash flows considered historical and projected pricing, remaining developmental effort, operational performance, including company specific synergies, aftermarket retention, product life cycles, material and labor pricing, and other relevant customer, contractual and market factors. Where appropriate, the net cash flows are probability-adjusted to reflect the uncertainties associated with the underlying assumptions as well as the risk profile of the net cash flows utilized in the valuation. The probability-adjusted future cash flows are then discounted to present value using an appropriate discount rate. The customer relationship and related program intangible assets are being amortized on a straight-line basis (which approximates the economic pattern of benefits) over the estimated economic life of the underlying programs of 10 to 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:

<i>(dollars in millions)</i>	Estimated Fair Value	Estimated Life
Acquired customer relationships	\$ 8,220	10-20 years
Acquired tradenames/trademarks	1,870	Indefinite
Acquired developed technology	600	15 years
	<u>\$ 10,690</u>	

We also identified customer contractual obligations on certain contracts with economic returns that are lower than could be realized in market transactions as of the acquisition date. We measured these liabilities under the measurement provisions of FASB ASC Topic 820, "Fair Value Measurements and Disclosures," which is based on the price to transfer the obligation to a market participant at the measurement date, assuming that the liability will remain outstanding in the marketplace. Based on the estimated net cash outflows of the programs plus a reasonable contracting profit margin required to transfer the contracts to market participants, we recorded assumed liabilities of approximately \$1,020 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: \$77 million in 2019, \$129 million in 2020, \$131 million in 2021, \$132 million in 2022, and \$119 million in 2023.

Acquisition-Related Costs:

Acquisition-related costs have been expensed as incurred. In the six months ended June 30, 2019 and 2018, approximately \$10 million and \$50 million, respectively, of transaction and integration costs have been incurred. These costs were recorded in Selling, general and administrative expenses within the Condensed Consolidated Statement of Operations.

Supplemental Pro-Forma Data:

Rockwell Collins' results of operations have been included in UTC's financial statements for the period subsequent to the completion of the acquisition on November 26, 2018. Rockwell Collins contributed sales of approximately \$4.6 billion and operating profit of approximately \$665 million for the six months ended June 30, 2019. The following unaudited supplemental pro-forma data presents consolidated information as if the acquisition had been completed on January 1, 2017. The pro-forma results were calculated by combining the results of UTC with the stand-alone results of Rockwell Collins for the pre-acquisition periods, which were adjusted to account for certain costs that would have been incurred during this pre-acquisition period:

<i>(dollars in millions, except per share amounts)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net sales	\$ 19,634	\$ 18,810	\$ 37,994	\$ 36,131
Net income attributable to common shareowners	\$ 1,901	\$ 2,266	\$ 3,385	\$ 3,742
Basic earnings per share of common stock	\$ 2.22	\$ 2.66	\$ 3.96	\$ 4.39
Diluted earnings per share of common stock	\$ 2.20	\$ 2.63	\$ 3.92	\$ 4.34

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.

<i>(dollars in millions)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Amortization of inventory and fixed asset fair value adjustment ¹	\$ —	\$ (5)	\$ 141	\$ (10)
Amortization of acquired Rockwell Collins intangible assets, net ²	—	(53)	—	(106)
Utilization of contractual customer obligation ³	—	8	—	10
UTC/Rockwell Collins fees for advisory, legal, accounting services ⁴	1	17	3	43
Interest expense incurred on acquisition financing, net ⁵	—	(76)	—	(152)
Elimination of capitalized pre-production engineering amortization ⁶	—	17	—	32
Adjustment to net periodic pension cost ⁷	—	11	—	22
Adjustment to reflect the adoption of ASC 606 ⁸	—	29	—	58
Elimination of entities held for sale ⁹	—	(5)	(5)	(12)
	\$ 1	\$ (57)	\$ 139	\$ (115)

- 1 Reflects the elimination of the inventory step-up amortization recorded by UTC in 2019 as this would have been completed within the first two quarters of 2017. Additionally, this adjustment reflects the amortization of the fixed asset fair value adjustment as of the acquisition date.
- 2 Reflects the additional amortization of the acquired Rockwell Collins' intangible assets recognized at fair value in purchase accounting and eliminates the historical Rockwell Collins intangible asset amortization expense.
- 3 Reflects the additional amortization of liabilities recognized for acquired contracts with terms less favorable than could be realized in market transactions as of the acquisition date and eliminates Rockwell Collins historical amortization of these liabilities.
- 4 Reflects the elimination of transaction-related fees incurred by UTC and Rockwell Collins in connection with the acquisition and assumes all of the fees were incurred during the first quarter of 2017.
- 5 Reflects the additional interest expense incurred on debt to finance our acquisition of Rockwell Collins and reduces interest expense for the debt fair value adjustment which would have been amortized.
- 6 Reflects the elimination of Rockwell Collins capitalized pre-production engineering amortization to conform to UTC policy.
- 7 Reflects adjustments for the elimination of amortization of prior service cost and actuarial loss amortization, which was recorded by Rockwell Collins, as a result of fair value purchase accounting, net of the impact of the revised pension and post-retirement benefit (expense) as determined under UTC's plan assumptions.
- 8 Reflects adjustments to Rockwell Collins revenue recognition as if they adopted the New Revenue Standard as of January 1, 2018 and primarily relates to capitalization of contract costs and changes in timing of sales recognition for contracts requiring an over time method of revenue recognition, partially offset by deferral of revenue recognized on OEM product engineering and development.
- 9 Reflects the elimination of entities required to be sold for regulatory approvals.

The unaudited supplemental pro-forma financial information does not reflect the potential realization of cost savings related to the integration of the two companies. Further, the pro-forma data should not be considered indicative of the results that would have occurred if the acquisition and related financing had been consummated on January 1, 2017, nor are they indicative of future results.

Dispositions. Cash inflows related to dispositions during the six months ended June 30, 2019 were \$133 million and primarily consisted of the dispositions of businesses held for sale associated with the Rockwell Collins acquisition. In accordance with conditions imposed for regulatory approval of the acquisition, Rockwell Collins was required to dispose of certain businesses. These businesses were held separate from UTC's and Rockwell Collins' ongoing businesses pursuant to regulatory requirements. Definitive agreements to sell each of the businesses were entered into prior to the completion of UTC's acquisition of Rockwell Collins. The related assets and liabilities of these businesses had been accounted for as held for sale at fair value less cost to sell. As of December 31, 2018, assets held for sale of \$175 million were included within Other assets, current and liabilities held for sale of \$40 million were included within Accrued liabilities on the Consolidated Balance Sheet. The major classes of assets and liabilities primarily include net Inventory of \$51 million and net Fixed assets of \$37 million. In the first quarter of 2019, Rockwell Collins completed the sale of all businesses which were held for sale as of December 31, 2018.

On November 26, 2018, the Company announced its intention to separate into three independent companies. Following the separations, the Company will operate as an aerospace company comprised of Collins Aerospace Systems and the Pratt & Whitney businesses, and Otis and Carrier will become independent companies. The proposed separations are expected to be effected through spin-offs of Otis and Carrier that are intended to be tax-free for the Company's shareowners for U.S. federal income tax purposes, and are expected to be completed in the first half of 2020. Separation of Otis and Carrier from UTC via spin-off transactions will be subject to the satisfaction of customary conditions, including, among others, final approval by the Company's Board of Directors, receipt of tax rulings 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 (subject to UTC's agreement to consummate the distributions pursuant to, and subject to the terms and conditions of, the Raytheon merger agreement).

Goodwill. Changes in our goodwill balances for the six months ended June 30, 2019 were as follows:

<i>(dollars in millions)</i>	Balance as of January 1, 2019	Goodwill Resulting from Business Combinations	Foreign Currency Translation and Other	Balance as of June 30, 2019
Otis	\$ 1,688	\$ 7	\$ (16)	\$ 1,679
Carrier	9,835	1	3	9,839
Pratt & Whitney	1,567	—	(4)	1,563
Collins Aerospace Systems	35,001	255	—	35,256
Total Segments	48,091	263	(17)	48,337
Eliminations and other	21	—	—	21
Total	\$ 48,112	\$ 263	\$ (17)	\$ 48,358

Goodwill increased \$255 million at Collins Aerospace Systems resulting from several insignificant purchase accounting adjustments made during the six months ended June 30, 2019, the largest of which included a reduction in acquired customer relationship intangible assets of \$100 million.

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

<i>(dollars in millions)</i>	June 30, 2019		December 31, 2018	
	Gross Amount	Accumulated Amortization	Gross Amount	Accumulated Amortization
Amortized:				
Service portfolios	\$ 2,179	\$ (1,656)	\$ 2,164	\$ (1,608)
Patents and trademarks	361	(245)	361	(236)
Collaboration intangible assets	4,681	(779)	4,509	(649)
Customer relationships and other	22,598	(5,099)	22,525	(4,560)
	29,819	(7,779)	29,559	(7,053)
Unamortized:				
Trademarks and other	3,923	—	3,918	—
Total	\$ 33,742	\$ (7,779)	\$ 33,477	\$ (7,053)

In addition to customer relationship intangible assets obtained through business combinations, 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 is used. We classify amortization of such payments as a reduction of sales. The collaboration intangible assets are amortized based upon the pattern of economic benefits as represented by the underlying cash flows.

Amortization of intangible assets for the quarter and six months ended June 30, 2019 was \$348 million and \$722 million, respectively, compared with \$232 million and \$455 million for the same periods of 2018. The following is the expected amortization of intangible assets for the years 2019 through 2024, which reflects the pattern of expected economic benefit on certain aerospace intangible assets.

<i>(dollars in millions)</i>	Remaining 2019	2020	2021	2022	2023	2024
Amortization expense	\$ 742	\$ 1,427	\$ 1,408	\$ 1,407	\$ 1,398	\$ 1,378

Note 2: Revenue Recognition

We account for revenue in accordance with ASC Topic 606: *Revenue from Contracts with Customers*.

Performance Obligations. A performance obligation is a promise in a contract with a customer to transfer a distinct good or service to the customer. Some of our contracts with customers contain a single performance obligation, while others contain multiple performance obligations most commonly when a contract spans multiple phases of the product life-cycle such as development, production, maintenance and support. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. When there are multiple performance obligations within a contract, we allocate the transaction price to each performance obligation based on its standalone selling price.

We consider the contractual consideration payable by the customer and assess variable consideration that may affect the total transaction price, including contractual discounts, contract incentive payments, estimates of award fees, unfunded contract value under U.S. Government contracts, and other sources of variable consideration, when determining the transaction price of each contract. We include variable consideration in the estimated transaction price when there is a basis to reasonably estimate the amount. These estimates are based on historical experience, anticipated performance and our best judgment at the time. We also consider whether our contracts provide customers with significant financing. Generally, our contracts do not contain significant financing.

Timing of the satisfaction of performance obligations varies across our businesses due to our diverse product and service mix, customer base, and contractual terms.

Remaining Performance Obligations (RPO). RPO represents the aggregate amount of total contract transaction price that is unsatisfied or partially unsatisfied. As of June 30, 2019 our total RPO was approximately \$125.1 billion compared to \$115.5 billion as of December 31, 2018. Of the total RPO as of June 30, 2019, we expect approximately 45% will be recognized as sales over the following 24 months.

Capitalized Contract Costs. 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 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 performance obligations related to the OEM products are satisfied. Capitalized net contract fulfillment costs were \$1,229 million and \$914 million as of June 30, 2019 and December 31, 2018, respectively and are recognized in Other assets in our Condensed Consolidated Balance Sheet.

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 June 30, 2019 and December 31, 2018 are as follows:

<i>(dollars in millions)</i>	<u>June 30, 2019</u>	<u>December 31, 2018</u>
Contract assets, current	\$ 4,334	\$ 3,486
Contract assets, noncurrent (included within Other assets)	1,215	1,142
Total contract assets	<u>5,549</u>	<u>4,628</u>
Contract liabilities, current	(6,219)	(5,720)
Contract liabilities, noncurrent (included within Other long-term liabilities)	(5,190)	(5,069)
Total contract liabilities	<u>(11,409)</u>	<u>(10,789)</u>
Net contract liabilities	<u>\$ (5,860)</u>	<u>\$ (6,161)</u>

Contract assets increased \$921 million during the six months ended June 30, 2019 primarily due to revenue recognition in excess of customer billings, primarily on Pratt & Whitney military and commercial aftermarket service agreements and various programs at Collins Aerospace Systems. Contract liabilities increased \$620 million during the six months ended June 30, 2019 primarily due to customer billings in excess of revenue recognized on Pratt & Whitney commercial aftermarket service agreements, at Collins Aerospace across various programs, and on Otis maintenance contracts. We recognized revenue of \$3.2 billion during the six months ended June 30, 2019 related to contract liabilities as of December 31, 2018.

Note 3: Earnings Per Share

<i>(dollars in millions, except per share amounts; shares in millions)</i>	<u>Quarter Ended June 30,</u>		<u>Six Months Ended June 30,</u>	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Net income attributable to common shareowners	\$ 1,900	\$ 2,048	\$ 3,246	\$ 3,345
Basic weighted average number of shares outstanding	854.4	790.5	853.8	790.2
Stock awards and equity units (share equivalent)	9.3	9.1	8.5	9.8
Diluted weighted average number of shares outstanding	<u>863.7</u>	<u>799.6</u>	<u>862.3</u>	<u>800.0</u>
Earnings Per Share of Common Stock:				
Basic	\$ 2.22	\$ 2.59	\$ 3.80	\$ 4.23
Diluted	\$ 2.20	\$ 2.56	\$ 3.76	\$ 4.18

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 the quarter and six months ended June 30, 2019, the number of stock awards excluded from the computation was approximately 11.0 million and 13.0 million, respectively. For the quarter and six months ended June 30, 2018, the number of stock awards excluded from the computation was approximately 5.1 million.

Note 4: Inventory, net

<i>(dollars in millions)</i>	<u>June 30, 2019</u>	<u>December 31, 2018</u>
Raw materials	\$ 3,024	\$ 3,052
Work-in-process	2,863	2,673
Finished goods	5,047	4,358
	<u>\$ 10,934</u>	<u>\$ 10,083</u>

Raw materials, work-in-process and finished goods are net of valuation reserves of \$1,405 million and \$1,270 million as of June 30, 2019 and December 31, 2018, respectively.

Note 5: Borrowings and Lines of Credit

<i>(dollars in millions)</i>	June 30, 2019	December 31, 2018
Commercial paper	\$ 855	\$ 1,257
Other borrowings	284	212
Total short-term borrowings	\$ 1,139	\$ 1,469

At June 30, 2019, we had credit agreements with various banks permitting aggregate borrowings of up to \$10.35 billion, including: a \$2.20 billion revolving credit agreement and a \$2.15 billion multicurrency revolving credit agreement, both of which expire in August 2021; and a \$2.0 billion revolving credit agreement and a \$4.0 billion term credit agreement, both of which we entered into on March 15, 2019 and which will expire on March 15, 2021 or, if earlier, the date that is 180 days after the date on which each of the separations of Otis and Carrier have been consummated. On March 15, 2019, we terminated the \$1.5 billion revolving credit agreement that we entered into on November 26, 2018. As of June 30, 2019, there were no borrowings under 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 June 30, 2019, our maximum commercial paper borrowing limit was \$6.35 billion. Commercial paper borrowings at June 30, 2019 include approximately €750 million (\$855 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.

Long-term debt consisted of the following:

<i>(dollars in millions)</i>	June 30, 2019	December 31, 2018
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	300
EURIBOR plus 0.15% floating rate notes due 2019 (€750 million principal value) ²	855	858
5.250% notes due 2019 ⁴	300	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	855	858
8.750% notes due 2021	250	250
3.100% notes due 2021 ⁴	250	250
3.350% notes due 2021 ¹	1,000	1,000
LIBOR plus 0.650% floating rate notes due 2021 ^{1,3}	750	750
1.950% notes due 2021 ¹	750	750
1.125% notes due 2021 (€950 million principal value) ¹	1,082	1,088
2.300% notes due 2022 ¹	500	500
2.800% notes due 2022 ⁴	1,100	1,100
3.100% notes due 2022 ¹	2,300	2,300
1.250% notes due 2023 (€750 million principal value) ¹	855	858
3.650% notes due 2023 ¹	2,250	2,250
3.700% notes due 2023 ⁴	400	400
2.800% notes due 2024 ¹	800	800
3.200% notes due 2024 ⁴	950	950
1.150% notes due 2024 (€750 million principal value) ¹	855	858
3.950% notes due 2025 ¹	1,500	1,500

1.875% notes due 2026 (€500 million principal value) ¹	569	573
2.650% notes due 2026 ¹	1,150	1,150
3.125% notes due 2027 ¹	1,100	1,100
3.500% notes due 2027 ⁴	1,300	1,300
7.100% notes due 2027	141	141
6.700% notes due 2028	400	400
4.125% notes due 2028 ¹	3,000	3,000
7.500% notes due 2029 ¹	550	550
2.150% notes due 2030 (€500 million principal value) ¹	569	573
5.400% notes due 2035 ¹	600	600
6.050% notes due 2036 ¹	600	600
6.800% notes due 2036 ¹	134	134
7.000% notes due 2038	159	159
6.125% notes due 2038 ¹	1,000	1,000
4.450% notes due 2038 ¹	750	750
5.700% notes due 2040 ¹	1,000	1,000
4.500% notes due 2042 ¹	3,500	3,500
4.800% notes due 2043 ⁴	400	400
4.150% notes due 2045 ¹	850	850
3.750% notes due 2046 ¹	1,100	1,100
4.050% notes due 2047 ¹	600	600
4.350% notes due 2047 ⁴	1,000	1,000
4.625% notes due 2048 ¹	1,750	1,750
Project financing obligations ⁵	335	287
Other (including finance leases)	295	287
Total principal long-term debt	44,446	44,416
Other (fair market value adjustments, discounts and debt issuance costs)	(334)	(348)
Total long-term debt	44,112	44,068
Less: current portion	6,202	2,876
Long-term debt, net of current portion	<u>\$ 37,910</u>	<u>\$ 41,192</u>

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

² The three-month EURIBOR rate as of June 30, 2019 was approximately -0.345%. 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 June 30, 2019 was approximately 2.319%.

⁴ Rockwell Collins debt which remained outstanding following the Rockwell Merger.

⁵ Project financing obligations are associated with the sale of rights to unbilled revenues related to the ongoing activity of an entity owned by Carrier.

We had no debt issuances during the six months ended June 30, 2019 and had the following issuances of debt in 2018:

(dollars and Euro in millions)

Issuance Date	Description of Notes		Aggregate Principal Balance
August 16, 2018:	3.350% notes due 2021 ¹	\$	1,000
	3.650% notes due 2023 ¹		2,250
	3.950% notes due 2025 ¹		1,500
	4.125% notes due 2028 ¹		3,000
	4.450% notes due 2038 ¹		750
	4.625% notes due 2048 ²		1,750
	LIBOR plus 0.65% floating rate notes due 2021 ¹		750
May 18, 2018:	1.150% notes due 2024 ³	€	750
	2.150% notes due 2030 ³		500
	EURIBOR plus 0.20% floating rate notes due 2020 ³		750

1 The net proceeds received from these debt issuances were used to partially finance the cash consideration portion of the purchase price for Rockwell Collins and fees, expenses and other amounts related to the acquisition of Rockwell Collins.

2 The net proceeds from these debt issuances were used to fund the repayment of commercial paper and for other general corporate purposes.

3 The net proceeds received from these debt issuances were used for general corporate purposes.

We had no debt payments during the six months ended June 30, 2019 and had the following repayments of debt in 2018:

(dollars and Euro 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

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

The average maturity of our long-term debt at June 30, 2019 is approximately 10 years. The average interest expense rate on our total borrowings for the quarters and six months ended June 30, 2019 and 2018 were as follows:

	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Average interest expense rate	3.6%	3.5%	3.7%	3.5%

We previously had a universal shelf registration statement filed with the SEC, which expired on April 29, 2019. Our ability to renew our shelf registration statement may be limited as a result of the separation transactions as well as our proposed merger with Raytheon; as noted above, we entered into a new \$2.0 billion revolving credit agreement and a \$4.0 billion term credit agreement on March 15, 2019 to be used for general corporate purposes, including the repayment, repurchase or redemption of existing debt, and to serve as backup facilities to support additional issuances of commercial paper. We expect to renew our shelf registration statement following the separation transactions or earlier, as appropriate.

