THE SPIN-OFF REPORT

March 10, 2020 7:54 EST

United Technologies Corporation (Pre-Spin) (BUY)

Current Share Price (3/9/20): $115.12	Ticker: UTX
Fair Value Estimate: $179 per share	Dividend: $2.94
Shares Outstanding: 867.0 million	Yield: 2.6%
Market Capitalization: $110.0 billion	

Raytheon Technologies Inc. (Post-Merger)

Fair Value Estimate: $107 per share	Ticker: RTX
Shares Outstanding: 1,459 million	Dividend: TBD
Market Capitalization: $156.1 billion	Yield: N/A

Otis Worldwide Corporation

Fair Value Estimate: $59 per share	Ticker: OTIS
Shares Outstanding: 436.0 million*	Dividend: TBD
Market Capitalization: $25.7 billion	Yield: N/A

Carrier Global Corporation

Fair Value Estimate: $46 per share	Ticker: CARR
Shares Outstanding: 867.0 million	Dividend: Nil
Market Capitalization: $39.9 billion	Yield: N/A

TBD – To be determined. N/A – Not applicable. *based on a 1:0.50 distribution
Note: Market capitalization is based on fair value estimate for post-spin entities and current market cap for pre-spin UTX. UTC is expected to merge with The Raytheon Company (NYSE: RTN) following the spin-offs

Institutional Research Group
Michael Wolleben
Joanna Makris
Robert Dunn

HORIZON KINETICS
Murray Stahl
Steven Bregman

PCS RESEARCH SERVICES
Exclusive Marketers of The Spin-Off Report
PCS Research Services · 100 Wall Street, 20th Floor · New York, NY 10005 · (212) 233-0100 · www.pcsresearchservices.com

INVESTMENT THESIS

On November 26, 2018, United Technologies Corporation (NYSE: UTX) announced plans to separate into three independent, publicly traded companies. The separation as it is currently posited will be completed via tax-free spin-offs of the Otis Elevator business, which is to be named Otis Worldwide Corporation (NYSE symbol "OTIS"), and the Carrier HVAC business, which is to be named Carrier Global Corporation (NYSE symbol "CARR"), to shareholders of UTX. For each share of UTX held as of the record date (yet to be announced), shareholders will receive 1 share of CARR and 0.5 shares of OTIS.

The completion of the spin-offs is subject to the customary conditions, including final Board approval, receipt of a tax opinion from counsel, and the effectiveness of the company's Form 10 filings with the SEC, and the transactions are expected to be completed within 18-24 months from the announcement (targeting April 1, 2020). The announcement was made in conjunction with the completion of the acquisition of Rockwell Collins (previously NYSE: COL). UTX will receive cash distributions of $6 billion and $10.6 billion from Otis and Carrier, respectively.

Additionally, on June 9, 2019, UTX announced that it planned to merge its post-spin Aerospace business (UTC) with defense supplier The Raytheon Company (NYSE: RTN). Under the terms of the transaction, Raytheon shareholders will receive 2.3348 shares of United Technologies for each RTN share held. Post-merger, United Technologies holders will own approximately 57% of the combined business, to be called Raytheon Technologies, with UTX CEO Greg Hayes serving as CEO and Raytheon CEO Tom Kennedy to be named executive chairman. In February 2020, both UTX and RTN shareholders approved the merger. Management expects the transaction to close shortly following the completion of the spinoffs (i.e., in the first half of 2020). Upon completion of the Raytheon merger, the symbol for the new company will become RTX on the NYSE.

UTX is characterized by a balanced growth profile and end-market exposure, as well as a proven track record of operating leverage and execution. The company, which has strong market positions in aerospace and global infrastructure, operates under three general verticals: Aerospace (UTC Aerospace Systems and Pratt & Whitney), which generated $46.9 billion in revenue in 2019; HVAC (including building automation, fire safety, and security products), which generated sales of $18.6 billion in 2019; and Elevators (including escalators and moving walkways), with $13.1 billion in 2019 sales. The COL acquisition added approximately $8.7 billion to UTX's Aerospace revenue and results in the creation of Collins Aerospace, which is the combination of UTX Aerospace Systems and Rockwell Collins. Collins Aerospace Systems is expected to generate in excess of $500 million in run-rate pre-tax cost synergies over the first four years of combined operations.

In terms of rationale, the separation, which had been telegraphed by UTX management, makes sense given the completion of the acquisition of COL. UTX's aerospace businesses, including Pratt & Whitney, UTC Aerospace Systems, and COL, have seen revenue growth based on increased aircraft production, while the Elevator and HVAC businesses have experienced more muted growth. The HVAC business appears poised to benefit from an improving housing market, while demand for elevators in U.S. and Europe is being hampered by pricing pressures from China.

Following the merger with Raytheon, the combined company will have a pro forma market capitalization of approximately $156 billion and generate about $75 billion in annual sales, with exposure to several aerospace and defense subsectors. While Raytheon is a defense specialist focused on missiles, radars, missile defense, and electronics, UTX is heavily exposed to commercial aerospace (approximately three-fourths of total aerospace sales). Despite the company's $23 billion purchase of Rockwell Collins last year, UTX still faces pressure from aircraft manufacturers Boeing (NYSE: BA) and Airbus (AIR EN) to bring down costs. The combined company will leverage a stronger balance sheet to support aerospace product development. In addition, the post-merger company is less exposed to government and commercial sector cyclicality. About 55% of total revenue would come from defense, and less than 5% of combined sales would be from projects that overlap. The new Raytheon Technologies would rank behind only Boeing and Airbus globally in terms of total aerospace sales.