Note 6: Income Taxes

The decrease in the effective tax rate for the quarter ended June 30, 2019 is primarily the result of favorable adjustments related to the conclusion of the audit by the Examination Division of the Internal Revenue Service for the UTC 2014, 2015 and 2016 tax years and the filing by a subsidiary of the Company to participate in an amnesty program offered by the Italian Tax Authority. These benefits were partially offset by tax charges connected to the Company's portfolio separation transactions.

The decrease in the effective tax rate for the six months ended June 30, 2019 is principally related to the items described above in addition to the impact of the Tax Cuts and Jobs Act of 2017 (TCJA) interpretive guidance and the absence of the TCJA provisional adjustments recorded through the second quarter of 2018.

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.

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. It is reasonably possible that a net reduction within the range of \$140 million to \$490 million of unrecognized tax benefits may occur within the next 12 months as a result of additional worldwide uncertain tax positions, the closure of tax statutes, or the revaluation of current uncertain tax positions arising from the issuance of legislation, regulatory or other guidance or developments in examinations, in appeals, or in the courts. See Note 15, 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.

During the quarter the Examination Division of the Internal Revenue Service (IRS) concluded its audit of the Company's 2014, 2015 and 2016 tax years. Further, during the quarter, a subsidiary of the Company engaged in certain tax litigation in Italy and made filings necessary to participate in an amnesty program offered by the Italian Tax Authority. As a result of the conclusion of the IRS audit and the amnesty filing in Italy, the Company recognized a net gain during the quarter of approximately \$307 million, including pre-tax interest of approximately \$56 million. It is reasonably possible that additional net non-cash gains could be recognized during the remainder of 2019 in the range of \$25 million to \$70 million, primarily tax, due to other potential settlements with tax authorities and statute of limitations expirations.

Note 7: Employee Benefit Plans

Pension and Postretirement Plans. We sponsor both funded and unfunded domestic and foreign defined pension and other postretirement benefit plans, and defined contribution plans. Contributions to our plans were as follows:

<i>(dollars in millions)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Defined benefit plans	\$ 47	\$ 22	\$ 79	\$ 59
Defined contribution plans	134	105	287	199

We made contributions of \$25 million to our domestic defined benefit pension plans in the quarter and six months ended June 30, 2019. There were no contributions to our domestic defined benefit pension plans in the quarter and six months ended June 30, 2018. Included in the current year contributions to employer sponsored defined contribution plans for the six months ended June 30, 2019 is \$65 million of contributions to the Rockwell Collins participants. The following table illustrates the components of net periodic benefit (income) cost for our defined pension and other postretirement benefit plans:

<i>(dollars in millions)</i>	Pension Benefits Quarter Ended June 30,		Other Postretirement Benefits Quarter Ended June 30,	
	2019	2018	2019	2018
Service cost	\$ 89	\$ 93	\$ 1	\$ —
Interest cost	340	278	8	6
Expected return on plan assets	(608)	(562)	—	—
Amortization of prior service cost (credit)	4	(10)	(11)	(1)
Recognized actuarial net loss (gain)	53	101	(3)	(2)
Net settlement and curtailment loss (gain)	1	(2)	—	—
Total net periodic benefit (income) cost	\$ (121)	\$ (102)	\$ (5)	\$ 3

<i>(dollars in millions)</i>	Pension Benefits Six Months Ended June 30,		Other Postretirement Benefits Six Months Ended June 30,	
	2019	2018	2019	2018
Service cost	\$ 176	\$ 186	\$ 2	\$ 1
Interest cost	680	557	16	12
Expected return on plan assets	(1,215)	(1,125)	(1)	—
Amortization of prior service cost (credit)	9	(20)	(22)	(2)
Recognized actuarial net loss (gain)	106	202	(6)	(4)
Net settlement and curtailment loss (gain)	9	(3)	—	—
Total net periodic benefit (income) cost	\$ (235)	\$ (203)	\$ (11)	\$ 7

Note 8: Restructuring Costs

During the six months ended June 30, 2019, we recorded net pre-tax restructuring costs totaling \$178 million for new and ongoing restructuring actions. We recorded charges in the segments as follows:

<i>(dollars in millions)</i>	
Otis	\$ 40
Carrier	63
Pratt & Whitney	17
Collins Aerospace Systems	56
Eliminations and other	2
Total	\$ 178

Restructuring charges incurred during the six months ended June 30, 2019 primarily relate to actions initiated during 2019 and 2018, and were recorded as follows:

<i>(dollars in millions)</i>	
Cost of sales	\$ 82
Selling, general and administrative	96
Total	\$ 178

2019 Actions. During the six months ended June 30, 2019, we recorded net pre-tax restructuring costs of \$115 million, comprised of \$43 million in cost of sales and \$72 million in selling, general and administrative expenses. The 2019 actions relate to ongoing cost reduction efforts, including workforce reductions and the consolidation of field and manufacturing operations.

We are targeting to complete the majority of the remaining workforce and facility related cost reduction actions during 2019 and 2020. No specific plans for other significant actions have been finalized at this time. The following table summarizes the accrual balance and utilization for the 2019 restructuring actions for the quarter and six months ended June 30, 2019:

<i>(dollars in millions)</i>	Severance	Facility Exit, Lease Termination and Other Costs	Total
Quarter Ended June 30, 2019			
Restructuring accruals at March 31, 2019	\$ 53	\$ 15	\$ 68
Net pre-tax restructuring costs	42	—	42
Utilization, foreign exchange and other costs	(38)	(4)	(42)
Balance at June 30, 2019	<u>\$ 57</u>	<u>\$ 11</u>	<u>\$ 68</u>
Six Months Ended June 30, 2019			
Net pre-tax restructuring costs	\$ 110	\$ 5	\$ 115
Utilization, foreign exchange and other costs	(53)	6	(47)
Balance at June 30, 2019	<u>\$ 57</u>	<u>\$ 11</u>	<u>\$ 68</u>

The following table summarizes expected, incurred and remaining costs for the 2019 restructuring actions by segment:

<i>(dollars in millions)</i>	Expected Costs	Costs Incurred Quarter Ended March 31, 2019	Costs Incurred Quarter Ended June 30, 2019	Remaining Costs at June 30, 2019
Otis	\$ 48	\$ (19)	\$ (14)	\$ 15
Carrier	77	(25)	(24)	28
Pratt & Whitney	17	(14)	(3)	—
Collins Aerospace Systems	44	(14)	—	30
Eliminations and other	2	(1)	(1)	—
Total	<u>\$ 188</u>	<u>\$ (73)</u>	<u>\$ (42)</u>	<u>\$ 73</u>

2018 Actions. During the six months ended June 30, 2019, we recorded net pre-tax restructuring costs totaling \$39 million for restructuring actions initiated in 2018, including \$20 million in cost of sales and \$19 million in selling, general and administrative expenses. The 2018 actions relate to ongoing cost reduction efforts, including workforce reductions, consolidation of field and manufacturing operations, and costs to exit legacy programs. The following table summarizes the accrual balances and utilization for the 2018 restructuring actions for the quarter and six months ended June 30, 2019:

<i>(dollars in millions)</i>	Severance	Facility Exit, Lease Termination and Other Costs	Total
Quarter Ended June 30, 2019			
Restructuring accruals at March 31, 2019	\$ 62	\$ 9	\$ 71
Net pre-tax restructuring costs	14	2	16
Utilization, foreign exchange and other costs	(28)	(2)	(30)
Balance at June 30, 2019	<u>\$ 48</u>	<u>\$ 9</u>	<u>\$ 57</u>
Six Months Ended June 30, 2019			
Restructuring accruals at December 31, 2018	\$ 115	\$ 23	\$ 138
Net pre-tax restructuring costs	35	4	39
Utilization, foreign exchange and other costs	(102)	(18)	(120)
Balance at June 30, 2019	<u>\$ 48</u>	<u>\$ 9</u>	<u>\$ 57</u>

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

<i>(dollars in millions)</i>	Expected Costs	Costs Incurred in 2018	Costs Incurred Quarter Ended March 31, 2019	Costs Incurred Quarter Ended June 30, 2019	Remaining Costs at June 30, 2019
Otis	\$ 58	\$ (48)	\$ (5)	\$ (1)	\$ 4
Carrier	85	(64)	(7)	(6)	8
Pratt & Whitney	3	(3)	—	—	—
Collins Aerospace Systems	115	(87)	(11)	(9)	8
Eliminations and other	5	(5)	—	—	—
Total	<u>\$ 266</u>	<u>\$ (207)</u>	<u>\$ (23)</u>	<u>\$ (16)</u>	<u>\$ 20</u>

2017 and Prior Actions. During the six months ended June 30, 2019, we recorded net pre-tax restructuring costs totaling \$24 million for restructuring actions initiated in 2017 and prior. As of June 30, 2019, we have approximately \$74 million of accrual balances remaining related to 2017 and prior actions.

Note 9: 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 \$18.2 billion and \$20.1 billion at June 30, 2019 and December 31, 2018, respectively.

The following table summarizes the fair value and presentation in the Condensed Consolidated Balance Sheets for derivative instruments as of June 30, 2019 and December 31, 2018:

<i>(dollars in millions)</i>	Balance Sheet Location	June 30, 2019	December 31, 2018
Derivatives designated as hedging instruments:			
Foreign exchange contracts	Asset Derivatives:		
	Other assets, current	\$ 16	\$ 10
	Other assets	19	12
	Total asset derivatives	<u>\$ 35</u>	<u>\$ 22</u>
	Liability Derivatives:		
	Accrued liabilities	(59)	(83)
	Other long-term liabilities	(90)	(111)
	Total liability derivatives	<u>\$ (149)</u>	<u>\$ (194)</u>
Derivatives not designated as hedging instruments:			
Foreign exchange contracts	Asset Derivatives:		
	Other assets, current	\$ 79	\$ 44
	Other assets	7	19
	Total asset derivatives	<u>\$ 86</u>	<u>\$ 63</u>
	Liability Derivatives:		
	Accrued liabilities	(80)	(89)
	Other long-term liabilities	(2)	(3)
	Total liability derivatives	<u>\$ (82)</u>	<u>\$ (92)</u>

The effect of cash flow hedging relationships on Accumulated other comprehensive income and on the Condensed Consolidated Statement of Operations for the quarters and six months ended June 30, 2019 and 2018 are presented in the table below. The amounts of gain or (loss) are attributable to foreign exchange contract activity and are recorded as a component of Product sales when reclassified from accumulated other comprehensive income.

<i>(dollars in millions)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Gain (loss) recorded in Accumulated other comprehensive loss	\$ 21	\$ (245)	\$ 28	\$ (200)
Loss (gain) reclassified from Accumulated other comprehensive loss into Product sales	16	(1)	20	(28)

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 €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 June 30, 2019, the net investment hedge is deemed to be effective.

Assuming current market conditions continue, a \$23 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 June 30, 2019, all derivative contracts accounted for as cash flow hedges will mature by July 2023.

The effect of derivatives not designated as hedging instruments within Other income, net, on the Condensed Consolidated Statement of Operations was as follows:

<i>(dollars in millions)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Foreign exchange contracts	\$ 18	\$ 19	\$ 36	\$ 70

Note 10: 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 non-recurring basis in our Condensed Consolidated Balance Sheet as of June 30, 2019 and December 31, 2018:

<i>(dollars in millions)</i>	June 30, 2019			
	Total	Level 1	Level 2	Level 3
Recurring fair value measurements:				
Available-for-sale securities	\$ 60	\$ 60	\$ —	\$ —
Derivative assets	121	—	121	—
Derivative liabilities	(231)	—	(231)	—

<i>(dollars in millions)</i>	December 31, 2018			
	Total	Level 1	Level 2	Level 3
Recurring fair value measurements:				
Available-for-sale securities	\$ 51	\$ 51	\$ —	\$ —
Derivative assets	85	—	85	—
Derivative liabilities	(286)	—	(286)	—

Valuation Techniques. Our available-for-sale securities include equity investments that are traded in active markets, either domestically or internationally, and are measured at fair value using closing stock prices from active markets. Our derivative assets and liabilities include foreign exchange contracts that are measured at fair value using internal models based on observable market inputs such as forward rates, interest rates, our own credit risk and our counterparties' credit risks.

As of June 30, 2019, there has not been any significant impact to the fair value of our derivative liabilities due to our own credit risk. Similarly, there has not been any significant adverse impact to our derivative assets based on our evaluation of our counterparties' credit risks.

The following table provides carrying amounts and fair values of financial instruments that are not carried at fair value in our Condensed Consolidated Balance Sheet at June 30, 2019 and December 31, 2018:

<i>(dollars in millions)</i>	June 30, 2019		December 31, 2018	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Long-term receivables	\$ 384	\$ 370	\$ 334	\$ 314
Customer financing notes receivable	283	282	272	265
Short-term borrowings	(1,139)	(1,139)	(1,469)	(1,469)
Long-term debt (excluding finance leases)	(44,027)	(47,458)	(43,996)	(44,003)
Long-term liabilities	(422)	(399)	(508)	(467)

The following table provides the valuation hierarchy classification of assets and liabilities that are not carried at fair value in our Condensed Consolidated Balance Sheet at June 30, 2019 and December 31, 2018:

<i>(dollars in millions)</i>	June 30, 2019			
	Total	Level 1	Level 2	Level 3
Long-term receivables	\$ 370	\$ —	\$ 370	\$ —
Customer financing notes receivable	282	—	282	—
Short-term borrowings	(1,139)	—	(855)	(284)
Long-term debt (excluding finance leases)	(47,458)	—	(47,035)	(423)
Long-term liabilities	(399)	—	(399)	—

<i>(dollars in millions)</i>	December 31, 2018			
	Total	Level 1	Level 2	Level 3
Long-term receivables	\$ 314	\$ —	\$ 314	\$ —
Customer financing notes receivable	265	—	265	—
Short-term borrowings	(1,469)	—	(1,258)	(211)
Long-term debt (excluding finance leases)	(44,003)	—	(43,620)	(383)
Long-term liabilities	(467)	—	(467)	—

We had commercial aerospace financing and other contractual commitments totaling approximately \$15.9 billion and \$15.5 billion as of June 30, 2019 and December 31, 2018, respectively, related to commercial aircraft and certain contractual rights to provide product on new aircraft platforms. Associated risks on these commitments from changes in interest rates are mitigated because interest rates are variable during the commitment term and are set at the date of funding based on current market conditions, the fair value of the underlying collateral and the credit worthiness of the customers. As a result, the fair value of these financings is expected to equal the amounts funded.

Note 11: 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. The following table summarizes the balance by class of aerospace business related long-term receivables as of June 30, 2019 and December 31, 2018:

<i>(dollars in millions)</i>	June 30, 2019	December 31, 2018
Long-term trade accounts receivable	\$ 294	\$ 269
Notes and leases receivable	256	258
Total long-term receivables	\$ 550	\$ 527

Customer credit ratings range from customers with an extremely strong capacity to meet financial obligations to customers whose uncollateralized receivable is in default. There can be no assurance that actual results will not differ from

estimates or that consideration of these factors in the future will not result in an increase or decrease to the allowance for credit losses on long-term receivables. Based upon the customer credit ratings, approximately \$150 million of our total long-term receivables were considered to bear high credit risk as of June 30, 2019 and December 31, 2018.

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 \$23 million and \$16 million as of June 30, 2019 and December 31, 2018, respectively, are individually evaluated for impairment. At June 30, 2019 and December 31, 2018, we did not have any significant balances that are considered to be delinquent, on non-accrual status, past due 90 days or more, or considered to be impaired.

Note 12: Accumulated Other Comprehensive Loss

A summary of the changes in each component of Accumulated other comprehensive loss, net of tax for the quarters and six months ended June 30, 2019 and 2018 is provided below:

<i>(dollars in millions)</i>	Foreign Currency Translation	Defined Benefit Pension and Post- retirement Plans	Unrealized Gains (Losses) on Available-for- Sale Securities	Unrealized Hedging (Losses) Gains	Accumulated Other Comprehensive (Loss) Income
Quarter Ended June 30, 2019					
Balance at March 31, 2019	\$ (2,932)	\$ (6,422)	\$ —	\$ (165)	\$ (9,519)
Other comprehensive (loss) income before reclassifications, net	(435)	(13)	—	21	(427)
Amounts reclassified, pre-tax	(1)	43	—	16	58
Tax expense (benefit) reclassified	14	(6)	—	(12)	(4)
Balance at June 30, 2019	<u>\$ (3,354)</u>	<u>\$ (6,398)</u>	<u>\$ —</u>	<u>\$ (140)</u>	<u>\$ (9,892)</u>
Six Months Ended June 30, 2019					
Balance at December 31, 2018	\$ (3,442)	\$ (5,718)	\$ —	\$ (173)	\$ (9,333)
Other comprehensive income (loss) before reclassifications, net	95	(14)	—	28	109
Amounts reclassified, pre-tax	—	87	—	20	107
Tax expense (benefit) reclassified	1	(16)	—	(15)	(30)
ASU 2018-02 adoption impact	(8)	(737)	—	—	(745)
Balance at June 30, 2019	<u>\$ (3,354)</u>	<u>\$ (6,398)</u>	<u>\$ —</u>	<u>\$ (140)</u>	<u>\$ (9,892)</u>

<i>(dollars in millions)</i>	Foreign Currency Translation	Defined Benefit Pension and Post- retirement Plans	Unrealized Gains (Losses) on Available-for- Sale Securities	Unrealized Hedging (Losses) Gains	Accumulated Other Comprehensive (Loss) Income
Quarter Ended June 30, 2018					
Balance at March 31, 2018	\$ (2,444)	\$ (4,579)	\$ —	\$ 86	\$ (6,937)
Other comprehensive (loss) income before reclassifications, net	(564)	18	—	(245)	(791)
Amounts reclassified, pre-tax	(3)	88	—	(1)	84
Tax (benefit) expense reclassified	(74)	(26)	—	60	(40)
Balance at June 30, 2018	<u>\$ (3,085)</u>	<u>\$ (4,499)</u>	<u>\$ —</u>	<u>\$ (100)</u>	<u>\$ (7,684)</u>
Six Months Ended June 30, 2018					
Balance at December 31, 2017	\$ (2,950)	\$ (4,652)	\$ 5	\$ 72	\$ (7,525)
Other comprehensive (loss) income before reclassifications, net	(188)	26	—	(200)	(362)
Amounts reclassified, pre-tax	(3)	176	—	(28)	145
Tax expense (benefit) reclassified	56	(49)	—	56	63
ASU 2016-01 adoption impact	—	—	(5)	—	(5)
Balance at June 30, 2018	<u>\$ (3,085)</u>	<u>\$ (4,499)</u>	<u>\$ —</u>	<u>\$ (100)</u>	<u>\$ (7,684)</u>

In February 2018, the FASB issued ASU 2018-02, *Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income (Topic 220)*. The new standard allows companies to reclassify to retained earnings the stranded tax effects in Accumulated other comprehensive income (AOCI) from the TCJA. We elected to reclassify the income tax effects of TCJA from AOCI of \$745 million to retained earnings, effective January 1, 2019.

In January 2016, the FASB issued ASU 2016-01, *Financial Instruments - Overall: Recognition and Measurement of Financial Assets and Financial Liabilities*. This ASU modifies how entities measure equity investments and present changes in the fair value of financial liabilities. Upon adoption, investments that do not result in consolidation and are not accounted for under the equity method generally must be carried at fair value, with changes in fair value recognized in net income. We had approximately \$5 million of unrealized gains on these securities recorded in Accumulated other comprehensive loss in our Consolidated Balance Sheet as of December 31, 2017. We adopted this standard effective January 1, 2018, with these amounts recorded directly to retained earnings as of that date.

Amounts reclassified that relate to our defined benefit pension and postretirement plans include the amortization of prior service costs and actuarial net losses recognized during each period presented. These costs are recorded as components of net periodic pension cost for each period presented (see Note 7 for additional details).

All noncontrolling interests with redemption features, such as put options, that are not solely within our control (redeemable noncontrolling interests) are reported in the mezzanine section of the Condensed Consolidated Balance Sheet, between liabilities and equity, at the greater of redemption value or initial carrying value.

Note 13: Variable Interest Entities

Pratt & Whitney holds a 61% net 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 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 Condensed Consolidated Balance Sheet are as follows:

<i>(dollars in millions)</i>	June 30, 2019	December 31, 2018
Current assets	\$ 4,484	\$ 4,732
Noncurrent assets	1,700	1,600
Total assets	\$ 6,184	\$ 6,332
Current liabilities	\$ 5,121	\$ 4,946
Noncurrent liabilities	1,884	1,898
Total liabilities	\$ 7,005	\$ 6,844

Note 14: Guarantees

We extend a variety of financial, market value and product performance guarantees to third parties. There have been no material changes to financial guarantees outstanding since December 31, 2018. The changes in the carrying amount of service and product warranties and product performance guarantees for the six months ended June 30, 2019 and 2018 are as follows:

<i>(dollars in millions)</i>	2019	2018
Balance as of January 1	\$ 1,449	\$ 1,146
Warranties and performance guarantees issued	309	233
Settlements made	(241)	(200)
Other	5	(7)
Balance as of June 30	\$ 1,522	\$ 1,172

Note 15: Contingent Liabilities

Summarized below are the matters previously described in Note 18 of the Notes to the Consolidated Financial Statements in our 2018 Annual Report, incorporated by reference in our 2018 [Form 10-K](#), updated as applicable.

Except as otherwise noted, while we are unable to predict the final outcome, based on information currently available, we do not believe that resolution of any of the following matters will have a material adverse effect upon our competitive position, results of operations, cash flows or financial condition.

Environmental. Our operations are subject to environmental regulation by federal, state and local authorities in the United States and authorities with jurisdiction over our foreign operations. As described in Note 1 to the Consolidated Financial Statements in our 2018 Annual Report, 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. Additional information pertaining to environmental matters is included in Note 1 to the Consolidated Financial Statements in our 2018 Annual Report.

Government. In the ordinary course of business, the Company and its subsidiaries and our properties are subject to regulatory and governmental examinations, information gathering requests, inquiries, investigations and threatened legal actions and proceedings. For example, we are now, and believe that, in light of the current U.S. Government contracting environment, we will continue to be the subject of one or more U.S. Government investigations. Such U.S. Government investigations often take years to complete and could result in administrative, civil or criminal liabilities, including repayments, fines, treble and other damages, forfeitures, restitution or penalties, or could lead to suspension or debarment of U.S. Government contracting privileges. For instance, if we or one of our business units were charged with wrongdoing as a result of any of these investigations or other government investigations (including violations of certain environmental or export laws) the U.S. Government could suspend us from bidding on or receiving awards of new U.S. Government contracts pending the completion of legal proceedings. If convicted or found liable, the U.S. Government could fine and debar us from new U.S. Government contracting for a period generally not to exceed three years. The U.S. Government also reserves the right to debar a contractor from receiving new government contracts for fraudulent, criminal or other seriously improper conduct. The U.S. Government could void any contracts found to be tainted by fraud.

Our contracts with the U.S. Government are also subject to audits. Like many defense contractors, we have received audit reports recommending the reduction of certain contract prices because, for example, cost or pricing data or cost accounting practices used to price and negotiate those contracts may not have conformed to government regulations. Some of these audit reports recommend that certain payments be repaid, delayed, or withheld, and may involve substantial amounts. We have made

voluntary refunds in those cases we believe appropriate, have settled some allegations and, in some cases, continue to negotiate and/or litigate. In addition, we accrue for liabilities associated with those matters that are probable and can be reasonably estimated. The most likely settlement amount to be incurred is accrued based upon a range of estimates. Where no amount within a range of estimates is more likely, then we accrue the minimum amount.

Legal Proceedings.

Cost Accounting Standards Claims

In April 2019, a Divisional Administrative Contracting Officer (DACO) of the United States Defense Contract Management Agency (DCMA) asserted a claim against Pratt & Whitney to recover overpayments of approximately \$1.73 billion plus interest (approximately \$506 million through June 30, 2019). The claim is based on Pratt & Whitney's alleged noncompliance with cost accounting standards from January 1, 2007 to March 31, 2019, due to its method of allocating independent research and development costs to government contracts. Pratt & Whitney believes that the claim is without merit and filed an appeal to the Armed Services Board of Contract Appeals (ASBCA) on June 7, 2019.

As previously disclosed, in December 2013, a DCMA DACO asserted a claim against Pratt & Whitney to recover overpayments of approximately \$177 million plus interest (approximately \$92 million through June 30, 2019). The claim is based on Pratt & Whitney's alleged noncompliance with cost accounting standards from January 1, 2005 to December 31, 2012, due to its method of determining the cost of collaborator parts used in the calculation of material overhead costs for government contracts. In 2014, Pratt & Whitney filed an appeal to the ASBCA. An evidentiary hearing was held and completed in June 2019. The parties are now engaged in post-hearing briefing, and a decision from the ASBCA will follow. We continue to believe that the claim is without merit. In December 2018, a DCMA DACO issued a second claim against Pratt & Whitney that similarly alleges that its method of determining the cost of collaborator parts does not comply with the cost accounting standards for calendar years 2013 through 2017. This second claim demands payment of \$269 million plus interest (approximately \$48.1 million through June 30, 2019), which we also believe is without merit and which Pratt & Whitney appealed to the ASBCA in January 2019.

German Tax Litigation

As previously disclosed, UTC has been involved in administrative review proceedings with the German Tax Office, which concern approximately €215 million (approximately \$245 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 in July 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 \$328 million and is principally recorded in Other long-term liabilities on our Condensed Consolidated Balance Sheet as of June 30, 2019. This amount is on a pre-tax basis, not discounted, and excludes the Company's legal fees to defend the asbestos claims (which will continue to be expensed by the Company as they are incurred). In addition, the Company has an insurance recovery receivable for probable asbestos related recoveries of approximately \$147 million, which is included primarily in Other assets on our Condensed Consolidated Balance Sheet as of June 30, 2019.

The amounts recorded by UTC for asbestos-related liabilities and insurance recoveries are based on currently available information and assumptions that we believe are reasonable. Our actual liabilities or insurance recoveries could be higher or lower than those recorded if actual results vary significantly from the assumptions. Key variables in these assumptions include the number and type of new claims to be filed each year, the outcomes or resolution of such claims, the average cost of resolution of each new claim, the amount of insurance available, the 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 14 of this Form 10-Q and Note 17 to the Consolidated Financial Statements in our 2018 Annual Report, 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.

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 instances, 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 16: Leases

ASU 2016-02, *Leases (Topic 842)* and its related amendments (collectively, the New Lease Accounting Standard) are effective for reporting periods beginning after December 15, 2018. We adopted the New Lease Accounting Standard effective January 1, 2019 and elected the modified retrospective approach in which results for periods before 2019 were not adjusted for the new standard and the cumulative effect of the change in accounting was recognized through retained earnings at the date of adoption.

The New Lease Accounting Standard establishes a right-of-use model that requires a lessee to record a right-of-use asset and a lease liability on the Condensed Consolidated Balance Sheet for all leases with terms longer than 12 months. Leases are classified as either finance or operating, with classification affecting the pattern of expense recognition in the Condensed 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 have elected certain of the practical expedients available under the New Lease Accounting Standard upon adoption. We have applied the practical expedient which allows prospective transition to the New Lease Accounting Standard on January 1, 2019. Under the transition practical expedient, we did not reassess lease classification, embedded leases or initial direct costs. We have applied the practical expedient for short-term leases. We have lease agreements with lease and non-lease components. We have elected the practical expedients to combine these components for certain equipment leases. Additionally, for certain equipment leases, we apply a portfolio approach to effectively account for the operating lease right-of-use assets and liabilities. The adoption of the New Lease Accounting Standard did not have a material effect on our Condensed Consolidated Statement of Operations or Condensed Consolidated Statement of Cash Flows. Upon adoption, we recorded a \$2.6 billion right-of-use asset and a \$2.7 billion lease liability. The adoption of the New Lease Accounting Standard had an immaterial impact on retained earnings.

We enter into lease agreements for the use of real estate space, vehicles, information technology equipment, and certain other equipment under operating and finance leases. We determine if an arrangement contains a lease at inception. Operating leases are included in Operating lease right-of-use assets, Accrued liabilities, and Operating lease liabilities in our Condensed Consolidated Balance Sheet. Finance leases are not considered significant to our Condensed Consolidated Balance Sheet or Condensed Consolidated Statement of Operations. Finance lease right-of-use assets at June 30, 2019 of \$74 million are included in Other assets in our Condensed Consolidated Balance Sheet. Finance lease liabilities at June 30, 2019 of \$85 million are included in Long term debt currently due, and Long term debt in our Condensed Consolidated Balance Sheet.

Right-of-use assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Lease right-of-use assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments, and use the implicit rate when readily determinable. We determine our incremental borrowing rate through market sources including relevant industry rates. Our lease right-of-use assets also include any lease pre-payments and exclude lease incentives. Certain of our leases include variable payments, which may vary based upon changes in facts or circumstances after the start of the lease. We exclude variable payments from lease right-of-use assets and lease liabilities, to the extent not considered fixed, and instead, expense variable payments as incurred. Variable lease expense and lease expense for short duration contracts is not a material component of lease expense. Our leases generally have remaining lease terms of 1 to 20 years, some of which include options to extend leases. The majority of our leases with options to extend are up to 5 years with the ability to terminate the lease within 1 year. The exercise of lease renewal options is at our sole discretion and our lease right-of-use assets and liabilities reflect only the options we are reasonably certain that we will exercise. Lease expense is recognized on a straight-line basis over the lease term.

In limited instances we act as a lessor, primarily for commercial aerospace engines and certain heating, ventilation and air conditioning (HVAC) systems and commercial equipment, all of which are classified as operating leases. These leases are not significant to our Condensed Consolidated Balance Sheet or Condensed Consolidated Statement of Operations.

Operating lease expense for the quarter and six months ended June 30, 2019 was \$220 million and \$379 million, respectively.

Supplemental cash flow information related to operating leases was as follows:

<i>(dollars in millions)</i>	Quarter Ended June 30, 2019	Six Months Ended June 30, 2019
Operating cash flows for the measurement of operating lease liabilities	\$ (192)	\$ (337)
Operating lease right-of-use assets obtained in exchange for operating lease obligations	174	201

Operating lease right-of-use assets and liabilities are reflected on our Condensed Consolidated Balance Sheet as follows:

<i>(dollars in millions, except lease term and discount rate)</i>	June 30, 2019
Operating lease right-of-use assets	\$ 2,740
Accrued liabilities	\$ (580)
Operating lease liabilities	(2,258)
Total operating lease liabilities	\$ (2,838)

Supplemental balance sheet information related to operating leases was as follows:

	June 30, 2019
Weighted Average Remaining Lease Term (in years)	6.8
Weighted Average Discount Rate	3.6%

Undiscounted maturities of operating lease liabilities as of June 30, 2019 are as follows:

<i>(dollars in millions)</i>	Operating ¹
2019	\$ 344
2020	629
2021	543
2022	412
2023	287
Thereafter	878
Total undiscounted lease payments	3,093
Less imputed interest	(255)
Total discounted lease payments	<u>\$ 2,838</u>

¹ Operating lease payments include \$225 million related to options to extend lease terms that are reasonably certain of being exercised.

Prior to the adoption of the New Lease Accounting Standard, rental commitments on an undiscounted basis were approximately \$2.9 billion at December 31, 2018 under long-term non-cancelable operating leases and were payable as follows: \$683 million in 2019, \$544 million in 2020, \$407 million in 2021, \$301 million in 2022, \$235 million in 2023 and \$746 million thereafter.

Note 17: Segment Financial Data

Our operations are classified into four principal segments: Otis, Carrier, Pratt & Whitney, and Collins Aerospace Systems. The segments are generally 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.

Total sales by segment include inter-segment sales, which are generally made at prices approximating those that the selling entity is able to obtain on external sales. Results for the quarters ended June 30, 2019 and 2018 are as follows:

<i>(dollars in millions)</i>	<u>Net Sales</u>		<u>Operating Profits</u>		<u>Operating Profit Margins</u>	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Otis	\$ 3,348	\$ 3,344	\$ 515	\$ 488	15.4%	14.6%
Carrier	4,962	5,035	836	1,645	16.8%	32.7%
Pratt & Whitney	5,150	4,736	424	397	8.2%	8.4%
Collins Aerospace Systems	6,576	3,962	1,172	569	17.8%	14.4%
Total segments	20,036	17,077	2,947	3,099	14.7%	18.1%
Eliminations and other	(402)	(372)	(239)	(97)		
General corporate expenses	—	—	(124)	(126)		
Consolidated	<u>\$ 19,634</u>	<u>\$ 16,705</u>	<u>\$ 2,584</u>	<u>\$ 2,876</u>	<u>13.2%</u>	<u>17.2%</u>

Results for the six months ended June 30, 2019 and 2018 are as follows:

<i>(dollars in millions)</i>	Net Sales		Operating Profits		Operating Profit Margins	
	2019	2018	2019	2018	2019	2018
Otis	\$ 6,444	\$ 6,381	\$ 941	\$ 938	14.6%	14.7%
Carrier	9,285	9,411	1,365	2,237	14.7%	23.8%
Pratt & Whitney	9,967	9,065	857	810	8.6%	8.9%
Collins Aerospace Systems	13,089	7,779	2,028	1,157	15.5%	14.9%
Total segments	38,785	32,636	5,191	5,142	13.4%	15.8%
Eliminations and other	(786)	(689)	(340)	(108)		
General corporate expenses	—	—	(222)	(230)		
Consolidated	\$ 37,999	\$ 31,947	\$ 4,629	\$ 4,804	12.2%	15.0%

Geographic sales are attributed to the geographic regions based on their location of origin. Segment information for the quarters ended June 30, 2019 and 2018 is as follows:

<i>(dollars in millions)</i>	2019					2018				
	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total
United States	\$ 904	\$ 2,707	\$ 3,967	\$ 4,797	\$ 12,375	\$ 859	\$ 2,618	\$ 3,652	\$ 2,776	\$ 9,905
Europe	992	1,301	112	988	3,393	1,054	1,455	126	585	3,220
Asia Pacific	1,200	737	294	210	2,441	1,169	720	312	85	2,286
Other	252	217	777	581	1,827	262	242	646	516	1,666
Total segment	\$ 3,348	\$ 4,962	\$ 5,150	\$ 6,576	\$ 20,036	\$ 3,344	\$ 5,035	\$ 4,736	\$ 3,962	\$ 17,077

Segment geographic information for the six months ended June 30, 2019 and 2018 is as follows:

<i>(dollars in millions)</i>	2019					2018				
	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total
United States	\$ 1,816	\$ 4,921	\$ 7,699	\$ 9,527	\$ 23,963	\$ 1,704	\$ 4,713	\$ 6,773	\$ 5,430	\$ 18,620
Europe	1,947	2,593	221	2,011	6,772	2,059	2,839	299	1,192	6,389
Asia Pacific	2,176	1,349	549	399	4,473	2,091	1,405	680	169	4,345
Other	505	422	1,498	1,152	3,577	527	454	1,313	988	3,282
Total segment	\$ 6,444	\$ 9,285	\$ 9,967	\$ 13,089	\$ 38,785	\$ 6,381	\$ 9,411	\$ 9,065	\$ 7,779	\$ 32,636

Segment sales disaggregated by product type for the quarters ended June 30, 2019 and 2018 are as follows:

<i>(dollars in millions)</i>	2019					2018				
	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total
Commercial and industrial, non aerospace	\$ 3,348	\$ 4,962	\$ 5	\$ 12	\$ 8,327	\$ 3,344	\$ 5,035	\$ 5	\$ 15	\$ 8,399
Commercial aerospace	—	—	3,538	4,855	8,393	—	—	3,369	3,024	6,393
Military aerospace	—	—	1,607	1,709	3,316	—	—	1,362	923	2,285
Total segment	\$ 3,348	\$ 4,962	\$ 5,150	\$ 6,576	\$ 20,036	\$ 3,344	\$ 5,035	\$ 4,736	\$ 3,962	\$ 17,077

Segment sales disaggregated by product type for the six months ended June 30, 2019 and 2018 are as follows:

(dollars in millions)	2019					2018				
	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total
Commercial and industrial, non aerospace	\$ 6,444	\$ 9,285	\$ 28	\$ 26	\$ 15,783	\$ 6,381	\$ 9,411	\$ 26	\$ 30	\$ 15,848
Commercial aerospace	—	—	6,913	9,683	16,596	—	—	6,568	5,935	12,503
Military aerospace	—	—	3,026	3,380	6,406	—	—	2,471	1,814	4,285
Total segment	\$ 6,444	\$ 9,285	\$ 9,967	\$ 13,089	\$ 38,785	\$ 6,381	\$ 9,411	\$ 9,065	\$ 7,779	\$ 32,636

Segment sales disaggregated by sales type for the quarters ended June 30, 2019 and 2018 are as follows:

(dollars in millions)	2019					2018				
	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total
Product	\$ 1,511	\$ 4,138	\$ 3,305	\$ 5,440	\$ 14,394	\$ 1,525	\$ 4,213	\$ 2,775	\$ 3,340	\$ 11,853
Service	1,837	824	1,845	1,136	5,642	1,819	822	1,961	622	5,224
Total segment	\$ 3,348	\$ 4,962	\$ 5,150	\$ 6,576	\$ 20,036	\$ 3,344	\$ 5,035	\$ 4,736	\$ 3,962	\$ 17,077

Segment sales disaggregated by sales type for the six months ended June 30, 2019 and 2018 are as follows:

(dollars in millions)	2019					2018				
	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total	Otis	Carrier	Pratt & Whitney	Collins Aerospace Systems	Total
Product	\$ 2,791	\$ 7,705	\$ 6,278	\$ 10,846	\$ 27,620	\$ 2,744	\$ 7,811	\$ 5,312	\$ 6,528	\$ 22,395
Service	3,653	1,580	3,689	2,243	11,165	3,637	1,600	3,753	1,251	10,241
Total segment	\$ 6,444	\$ 9,285	\$ 9,967	\$ 13,089	\$ 38,785	\$ 6,381	\$ 9,411	\$ 9,065	\$ 7,779	\$ 32,636

Note 18: Accounting Pronouncements

In June 2016, the FASB issued Accounting Standards Update (ASU) 2016-13, *Financial Instruments - Credit Losses (Topic 328): Measurement of Credit Losses on Financial Instruments*. This ASU amends the impairment model to utilize an expected loss methodology in place of the incurred loss methodology for financial instruments, including trade receivables, and off-balance sheet credit exposures. The amendment requires entities to consider a broader range of information to estimate expected credit losses, which may result in earlier recognition of losses. 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 and its related amendments.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*. The new standard removes the disclosure requirements for the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy. This standard did not have a material impact on our financial statement disclosures. We early adopted this standard effective January 1, 2019.

In August 2018, the FASB issued ASU 2018-14, *Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20): Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans*. The new standard includes updates to the disclosure requirements for defined benefit plans including several additions, deletions and modifications to the disclosure requirements. The provisions of this ASU are effective for 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 October 2018, the FASB issued ASU 2018-17, *Consolidation (Topic 810): Targeted Improvements to Related Party Guidance for Variable Interest Entities*. The amendments in this update for determining whether a decision-making fee is a variable interest require reporting entities to consider indirect interests held through related parties under common control on a proportional basis rather than as the equivalent of a direct interest in its entirety (as currently required in generally accepted accounting principles (GAAP)). These amendments also will create alignment between determining whether a decision making fee is a variable interest and determining whether a reporting entity within a related party group is the primary beneficiary of a VIE. This will significantly reduce the risk that decision makers with insignificant direct and indirect interests could be deemed the primary beneficiary of a VIE. The provisions of this ASU are effective for years beginning after December 15, 2019, with early adoption permitted. We 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 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.

With respect to the unaudited condensed consolidated financial information of UTC for the quarters and six months ended June 30, 2019 and 2018, PricewaterhouseCoopers LLP (PricewaterhouseCoopers) reported that it has applied limited procedures in accordance with professional standards for a review of such information. However, its report dated July 26, 2019, appearing below, states that the firm did not audit and does not express an opinion on that unaudited condensed consolidated financial information. PricewaterhouseCoopers has not carried out any significant or additional audit tests beyond those that would have been necessary if their report had not been included. Accordingly, the degree of reliance on its report on such information should be restricted in light of the limited nature of the review procedures applied. PricewaterhouseCoopers is not subject to the liability provisions of Section 11 of the Securities Act of 1933, as amended (the Act) for its report on the unaudited condensed consolidated financial information because that report is not a "report" or a "part" of a registration statement prepared or certified by PricewaterhouseCoopers within the meaning of Sections 7 and 11 of the Act.