On a pre-spin basis, shares of UTX, including the company's 57% ownership interest in Raytheon, are fairly valued at $179 per share. On a post-spin basis, CARR and OTIS can be fairly valued at $46 and $59 per share, respectively, based on a 1:1 distribution for CARR and a 1:0.5 distribution for OTIS. With the pre-spin sum-of-the-parts fair value estimate representing over 50% implied upside to the current share price ($115 as of this writing), the transactions appear likely to unlock substantial upside. Note that the markets have been extremely volatile owing to heightened global COVID-19 (coronavirus) concerns, with the Dow declining 7.8% yesterday, the largest decline since October 2008 (UTX shares declined 9% yesterday). As such, continued market weakness could compress sector valuations, and in turn, our fair value estimates considerably going forward. On a pre-merger sum-of-the-parts basis, we value RTN at $241. Following the merger with UTC, Raytheon becomes the third largest Aerospace and Defense company in the world, with a strengthened balance sheet and improving Aerospace product cycle.

COMPANY DESCRIPTION

United Technologies Corporation (NYSE: UTX) was incorporated in Delaware in 1934. UTX provides high-technology products and services to the building systems and aerospace industries worldwide. The company, with a current market capitalization of approximately $110 billion, generated $77 billion in consolidated revenue and $14 billion in adjusted EBITDA in 2019 (see Exhibit 1). UTX is comprised of four segments: Otis, Carrier (formerly known as UTC Climate, Controls & Security), Pratt & Whitney, and Collins Aerospace Systems (a new segment comprised of the former UTC Aerospace Systems segment and the Rockwell Collins businesses following UTX's acquisition of Rockwell Collins, Inc. in November 2018), with each segment comprised of groups of similar operating companies. Otis and Carrier (referred to as the "commercial businesses") serve customers in the commercial, government, infrastructure, and residential property sectors and in the refrigeration and transport sectors worldwide. Pratt & Whitney and Collins Aerospace Systems (referred to as the "aerospace businesses") primarily serve commercial and government customers in both the original equipment and aftermarket parts and services markets of the aerospace industry.

Exhibit 1 United Technologies Corporation: Full Year 2019 Consolidated Sales
($ in millions)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020E	2021E
Revenue, Adj	**55,754.0**	**57,708.0**	**56,600.0**	**57,900.0**	**56,098.0**	**57,060.0**	**59,452.0**	**66,501.0**	**77,046.0**	**78,715.5**	**82,383.2**
Growth %, YoY	*6.7*	*3.5*	*-1.9*	*2.3*	*-3.1*	*1.7*	*4.2*	*11.9*	*15.9*	*2.2*	*4.7*
Gross Profit, Adj	**15,549.0**	**15,895.0**	**16,347.0**	**17,185.0**	**15,852.0**	**15,906.0**	**15,251.0**	**16,663.0**	**19,981.0**	**21,558.6**	**22,312.7**
Margin %	*27.9*	*27.5*	*28.9*	*29.7*	*28.3*	*27.9*	*25.7*	*25.1*	*25.9*	*27.4*	*27.1*
EBITDA, Adj	**9,243.0**	**9,615.0**	**10,542.0**	**11,516.0**	**11,024.0**	**10,691.0**	**10,388.0**	**10,977.0**	**14,110.0**	**14,294.4**	**15,455.2**
Margin %	*16.6*	*16.7*	*18.6*	*19.9*	*19.7*	*18.7*	*17.5*	*16.5*	*18.3*	*18.2*	*18.8*
Net Income, Adj	**4,828.1**	**4,867.6**	**5,280.7**	**5,864.9**	**5,580.9**	**5,267.7**	**5,315.0**	**6,070.0**	**7,004.2**	**7,205.8**	**8,085.3**
Margin %	*8.7*	*8.4*	*9.3*	*10.1*	*9.9*	*9.2*	*8.9*	*9.1*	*9.1*	*9.2*	*9.8*
EPS, Adj	**5.34**	**5.38**	**5.77**	**6.43**	**6.32**	**6.38**	**6.65**	**7.49**	**8.11**	**8.36**	**9.37**
Growth %, YoY	*13.1*	*0.8*	*7.1*	*11.5*	*-1.7*	*0.8*	*4.4*	*12.5*	*8.3*	*3.1*	*12.1*
Cash from Operations	**6,590.0**	**6,646.0**	**6,877.0**	**7,336.0**	**6,383.0**	**3,880.0**	**5,631.0**	**6,322.0**	**8,883.0**		
Capital Expenditures	**-929.0**	**-1,389.0**	**-1,569.0**	**-1,594.0**	**-1,652.0**	**-1,699.0**	**-2,014.0**	**-1,902.0**	**-2,256.0**	**-2,112.1**	**-2,121.9**
Free Cash Flow	**5,661.0**	**5,257.0**	**5,308.0**	**5,742.0**	**4,731.0**	**2,181.0**	**3,617.0**	**4,420.0**	**6,627.0**	**6,069.0**	**8,463.1**

Source: Company reports.

- **Otis (16% of 2019 sales).** Otis is the world's largest elevator and escalator manufacturing, installation, and service company, serving customers in the commercial, residential, and infrastructure property sectors globally. The division manufactures passenger and freight elevators, escalators, and moving walkways, as well as providing modernization products to upgrade elevators and escalators and maintenance and repair services. The division sells directly and through sales representatives and distributors. International sales represented 73% of Otis sales in both 2018 and 2017. At December 31, 2019, RPO – which is the aggregate amount of total contract transaction price that is unsatisfied or partially unsatisfied-- totaled $16.3 billion compared to a backlog of $16.2 billion in the year-earlier period.

- **Carrier (24% of 2019 sales).** Carrier is a leading provider of heating, ventilation, and air conditioning (HVAC), as well as refrigeration, fire, security, and building automation products, solutions, and services for commercial, government, infrastructure, and residential property applications and refrigeration and transportation applications. Carrier provides a wide range of building systems, including cooling, heating, ventilation, refrigeration, fire, flame, gas, and smoke detection, portable fire extinguishers, fire suppression, intruder alarms, access control systems, video surveillance, and building control systems. Carrier also provides building services (e.g., design, installation, repair, maintenance, and monitoring). International sales (including U.S. export sales) were 52% of 2019 sales. At December 31, 2019, Carrier's RPO was $5.3 billion (versus $4.4 billion at December 31, 2017). Of the total Carrier RPO at December 31, 2018, approximately 70% is expected to be realized as sales in 2019.

- **Pratt & Whitney (27% of 2019 sales).** Pratt & Whitney is one of the world's leading suppliers of aircraft engines for the commercial, military, business jet, and general aviation markets. The business provides fleet management services and aftermarket maintenance, repair, and overhaul services. Pratt & Whitney designs, develops, produces, and maintains families of large engines for wide- and narrow-body and large regional aircraft in the commercial market and for fighter, bomber, tanker, and transport aircraft in the military market. Pratt & Whitney Canada (P&WC) is among the world's leading suppliers of engines powering general and business aviation, as well as regional airline and utility airplanes, and helicopters. Pratt & Whitney and P&WC also produce, sell, and service auxiliary power units for military and commercial aircraft. International operations, including U.S. export sales, were 64% and 63% of total Pratt & Whitney net sales in 2019 and 2018, respectively. At December 31, 2019, RPO (including P&WC) was $85.2 billion, including $13.1 billion of U.S. government contracts and subcontracts. At December 31, 2017, total backlog was $64.3 billion (including $6.0 billion of U.S. government contracts and subcontracts). Pratt & Whitney RPO at December 31, 2018, totaled $10.9 billion.

- **Collins Aerospace Systems (34% of 2019 sales).** On November 26, 2018, UTX completed the acquisition of Rockwell Collins. Rockwell Collins became a wholly-owned subsidiary of the company and was combined with the legacy UTX Aerospace Systems business segment to form a new business segment, Collins Aerospace Systems. Rockwell Collins's results of operations have been included in UTX's financial statements for the period subsequent to the completion of the acquisition on November 26, 2018. Collins Aerospace Systems is a leading global provider of aerospace products and aftermarket service solutions for aircraft manufacturers, airlines, regional, business and other operations. Collins Aerospace Systems' product portfolio includes electric power generation, power management and distribution systems, air data and aircraft sensing systems, engine control systems, intelligence, surveillance, and reconnaissance systems, engine components, environmental control systems, fire and ice detection and protection systems, and propeller systems. The business also designs, produces, and supports cabin interior, communications, and aviation systems and products and provides information management services through voice and data communication networks and solutions worldwide. Aftermarket services include spare parts, overhaul and repair, engineering and technical support, training and fleet management solutions, and information management services.

Growth is attributable primarily to the internal development of UTX's existing businesses and to acquisitions. For 2019, UTX experienced a consolidated net sales increase of 16% (see Exhibit 2). In 2018, UTX generated 8% organic revenue growth, reflecting growth across all segments. In particular, the company experienced strength in commercial aftermarket and commercial OEM and military end-markets as well as commercial aerospace OEM sales. North America residential HVAC, global commercial HVAC, and transport refrigeration sales also experienced growth. On a segment basis, commercial and industrial end-markets accounted for approximately 47% of sales in 2018, followed by commercial aerospace (39% of sales) and military aerospace and space, at 14% of sales (see Exhibit 3).

Exhibit 2 United Technologies Corporation: Full Year 2019 Consolidated Sales Growth

	Total Growth	Organic	FX	Net Acquisitions	Other
Otis	2%	5%	-3%	0%	0%
Carrier	-2%	1%	-2%	-1%	0%
Pratt & Whitney	8%	8%	0%	0%	0%
Collins Aerospace	56%	6%	0%	50%	0%
Total UTC	**16%**	**5%**	**-1%**	**12%**	**0%**

Source: Company reports.

Exhibit 3 United Technologies Corporation: Sales by End-Market for the Years 2018, 2017, and 2016

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

Source: Company reports.

Otis Worldwide Corporation: Overview

Otis is the market leader in the approximately $75 billion global elevator and escalator industry. With over 165 years' experience in elevator and escalator manufacturing, installation, and service, the Otis brand is recognized globally, with installed products in some of the world's most recognizable buildings, including the Empire State Building, the Eiffel Tower, the Lotte World Tower (Seoul, Korea), and the Burj Khalifa (Dubai), the world's tallest building.

The business is comprised of two segments—New Equipment and Service, which, in 2019, comprised 43% and 57% of sales, respectively, and 20% and 80% of operating profit (see Exhibit 4). As of December 31, 2019, Otis's RPO for its New Equipment and Service segments, was approximately $16.4 billion. Approximately 91% of the RPO is expected to be recognized as sales over the next 24 months. The company consists of over 4,200 salespeople and over 40,000 field technicians, consisting of approximately 7,200 New Equipment technicians and 33,000 Service technicians.

- **New Equipment ($5.6 billion in 2019 sales; operating profit of $393 million).** This segment designs, manufactures, sells, and installs a wide range of passenger and freight elevators, as well as escalators and moving walkways for residential and commercial buildings and infrastructure projects. New Equipment units are sold directly to customers, as well as through agents and distributors globally. The company's primary product is the Gen2 system, its principal low- and mid-rise elevator solution typically used for buildings up to 300 feet in height, with units that can operate at up to 600 feet per minute. Over 50% of New Equipment unit orders received in 2019 were for elevators using the Gen2 system. Later in 2020, Otis plans to introduce the GEN360 solution, a smart elevator ecosystem which includes digital delivery tools to simplify equipment ordering and management. For taller high-rise buildings, the company offers the SkyRise elevator solution. Most New Equipment orders are delivered within 12 months of booking, though larger projects can take longer to deliver based on customer construction schedules.