Report of Independent Registered Public Accounting Firm

To the Shareowners and Board of Directors of United Technologies Corporation

Results of Review of Interim Financial Information

We have reviewed the accompanying condensed consolidated balance sheet of United Technologies Corporation and its subsidiaries (the "Company") as of June 30, 2019, and the related condensed consolidated statements of operations, of comprehensive income and of changes in equity for the three-month and six-month periods ended June 30, 2019 and 2018 and the condensed consolidated statements of cash flows for the six-month periods ended June 30, 2019 and 2018, including the related notes (collectively referred to as the "interim financial information"). Based on our reviews, we are not aware of any material modifications that should be made to the accompanying interim financial information for it to be in conformity with accounting principles generally accepted in the United States of America.

We have previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of the Company as of December 31, 2018, and the related consolidated statements of operations, of comprehensive income, of changes in equity and of cash flows for the year then ended (not presented herein), and in our report dated February 7, 2019, which included a paragraph describing a change in the manner of accounting for revenue from contracts with customers and net periodic benefit cost in the 2018 financial statements, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying condensed consolidated balance sheet information as of December 31, 2018 is fairly stated, in all material respects, in relation to the consolidated balance sheet from which it has been derived.

Basis for Review Results

This interim financial information is the responsibility of the Company's management. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB. We conducted our review in accordance with the standards of the PCAOB. A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the PCAOB, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

/s/ PricewaterhouseCoopers LLP

Hartford, CT
July 26, 2019

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

BUSINESS OVERVIEW

We are a global provider of high technology products and services to the building systems and aerospace industries. Our operations for the periods presented herein are classified into four principal business segments: Otis, Carrier, Pratt & Whitney, and Collins Aerospace Systems. Otis and Carrier are referred to as the "commercial businesses," while Pratt & Whitney and Collins Aerospace Systems are referred to as the "aerospace businesses."

The current status of significant factors affecting our business environment in 2019 is discussed below. For additional discussion, refer to the "Business Overview" section in Management's Discussion and Analysis of Financial Condition and Results of Operations in our 2018 Annual Report, which is incorporated by reference in our 2018 [Form 10-K](#).

General

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 (OEM) 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 the public and private sectors, and our businesses reflect an extensive geographic diversification that has evolved with continued globalization.

Our military businesses' sales are affected by U.S. Department of Defense budget and spending levels, changes in market demand and the global political environment. Total sales to the U.S. Government were \$2.7 billion and \$1.8 billion for the quarters ended June 30, 2019 and 2018, 14% and 11% of total UTC sales for those periods, respectively. Our participation in long-term production, development and sustainment programs for the U.S. Government has and is expected to contribute positively to our results in 2019.

As has been previously disclosed, 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 the Collins Aerospace Systems and Pratt & Whitney businesses, and Otis and Carrier will become independent companies. The proposed separations are expected to be effected through spin-offs of Otis and Carrier that are intended to be tax-free for the Company's shareowners for U.S. federal income tax purposes, and are expected to be completed in the first half of 2020. Separation of Otis and Carrier from UTC via spin-off transactions will be subject to the satisfaction of customary conditions, including, among others, final approval by the Company's Board of Directors, receipt of tax rulings 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 (subject to UTC's agreement to consummate the distributions pursuant to, and subject to the terms and conditions of, the Raytheon merger agreement). See Notes To Condensed Consolidated Financial Statements, Note 1 for additional information regarding the Raytheon transaction.

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

Acquisition Activity

Our growth strategy contemplates acquisitions. Our operations and results can be affected by the rate and extent to which appropriate acquisition opportunities are available, acquired businesses are effectively integrated, and anticipated synergies or cost savings are achieved. During the six months ended June 30, 2019, our investment in business acquisitions was \$32 million, which consisted of small acquisitions at Otis.

Other

Government legislation, policies and regulations can have a negative impact on our worldwide operations. Government regulation of refrigerants and energy efficiency standards, elevator safety codes and fire protection regulations are important to

our commercial businesses. Government and market-driven safety and performance regulations, restrictions on aircraft engine noise and emissions, and government procurement practices can impact our aerospace and defense businesses.

Global economic and political conditions, changes in raw material and commodity prices, interest rates, foreign currency exchange rates, energy costs, levels of end market demand in construction, levels of air travel, the financial condition of commercial airlines, and the impact from natural disasters and weather conditions create uncertainties that could impact our earnings outlook for the remainder of 2019. With regard to political conditions, the U.S. Government suspended Turkey's participation in the F-35 Joint Strike Fighter program because Turkey accepted delivery of the Russian-built S-400 air and missile defense system. The U.S. may also impose sanctions on Turkish entities as a result. Turkish companies supply components, some of which are sole-sourced, to our aerospace businesses for commercial and military engines and aerospace products. Depending upon the scope and timing of U.S. sanctions on Turkey and potential reciprocal actions, if any, such sanctions or actions could impact our aerospace businesses' sources of supply and could have a material adverse effect on our results of operations, cash flows or financial condition. See Part I, Item 1A, "Risk Factors" in our 2018 Form 10-K for further discussion.

The following activity is disclosed as required by Section 13(r)(1)(D) of the Securities Exchange Act of 1934, as amended, as transactions or dealings with the government of Iran that have not been specifically authorized by a U.S. federal department or agency:

Beginning in June 2016, Rockwell Collins provided access to two of its Flight Management Systems databases containing navigation and mapping information to MPT Maintenance, a South African aircraft maintenance provider, to support a Beechcraft B300 King Air aircraft owned by Iran Airports Company. MPT Maintenance purchased a subscription to the databases that ran through November 2017, and was automatically renewed in December 2017, and again in December 2018. MPT Maintenance paid a total of \$11,365 for the original subscription and the first renewal, but it did not pay for the second renewal and Rockwell Collins disabled the subscription in mid-December 2018. The last download from the databases under the subscription occurred in early December 2018. In May 2019, MPT Maintenance sought to reopen the subscription, and at that time, Rockwell Collins recognized the transaction was impermissible. Iran Airports Company is believed to be owned by the Ministry of Roads and Urban Development, an agency of the Government of Iran. UTC and its affiliates did not receive any revenues or profits attributable to this subscription after its acquisition of Rockwell Collins and has filed the relevant disclosure with the Treasury Department's Office of Foreign Assets Control. UTC and its affiliates do not intend to engage in any further activity with Iran Airports Company.

CRITICAL ACCOUNTING ESTIMATES

Preparation of our financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, sales and expenses. We believe 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. Management's Discussion and Analysis of Financial Condition and Results of Operations and Note 1 to the Consolidated Financial Statements in our 2018 Annual Report, incorporated by reference in our 2018 [Form 10-K](#), describe the significant accounting estimates and policies used in preparation of the Consolidated Financial Statements. Actual results in these areas could differ from management's estimates. There have been no significant changes in our critical accounting estimates during the six months ended June 30, 2019.

RESULTS OF OPERATIONS

Net Sales

<i>(dollars in millions)</i>	<u>Quarter Ended June 30,</u>		<u>Six Months Ended June 30,</u>	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Net Sales	\$ 19,634	\$ 16,705	\$ 37,999	\$ 31,947

The factors contributing to the total percentage change year-over-year in total net sales for the quarter and six months ended June 30, 2019 are as follows:

	Quarter Ended June 30, 2019	Six Months Ended June 30, 2019
Organic change	6 %	7 %
Foreign currency translation	(1)%	(2)%
Acquisitions and divestitures, net	13 %	14 %
Total % change	18 %	19 %

All four segments experienced organic sales growth for the quarter and six months ended June 30, 2019. During the quarter ended June 30, 2019, Collins Aerospace Systems sales grew 9% organically, primarily driven by higher commercial aftermarket and military OEM sales. Pratt & Whitney sales grew 9% organically, reflecting higher sales across all channels. Otis experienced 4% organic growth, reflecting higher service sales across all regions, and higher new equipment sales driven by growth in China. Organic sales growth of 2% at Carrier was driven by growth in global HVAC and transport refrigeration. The 13% increase in Acquisitions and divestitures, net for the quarter ended June 30, 2019 primarily reflects the impact of the November 26, 2018 acquisition of Rockwell Collins.

During the six months ended June 30, 2019, Pratt & Whitney sales grew 11% organically, reflecting higher sales across all channels. Collins Aerospace Systems sales grew 10% organically, reflecting higher commercial and military sales. Organic sales growth of 6% at Otis reflects higher new equipment sales driven by China and the Americas, and higher service sales across all regions. Organic sales growth of 3% at Carrier was driven by growth in transport refrigeration, as well as global HVAC. The 14% increase in Acquisitions and divestitures, net for the six months ended June 30, 2019 primarily reflects the impact of the November 26, 2018 acquisition of Rockwell Collins.

Cost of Products and Services Sold

<i>(dollars in millions)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Total cost of products and services sold	\$ 14,413	\$ 12,422	\$ 28,120	\$ 23,702
Percentage of net sales	73.4%	74.4%	74.0%	74.2%

The factors contributing to the percentage change year-over-year for the quarter and six months ended June 30, 2019 in total cost of products and services sold are as follows:

	Quarter Ended June 30, 2019	Six Months Ended June 30, 2019
Organic change	6 %	7 %
Foreign currency translation	(2)%	(2)%
Acquisitions and divestitures, net	12 %	14 %
Total % change	16 %	19 %

The organic increase in total cost of products and services sold for the quarter and six months ended June 30, 2019 was primarily driven by the organic sales increases noted above. The increase in Acquisitions and divestitures, net of 12% and 14% for the quarter and six months ended June 30, 2019 respectively, primarily reflects the impact of the acquisition of Rockwell Collins.

Gross Margin

<i>(dollars in millions)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Gross margin	\$ 5,221	\$ 4,283	\$ 9,879	\$ 8,245
Percentage of net sales	26.6%	25.6%	26.0%	25.8%

The increase in gross margin as a percentage of sales for the quarter ended June 30, 2019 reflects a 300 basis point increase at Collins Aerospace Systems primarily driven by the impact of the Rockwell Collins merger, including the resulting synergies achieved, as well as an increase in commercial aftermarket sales and cost reduction initiatives. Otis gross margin increased 50 basis points primarily driven by improved service margins. Pratt & Whitney's gross margin declined 10 basis

points as lower aftermarket margins driven by unfavorable contract adjustments were partially offset by higher product margins driven by cost reduction and favorable mix on large commercial engine shipments. Gross margin at Carrier was down 30 basis points primarily driven by unfavorable mix and higher commodities, tariffs, and logistics costs.

The increase in gross margin as a percentage of sales for the six months ended June 30, 2019 was primarily driven by a 90 basis point increase at Collins Aerospace Systems primarily driven the impact of the Rockwell Collins merger, including the resulting synergies achieved, and by an increase in commercial aftermarket sales and cost reduction initiatives. Otis gross margin was consistent with the prior year. Pratt & Whitney's gross margin declined 20 basis points as lower aftermarket margins driven by unfavorable contract adjustments were partially offset by higher product margins driven by cost reduction and favorable mix on large commercial engine shipments. Gross margin at Carrier was down 40 basis points primarily driven by unfavorable mix and higher commodities, tariffs, and logistics costs.

Research and Development

<i>(dollars in millions)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Company-funded	\$ 743	\$ 589	\$ 1,471	\$ 1,143
Percentage of net sales	3.8%	3.5%	3.9%	3.6%
Customer-funded	\$ 573	\$ 365	\$ 1,124	\$ 688
Percentage of net sales	2.9%	2.2%	3.0%	2.2%

Research and development spending is subject to the variable nature of program development schedules and, therefore, year-over-year fluctuations in spending levels are expected. The majority of the company-funded spending is incurred by the aerospace businesses. The year-over-year increase (26%) in company-funded research and development for the quarter ended June 30, 2019 was primarily driven by the impact of the Rockwell Collins merger (19%). The remaining increase primarily reflects higher expenses across various commercial programs at Pratt & Whitney (6%). For the six months ended June 30, 2019 company-funded research and development increased 29%, driven by the impact of the Rockwell Collins acquisition (22%). The remaining increase primarily reflects higher expenses across various commercial programs at Pratt & Whitney (6%) and Collins Aerospace Systems (3%).

The increase (57%) in customer-funded research and development for the quarter ended June 30, 2019 was primarily driven by the impact of the Rockwell Collins merger (62%). Excluding this impact, customer-funded research and development decreased (5%) year-over-year driven by lower research and development expenses on military development programs at Pratt & Whitney (8%), partially offset by an increase in military development programs at Collins Aerospace Systems (2%). The increase (63%) in customer-funded research and development for the six months ended June 30, 2019 was also driven by the impact of the Rockwell Collins acquisition (64%). Excluding this impact, customer-funded research and development decreased (1%) as lower research and development expenses on military development programs at Pratt & Whitney (4%), were partially offset by higher expenses at Collins Aerospace Systems (2%).

Selling, General and Administrative

<i>(dollars in millions)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Selling, general and administrative expenses	\$ 2,106	\$ 1,759	\$ 4,103	\$ 3,470
Percentage of net sales	10.7%	10.5%	10.8%	10.9%

Selling, general and administrative expenses increased 20% in the quarter ended June 30, 2019. The increase in expenses includes the impact of the Rockwell Collins acquisition (11%), and costs associated with the Company's intention to separate its commercial businesses (9%). Excluding these impacts, selling, general and administrative expenses were consistent with the prior year at each of the four segments.

Selling, general and administrative expenses increased 18% in the six months ended June 30, 2019, primarily driven by the impact of the Rockwell Collins acquisition (10%), costs associated with the Company's intention to separate its commercial businesses (6%) and higher restructuring costs (1%). The growth in Selling, general and administrative expenses also includes higher expenses at Pratt & Whitney (1%) driven by increased headcount and employee compensation related expenses and costs to support higher volumes. Selling, general and administrative expenses at Collins Aerospace Systems, Otis and Carrier were consistent with the prior year.

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 8: Restructuring Costs and the Restructuring Costs section of this Management's Discussion and Analysis of Financial Condition and Results of Operations for further discussion.

Other Income, Net

<i>(dollars in millions)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Other income, net	\$ 212	\$ 941	\$ 324	\$ 1,172

Other income, net includes equity earnings in unconsolidated entities, royalty income, foreign exchange gains and losses, as well as other ongoing and nonrecurring items. The year-over-year decrease in Other income (77%) for the quarter ended June 30, 2019 primarily reflects the absence of the prior year gain on the sale of Taylor Company (84%) and the net unfavorable year-over-year impact of foreign exchange gains and losses (3%), partially offset by the absence of a prior year impairment of assets related to a previously acquired business at Collins Aerospace Systems (5%).

The year-over-year decrease in Other income, net (72%) for the six months ended June 30, 2019 primarily reflects the absence of the prior year gain on the sale of Taylor Company (68%) and the net unfavorable year-over-year impact of foreign exchange gains and losses (5%), partially offset by the absence of a prior year impairment of assets related to a previously acquired business at Collins Aerospace Systems (4%).

Interest Expense, Net

<i>(dollars in millions)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Interest expense	\$ 438	\$ 258	\$ 888	\$ 514
Interest income	(78)	(24)	(97)	(51)
Interest expense, net	\$ 360	\$ 234	\$ 791	\$ 463
Average interest expense rate	3.6%	3.5%	3.7%	3.5%

Interest expense, net increased 54% and 71% for the quarter and six months ended June 30, 2019, respectively. The increase in interest expense primarily reflects the impact of the August 16, 2018 issuance of notes representing \$11 billion in aggregate principal. The average maturity of our long-term debt at June 30, 2019 is approximately 10 years. The increase in interest income for the quarter and six months ended June 30, 2019 was primarily driven by interest income related to tax settlements.

Income Taxes

	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Effective tax rate	18.1%	24.5%	19.7%	25.8%

The decrease in the effective tax rate for the quarter ended June 30, 2019 is primarily the result of favorable adjustments related to the conclusion of the audit by the Examination Division of the Internal Revenue Service for the UTC 2014, 2015 and 2016 tax years and the filing by a subsidiary of the Company to participate in an amnesty program offered by the Italian Tax Authority. These benefits were partially offset by tax charges connected to the Company's portfolio separation transactions.

The decrease in the effective tax rate for the six months ended June 30, 2019 is principally related to the items described above in addition to the impact of the Tax Cuts and Jobs Act of 2017 (TCJA) interpretive guidance and the absence of the TCJA provisional adjustments recorded through the second quarter of 2018.

The Company will continue to review and incorporate as necessary TCJA changes related to forthcoming U.S. Treasury Regulations, other updates, and the finalization of the deemed inclusions to be reported on the Company's 2018 U.S. federal income tax return.

As shown in the table above, the effective tax rate for the six months ended June 30, 2019 is 19.7%; the effective income tax rate for the same period, excluding restructuring, non-operational nonrecurring items is 23.1%. The rate is still subject to change as guidance and interpretations related to the TCJA continue to be finalized. We anticipate some variability in the tax

rate quarter to quarter from potential discrete items. The Company expects to continue to incur tax costs associated with the ongoing separation of its commercial businesses which is expected to be complete in the first half of 2020.

Net Income Attributable to Common Shareowners

<i>(dollars in millions, except per share amounts)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net income attributable to common shareowners	\$ 1,900	\$ 2,048	\$ 3,246	\$ 3,345
Diluted earnings per share from operations	\$ 2.20	\$ 2.56	\$ 3.76	\$ 4.18

Net income attributable to common shareowners for the quarter ended June 30, 2019 includes restructuring charges, net of tax benefit, of \$48 million, as well as a net gain for significant non-operational and/or nonrecurring items, including the impact of taxes, of \$50 million. The offsetting effects of restructuring charges and significant non-operational and/or nonrecurring items resulted in no net impact on diluted earnings per share for the quarter ended June 30, 2019. The effect of foreign currency translation and Pratt & Whitney Canada hedging generated an unfavorable impact of \$0.01 per diluted share.

Net income attributable to common shareowners for the quarter ended June 30, 2018 includes restructuring charges, net of tax benefit, of \$59 million as well as a net gain for significant non-operational and/or nonrecurring items, including the impact of taxes, of \$531 million, primarily reflecting a gain on the sale of Taylor Company. The effect of restructuring charges and significant non-operational and/or nonrecurring items on diluted earnings per share for the quarter ended June 30, 2018 was a gain of \$0.59 per share while the effect of foreign currency translation and Pratt & Whitney Canada hedging generated a favorable impact of \$0.01 per diluted share.

Net income attributable to common shareowners for the six months ended June 30, 2019 includes restructuring charges, net of tax benefit, of \$131 million as well as a net charge for significant non-operational and/or nonrecurring items, including the impact of taxes, of \$168 million. The effect of restructuring charges and nonrecurring items on diluted earnings per share for the six months ended June 30, 2019 was a charge of \$0.35 per share while the effect of foreign currency translation and Pratt & Whitney Canada hedging generated an unfavorable impact of \$0.04 per diluted share.

Net income attributable to common shareowners for the six months ended June 30, 2018 includes restructuring charges, net of tax benefit, of \$111 million as well as a net gain for significant non-operational and/or nonrecurring items, including the impact of taxes, of \$459 million, primarily reflecting a gain on the sale of Taylor Company. The effect of restructuring charges and nonrecurring items on diluted earnings per share for the six months ended June 30, 2018 was a gain of \$0.44 per share while the effect of foreign currency translation and Pratt & Whitney Canada hedging generated a favorable impact of \$0.06 per diluted share.

Restructuring Costs

<i>(dollars in millions)</i>	Six Months Ended June 30,	
	2019	2018
Restructuring costs	\$ 178	\$ 149

Restructuring actions are an essential component of our operating margin improvement efforts and relate to existing and recently acquired operations. Charges generally arise from severance related to workforce reductions, facility exit and lease termination costs associated with the consolidation of field and manufacturing operations and costs to exit legacy programs. We continue to closely monitor the economic environment and may undertake further restructuring actions to keep our cost structure aligned with the demands of the prevailing market conditions.