- **Service ($7.5 billion in 2019 sales; operating profit of $1.6 billion).** This segment performs maintenance and repair services both for Otis products and for those of other manufacturers, and provides modernization services to upgrade elevators and escalators. Other services include inspections to ensure code compliance, and preventive and customized maintenance. A basic maintenance contract provides for inspection consistent with local regulatory needs. Otis also provides repair services to address equipment and component wear and tear, as well as breakdowns. Offerings are tiered, with varying levels of coverage up to and including comprehensive component replacement coverage. Maintenance and repair services account for approximately 82% of Service segment sales, with modernization projects accounting for the remaining 18%. The company has the industry's largest maintenance portfolio, which includes over two million units globally and consists of both Otis equipment and equipment from other original equipment manufacturers. Otis generates higher-margin recurring revenue by performing maintenance and repair services and modernization of elevator and escalator units in its own portfolio, selling its services through a network of over 2,700 service sales personnel, directly to customers in all significant elevator and escalator end-segments globally, including in residential and commercial buildings and infrastructure applications.

Exhibit 4 Otis Worldwide Corporation: Sales and Operating Profit by Segment
($ in millions)

	Net sales			Operating profit			Operating profit margin		
	2019	2018	2017	2019	2018	2017	2019	2018	2017
New Equipment	**$ 5,648**	$ 5,596	$ 5,453	**$ 393**	$ 390	$ 482	**7 %**	7 %	9 %
Service	**7,470**	7,319	6,870	**1,603**	1,516	1,495	**21 %**	21 %	22 %
Total segment	**13,118**	12,915	12,323	**1,996**	1,906	1,977	**15 %**	15 %	16 %
General corporate expenses and other	**—**	—	—	**(182)**	(71)	(61)			
Total	**$ 13,118**	$ 12,915	$ 12,323	**$ 1,814**	$ 1,835	$ 1,916	**14 %**	14 %	16 %

Source: Company reports.

Over the last five-year period, revenues in Otis's New Equipment segment have expanded steadily. Both the New Equipment and Service segments experienced 5% organic sales growth in 2019, reflecting organic Service segment sales growth of 5% and organic New Equipment segment sales growth of 4%. Digitalization and automation have been key initiatives for the company, with tools including integrated solution design, configuration, ordering, and project execution tracking. The company is also investing in enterprise-wide digital and mobility tools that connect field technicians with applications to help complete service functions, run diagnostics, and accelerate parts fulfillment.

Otis operates internationally through several joint ventures, the largest of which are in China and Spain (described below). The company also operates joint ventures in other countries, including Kuwait, Malaysia, Saudi Arabia, and United Arab Emirates.

China. In China, Otis operates through two joint ventures: Otis Elevator (China) Investment Company Limited ("Otis China") and Otis Electric Elevator Company Limited ("Otis Electric"). Otis China is a joint venture established in 1998 for the purpose of manufacturing, installing, and servicing elevators, escalators, and related equipment in China. Otis is a majority owner of Otis China, and Tianjin Tai Kang Investment Co. Ltd. ("Tianjin Tai Kang") is the company's joint venture partner. Otis Electric, a subsidiary of Otis China, is a joint venture established in 1997 for the purpose of manufacturing, installing, and servicing elevators, escalators, and related equipment both in and outside China. Otis China owns a controlling equity stake in Otis Electric. Otis China's partner in Otis Electric is Xizi Elevator Group Co.

Spain. Operations in Spain are conducted through Zardoya Otis S.A. ("Zardoya Otis"), which manufactures, installs, and services elevators and elevator equipment in Spain, and exports elevator equipment it manufactures to be installed by subsidiaries outside of Spain. Zardoya

Otis shares are listed on the Madrid stock exchange. Otis owns a majority equity stake in Zardoya Otis, with Euro Syns S.A. owning a minority position and the remaining shares being held by public shareowners.

In both its New Equipment and Service segments, Otis's competitors include KONE oyj (KONE.OY), Schindler Holding AG(SCHN.SW), and Thyssenkrupp Elevator AG (THK.LN), while Hitachi Ltd. (6501.JP) and Mitsubishi Corp. (7211.JP) are additional competitors in the Asia Pacific region.

Carrier Global Corporation: Overview

Carrier is a leading global provider of HVAC, refrigeration, fire, and security solutions. The company's products promote smarter, safer, and more sustainable buildings and infrastructure, and help to effectively preserve the freshness, quality, and safety of perishables across a wide variety of industries. Primary end-markets include the construction, transportation, security, food retail, and pharmaceutical industries. The company leverages an extensive global footprint with approximately 53,000 employees globally, including approximately 3,600 engineers. Products and services are sold directly to end customers and indirectly through distributors, independent sales representatives, wholesalers, dealers, other channel partners, and retail outlets.

For 2019, sales and operating profit were $18.6 billion and $2.5 billion, respectively. On a geographic basis, 55% of sales were derived from the Americas, 30% from Europe-Middle East, and 15% from Asia-Pacific. The New equipment and Service and Aftermarket segments contributed 72% and 28%, respectively, of sales (excluding inter-segment eliminations).

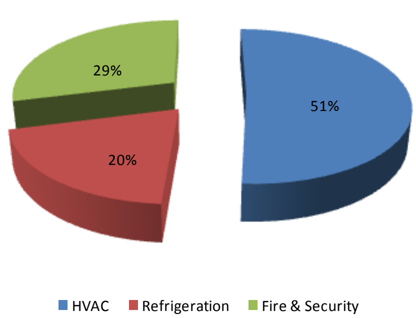
The company is organized into three business segments—HVAC, Refrigeration, and Fire & Security—which, for the year ended December 31, 2019, contributed 51%, 20%, and 29% of sales, respectively, excluding inter-segment eliminations, and 56%, 19%, and 25%, respectively, of operating profit excluding inter-segment eliminations and general corporate expenses (see Exhibits 5 and 6).