2019 Actions. During the six months ended June 30, 2019, we recorded net pre-tax restructuring charges of \$115 million relating to ongoing cost reduction actions initiated in 2019. We expect to incur additional restructuring charges of \$73 million to complete these actions. We are targeting to complete in 2019 and 2020 the majority of the remaining workforce and facility related cost reduction actions initiated in 2019. We expect recurring pre-tax savings in continuing operations to increase to approximately \$160 million annually over the two-year period subsequent to initiating the actions. Approximately 92% of the total expected pre-tax charges will require cash payments, which we have funded and expect to continue to fund with cash generated from operations. During the six months ended June 30, 2019, we had cash outflows of approximately \$55 million related to the 2019 actions.

2018 Actions. During the six months ended June 30, 2019 and 2018, we recorded net pre-tax restructuring charges of \$39 million and \$73 million, respectively, for actions initiated in 2018. We expect to incur additional restructuring charges of \$20 million to complete these actions. We are targeting to complete in 2019 the majority of the remaining workforce and facility related cost reduction actions initiated in 2018. We expect recurring pre-tax savings in continuing operations to increase over the two-year period subsequent to initiating the actions to approximately \$260 million annually, of which, approximately \$85 million was realized during the six months ended June 30, 2019. Approximately 92% of the total expected pre-tax charges will require cash payments, which we have funded and expect to continue to fund with cash generated from operations. During the six months ended June 30, 2019, we had cash outflows of approximately \$104 million related to the 2018 actions.

In addition, during the six months ended June 30, 2019, we recorded net pre-tax restructuring costs totaling \$24 million for restructuring actions initiated in 2017 and prior. For additional discussion of restructuring, see Note 8 to the Condensed Consolidated Financial Statements.

Segment Review

Segments are generally 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. Adjustments to reconcile segment reporting to the consolidated results for the quarters and six months ended June 30, 2019 and 2018 are included in "Eliminations and other", which also includes certain smaller subsidiaries. We attempt to quantify material factors within our discussion of the results of each segment whenever those factors are determinable. However, in some instances, the factors we cite within our segment discussion are based upon input measures or qualitative information that does not lend itself to quantification when discussed in the context of the financial results measured on an output basis and are not, therefore, quantified in the below discussions.

Commercial Businesses

Our commercial businesses generally serve customers in the worldwide commercial and residential property industries, and Carrier also serves customers in the commercial and transport refrigeration industries. Sales in the commercial businesses 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, credit markets and other global and political factors. Carrier's financial performance can also be influenced by production and utilization of transport equipment and, in the case of its residential business, weather conditions. To ensure adequate supply of products in the distribution channel, Carrier customarily offers its customers incentives to purchase products. The principal incentive program provides reimbursements to distributors for offering promotional pricing on Carrier products. We account for incentive payments made as a reduction to sales.

At constant currency and excluding the effect of acquisitions and divestitures, Carrier equipment orders in the quarter ended June 30, 2019 decreased 12% in comparison to the same period of the prior year, driven by decreases in transport refrigeration (63%), commercial refrigeration (11%), commercial HVAC (4%) and North America residential HVAC equipment (3%). Fire and security products equipment orders were consistent with the prior year. At constant currency, Otis new equipment orders in the quarter decreased 6% in comparison to the prior year as increased orders in China (5%) were more than offset by decreased orders in the Americas (17%), Asia excluding China (16%) and Europe and the Middle East (2%).

Summary performance for each of the commercial businesses for the quarters ended June 30, 2019 and 2018 was as follows:

<i>(dollars in millions)</i>	Otis			Carrier		
	2019	2018	Change	2019	2018	Change
Net Sales	\$ 3,348	\$ 3,344	— %	\$ 4,962	\$ 5,035	(1)%
Cost of Sales	2,374	2,389	(1)%	3,487	3,521	(1)%
	974	955	2 %	1,475	1,514	(3)%
Operating Expenses and Other	459	467	(2)%	639	(131)	(588)%
Operating Profits	\$ 515	\$ 488	6 %	\$ 836	\$ 1,645	(49)%
Operating Profit Margins	15.4%	14.6%		16.8%	32.7%	

Summary performance for each of the commercial businesses for the six months ended June 30, 2019 and 2018 was as follows:

(dollars in millions)	Otis			Carrier		
	2019	2018	Change	2019	2018	Change
Net Sales	\$ 6,444	\$ 6,381	1%	\$ 9,285	\$ 9,411	(1)%
Cost of Sales	4,569	4,523	1%	6,575	6,625	(1)%
	1,875	1,858	1%	2,710	2,786	(3)%
Operating Expenses and Other	934	920	2%	1,345	549	145 %
Operating Profits	\$ 941	\$ 938	—%	\$ 1,365	\$ 2,237	(39)%
Operating Profit Margins	14.6%	14.7%		14.7%	23.8%	

Otis –

Quarter Ended June 30, 2019 Compared with Quarter Ended June 30, 2018

	Factors Contributing to Total % Change				
	Organic / Operational	FX Translation	Acquisitions / Divestitures, net	Restructuring Costs	Other
Net Sales	4%	(4)%	—%	—%	—%
Cost of Sales	4%	(5)%	—%	—%	—%
Operating Profits	7%	(6)%	—%	2%	3%

The organic sales increase of 4% primarily reflects higher service sales across all regions (2%), primarily driven by growth in the Americas (1%) and Asia (1%), and higher new equipment sales (2%) driven by growth in China.

The operational profit increase of 7% was driven by:

- margin contribution from the higher sales volumes noted above (9%)
- favorable productivity (1%)

These increases were partially offset by:

- higher selling, general and administrative expenses (3%)
- unfavorable transactional foreign exchange gains and losses from mark-to-market adjustments and embedded foreign currency derivatives within certain new equipment contracts (1%)

The 3% increase in "Other" primarily represents the absence of the unfavorable impact of prior year legal matters.

Six Months Ended June 30, 2019 Compared with Six Months Ended June 30, 2018

	Factors Contributing to Total % Change				
	Organic / Operational	FX Translation	Acquisitions / Divestitures, net	Restructuring Costs	Other
Net Sales	6%	(5)%	—%	—%	—%
Cost of Sales	6%	(5)%	—%	—%	—%
Operating Profits	3%	(5)%	—%	1%	1%

The organic sales increase of 6% primarily reflects higher new equipment sales (3%) driven by growth in China (2%) and the Americas (1%), and higher service sales (3%), driven by growth in the Americas (1%), Asia (1%) and Europe and the Middle East (1%).

The operational profit increase of 3% was driven by:

- margin contribution from the higher sales volumes noted above (8%)
- favorable productivity (1%)

These increases were partially offset by:

- higher selling, general and administrative expenses (3%)
- unfavorable transactional foreign exchange gains and losses from mark-to-market adjustments and embedded foreign currency derivatives within certain new equipment contracts (4%)

The 1% increase in "Other" primarily represents the absence of the unfavorable impact of prior year legal matters.

Carrier –

Quarter Ended June 30, 2019 Compared with Quarter Ended June 30, 2018

	Factors Contributing to Total % Change				
	Organic / Operational	FX Translation	Acquisitions / Divestitures, net	Restructuring Costs	Other
Net Sales	2 %	(2)%	(1)%	—%	— %
Cost of Sales	3 %	(3)%	(1)%	—%	— %
Operating Profits	(1)%	(1)%	— %	—%	(47)%

The organic sales increase of 2% was primarily driven by growth in commercial HVAC (1%) as well as increases in North America residential HVAC and transport refrigeration (1%, combined).

Operational profit decreased 1% in comparison to the prior year as the impact of favorable pricing (4%) was partially offset by the unfavorable impact of commodity costs, tariffs, labor productivity and logistics (3%). This net favorability was more than offset by investments in productivity initiatives (1%) and unfavorable mix, net of higher volume (1%).

The 47% decrease in Other primarily reflects the absence of the prior year gain on the sale of Taylor Company.

Six Months Ended June 30, 2019 Compared with Six Months Ended June 30, 2018

	Factors Contributing to Total % Change				
	Organic / Operational	FX Translation	Acquisitions / Divestitures, net	Restructuring Costs	Other
Net Sales	3 %	(3)%	(1)%	— %	— %
Cost of Sales	4 %	(3)%	(2)%	— %	— %
Operating Profits	(2)%	(1)%	(1)%	(1)%	(34)%

The organic sales increase of 3% was primarily driven by growth in transport refrigeration (1%) as well as global HVAC (2%).

Operational profit decreased 2% in comparison to the prior year. The impact of favorable pricing and material productivity (6%, combined) was partially offset by the unfavorable impact of commodity costs, tariffs, labor productivity and logistics (5%). This net favorability was more than offset by increased selling, general and administrative costs, net of restructuring savings (1%), unfavorable mix, net of higher volume (1%) and investments in productivity initiatives (1%).

The 34% decrease in Other primarily reflects the absence of the prior year gain on the sale of Taylor Company.

Aerospace Businesses

The aerospace businesses serve both commercial and government aerospace customers. Revenue passenger miles (RPMs), U.S. Government military and space spending, and the general economic health of airline carriers are all barometers for our aerospace businesses. Performance in the general aviation sector is closely tied to the overall health of the economy and is positively correlated to corporate profits.

We continue to see growth in a strong commercial airline industry which is benefiting from traffic growth and stronger economic conditions. Airline traffic, as measured by RPMs, grew approximately 5% in the first five months of 2019.

Our commercial aftermarket businesses continue to evolve as a significant portion of our aerospace businesses' customers are covered under long-term aftermarket service agreements at Pratt & Whitney and Collins Aerospace Systems. These agreements are comprehensive long-term spare part and service agreements with our customers. We expect a continued shift to long-term aftermarket service agreements in lieu of transactional spare part sales as new aerospace products enter our customers' fleets under long-term service agreements and legacy fleets are retired. For the first six months of 2019, as compared with 2018, total commercial aerospace aftermarket sales increased 69% at Collins Aerospace Systems (up 13% excluding the impact of the Rockwell Collins acquisition) and 1% at Pratt & Whitney.

Operating profit in the quarter and six months ended June 30, 2019 included net unfavorable changes in aerospace contract estimates totaling \$69 million and \$81 million, respectively, primarily reflecting net unfavorable contract adjustments at Pratt & Whitney. Operating profit in the quarter and six months ended June 30, 2018 included net unfavorable changes in aerospace contract estimates totaling \$41 million and \$82 million, respectively, primarily reflecting net unfavorable contract adjustments recorded at Pratt & Whitney.

Summary performance for each of the aerospace businesses for the quarters ended June 30, 2019 and 2018 was as follows:

(dollars in millions)	Pratt & Whitney			Collins Aerospace Systems		
	2019	2018	Change	2019	2018	Change
Net Sales	\$ 5,150	\$ 4,736	9%	\$ 6,576	\$ 3,962	66%
Cost of Sales	4,237	3,893	9%	4,654	2,922	59%
	913	843	8%	1,922	1,040	85%
Operating Expenses and Other	489	446	10%	750	471	59%
Operating Profits	\$ 424	\$ 397	7%	\$ 1,172	\$ 569	106%
Operating Profit Margins	8.2%	8.4%		17.8%	14.4%	

Summary performance for each of the aerospace businesses for the six months ended June 30, 2019 and 2018 was as follows:

(dollars in millions)	Pratt & Whitney			Collins Aerospace Systems		
	2019	2018	Change	2019	2018	Change
Net Sales	\$ 9,967	\$ 9,065	10%	\$ 13,089	\$ 7,779	68%
Cost of Sales	8,168	7,414	10%	9,484	5,705	66%
	1,799	1,651	9%	3,605	2,074	74%
Operating Expenses and Other	942	841	12%	1,577	917	72%
Operating Profits	\$ 857	\$ 810	6%	\$ 2,028	\$ 1,157	75%
Operating Profit Margins	8.6%	8.9%		15.5%	14.9%	

Pratt & Whitney –

Quarter Ended June 30, 2019 Compared with Quarter Ended June 30, 2018

	Factors Contributing to Total % Change				
	Organic / Operational	FX Translation*	Acquisitions / Divestitures, net	Restructuring Costs	Other
Net Sales	9%	—%	—%	—%	—%
Cost of Sales	9%	—%	—%	—%	—%
Operating Profits	4%	2%	—%	—%	1%

* For Pratt & Whitney only, the transactional impact of foreign exchange hedging at Pratt & Whitney Canada has been netted against the translational foreign exchange impact for presentation purposes in the table above. For all other segments these foreign exchange transactional impacts are included within the organic/operational 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.

The organic sales growth of 9% primarily reflects higher commercial OEM sales (4%), higher military sales (4%), and higher commercial aftermarket sales (1%).

The operational profit increase of 4% was primarily driven by:

- higher commercial OEM margin contribution (18%) primarily driven by continued year-over-year cost reduction and favorable mix on large commercial engine shipments
- higher military margin contribution (4%) driven by the sales increase noted above and favorable mix

These increases were partially offset by:

- higher research and development costs (9%)
- higher selling, general and administrative expenses and other ramp-related costs (5%)
- lower commercial aftermarket margin contribution (4%) primarily driven by net unfavorable changes in contract estimates

Six Months Ended June 30, 2019 Compared with Six Months Ended June 30, 2018

	Factors Contributing to Total % Change				
	Organic / Operational	FX Translation*	Acquisitions / Divestitures, net	Restructuring Costs	Other
Net Sales	11%	(1)%	—%	—%	—%
Cost of Sales	11%	(1)%	—%	—%	—%
Operating Profits	6%	—%	—%	(2)%	2%

The organic sales growth of 11% primarily reflects higher commercial OEM sales (5%), higher military sales (5%), and higher commercial aftermarket sales of (1%).

The operational profit increase of 6% was primarily driven by:

- higher military profit contribution (10%), driven by the sales increase noted above
- higher OEM margin contribution (7%) primarily driven by continued year-over-year cost reduction, favorable mix on large commercial engine shipments, and lower customer support costs

These increases were partially offset by:

- higher research and development costs (8%)
- higher selling, general and administrative expenses and other ramp-related costs (3%)

The 2% increase in "Other" primarily reflects favorable year-over-year licensing income.

Collins Aerospace Systems –

Quarter Ended June 30, 2019 Compared with Quarter Ended June 30, 2018

	Factors Contributing to Total % Change				
	Organic / Operational	FX Translation	Acquisitions / Divestitures, net	Restructuring Costs	Other
Net Sales	9%	—%	57%	—%	—%
Cost of Sales	8%	(1)%	53%	(1)%	—%
Operating Profits	21%	2%	75%	3%	5%

The organic sales growth of 9% primarily reflects higher commercial aerospace aftermarket sales (6%), and higher military OEM sales (2%).

The increase in operational profit of 21% primarily reflects:

- higher commercial aerospace aftermarket margin contribution driven by the sales growth noted above, partially offset by lower commercial aerospace OEM margin contribution (net, 23%)

- lower selling, general and administrative expenses (1%)

These increases were partially offset by:

- higher research and development costs (4%)

The 5% increase in Other primarily reflects the absence of a prior year impairment of assets related to a previously acquired business.

Six Months Ended June 30, 2019 Compared with Six Months Ended June 30, 2018

	Factors Contributing to Total % Change				
	Organic / Operational	FX Translation	Acquisitions / Divestitures, net	Restructuring Costs	Other
Net Sales	10%	(1)%	59%	—%	—%
Cost of Sales	10%	(1)%	57%	—%	—%
Operating Profits	12%	2 %	61%	—%	—%

The organic sales increase of 10% primarily reflects higher commercial aerospace OEM and aftermarket sales (8%), and higher military sales (2%).

The operational profit increase of 12% primarily reflects:

- higher commercial aerospace aftermarket margin contribution driven by the sales growth noted above, partially offset by lower commercial aerospace OEM margin contribution (net, 19%)

This increase was partially offset by:

- higher selling, general and administrative expenses (3%)
- higher research and development costs (3%)

Eliminations and other –

	Net Sales		Operating Profits	
	Quarter Ended June 30,		Quarter Ended June 30,	
	2019	2018	2019	2018
<i>(dollars in millions)</i>				
Eliminations and other	\$ (402)	\$ (372)	\$ (239)	\$ (97)
General corporate expenses	—	—	(124)	(126)
	Net Sales		Operating Profits	
	Six Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
<i>(dollars in millions)</i>				
Eliminations and other	\$ (786)	\$ (689)	\$ (340)	\$ (108)
General corporate expenses	—	—	(222)	(230)

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 for the quarter and six months ended June 30, 2019, as compared to the same periods of 2018, reflects an increase in the amount of inter-segment eliminations, principally between our aerospace businesses. The decrease in operating profits for the quarter ended June 30, 2019 is primarily driven by costs associated with the Company's intention to separate its commercial businesses. The decrease in operating profits for the six months ended June 30, 2018 is primarily driven by costs associated with the Company's intention to separate its commercial businesses and the absence of the favorable impact of prior year insurance settlements, partially offset by lower transaction costs related to the acquisition of Rockwell Collins.

LIQUIDITY AND FINANCIAL CONDITION

<i>(dollars in millions)</i>	June 30, 2019	December 31, 2018	June 30, 2018
Cash and cash equivalents	\$ 6,819	\$ 6,152	\$ 11,068
Total debt	45,251	45,537	28,309
Net debt (total debt less cash and cash equivalents)	38,432	39,385	17,241
Total equity	42,977	40,610	33,346
Total capitalization (total debt plus total equity)	88,228	86,147	61,655
Net capitalization (total debt plus total equity less cash and cash equivalents)	81,409	79,995	50,587
Total debt to total capitalization	51%	53%	46%
Net debt to net capitalization	47%	49%	34%

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. For 2019, we expect cash flows from operations, net of capital expenditures, to approximate \$4.5 billion to \$5.0 billion, including \$1.5 billion of one-time cash payments related to the portfolio separation. 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 June 30, 2019, we had cash and cash equivalents of \$6,819 million, of which approximately 76% was held by UTC's foreign subsidiaries. We manage our worldwide cash requirements by reviewing available funds among the many subsidiaries through which we conduct our business and the cost effectiveness with which those funds can be accessed. The Company no longer intends to reinvest certain undistributed earnings of its international subsidiaries that have been previously taxed in the U.S. As such, in the fourth quarter of 2018, it has recorded the taxes therewith. For the remainder of the Company's undistributed international earnings, unless tax effective to repatriate, UTC will continue to permanently reinvest these earnings. We have repatriated approximately \$1.3 billion of cash for the six months ended June 30, 2019.

On occasion, we are required to maintain cash deposits with certain banks with respect to contractual obligations related to acquisitions, divestitures or other legal obligations. As of June 30, 2019 and December 31, 2018, the amount of such restricted cash was approximately \$37 million and \$60 million, respectively.

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 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 of 51% at June 30, 2019 is down 200 basis points from December 31, 2018 and increased 500 basis points from June 30, 2018, primarily reflecting additional borrowings used to finance the acquisition of Rockwell Collins as well as the acquisition of Rockwell Collins' outstanding debt.

At June 30, 2019, we had credit agreements with various banks permitting aggregate borrowings of up to \$10.35 billion, including: a \$2.20 billion revolving credit agreement and a \$2.15 billion multicurrency revolving credit agreement, both of which expire in August 2021; and a \$2.0 billion revolving credit agreement and a \$4.0 billion term credit agreement, both of which we entered into on March 15, 2019 and which will expire on March 15, 2021 or, if earlier, the date that is 180 days after the date on which each of the separations of Otis and Carrier have been consummated. On March 15, 2019, we terminated the \$1.5 billion revolving credit agreement that we entered into on November 26, 2018. As of June 30, 2019, there were no borrowings under 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 June 30, 2019, our maximum commercial paper borrowing limit was \$6.35 billion. Commercial paper borrowings at June 30, 2019 include approximately €750 million (\$855 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.

We had no debt issuances during the six months ended June 30, 2019 and had the following issuances of debt in 2018:

(dollars and Euro in millions)

Issuance Date	Description of Notes		Aggregate Principal Balance
August 16, 2018:	3.350% notes due 2021 ¹	\$	1,000
	3.650% notes due 2023 ¹		2,250
	3.950% notes due 2025 ¹		1,500
	4.125% notes due 2028 ¹		3,000
	4.450% notes due 2038 ¹		750
	4.625% notes due 2048 ²		1,750
	LIBOR plus 0.65% floating rate notes due 2021 ¹		750
May 18, 2018:	1.150% notes due 2024 ³	€	750
	2.150% notes due 2030 ³		500
	EURIBOR plus 0.20% floating rate notes due 2020 ³		750

- 1 The net proceeds received from these debt issuances were used to partially finance the cash consideration portion of the purchase price for Rockwell Collins and fees, expenses and other amounts related to the acquisition of Rockwell Collins.
- 2 The net proceeds from these debt issuances were used to fund the repayment of commercial paper and for other general corporate purposes.
- 3 The net proceeds received from these debt issuances were used for general corporate purposes.