Exhibit 5 Carrier Global Corporation: Sales and Operating Profit Trends

	Net sales			Operating profit			Operating profit margin		
(dollars in millions)	**2019**	**2018**	**2017**	**2019**	**2018**	**2017**	**2019**	**2018**	**2017**
HVAC	**$ 9,712**	$ 9,713	$ 9,045	**$ 1,563**	$ 1,720	$ 2,001	**16 %**	18 %	22 %
Refrigeration	**3,792**	4,095	3,823	**532**	1,353	562	**14 %**	33 %	15 %
Fire & Security	**5,500**	5,531	5,324	**708**	726	639	**13 %**	13 %	12 %
Total Segment	**19,004**	19,339	18,192	**2,803**	3,799	3,202	**15 %**	20 %	18 %
Eliminations and other	**(396)**	(425)	(378)	**(156)**	(24)	(32)	**40 %**	6 %	8 %
General corporate expenses	**—**	—	—	**(156)**	(138)	(140)	**0 %**	0 %	0 %
Combined	**$ 18,608**	$ 18,914	$ 17,814	**$ 2,491**	$ 3,637	$ 3,030	**13 %**	19 %	17 %

Source: Company reports.

Exhibit 6 Carrier Global Corporation: 2019 Revenue by Segment



Source: Company reports.

- **HVAC.** The HVAC segment provides products, controls, and services relating to the heating and cooling needs of residential and commercial customers, while enhancing building performance, energy efficiency, and sustainability. Products include air conditioners, heating systems, controls, and aftermarket components, as well as aftermarket repair and maintenance services and building automation solutions. Brands include Automated Logic, Bryant, Carrier, CIAT, Day & Night, Heil, NORESCO, and Riello.

- **Refrigeration.** The Refrigeration segment consists of transport and commercial refrigeration products. Transport refrigeration products include refrigeration and monitoring systems for transport of food and beverages, medical supplies, and other perishable cargo via trucks, trailers, shipping containers, intermodal, and rail. Commercial refrigeration equipment preserves freshness, ensures safety, and enhances the appearance of retail foods and beverages. Brands include Carrier Commercial Refrigeration, Carrier Transicold, and Sensitech.
- **Fire & Security.** These products include fire, flame, gas, smoke, and carbon monoxide detection; portable fire extinguishers; fire suppression systems; intruder alarms; access control systems and video management systems; and electronic controls. The company provides services such as audit, design, installation, and system integration, as well as aftermarket maintenance, repair, and monitoring services. Security solutions include advanced physical security solutions (e.g., access control, video surveillance, key management systems, electronic locks) for the corporate, healthcare, government, hospitality, education, real estate, property management, industrial, and automotive industries. For the residential market, the company provides intrusion monitoring and life-safety solutions. Brands include Autronica, Chubb, Det-Tronics, Edwards, Fireye, GST, Interlogix, Kidde, LenelS2, Marioff, Onity, and Supra.

For 2019, sales of $18.6 billion reflected a 2% year-over-year revenue decline, a decrease from 6% growth in 2018. Organic revenue growth for the same period was 1% year-over-year. Results in 2019 reflect growth in HVAC (1%) and Fire & Security (1%), partially offset by declines in Refrigeration (1%). Results in 2018 reflected growth across all segments, as Refrigeration, HVAC, and Fire & Security sales were up 9%, 7% and 2%, respectively.

Transaction Structure and Rationale

On November 26, 2018, United Technologies announced its intention to separate into three independent companies: (1) United Technologies Corporation (UTC), an aerospace company comprised of the Collins Aerospace Systems and Pratt & Whitney businesses; (2) Otis Worldwide Corporation; and (3) Carrier Global Corporation. The separations are expected to be effected through tax-free spin-offs. The company expects to complete the separation transactions by April 1, 2020. The separation is expected to result in $2.5-3.0 billion of one-time cash costs, with $400 million in 2019 and another $1.6 billion expected in 1Q20.

Additionally, on June 9, 2019, UTX announced the planned merger of its Aerospace business (UTC) with Raytheon (NYSE: RTN). In February 2020, both UTX and RTN shareholders approved the merger of equals, and both managements are continuing to work closely with regulators to secure the required approvals. UTX management expects the transaction to close shortly following the completion of the portfolio separation. Upon completion of the Raytheon merger, the symbol under which United Technologies common stock trades on the NYSE will change from UTX to RTX (RTN, the symbol that Raytheon currently trades under, will cease to exist).

UTX shareholders as of the record date (yet to be announced) will receive one share of UTC, one share of Carrier, and 0.5 share of Otis. Following the spin-off, UTC will merge with RTN. Raytheon shareholders will receive 2.3348 shares of RTX. This company will consist of all of current Raytheon plus the current aerospace businesses of United Technologies. Current Raytheon shareholders will not receive any shares in Carrier or Otis.

The separation should allow each company to more effectively articulate a more focused investment proposition and to attract a long-term investor base suited to its businesses, growth profile, and capital allocation priorities.

Otis is expected to incur approximately $6.1 billion in debt and to distribute approximately $6.0 billion in cash to UTX. Otis intends to apply to list its common stock on the NYSE under the symbol “OTIS”.

Carrier is expected to incur approximately $11.1 billion in debt, of which it is expected to distribute $10.6 billion to UTX. Carrier intends to apply to list its common stock on the NYSE under the symbol “CARR”. The company is expected to initially pay a cash dividend on a quarterly basis at an aggregate annual rate of approximately $550 million.

United Technologies–Raytheon Merger

On June 9, 2019, UTX and Raytheon Company (NYSE: RTN) entered into an agreement to merge UTX’s aerospace businesses with RTN. The merger is subject to UTX successfully completing the separation of the Otis and Carrier business units from the aerospace businesses. On October 11, 2019, RTN and UTX shareholders approved the merger. The company will be known as Raytheon Technologies Corporation following the merger, which is expected to close in the first half of 2020. The transaction is subject to the customary closing conditions, including receipt of required regulatory approvals, as well as completion by United Technologies of the separation of its Otis and Carrier businesses.

Each share of RTN will be converted into the right to receive 2.3348 shares of Raytheon Technologies (and cash in lieu of fractional shares, if applicable). UTX shareholders will not receive any merger consideration. UTX common stock will remain outstanding and constitute shares of the combined company. Outstanding UTX, to be later renamed RTX, will reflect the combination of UTX's aerospace businesses and RTN, but exclude the value of the Otis and Carrier businesses. Management anticipates a tax-free transaction for U.S. federal income tax purposes. Based on the current number of RTN shares outstanding, UTX expects to issue approximately 648 million shares to RTN stockholders. The companies estimate that, after the completion of the merger, former RTN stockholders will own ~43%, while pre-RTX merger, after-separation UTX stockholders will own ~57% of the combined company. The exact equity share of UTX and RTN shareholders will depend on the number of shares of issued and outstanding immediately prior to the merger.

Following the merger with Raytheon, the combined company will have a pro forma market capitalization of approximately $120 billion and generate about $75 billion in annual sales, with exposure to several aerospace and defense subsectors. While Raytheon is a defense specialist focused on missiles, radar, missile defense, and electronics, UTX is heavily exposed to commercial aerospace (approximately three-fourths of total aerospace sales). Despite the company's $23 billion purchase of Rockwell Collins last year, UTX still faces pressure from aircraft manufacturers Boeing (NYSE: BA) and Airbus (AIR EN) to bring down costs. The combined company will leverage a stronger balance sheet to support aerospace product development. In addition, the post-merger company will be less exposed to government and commercial sector cyclicality. About 55% of total revenue would come from defense, and less than 5% of combined sales would be on projects that overlap. The new Raytheon Technologies would rank behind only Boeing and Airbus globally in terms of total aerospace sales.

The new company will report in four segments; Pratt & Whitney (sales of ~$21 billion), Collins Aerospace (sales of ~$22 billion), Intelligence Space & Airborne Systems (sales of ~$18 billion) and Integrated Defense & Missile Systems (sales of ~$16 billion). UTX's commercial-aviation-heavy operations complement Raytheon's space, defense, and missile systems. Both UTX and Raytheon are subsystems suppliers in their respective markets, and the combined entity, as the third largest aerospace & defense company in the world, would have significant breadth and depth across the industry. In addition, Raytheon's less cyclical nature and the strong steady cash flow of the combined companies should give UTX's commercial business (as part of Raytheon) an edge over competitors and enable increased investment in large-scale projects, such as continued development of Pratt & Whitney's Geared Turbofan (GTF) engine. The Geared Turbofan engine has won broad acceptance among carriers, owing to fuel efficiency, noise reduction, and emissions abatement, while sustaining high rates of reliability. The combined company should also be in a better position to support future engine development and future product development for programs such as Boeing's 797 mid-market jet, or the eventual replacement of Boeing's and Airbus's narrow-body products, the 737 and A320, respectively.

Given that United Technologies' non-aerospace businesses Otis (elevators) and Carrier (heating, ventilation, and air conditioning, fire safety, and security products) are underperforming compared to its aerospace businesses, the spin-offs of those businesses and the merger with Raytheon creates a more focused, growth-oriented company.

Management anticipates the merger will generate $1 billion in gross annual cost synergies ($500 million net) within four years, with additional technology-driven revenue synergies by year four. Management expects to extract over $350 million from supply chain and procurement, $325 million from corporate and segment consolidation, $175 million from facilities consolidation, and $150 million in IT and other SG&A. Management projects double-digit free cash flow growth, with an expectation of approximately $8 billion in pro forma free cash flow by 2021. The combined company expects to return $18-$20 billion of capital to shareholders in the first 36 months following completion of the merger.

INDUSTRY OVERVIEW

United Technologies Corporation: Aerospace Industry Outlook

UTX's aerospace businesses (Pratt & Whitney and Collins Aerospace) compete with both domestic and international manufacturers as well as with companies that obtain regulatory agency approval to manufacture spare parts. In particular, Pratt & Whitney experiences intense competition for new commercial airframe and engine combinations. Many engine suppliers offer substantial discounts and other financial incentives, performance and operating cost guarantees, participation in financing arrangements, and maintenance agreements. Customer selections of engines and components can also have a significant impact on later sales of parts and services. In addition, the policies followed by the U.S. government and other governments of purchasing parts from suppliers other than the original equipment manufacturer affect military spare parts sales. Pratt & Whitney's major competitors in the sale of engines are GE Aviation, Rolls-Royce, Honeywell International Inc. (NYSE: HON), Safran Helicopter Engines (previously Turbomeca) (Safran SA [SAF.PA]), and CFM International, a joint venture between GE Aviation, a division of General Electric of the United States, and Safran Aircraft Engines.

On UTX's most recently reported 4Q earnings call in late January, the outlook for aerospace was mixed. Guidance calls for Pratt & Whitney to experience organic sales growth in the "mid single digits" and adjusted operating profit growth of $225-$275 million. Revenue at Collins Aerospace is expected to "decline slightly," and adjusted operating profit is expected to decline between $275 million and $325 million on a year-over-year basis.

The installed base of large civil aircraft with P&W engines continues to age, and the company expects P&W aftermarket revenue to decline over time until the Geared Turbofan generates aftermarket business. UTX is dependent on raw materials, particularly metals, so variations in prices and availability of raw materials can unfavorably affect operating margins. For 2019, total engine shipments increased 6.5% on a year-over-year basis (See Exhibit 7).