We had no debt payments during the six months ended June 30, 2019 and had the following repayments of debt in 2018:

(dollars and Euro 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

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

We believe our future operating cash flows will be sufficient to meet our future operating cash needs. Further, we continue to have access to the commercial paper markets and our existing credit facilities, and our ability to obtain debt or equity financing, as well as the availability under committed credit lines, provides additional potential sources of liquidity should they be required or appropriate.

Cash Flow - Operating Activities

(dollars in millions)

	Six Months Ended June 30,	
	2019	2018
Net cash flows provided by operating activities	\$ 3,611	\$ 2,555

Cash generated from operating activities in the six months ended June 30, 2019 was \$1,056 million higher than the same period in 2018 largely due to higher net income. Cash outflows for working capital improved \$33 million in the six months ended June 30, 2019 over the prior period. Factoring activity resulted in a decrease of approximately \$1.2 billion in cash flows from operating activities during the six months ended June 30, 2019, as compared to the prior year. This decline in factoring activity was primarily driven by Pratt & Whitney partially offset by increased factoring at Collins Aerospace Systems. Factoring activity does not reflect the factoring of certain receivables performed at customer request for which we are compensated by the customer for the extended collection cycle.

In the six months ended June 30, 2019, cash outflows from working capital were \$456 million. Contract assets, current increased \$491 million due to work performed in excess of billings at Pratt & Whitney and Collins Aerospace Systems. Inventory increased \$1.1 billion primarily driven by an increase to support higher sales volumes at Collins Aerospace Systems,

the Geared Turbofan at Pratt & Whitney, and seasonal build in the HVAC businesses at Carrier. These outflows were partially offset by decreases in Accounts receivable of \$769 million primarily due to improved collections at Pratt & Whitney and increases in Contract liabilities, current of \$381 million primarily driven by Pratt & Whitney billings in excess of work performed, higher advanced billings at Otis and by Collins Aerospace Systems.

In the six months ended June 30, 2018, cash outflows from working capital were \$489 million. Accounts receivables increased from an increase in sales volume driven by Carrier Residential & Commercial HVAC businesses, Collins Aerospace Systems and Pratt & Whitney. Contract assets increased 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 Carrier in Commercial HVAC. Inventory increased in the quarter primarily driven by Carrier seasonal build and an increase in production work in process for the Geared Turbofan at Pratt & Whitney. These increases were partially offset by increases in accounts payable and accrued liabilities, driven by the higher inventory purchasing activity and customer advances at Pratt & Whitney as well as an increase in current contract liabilities driven by seasonal advanced billings and progress payments on major contracts at Otis and the timing of billings on aftermarket contracts at Pratt & Whitney.

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 during the six months ended June 30, 2019 and 2018 were approximately \$79 million and \$59 million, respectively. Although our domestic pension plans are approximately 99% funded on a projected benefit obligation basis as of June 30, 2019, and we are not required to make additional contributions through the end of 2024, we may elect to make discretionary contributions in 2019. We expect to make total contributions of approximately \$125 million to our global defined benefit pension plans in 2019, including \$25 million to our domestic pension plans. Contributions to our global defined benefit pension plans in 2019 are expected to meet or exceed the current funding requirements.

Cash Flow - Investing Activities

<i>(dollars in millions)</i>	Six Months Ended June 30,	
	2019	2018
Net cash flows used in investing activities	\$ (1,217)	\$ (238)

Cash flows used in investing activities for the six months ended June 30, 2019 and 2018 primarily reflect capital expenditures, cash investments in customer financing assets, investments/dispositions of businesses, payments related to our collaboration intangible assets and contractual rights to provide product on new aircraft platforms, and settlements of derivative contracts. The \$979 million increase in cash flows used in investing activities in the six months ended June 30, 2019 compared to June 30, 2018 primarily relates to the absence of \$1 billion in proceeds from the sale of Taylor Company in June 2018 by Carrier.

Capital expenditures for the six months ended June 30, 2019 of \$830 million primarily relates to the Rockwell Merger as well as several projects at Collins Aerospace Systems and investments in production capacity at Pratt & Whitney.

Cash investments in businesses in the six months ended June 30, 2019 of \$32 million consisted of small acquisitions at Otis. Dispositions of businesses in the six months ended June 30, 2019 of \$133 million primarily consisted of the businesses held for sale associated with the Rockwell acquisition.

Customer financing activities in the six months ended June 30, 2019 were a net use of cash of \$331 million, primarily driven by additional Geared Turbofan engines to support customer fleets. We may also arrange for third parties to assume a portion of our commitments. We had commercial aerospace financing and other contractual commitments of approximately \$15.9 billion at June 30, 2019 related to commercial aircraft and certain contractual rights to provide product on new aircraft platforms, of which up to \$1.3 billion may be required to be disbursed during the remainder of 2019. We had commercial aerospace financing and other contractual commitments of approximately \$15.5 billion at December 31, 2018.

During the six months ended June 30, 2019, our collaboration intangible assets increased by approximately \$169 million, which primarily relates to payments made under our 2012 agreement to acquire Rolls-Royce's collaboration interest in IAE.

As discussed in Note 9 to the Condensed Consolidated Financial Statements, we enter into derivative instruments for risk management purposes only, including derivatives designated as hedging instruments under the Derivatives and Hedging Topic of the FASB ASC and those utilized as economic hedges. We operate internationally and, in the normal course of business, are exposed to fluctuations in interest rates, foreign exchange rates and commodity prices. These fluctuations can increase the costs of financing, investing and operating the business. We have used derivative instruments, including swaps,

forward contracts and options to manage certain foreign currency, interest rate and commodity price exposures. The settlement of these derivative instruments resulted in a net cash inflow of approximately \$61 million during the six months ended June 30, 2019 compared to a net cash inflow of \$82 million during the six months ended June 30, 2018.

Cash Flow - Financing Activities

<i>(dollars in millions)</i>	Six Months Ended June 30,	
	2019	2018
Net cash flows used in financing activities	\$ (1,766)	\$ (211)

Our financing activities primarily include the issuance and repayment of short term and long term debt, payment of dividends and stock repurchases. Net cash used in financing activities increased \$1,555 million in the six months ended June 30, 2019 compared to the six months ended June 30, 2018, primarily due to a decrease in short term borrowings of \$969 million, an increase in dividends paid on Common Stock of \$149 million, and a reduction in net debt issuances of \$346 million.

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 \$855 million of outstanding commercial paper at June 30, 2019.

At June 30, 2019, management had remaining authority to repurchase approximately \$1.9 billion of our common stock under the October 14, 2015 share repurchase program. Under this program, shares may be purchased on the open market, in privately negotiated transactions, under accelerated share repurchase programs, and under plans complying with Rules 10b5-1 and 10b-18 under the Securities Exchange Act of 1934, as amended. We may also reacquire shares outside of the program from time to time in connection with the surrender of shares to cover taxes on vesting of restricted stock and as required under our employee savings plan. Our ability to repurchase shares is subject to applicable law, including restrictions arising from the pending merger transaction with Raytheon. We made cash payments of approximately \$69 million to repurchase approximately 552 thousand shares of our common stock during the six months ended June 30, 2019.

We paid dividends on common stock of \$0.735 per share in the first and second quarter of 2019, totaling approximately \$1,219 million in the aggregate for the six months ended June 30, 2019. On June 10, 2019, the Board of Directors declared a dividend of \$0.735 per share payable September 10, 2019 to shareowners of record at the close of business on August 16, 2019.

We previously had a universal shelf registration statement filed with the SEC, which expired on April 29, 2019. Our ability to renew our shelf registration statement may be limited as a result of the separation transactions as well as our proposed merger with Raytheon; as noted above, we entered into a new \$2.0 billion revolving credit agreement and a \$4.0 billion term credit agreement on March 15, 2019 to be used for general corporate purposes, including the repayment, repurchase or redemption of existing debt, and to serve as backup facilities to support additional issuances of commercial paper. We expect to renew our shelf registration statement following the separation transactions or earlier, as appropriate.

Off-Balance Sheet Arrangements and Contractual Obligations

In our 2018 Annual Report, incorporated by reference in our 2018 [Form 10-K](#), we disclosed our off-balance sheet arrangements and contractual obligations. As of June 30, 2019, there have been no material changes to these off-balance sheet arrangements and contractual obligations outside the ordinary course of business.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

There has been no significant change in our exposure to market risk during the six months ended June 30, 2019. For discussion of our exposure to market risk, refer to Part II, Item 7A, "Quantitative and Qualitative Disclosures About Market Risk," contained in our 2018 Form 10-K.

Item 4. Controls and Procedures

As required by Rule 13a-15 under the Exchange Act, 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 as of June 30, 2019. 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, our CFO and our Controller have concluded that, as of June 30, 2019, our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in the reports that we file or submit under the Exchange Act 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, our CFO and our Controller, as appropriate, to allow timely decisions regarding required disclosure.

There has been no change in our internal control over financial reporting during the six months ended June 30, 2019, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Cautionary Note Concerning Factors That May Affect Future Results

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

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

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

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

In addition, this Form 10-Q 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 Condensed Consolidated Financial Statements" under the heading "Note 15: Contingent Liabilities," the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the headings "Business Overview," "Critical Accounting Estimates," "Results of Operations," and "Liquidity and Financial Condition," and the sections titled "Legal Proceedings" and "Risk Factors" in this Form 10-Q and in our 2018 Annual Report and 2018 Form 10-K. 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", in our 2018 Form 10-K 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 our Form S-4 Registration Statements (Registration No. 333-220883) and (Registrations No. 333-232696) under the heading "Risk Factors". The forward-looking statements speak only as of the date of this report or, in the case of any document incorporated by reference, the date of that document. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law. Additional information as to factors that may cause actual results to differ materially from those expressed or implied in the forward-looking statements is disclosed from time to time in our other filings with the SEC.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

737 MAX Aircraft Litigation

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

See Note 15: Contingent Liabilities, for discussion regarding other legal proceedings.

Except as otherwise noted above, there have been no material developments in legal proceedings. For previously reported information about legal proceedings refer to Part I, Item 3, "Legal Proceedings," of our 2018 Form 10-K and Part II - Other Information, Item 1. Legal Proceedings of our 2019 Form 10-Q for the quarter ended March 31, 2019.

Item 1A. Risk Factors

Except as noted below, there have been no material changes in the Company's risk factors from those disclosed in Part I, Item 1A, Risk Factors, in our 2018 Form 10-K.

Risks Relating to our Proposed Merger with Raytheon

We may not complete the combination with Raytheon or complete the combination within the time frame we anticipate; the combined business may underperform relative to our expectations; the combination may cause our financial results to differ from our expectations or the expectations of the investment community; we may not be able to achieve anticipated cost savings or other anticipated benefits.

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

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

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

- managing larger combined aerospace systems and defense businesses;
- maintaining employee morale and retaining key management and other employees;
- retaining existing business and operational relationships, including customers, suppliers and employees and other counterparties, as may be impacted by contracts containing consent and/or other provisions that may be triggered by the combination, and attracting new business and operational relationships;
- the possibility of faulty assumptions underlying expectations regarding the integration process;

- the possibility of significant costs involved in connection with completing the merger, including costs to achieve expected synergies;
- consolidating corporate and administrative infrastructures and eliminating duplicative operations;
- coordinating geographically separate organizations;
- unanticipated issues in integrating information technology, communications and other systems; and
- unforeseen expenses or delays associated with the combination.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Issuer Purchases of Equity Securities

The following table provides information about our purchases during the quarter ended June 30, 2019 of equity securities that are registered by us pursuant to Section 12 of the Exchange Act.

2019	Total Number of Shares Purchased (000's)	Average Price Paid per Share	Total Number of Shares Purchased as Part of a Publicly Announced Program (000's)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Program (dollars in millions)
April 1 - April 30	95	\$ 137.54	95	\$ 1,919
May 1 - May 31	104	132.35	104	\$ 1,905
June 1 - June 30	97	128.73	97	\$ 1,893
Total	296	\$ 132.82	296	

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 June 30, 2019, the maximum dollar value of shares that may yet be purchased under this current program was approximately \$1,893 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. Our ability to repurchase shares is subject to applicable law, including restrictions arising from the pending merger transaction with Raytheon. No shares were reacquired in transactions outside the program during the quarter ended June 30, 2019.

Item 6. Exhibits

Exhibit Number	Exhibit Description
10.1	United Technologies Corporation Merger Severance Plan for Corporate Office Executives and Other Key Employees
15	Letter re: unaudited interim financial information.*
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 - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.* (File name: utx-20190630.xml)
101.SCH	XBRL Taxonomy Extension Schema Document.* (File name: utx-20190630.xsd)
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.* (File name: utx-20190630_cal.xml)
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.* (File name: utx-20190630_def.xml)
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.* (File name: utx-20190630_lab.xml)
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.* (File name: utx-20190630_pre.xml)

Notes to Exhibits List:

* Submitted electronically herewith.

Attached as Exhibit 101 to this report are the following formatted in XBRL (Extensible Business Reporting Language): (i) Condensed Consolidated Statements of Operations for the quarters and six months ended June 30, 2019 and 2018, (ii) Condensed Consolidated Statements of Comprehensive Income for the quarters and six months ended June 30, 2019 and 2018, (iii) Condensed Consolidated Balance Sheets as of June 30, 2019 and December 31, 2018, (iv) Condensed Consolidated Statements of Cash Flows for the six months ended June 30, 2019 and 2018, (v) Condensed Consolidated Statement of Changes in Equity for the quarters and six months ended June 30, 2019 and 2018 and (vi) Notes to Condensed Consolidated Financial Statements.

**UNITED TECHNOLOGIES CORPORATION
MERGER SEVERANCE FOR CORPORATE OFFICE EXECUTIVES
AND OTHER KEY EMPLOYEES**

**SECTION 1
PURPOSE OF THE PLAN**

The Compensation Committee of the Board of Directors (the “Compensation Committee”) of United Technologies Corporation (the “Company”) recognizes that the proposed merger (the “Merger”) of a subsidiary of the Company with Raytheon Company (“Raytheon”) creates uncertainty that may result in the loss or distraction of employees of the Company to the detriment of the Company and its shareholders.

The Compensation Committee considers the avoidance of such loss and distraction to be essential to protecting and enhancing the best interests of the Company and its shareholders. The Compensation Committee also believes that when the Merger is imminent, or is occurring, the Board of Directors of the Company should be able to receive and rely on disinterested service from employees in the best interests of the Company and its shareholders without concern that employees might be distracted or influenced by the personal uncertainties and risks created by the Merger.

Therefore, in order to fulfill the above purposes, this United Technologies Corporation Merger Severance Plan for Corporate Office Executives and Other Key Employees (this “Plan”) has been developed and is hereby adopted to become effective as of the date on which the Merger closes (the “Effective Date”). If the Agreement and Plan of Merger between the Company and Raytheon relating to the Merger is terminated for any reason without the occurrence of the Merger, then this Plan shall be null and void *ab initio*.

**SECTION 2
DEFINITIONS**

Certain terms used herein have the definitions given to them in the first place in which they are used. As used herein, the following words and phrases shall have the following respective meanings:

- 2.1 “Affiliated Entity” shall mean any entity controlled by, controlling or under common control with the Company.
- 2.2 “Annual Base Salary” shall mean the annual base salary paid or payable, including any base salary that is subject to deferral, to the Participant by the Company or any of the Affiliated Entities at the rate in effect immediately prior to the Effective Date, or, if higher, immediately prior to the Date of Termination (disregarding any reduction thereto that is a basis for the Participant’s termination for Good Reason).
- 2.3 “Benefit Continuation Period” shall mean the period of twelve (12) months from the Date of Termination.
- 2.4 “Carrier” shall mean Carrier Solutions Corporation.

2.5 “Cause” shall mean any of the events specified in clauses (i) through (v) of the “Cause” definition in the Company’s 2018 Long-Term Incentive Plan, as in effect on the Effective Date.

2.6 “Code” shall mean the Internal Revenue Code of 1986, as amended from time to time.

2.7 “Corporate Office Executive” shall mean an executive (*i.e.*, job grades E5 (including Executive Leadership Group (“ELG”) members), E4, E3, E2 and E1) of the Company or an Affiliated Entity (other than Otis and Carrier and their respective subsidiaries) who is (a) on U.S. payroll and primarily provides services in the United States and (b) in a position (i) designated as a “corporate office” position by the Company or (ii) assigned to the UTC Research Center, in each case, as of immediately prior to the Effective Date.

2.8 “Date of Termination” shall mean the date of receipt of a Notice of Termination from the Company or the Participant, as applicable, or any later date specified in the Notice of Termination (subject to the notice and cure periods specified in the definition of “Good Reason”).

2.9 “Disability” shall have the meaning given to such term in the Company’s 2018 Long-Term Incentive Plan, as in effect on the Effective Date.

2.10 “Good Reason” shall mean the occurrence of any of the following without the Participant’s prior written consent during the two-year period following the Effective Date:

(a) a material diminution in the Participant’s duties, authority, or responsibilities from those in effect immediately prior to the Effective Date, as determined by the Plan Administrator in good faith and in its sole discretion (excluding any such diminution that is made in connection with, or otherwise results from, the distribution by the Company to its shareholders of all of the outstanding shares of Otis or Carrier, including any internal restructuring in anticipation thereof);

(b) a reduction of the Participant’s annual rate of base salary from that in effect immediately prior to the Effective Date (or, if higher, that in effect any time thereafter);

(c) a reduction in the Participant’s target annual bonus opportunity (expressed as a dollar amount equal to target bonus percentage multiplied by base salary) of 15% or greater from that in effect immediately prior to the Effective Date (or, if higher, that in effect at any time thereafter);

(d) a material diminution in the Participant’s annual long-term incentive compensation opportunity, based on the Company’s established practices and procedures for granting long-term incentive awards as in effect prior to the Effective Date, as determined by rules established by the Plan Administrator prior to the Effective Date for the purpose of assessing a claim of material diminution;

(e) in the case of each Tier 2 Participant and, solely to the extent provided by the applicable Participation Notice, a Tier 3 Participant, a change in the Participant’s principal place of employment to a location that (i) is more than fifty (50) miles from the location in effect immediately prior to the Effective Date and (ii) results in an increase in the Participant’s commute from his or her principal personal residence as of immediately prior to the Effective Date by more than twenty-five (25) miles; or

- (f) any other action or event specified in the Participant's Participation Notice.

In order to invoke a termination for Good Reason, the Participant must provide a Notice of Termination to the Company within ninety (90) days following the initial existence of an event or condition that the Participant believes constitutes Good Reason, describing such event or circumstance in reasonable detail, and, if the Company does not cure such event or condition within ninety (90) days following its receipt of such Notice of Termination (the "Cure Period"), the Participant's termination of employment must occur, if at all, within thirty (30) days from the earlier of (i) the end of the Cure Period, or (ii) the date the Company provides notice to the Participant that it does not intend to cure such event or condition. The Participant's mental or physical incapacity following the occurrence of a condition or event described above in clauses (a) through (f) shall not affect the Participant's ability to terminate employment for Good Reason and the Participant's death following delivery of a Notice of Termination for Good Reason shall not affect the Participant's estate's entitlement to the severance payments and benefits provided hereunder upon a termination of employment for Good Reason.

2.11 "Multiple" shall mean:

(a) for Tier 1 Participants, two (2) (or, if such Tier 1 Participant was party to a Senior Executive Severance Agreement that is superseded by this Plan, three (3));

(b) for Tier 2 Participants, one and one-half (1.5); or

(c) for Tier 3 Participants, a multiple greater than, or equal to, one (1) and less than, or equal to, two (2) that is determined by the Plan Administrator or the Company's Chief Executive Officer and set forth in the Tier 3 Participant's Participation Notice.