Since UTX is exposed to late-cycle businesses, including commercial construction and commercial aviation, if the economy does not improve, UTX could be negatively affected. A strong USD could negatively impact UTX given its exposure to non-U.S. end-markets. A downturn in commercial aviation due to the natural business cycle or an exogenous event such as a terrorist attack would also negatively affect the company.

EPS accretion from the Rockwell Collins business continues to increase, and it is now expected at $0.60 in 2019, $0.10 higher than management's prior forecast of $0.50.

Exhibit 7 Pratt & Whitney Engine Shipments to Customers

	2018					2019				
	Q1	Q2	Q3	Q4	FY	Q1	Q2	Q3	Q4	FY
Military *	25	43	36	47	151	39	58	53	65	215
Large Commercial **	124	210	198	247	779	189	173	165	219	746
Pratt & Whitney Canada	503	492	546	641	2,182	524	593	607	631	2,355

* Excludes APUs

** Large commercial excludes industrial engine shipments

Source: Company reports.

Carrier Global Corporation: Industry Outlook

Carrier's 2019 organic sales increase of 1% was primarily driven by growth in HVAC (1%) and Fire & Security (1%), partially offset by declines in Refrigeration (1%). In HVAC, the company is benefiting from stronger sales in the North America residential HVAC market, and from growth in Asia and the Americas for commercial HVAC. In Fire & Security, the business is experiencing stronger product sales globally, as well as field service growth, primarily in Asia. Refrigeration declines were driven by transport refrigeration, primarily the container business, partially offset by growth in North America Truck Trailer as well as a decline in commercial refrigeration, primarily in Europe. A divestiture-related sales decline in 2019 was due to the 2018 sale of the Taylor business within the Refrigeration segment.

Owing to its exposure to commercial and industrial end-markets, post-spin Carrier will be broadly influenced by changes in residential and commercial construction activity, regulatory changes, interest rates, labor costs, foreign currency exchange rates, raw material and energy costs, global credit market conditions, and other global and political factors, including trade policies. A slowdown in building and remodeling activity would adversely affect financial performance.

Carrier has been the most underperforming of UTX's three businesses. Management has discussed the possibility of some portfolio restructuring after the spin-offs, including discussing whether it makes sense for Carrier to continue to manage HVAC, Fire Safety, and Security products in one company. It should also be noted that the HVAC sector is poised for industry consolidation. Notably, Ingersoll-Rand Inc. (NYSE: IR) spun off its industrial segment, which merged with Gardner Denver on February 29, 2020, allowing IR to operate as a pure-play HVAC and refrigeration business likely to be looking at acquisitions in the sector. In November 2018, Johnson Controls Inc. (NYSE: JCI) sold its Power Solutions business to Brookfield Business Partners L.P. (NYSE: BBU) and other institutional partners for net cash proceeds of $11.6 billion, partly to fund strategic acquisitions in HVAC. UTX management has also indicated that the company recently backed away from a strategic transaction, owing to the impending spin-offs. In the near term, we expect significant restructuring at Carrier after the spin-off. Longer term, Carrier's end-markets remain robust, with growth for the company's HVAC, Refrigeration, and Fire & Security businesses likely to be supported by favorable secular trends, including urbanization, climate change, and increasing requirements for food safety driven by the food needs of the growing global population, rising standards of living, and more energy and environmental regulations. Increased urbanization in emerging market countries, especially India and China, also benefits the industry for air conditioning, cooling, and security systems.

Otis Worldwide Corporation: Industry Outlook

Otis is the market leader in the approximately $75 billion global elevator and escalator industry. Long-term growth is expected to be in line with GDP, with the service-related segment outperforming the rest of the industry. Growth is supported by favorable trends, including increasing urbanization and continued emergence of global middle classes. As the world economy improves, the demand for elevators should continue to grow.

For 2020, Otis guided to $13.1-$13.3 billion in revenue (organic sales growth of 2%-3%), versus sales of $13.1 billion in 2019. In 2020 adjusted operating profit is expected to increase by $40-$70 million from $1.9 billion in 2019. Free cash flow conversion guidance calls for a free cash flow to net income ratio of 110%-120% in 2020. Following the spin-off, Otis is expected to initially pay a cash dividend at an annual payout ratio of approximately 40% of net income. The company plans to pay down $250 million of debt each year in 2020 and 2021 before starting share repurchases. In addition, Otis will focus on reducing its high tax rate, currently expected to be 33% in 2020.

The company's medium-term outlook calls for organic sales growth in the low- to mid-single digits; new equipment sales growth in the low single digits, and service sales growth in the low- to mid-single digits. Adjusted operating profit is expected to increase in the mid-single digits or higher, while adjusted EPS is expected to increase in the single digits year-over-year. Free cash flow conversion (free cash flow/net income) is expected at between 110% and 120% conversion.

VALUATION ANALYSIS

Aerospace peers could include General Electric (NYSE: GE), Honeywell (NYSE: HON), Rolls-Royce (RR/LN), Safran (SAF FP) and Textron (NYSE: TXT), which trade at ~11.0x 2020E EBITDA. (For context, we note that UTX paid 13.9x 2018E EBITDA for Rockwell Collins.) Peers to Otis could include Canny Elevator Co. (002367 CH), Thyssenkrupp (TKA GY), and Schindler Holding (SCHP SW), which trade at 11.6x 2020E EBITDA. Peers to Carrier could include AAON Inc. (NASDAQ: AAON), Daikin Industries (6367 JP), Honeywell (NYSE: HON), Johnson Controls (NYSE: JCI), and Lennox International (NYSE: LII), which trade at about 13.1x 2019E EBITDA. Applying respective peer multiples to the expected 2020 EBITDA contributions from Aerospace, Otis, and Carrier implies segment values of $87.4 billion, $27.6 billion, and $53.5 billion, respectively. Accounting for ~$1 billion of corporate costs as well as projected pro forma net debt of $51 billion yields a sum-of-the-parts value of $106 billion, or $121 per share (based on a diluted share count of 872 million), roughly in line with the current share price ($120.12 as of this writing). (A comparable valuations table can be found in Exhibit 22.)