2.12 "Notice of Termination" shall mean a notice in writing (including an email communication) delivered to the other party during the two (2)-year period immediately following the Effective Date that (a) indicates the specific termination provision in this Plan relied upon, (b) to the extent applicable, sets forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Participant's employment under the provision so indicated, and (c) if the Date of Termination (as defined herein) is other than the date of receipt of such notice, specifies the Date of Termination (which Date of Termination shall be not more than one hundred and twenty (120) days after the date of the written notice, in the case of a termination by the Participant; it being understood that the Company may, at its election, designate an earlier Date of Termination). The failure by the Participant or the Company to set forth in the Notice of Termination any fact or circumstance that contributes to a showing of Good Reason or Cause shall not waive any right of the Participant or the Company, respectively, hereunder or preclude the Participant or the Company, respectively, from asserting such fact or circumstance in enforcing the Participant's or the Company's respective rights hereunder.

2.13 "Other Key Employee" each employee of the Company or an Affiliated Entity who has been designated by the Chief Executive Officer of the Company as an "Other Key Employee" eligible to participate in this Plan, which designation has been documented in a Participation Notice setting forth the employee's Multiple for purposes of this Plan.

2.14 "Otis" shall mean Otis Worldwide Corporation.

2.15 "Participant" shall mean each Corporate Office Executive and each Other Key Employee, excluding:

(a) except as otherwise provided in a Participation Notice, any individual who, prior to the Effective Date, was offered, through a written offer letter, a position with Otis or Carrier, or a subsidiary thereof, the terms of which offer did not meet the definition of “Good Reason”;

(b) any individual who has received a formal communication (whether before or after the Effective Date), consistent with the Company’s usual practice for employee transfers, of such individual’s transfer to a position in a jurisdiction outside of the United States, the terms of which position do not meet the definition of “Good Reason”; and

(c) any individual who has received a formal communication (whether before or after the Effective Date), consistent with the Company’s usual practice for employee transfers, of such individual’s transfer to a position at a Company business unit that is not designated as a “corporate office” position and that is not assigned to the UTC Research Center, the terms of which position do not meet the definition of “Good Reason”; and

(d) the Company’s Chief Executive Officer as of immediately prior to the Effective Date.

2.16 “Participation Notice” shall mean a notice substantially in the form attached hereto as Exhibit A delivered by the Company to a Participant.

2.17 “Plan Administrator” shall mean the Company’s Chief Executive Officer or his or her duly authorized designee or designees; *provided* that with respect to each Participant who is an executive officer or ELG member of the Company as of immediately prior to the Effective Date, the Plan Administrator shall be the Compensation Committee of the Board.

2.18 “Qualifying Termination” shall mean any termination of a Participant’s employment during the two (2)-year period beginning on the Effective Date, by the Participant for Good Reason or by the Company other than for Cause, death or Disability; it being understood that to constitute a Qualifying Termination, the Notice of Termination must be provided prior to the expiration of such period and the Date of Termination may occur outside of such period.

2.19 “Target Annual Bonus” shall mean the Participant’s target annual bonus opportunity pursuant to the Company’s applicable annual bonus plan in effect immediately prior to the Effective Date, or, if higher, immediately prior to the Date of Termination (disregarding any reduction thereto that is a basis of the Participant’s termination for Good Reason).

2.20 “Tier 1 Participant” shall mean each Participant who holds a position in job grade E5 (including ELG members), E4 or E3, as of immediately prior to the Date of Termination (or immediately prior to a reduction in job grade that is a basis for the Participant’s termination for Good Reason).

2.21 “Tier 2 Participant” shall mean each Participant who holds a position in job grade E2 or E1 as of immediately prior to the Date of Termination (or immediately prior to a reduction in job grade that is a basis for the Participant’s termination for Good Reason).

2.23 “Tier 3 Participant” shall mean each Participant who is an Other Key Employee.

SECTION 3
SEPARATION BENEFITS

3.1 Qualifying Termination. If a Participant experiences a Qualifying Termination, the Company shall pay or provide to the Participant the following payments and benefits at the time or times set forth below, subject to Section 8:

(a) a lump sum payment in cash, subject to (other than in the case of the Accrued Obligations and Other Benefits) the Participant's execution and nonrevocation of a General Release of Claims and Restrictive Covenant Agreement substantially in the form attached hereto as Exhibit B, payable as soon as practicable following the date on which such agreement becomes effective and irrevocable and in any event no later than the seventieth (70th) following the Date of Termination, equal to the aggregate of the following amounts:

(i) the sum of (A) the Participant's accrued Annual Base Salary through the Date of Termination, (B) any annual incentive payment earned by the Participant for a performance period that was completed prior to the Date of Termination, and (C) any business expenses incurred by the Participant that are unreimbursed as of the Date of Termination, in each case, to the extent not theretofore paid (the sum of the amounts described in clauses (A), (B), and (C) shall be hereinafter referred to as the "Accrued Obligations"); *provided* that, notwithstanding the foregoing, in the case of clauses (A) and (B), if the Participant has made an irrevocable election under any deferred compensation arrangement subject to Section 409A of the Code to defer any portion of the Annual Base Salary or annual incentive payment described in clause (A) or (B) above, then for all purposes of this Section 3 (including, without limitation, Section 3.1(a)(ii)), such deferral election, and the terms of the applicable arrangement, shall apply to the same portion of the amount described in such clauses (A) or (B), and such portion shall not be considered as part of the "Accrued Obligations" but shall instead be an "Other Benefit" (as defined below);

(ii) the product of (A) the Target Annual Bonus and (B) a fraction, the numerator of which is the number of days in the fiscal year in which the Date of Termination occurs from the first (1st) day of such fiscal year to and including the Date of Termination, and the denominator of which is the total number of days in such fiscal year, reduced by any annual bonus payment to which the Participant has been paid or is otherwise entitled, in each case, for the same period of service, and subject to any applicable deferral election on the same basis as set forth in the proviso to Section 3.1(a)(i); and

(iii) the amount equal to the product of (A) the Multiple and (B) the sum of (1) the Participant's Annual Base Salary and (2) the Participant's Target Annual Bonus.

(b) Healthcare Benefits. For the Benefit Continuation Period, the Company shall continue to provide to the Participant (and the Participant's dependents who were covered by healthcare benefit coverage pursuant to a plan sponsored by the Company or an Affiliated Entity as of immediately prior to the Date of Termination, if any (the "eligible dependents")), without any requirement for the Participant (or the eligible dependents) to pay a monthly premium, healthcare benefit coverage (including medical, prescription, dental, vision, basic life, and employee assistance program coverage and, for Participants who are ELG members, annual executive

physicals) at least equal to the coverage that would have been provided to the Participant (and the Participant's eligible dependents, if any) if the Participant had continued employment with the Company during the Benefit Continuation Period; *provided, however*, that if the Participant becomes reemployed with another employer and is eligible to receive any of the types of healthcare benefits under another employer-provided plan, the healthcare benefit coverage that is duplicative of the type of coverage provided hereunder shall cease. The Participant shall promptly notify the Company that the Participant has become eligible to receive healthcare benefits under another employer-provided plan. The period for providing continuation coverage under the group health plans of the Company and the Affiliated Entities as described in Section 4980B of the Code (i.e., "COBRA" continuation benefits), if applicable, shall commence upon the expiration of the Benefits Continuation Period (or, if earlier, upon the cessation of the healthcare benefits coverage provided hereunder). For purposes of determining eligibility (but not the time of commencement of benefits) of the Participant for retiree benefits pursuant to any applicable plans, practices, programs and policies, the Participant shall be considered to have remained employed during the Benefit Continuation Period and to have retired on the last day of such period.

(c) Outplacement Services. The Company shall, at its expense, provide the Participant with outplacement services for a period of twelve (12) months following the Date of Termination, the scope and provider of which shall be determined by the Company.

(d) Financial Planning Services. The Company shall, at its expense as incurred, provide the Participant with continuation of financial planning services for a period of twelve (12) months following the Date of Termination, if the Participant is eligible for this benefit immediately prior to the Effective Date, the scope and provider of which shall be determined by the Participant in the Participant's discretion, *provided* that the aggregate cost of such services shall not exceed the maximum cost of such services available to the Participant as of immediately prior to the Effective Date (i.e., \$16,000 for Participants who are ELG members and \$14,000 for Participants who are other E5 executives).

(e) Accelerated Vesting of Equity Awards. Unvested Company equity awards held by the Participant shall become fully vested as of the Date of Termination, *provided, however*, that the vesting of performance-based awards such as performance share units will remain subject to the achievement of the applicable performance goals, determined in the ordinary course following the applicable performance period. Each vested Company equity award held by the Participant as of the Date of Termination that is in the form of a stock option or stock appreciation right (including any such award that became vested pursuant to the preceding sentence) shall remain exercisable until the expiration of its full original term, and each other vested award shall be settled at the earliest time that settlement may occur without causing the imposition of an accelerated or additional tax or penalties under Section 409A of the Code (and, in the case of any award that was subject to a performance-based vesting condition as of the Date of Termination, no earlier than the date on which the actual level of achievement of the applicable performance goals is determined after the end of the applicable performance period).

(f) Other Benefits. To the extent not theretofore paid or provided, the Company shall timely pay or provide to the Participant any other amounts or benefits required to be paid or provided or which the Participant is eligible to receive under any plan, program, policy or practice, or contract or agreement of the Company and the Affiliated Entities, including amounts credited to the Participant's account under the Company Deferred Compensation Plan, as amended, or any successor plan, and, if the Participant participates in the Employee Scholar Program as of

immediately prior to the Date of Termination, up to 12 months of continued participation in such program in accordance with its terms (such other amounts and benefits shall be hereinafter referred to as the “Other Benefits”).

SECTION 4 NONDUPLICATION; NO OFFSET; ENTIRE UNDERSTANDING

4.1 Nonduplication of Payments and Benefits. The amount of the payment under Section 3.1(a)(iii) of this Plan will be offset and reduced by the full amount and/or value, as determined by the Plan Administrator in its sole discretion, of any severance benefits, compensation and benefits provided during any notice period, pay in lieu of notice, mandated termination indemnities, or similar benefits that the Participant may separately be entitled to receive from the Company or any Affiliated Entity based on any employment agreement or other contractual obligation (whether individual or union/works council) or statutory scheme. If a Participant’s employment is terminated because of a plant shut-down or mass layoff or other event to which the Worker Adjustment and Retraining Notification Act of 1988 or similar state law (collectively, “WARN”) applies, then the amount of the severance payment under Section 3.1(a)(iii) of this Plan to which the Participant is entitled shall be reduced, dollar for dollar, by the amount of any pay provided to the Participant in lieu of the notice required by WARN, and the Benefits Continuation Period shall be reduced for any period of benefits continuation or pay in lieu thereof provided to Participant due to the application of WARN.

4.2 No Offset or Mitigation. Except as otherwise expressly provided in Section 4.1 or as specifically provided in the General Release of Claims and Restrictive Covenant Agreement, the Company’s obligation to provide the payments and benefits under this Plan and otherwise to perform its obligations hereunder shall be absolute and unconditional and shall not be affected by any setoff, counterclaim, recoupment, defense or other claim, right or action which the Company may have against a Participant or others. In no event shall a Participant be obligated to seek other employment or take any other action by way of mitigation of the amounts payable to such Participant under any of the provisions of this Plan and, except as provided in Section 3.1(b) regarding healthcare benefits, no payments or benefits received from other employment shall serve to mitigate the payments and benefits hereunder.

4.3 Entire Understanding.

(a) This Plan constitutes the entire understanding between the Company and each Participant as of the Effective Date relating to the severance payments or benefits to be paid or provided to the Participant by the Company upon a termination of employment that occurs on, or within two years after, the Effective Date, and supersedes all prior agreements and understandings with respect to the subject matter of this Plan during such period, except that the terms and conditions of Company equity awards shall continue in full force and effect and shall be supplemented by the additional benefits provided by Section 3.1(e). Each Participant’s eligibility to receive severance payments or benefits under this Plan during the two-year period following the Effective Date shall preclude the Participant from claiming severance benefits under any other contractual arrangement with the Company or any Affiliated Entity during such period, including without limitation any ELG agreement.

(b) Amounts that are vested benefits or that a Participant and/or a Participant’s dependents are otherwise entitled to receive under any plan, policy, practice, program, agreement or arrangement of the Company or any of the Affiliated Entities shall be payable in accordance with such plan, policy, practice, program, agreement or arrangement. Without limiting the

generality of the foregoing, the Participant's resignation under this Plan, with or without Good Reason, shall in no way affect the Participant's ability to terminate employment by reason of the Participant's "retirement" under, or to be eligible to receive benefits under, any compensation and benefits plans, programs or arrangements of the Company or the Affiliated Entities, including, without limitation, any retirement or pension plans or arrangements or substitute plans adopted by the Company, the Affiliated Entities or their respective successors, and any termination which otherwise qualifies as Good Reason shall be treated as such even if it is also a "retirement" for purposes of any such plan.

SECTION 5 AMENDMENT AND TERMINATION

This Plan may be terminated or amended in any respect by resolution adopted by the Compensation Committee; *provided* that this Plan may not be terminated or amended after the Effective Date in any manner that would adversely affect the rights of any Participant hereunder without such Participant's prior written consent.

SECTION 6 PLAN ADMINISTRATION

6.1 General. The Plan Administrator is responsible for the general administration and management of this Plan and shall have all powers and duties necessary to fulfill its responsibilities, including, but not limited to, the discretion to interpret and apply the provisions of this Plan, to modify the provisions of this Plan, or the General Release of Claims and Restrictive Covenant Agreement, as applied to any Participant providing services outside of the United States to the extent necessary or appropriate in order to comply with any applicable legal or regulatory provisions and otherwise to carry out the intent and purpose of this Plan, and to determine all questions relating to eligibility for benefits under this Plan, to interpret or construe ambiguous, unclear, or implied (but omitted) terms in any fashion it deems to be appropriate, and to make any findings of fact needed in the administration of this Plan. All decisions, interpretations and other actions of the Plan Administrator shall be final, conclusive and binding on all parties who have an interest in this Plan. In the event of a civil action challenging any Plan Administrator decision, the standard of review shall be deferential rather than *de novo* and the Plan Administrator's decisions may be overturned only if deemed unreasonable, arbitrary or capricious.

6.2 ERISA. This Plan (a) shall be considered to be an unfunded plan maintained by the Company primarily for the purpose of providing deferred compensation for a select group of management or highly compensated employees (a "top-hat plan"), and (b) shall be administered in a manner that complies with the provisions of the Employee Retirement Income Security Act of 1974, as amended ("ERISA") that are applicable to top-hat plans.

6.3 Claims Procedure.

(a) Initial Claims. A Participant who believes that such Participant is entitled to a payment under this Plan that has not been received may submit a written claim for benefits under this Plan within sixty (60) days after the Participant's Date of Termination. If the Participant's claim is denied, in whole or in part, such Participant will be furnished with written notice of the denial within ninety (90) days after the Plan Administrator's receipt of the Participant's written claim, unless special circumstances require an extension of time for processing the claim, in which case the decision period may be extended by up to an additional ninety (90) days. If such an

extension of time is necessary, written notice of the extension will be furnished to the Participant before the termination of the initial ninety (90)-day period and will describe the circumstances requiring the extension and the date by which a decision is expected to be rendered. Written notice of the denial of the Participant's claim will contain the following information:

- (i) the reason or reasons for the denial of the Participant's claim;
- (ii) references to the Plan provisions on which the denial of the Participant's claim was based;
- (iii) a description of any additional information or material required by the Plan Administrator to reconsider the Participant's claim (to the extent applicable) and an explanation of why such material or information is necessary; and
- (iv) a description of this Plan's review procedures and time limits applicable to such procedures, including a statement of the Participant's right to bring a civil action under Section 502(a) of ERISA following a benefit claim denial on review.

(b) Appeal of Denied Claims. If the Participant's claim is denied, the Participant (or the Participant's authorized representative) may file a request for review of the claim in writing with the Plan Administrator. This request for review must be filed no later than sixty (60) days after the Participant has received written notification of the denial.

(i) Such request for review may include any comments, documents, records and other information relating to the Participant's claim for benefits.

(ii) The Participant has the right to be provided with, upon request and free of charge, reasonable access to and copies of all pertinent documents, records and other information that is relevant to the Participant's claim for benefits.

(iii) The review of the denied claim will take into account all comments, documents, records and other information that the Participant submitted relating to the Participant's claim, without regard to whether such information was submitted or considered in the initial denial of the Participant's claim.

(c) Plan Administrator's Response to Appeal. The Plan Administrator will notify the Participant of its decision within sixty (60) days after the Plan Administrator's receipt of the Participant's written claim for review; *provided* that the Plan Administrator may extend the review period by up to sixty (60) additional days, if the Plan Administrator notifies the Participant in writing of the need for an extension (and the reason therefor) before the end of the initial sixty (60)-day period. If the Plan Administrator makes an adverse decision on appeal, the Plan Administrator shall communicate its decision in a writing that includes:

- (i) the reason or reasons for the denial of the Participant's appeal;
- (ii) reference to the Plan provisions on which the denial of the Participant's appeal is based;

(iii) a statement that the Participant is entitled to receive, upon request and free of charge, reasonable access to, and copies of, this Plan and all documents, records and other information relevant to the Participant's claim for benefits; and

(iv) a statement describing the Participant's right to bring an action under Section 502(a) of ERISA.

(d) Exhaustion of Administrative Remedies. The exhaustion of these claims procedures is mandatory for resolving every claim and dispute arising under this Plan. As to such claims and disputes:

(i) no claimant shall be permitted to commence any arbitration or legal action to recover benefits or to enforce or clarify rights under this Plan or under any provision of law until these claims procedures have been exhausted in their entirety;

(ii) failure to submit a claim, appeal or any required information by the applicable deadline under these claims procedures shall result in forfeiture of the benefits being claimed;

(iii) in any civil action, arbitration or other agreed upon dispute resolution procedure, all explicit and implicit determinations by the Plan Administrator (including, but not limited to, interpretation of disputed plan terms, factual findings, and determinations as to whether the claim, or a request for a review of a denied claim, was timely filed) shall be afforded the maximum deference permitted by law and shall be overturned only if deemed unreasonable, arbitrary or capricious; and

(iv) no legal action or arbitration may be commenced by the Participant later than one hundred eighty (180) days subsequent to the date of the written response of the Plan Administrator to a Participant's request for review pursuant to Section 6.3(c).

6.4 Indemnification. To the extent permitted by law, the Company shall indemnify the Plan Administrator from all claims for liability, loss or damage (including the payment of expenses in connection with defense against such claims) arising from any good faith action, or failure to act, by the Plan Administrator in connection with this Plan.

SECTION 7 SUCCESSORS; ASSIGNMENTS

7.1 Successors. The Company shall require any corporation, entity, individual or other person who is the successor (whether direct or indirect, by purchase, merger, consolidation, reorganization or otherwise) to all or substantially all the business and/or assets of the Company to expressly assume and agree to perform, by a written agreement in form and in substance satisfactory to the Company, all of the obligations of the Company under this Plan. As used in this Plan, the term "Company" shall mean the Company as hereinbefore defined and any successor to its business and/or assets as aforesaid which assumes and agrees to perform this Plan by operation of law, written agreement or otherwise.

7.2 Assignment of Rights. It is a condition of this Plan, and of all rights of each person eligible to receive benefits under this Plan, that no right or interest of any such person in this Plan shall be assignable or transferable in whole or in part, except by will or the laws of descent and distribution or

other operation of law, including, but not by way of limitation, lawful execution, levy, garnishment, attachment, pledge, bankruptcy, alimony, child support or qualified domestic relations order.

SECTION 8 SECTION 409A OF THE CODE

8.1 General. The obligations under this Plan are intended to comply with the requirements of Section 409A of the Code or an exemption or exclusion therefrom and shall in all respects be administered in accordance with Section 409A of the Code. Any payments that qualify for the “short-term deferral” exception, the separation pay exception or another exception under Section 409A of the Code shall be paid under the applicable exception to the maximum extent possible. For purposes of the limitations on nonqualified deferred compensation under Section 409A of the Code, each payment of compensation under this Plan shall be treated as a separate payment of compensation for purposes of applying the exclusion under Section 409A of the Code for short-term deferral amounts, the separation pay exception or any other exception or exclusion under Section 409A of the Code. All payments to be made upon a termination of employment under this Plan may only be made upon a “separation from service” under Section 409A of the Code to the extent necessary in order to avoid the imposition of penalty taxes on a Participant pursuant to Section 409A of the Code. In no event may a Participant, directly or indirectly, designate the calendar year of any payment under this Plan.

8.2 Reimbursements and In-Kind Benefits. Notwithstanding anything to the contrary in this Plan, all reimbursements and in-kind benefits provided under this Plan that are subject to Section 409A of the Code shall be made in accordance with the requirements of Section 409A of the Code, including without limitation, where applicable, the requirement that (a) in no event shall the Company’s obligations to make such reimbursements or to provide such in-kind benefits apply later than the Participant’s remaining lifetime (or if longer, through the twentieth (20th) anniversary of the Effective Date); (b) the amount of expenses eligible for reimbursement, or in-kind benefits provided, during a calendar year may not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other calendar year; (c) the reimbursement of eligible fees and expenses shall be made no later than the last day of the calendar year following the year in which the applicable fees and expenses were incurred; *provided* that the Participant shall have submitted an invoice for such fees and expenses at least thirty (30) days before the end of the calendar year next following the calendar year in which such fees and expenses were incurred; and (d) the right to reimbursement or in-kind benefits is not subject to liquidation or exchange for another benefit.

8.3 Delay of Payments. Notwithstanding any other provision of this Plan to the contrary, if a Participant is considered a “specified employee” for purposes of Section 409A of the Code (as determined in accordance with the methodology established by the Company as in effect on the Date of Termination), any payment or benefit that constitutes nonqualified deferred compensation within the meaning of Section 409A of the Code that is otherwise due to be paid to such Participant under this Agreement during the six (6)-month period immediately following such Participant’s separation from service (as determined in accordance with Section 409A of the Code) because of such Participant’s separation from service shall be accumulated and paid to such Participant on the first (1st) business day of the seventh (7th) month following the Participant’s separation from service (the “Delayed Payment Date”), to the extent necessary to avoid penalty taxes or accelerated taxation pursuant to Section 409A of the Code. If such Participant dies during the postponement period, the amounts and entitlements delayed on account of Section 409A of the Code shall be paid to the personal representative of his or her estate on the Delayed Payment Date.

SECTION 9
MISCELLANEOUS

9.1 Controlling Law. To the extent not preempted by ERISA, this Plan shall be governed by and construed in accordance with the laws of the State of Connecticut, without giving effect to any choice of law or conflicting provision or rule (whether of the State of Connecticut or any other jurisdiction) that would cause the laws of any jurisdiction other than the State of Connecticut to be applied. In furtherance of the foregoing, the internal laws of the State of Connecticut will control the interpretation and construction of this Agreement, even if under such jurisdiction's choice of law or conflict of law analysis, the substantive law of some other jurisdiction would ordinarily apply.

9.2 Withholding. The Company may withhold from any amount payable or benefit provided under this Plan such federal, state, local, foreign and other taxes as are required to be withheld pursuant to any applicable law or regulation.

9.3 Gender and Plurals. Wherever used in this Plan document, words in the masculine gender shall include masculine or feminine gender, and, unless the context otherwise requires, words in the singular shall include the plural, and words in the plural shall include the singular.

9.4 Plan Controls. In the event of any inconsistency between this Plan document and any other communication regarding this Plan, this Plan document controls. The captions in this Plan are not part of the provisions hereof and shall have no force or effect.

9.5 Not an Employment Contract. Neither this Plan nor any action taken with respect to it shall confer upon any person the right to continued employment with the Company.

9.6 Notices. Any notice or other communication required to be delivered to the Company by a Participant hereunder (including, without limitation, any claim submitted by a Participant pursuant to Section 6 and the Plan Administrator's response thereto) shall be properly delivered to the Company when delivered by electronic mail to the United Technologies Corporation Total Rewards Department:

Attention: Corporate Vice President, Total Rewards
Email Address: utccompben@utc.com

Any notice required to be delivered to the Participant by the Company hereunder shall be properly delivered to the Participant when the Company delivers such notice personally, by placing said notice in the U.S. mail, registered or certified mail, return receipt requested, postage prepaid to that person's last known address as reflected on the books and records of the Company, or by sending said notice to the Participant's Company email address prior to the Date of Termination and thereafter to the email address provided by the Participant to the Company.

9.7 Severability. If any provision of this Plan is held invalid or unenforceable, its invalidity or unenforceability shall not affect any other provisions of this Plan, and this Plan shall be construed and enforced as if such provision had not been included in this Plan.

Exhibit A

FORM OF PARTICIPATION NOTICE

Designation of Merger Severance Plan Participation

Name of Participant: _____

Date: _____

The Company recently adopted the United Technologies Corporation Merger Severance Plan for Corporate Office Executives and Other Key Employees (the "Plan"). [You have been designated as an Other Key Employee eligible to participate in the Plan.]

Capitalized terms used and not otherwise defined in this notice shall have the meanings given to such terms in the Plan.

Your eligibility to receive severance payments and benefits under the Plan during the two-year period following the Effective Date shall preclude you from claiming severance payments or benefits under any other contractual arrangement with the Company or any Affiliated Entity during such period, including without limitation any ELG agreement.

[You are hereby designated as a Tier 3 Participant with a Multiple of [•].]

[For purposes of your participation in the Plan, the definition of "Good Reason" shall include the occurrence of the following without your prior consent: a change in your principal place of employment to a location that (a) is more than fifty (50) miles from the location in effect immediately prior to the Effective Date and (b) results in an increase in your commute from your principal personal residence as of immediately prior to the Effective Date by more than twenty-five (25) miles.]

United Technologies Corporation

By: _____

Name:

Title:

Exhibit B

GENERAL RELEASE OF CLAIMS AND RESTRICTIVE COVENANT AGREEMENT

THIS GENERAL RELEASE OF CLAIMS AND RESTRICTIVE COVENANT AGREEMENT (this “Agreement”) is entered into between [•] (“Employee”) and United Technologies Corporation (the “Company”) as of [•]. Capitalized terms used and not defined herein shall have the meanings provided in the United Technologies Corporation Merger Severance Plan for the Corporate Office Executives and Other Key Employees (the “Plan”). The entering into and non-revocation of this Agreement is a condition to Employee’s right to receive the severance payments and benefits under Section 3.1 of the Plan (other than the Accrued Obligations and Other Benefits).

Accordingly, Employee and the Company agree as follows:

1. **Release of Claims.**

(a) *Employee Release of Claims.* Employee, for Employee, Employee’s heirs, administrators, representatives, executors, successors and assigns, hereby irrevocably and unconditionally releases, acquits and forever discharges and agrees not to sue the Company or any of its Affiliated Entities and their respective current and former directors, officers, shareholders, trustees, employees, consultants, independent contractors, successors and assigns, and all persons acting by, through or under or in concert with any of them, from all actions, damages, losses, costs and claims of any and every kind and nature whatsoever, at law or in equity, whether absolute or contingent, up to and including the date of this Agreement, arising from or relating to Employee’s employment with, or termination of employment from, the Company and its Affiliated Entities, and from any and all charges, complaints, claims, liabilities, obligations, promises, agreements, controversies, damages, actions, causes of action, suits, rights, demands, costs, losses, debts and expenses of any nature whatsoever, known or unknown, suspected or unsuspected and any claims of wrongful discharge, breach of contract, implied contract, promissory estoppel, defamation, slander, libel, tortious conduct, employment discrimination or claims under any federal, state or local employment statute, law, order or ordinance, including any rights or claims arising under the Age Discrimination in Employment Act of 1967, as amended (“ADEA”); Title VII of the Civil Rights Act of 1964, as amended; the Equal Pay Act of 1963, as amended; the Americans with Disabilities Act of 1990, as amended; the Employee Retirement Income Security Act of 1974, as amended; and any other federal, state or local laws or regulations prohibiting employment discrimination. This Agreement specifically excludes (i) Employee’s right to receive the amounts and benefits under the Plan and to enforce the terms of this Agreement, (ii) Employee’s rights to vested amounts and benefits under any employee benefit plan of the Company or its Affiliated Entities, (iii) any claims arising after the date hereof, and (iv) any claim or right Employee may have to indemnification or coverage under the Company’s or any of its Affiliated Entities’ respective bylaws or directors’ and officers’ insurance policies or any agreement to which Employee is a party or a third-party beneficiary. To the maximum extent permitted by law, Employee agrees that Employee has not filed, nor will Employee ever file, a lawsuit asserting any claims that are released by this Agreement, or to accept any benefit from any lawsuit that might be filed by another person or governmental entity based in whole or in part on any event, act, or omission that is the subject of the release contained in this Agreement.

(b) *EEOC*. The parties agree that this Agreement shall not affect the rights and responsibilities of the U.S. Equal Employment Opportunity Commission to enforce ADEA and other laws. Employee agrees, however, to waive the right to recover monetary damages in any charge, complaint or lawsuit filed by Employee or on Employee's behalf with respect to any claims released in this Agreement.

(c) *Section 1542 of the California Civil Code*. The parties hereto expressly acknowledge and agree that all rights under Section 1542 of the California Civil Code are expressly waived. That section provides:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

(d) *Employee Acknowledgment*. Employee shall take any action requested by the Company to ensure Employee's removal and termination, with effect from the Date of Termination, from all offices, directorships, board or committee memberships and fiduciary capacities in which Employee served at the Company and its Affiliated Entities.

2. Restrictive Covenants.

(a) *Confidential Information*. Employee shall hold in a fiduciary capacity for the benefit of the Company and its Affiliated Entities all secret or confidential information, knowledge, or data relating to the Company and its Affiliated Entities and businesses, which information, knowledge or data shall have been obtained by Employee during Employee's employment by the Company or its Affiliated Entities and which information, knowledge or data shall not be or become public knowledge (other than by acts by Employee or representatives of Employee in violation of this Agreement) (collectively, "Confidential Information"), and Employee agrees not to provide such Confidential Information, directly or indirectly, to any third party; *provided* that any information that: (i) is lawfully received by Employee from any third party without restriction on disclosure or use, or (ii) is required to be disclosed by law, shall not be deemed to be Confidential Information for purposes of this Section 2(a). Employee shall not, without the prior written consent of the Company or as may otherwise be required by law, use, communicate or divulge any such Confidential Information. Notwithstanding any other provisions of this Section 2(a), pursuant to 18 USC Section 1833(b), Employee shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of any Confidential Information that is a trade secret that is made: (A) confidentially to a federal, state or local government official, either directly or indirectly, or to an attorney, and solely for the purpose of reporting or investigating a suspected violation of law; or (B) in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. If Employee files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Employee may disclose such trade secret to Employee's attorney and use the trade secret information in related court proceedings, *provided* that Employee files any document containing the trade secret information under seal and does not disclose the trade secret, except pursuant to court order. 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 Employee from exercising any legally protected whistleblower rights (including pursuant to Rule 21F under the Securities Exchange Act of 1934).

(b) *Noncompetition.* To further ensure the protection of the Company's confidential information, Employee agrees that for a period of one (1) year after Employee's Date of Termination, Employee will not accept employment with or provide services in any form to (including serving as a director, partner or founder, or entering into a consulting relationship or similar arrangements) a business that (i) competes, directly or indirectly, with any of the Company's principal business units as of the Date of Termination; or (ii) is a material customer of or a material supplier to any of the Company's businesses as of the Date of Termination (a "Competitive Business"); *provided* that, it shall not be considered a breach of this Agreement for Employee to be a passive owner of not more than 5% of the outstanding stock or other securities or interests of a corporation or other entity that is a Competitive Business, so long as Employee has no direct or indirect active participation in the business or management of such corporation or entity.

(c) *Employee and Customer Nonsolicitation.* Employee agrees that for a period of two (2) years after Employee's Date of Termination, Employee shall not, directly or indirectly: (i) solicit any individual who is, at the time of such solicitation (or was during the three (3)-month period prior to the date of such solicitation), employed by the Company or one of its Affiliated Entities with whom Employee had direct contact (other than incidental) during the two (2)-year period prior to the Date of Termination to terminate or refrain from rendering services to the Company or its Affiliated Entities for the purpose of becoming employed by, or becoming a consultant to, any individual or entity other than the Company or its Affiliated Entities, or (ii) induce or attempt to induce any current customer, investor, supplier, licensee or other business relation of the Company or any of its Affiliated Entities with whom or which Employee had direct contact (other than incidental) during the two (2)-year period prior to the Date of Termination ("Customer") to cease doing business with the Company or its Affiliated Entities, or in any way interfere with the relationship between any such Customer, on the one hand, and the Company or any of its Affiliated Entities, on the other hand.

(d) *Non-disparagement.* Employee agrees not to disparage or defame, through any public medium (including social media) the business reputation, technology, products, practices or conduct of the Company or its Affiliated Entities or any member of the board of directors or any executive officer of the Company in their capacity as such. Nothing in this Agreement or elsewhere shall prevent Employee from making statements in confidence to an immediate family member or to an attorney for the purpose of seeking legal advice, or from making truthful statements when required by law, subpoena or the like, or in arbitration or other proceeding permitted under this Agreement and/or the Plan, as applicable.

(e) *Employee Acknowledgment.* Employee acknowledges that Employee's agreement to comply with the covenants in this Section 2 is in consideration for the payments and benefits to be received by Employee under Section 3.1 of the Plan. Employee understands that the covenants in this Section 2 may limit Employee's ability to work in a business similar to the business of the Company and its Affiliated Entities; *provided, however,* Employee agrees that, in light of Employee's education, skills, abilities and financial resources, Employee shall not assert, and it shall not be relevant nor admissible as evidence in any dispute arising in respect of the covenants in this Section 2, that any provisions of such covenants prevent Employee from earning a living. Employee acknowledges that the Intellectual Property Agreement between Employee and the Company, and all restrictive covenants applicable to the Participant pursuant to the Company's 2018 Long-Term Incentive Plan or Long-Term Incentive Plan, or any schedule of terms thereunder, including any related forfeiture and recoupment provisions, will continue in full force

and effect following the Date of Termination and are in addition to Employee's obligations hereunder.

(f) *Remedies.* Employee acknowledges that the Company and its Affiliated Entities would be irreparably injured by a violation of Section 2(a), (b), (c) or (d), and Employee agrees that the Company and such Affiliated Entities, in addition to any other remedies available, shall be entitled to (i) a preliminary injunction, temporary restraining order or other equivalent relief, restraining Employee from any actual or threatened material breach of any of Sections 2(a), (b), (c) or (d), or (ii) to cause the Employee to forfeit any remaining unvested Company equity awards or remaining unpaid severance payments or benefits upon any material breach of any of Sections 2(a), (b), (c) or (d).

(g) *Severability; Blue Pencil.* Employee acknowledges and agrees that Employee has had the opportunity to seek advice of counsel in connection with this Agreement, and the restrictive covenants contained herein are reasonable in geographic scope, temporal duration, and in all other respects. If it is determined that any provision of this Section 2 is invalid or unenforceable, the remainder of the provisions of this Section 2 shall not thereby be affected and shall be given full effect, without regard to the invalid portions. If any court or other decision-maker of competent jurisdiction determines that any covenant in this Section 2 is unenforceable because of the duration or geographic scope of such covenant, then, after such determination becomes final and unappealable, the duration or scope of such provision, as the case may be, shall be reduced so that such provision becomes enforceable, and that, in its reduced form, such covenant shall be enforced.

3. Timing for Consideration.

Employee acknowledges that the Company has specifically advised Employee of the right to seek the advice of an attorney concerning the terms and conditions of this Agreement. Employee further acknowledges that Employee has been furnished with a copy of this Agreement, and Employee has been afforded [twenty-one (21)][OR][forty-five (45)] calendar days in which to consider the terms and conditions of this Agreement. By executing this Agreement, Employee affirmatively states that Employee has had sufficient and reasonable time to review this Agreement and to consult with an attorney concerning his legal rights prior to the final execution of this Agreement. Employee further agrees that Employee has carefully read this Agreement and fully understands its terms. Employee acknowledges that Employee has entered into this Agreement, knowingly, freely and voluntarily. Employee understands that Employee may revoke this Agreement within seven (7) calendar days after signing this Agreement. Revocation of this Agreement must be made in writing and must be received by the Corporate Vice President, Total Rewards of the Company, at utccompben@utc.com, within the time period set forth above.

4. Effectiveness of Agreement.

This Agreement shall become effective and enforceable on the eighth (8th) day following Employee's delivery of a copy of this executed Agreement to the Company; *provided* Employee does not timely exercise Employee's right of revocation as described in Section 3 above. If Employee fails to timely sign and deliver this Agreement or timely revokes this Agreement, this Agreement will be without force or effect, and Employee shall not be entitled to the payments or benefits described in Section 3.1 of the Plan (other than the Accrued Obligations and Other Benefits).

5. Miscellaneous.

(a) *Governing Law.* This Agreement will be governed by and construed in accordance with the laws of the State of Connecticut, without giving effect to any choice of law or conflicting provision or rule (whether of the State of Connecticut or any other jurisdiction) that would cause the laws of any jurisdiction other than the State of Connecticut to be applied. In furtherance of the foregoing, the internal laws of the State of Connecticut will control the interpretation and construction of this Agreement, even if under such jurisdiction's choice of law or conflict of law analysis, the substantive law of some other jurisdiction would ordinarily apply.

(b) *Severability.* The provisions of this Agreement and obligations of the parties are severable, and if any part or portion of it is found to be unenforceable, the other paragraphs shall remain fully valid and enforceable.

(c) *Entire Agreement; Amendment.* This Agreement constitutes the entire agreement between the parties with respect to the subject matter of this Agreement. No amendment to this Agreement shall be binding upon either party unless in writing and signed by or on behalf of such party.

(d) *Dispute Resolution.* Except with respect to claims for breach of the obligations under Section 2 of this Agreement, for which the Company may seek enforcement in any court having competent jurisdiction at its election, any dispute arising between the Company and Employee 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 of the arbitrator shall be binding on the parties; shall be furnished in writing, separately and specifically stating the findings of fact and conclusions of law on which the decision is based; shall be kept confidential by the arbitrator and the parties; and shall be rendered within sixty (60) days following the arbitrator being impaneled. Costs and expenses of the arbitration shall be borne by the Company regardless of the outcome, and each party shall be responsible for its own attorneys' fees and expenses. The arbitrator shall be selected in accordance with the rules of the American Arbitration Association.

(e) *Assignment.* Without the prior written consent of Employee, this Agreement shall not be assignable by the Company. This Agreement shall inure to the benefit of and be enforceable by Employee's heirs and legal representatives. This Agreement shall inure to the benefit of and be binding upon the Company and its successors and assigns.

[Signature Page Follows.]

ACKNOWLEDGED AND AGREED BY:

Date: _____
[Employee Name]

UNITED TECHNOLOGIES CORPORATION

By: _____
Name:
Title:

[Signature Page]

July 26, 2019

Securities and Exchange Commission
100 F Street, N.E.
Washington, DC 20549

Commissioners:

We are aware that our report dated July 26, 2019 on our review of interim financial information of United Technologies Corporation, which appears in this Quarterly Report on Form 10-Q, is incorporated by reference 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.

Very truly yours,

/s/ PricewaterhouseCoopers LLP

Hartford, CT

CERTIFICATION

I, Gregory J. Hayes, certify that:

1. I have reviewed this quarterly report on Form 10-Q 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: July 26, 2019

/s/ GREGORY J. HAYES

Gregory J. Hayes

Chairman, President and Chief Executive Officer

CERTIFICATION

I, Akhil Johri, certify that:

1. I have reviewed this quarterly report on Form 10-Q 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: July 26, 2019

/s/ AKHIL JOHRI

Akhil Johri

Executive Vice President & Chief Financial Officer

CERTIFICATION

I, Robert J. Bailey, certify that:

1. I have reviewed this quarterly report on Form 10-Q 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: July 26, 2019

/s/ ROBERT J. BAILEY

Robert J. Bailey

Corporate Vice President, Controller

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 Quarterly Report on Form 10-Q for the quarter ended June 30, 2019 (the "Form 10-Q") 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-Q fairly presents, in all material respects, the financial condition and results of operations of the Corporation.

Date: July 26, 2019

/s/ GREGORY J. HAYES

Gregory J. Hayes

Chairman, President and Chief Executive Officer

Date: July 26, 2019

/s/ AKHIL JOHRI

Akhil Johri

Executive Vice President & Chief Financial Officer

Date: July 26, 2019

/s/ ROBERT J. BAILEY

Robert J. Bailey

Corporate Vice President, Controller