Valuation: Aerospace Business (to be Merged with Raytheon Technologies Inc.)

As a starting point for determining the valuation of the post-spin Aerospace business, which will subsequently merged with Raytheon Technologies Inc.), one can project 2021 EBITDA based on management's 2020 outlook provided in January 2020. At P&W, adjusted operating profit is expected at $2,026-$2,076 million on a sales increase in the mid-single-digits year-over-year. Adjusted operating profit is expected at $4,117-$4,167 million for Collins Aerospace, and sales are expected to decline in the low-single digits vs. 2019, including a 5% headwind from the 737 MAX, ADS-B, and expected businesses divestitures. We note that our 2020 estimates do not include any future divestitures, which are expected to take place in the Rockwell Collins business. Modeling 11% revenue growth in both 2020 and 2021, the post-spin Aerospace company could reasonably generate 2021 revenue of $57.8 billion (see Exhibit 8).

In terms of segment profitability, it can be noted that Pratt & Whitney and Collins Aerospace generated operating margins of 8.6% and 17.1% in 2019, respectively, or 13% on a blended basis (see Exhibit 9). Assuming a 15% EBITDA margin on estimated 2021 revenue implies the post-spin Aerospace business could generate $8.7 billion in 2021E EBITDA. Our EBITDA margin assumptions incorporate earnings synergies following the merger with Raytheon. Applying a 13x multiple to estimated 2021 EBITDA results in an implied enterprise value of $113 billion for the post-spin Aerospace business.

Exhibit 8 Post-Spin UTX: Fair Value Estimate Based on 2020E EBITDA
($ in millions, except per share data)

2017 Revenue	$	39,000.0
Growth		8.0%
2018 Revenue		42,120.0
Growth		11.4%
2019 Revenue		46,920.0
Growth		11.0%
2020E Revenue		52,081.2
Growth		11.0%
2021E Revenue		57,810.1
EBITDA Margin		15.0%
EBITDA		8,671.5
Multiple		13.0x
Enterprise Value	**$**	**112,729.8**

* excludes Raytheon

Source: Company reports, Bloomberg, and *The Spin-Off Report* estimates.

Exhibit 9 **United Technologies Corp.: 2019 Aerospace Segment Operating Margins**
($ in millions)

	2019 Revenues	Op Profit	Op Mrgn
Pratt & Whitney	20,892	1,801	8.6%
Collins Aerospace	26,028	4,442	17.1%
Total	46,920	6,243	13.3%

Source: Company reports, Bloomberg, and *The Spin-Off Report* estimates.

Based on estimated 2021 EBITDA of $8.7 billion (derived in Exhibit 8 above), and assuming depreciation expense of $1.3 billion, the post-spin Aerospace company could generate pre-tax income of $6.9 billion (see Exhibit 10). Assuming a 28% tax rate (approximating 2019 levels), 2021 net income can be estimated at $5.0 billion, or $5.79 in EPS based on an estimated 867 million shares outstanding. Applying an 18x multiple, in line with peers, results in a fair value estimate of $104 per share.

Exhibit 10 **Post-Spin UTX: Fair Value Estimate Based on Pro Forma EPS**
($ in millions, except per share data; shares in millions)

2021E EBITDA		**8,671.5**
Depreciation		1,283.0
2021E Operating Income		7,388.5
Interest Expense		411.3
Pre Tax Income		6,977.2
Tax Expense		1,953.6
Net Income	$	5,023.6
Shares Outstanding		867
2021E EPS	**$**	**5.79**
Multiple		*18x*
FVE $ / Share	**$**	**104**
Implied Market Cap		90,424.8
Implied EV		**104,134.77**

Source: Company reports, Bloomberg, and *The Spin-Off Report* estimates.

An analysis of the potential dividend of the post-spin Aerospace company can also be considered. Based on estimated 2021 net income of $5.0 billion (derived in Exhibit 10 above), and assuming a dividend payout of 40% (approximating peers as well as UTX's current consolidated dividend yield), the post-spin company could potentially generate $1.9 billion in cash toward a dividend, or $2.32 per share (see Exhibit 11). Applying a comparable 1.9% dividend yield (and approximating the consolidated company's current dividend yield), post-spin Aerospace could be fairly valued at $122 per share.

Exhibit 11 Post-Spin UTX: Fair Value Estimate Based on Projected Dividend Yield
($ in millions, except per share data; shares in millions)

2021E Net Income		5,024
Dividend Payout [1]		40%
Cash available for dividend		2,009
Share Count		867
Dividend		2.32
Yield [2]		1.90%
FVE per share	**$**	**122**
Implied Market Capitalization		**105,760**
Implied EV		119,470

1 approximates peers

2 approximates UTX current yield

Source: Company reports, Bloomberg, and *The Spin-Off Report* estimates.

Based on the above exercises, post-spin UTX can be fairly valued at an enterprise value of $112 billion (see Exhibit 12). Based on estimated net debt of $13.7 billion (balance sheet as of December 31, 2019, adjusted for expected cash distributions of $6 billion and $10.7 billion from Otis and Carrier Global, respectively) and an estimated 867 million post-spin shares outstanding, post-spin UTX can be fairly valued at $113 per share. Note that this estimate is for the standalone Aerospace business only; it does not account for the Raytheon merger.

Exhibit 11 Post-Spin Aerospace Business (to be merged with Raytheon): Valuation Summary
($ in millions, except per share data; shares in millions)

Implied EV		112,111
Net Debt *		13,710
Implied Market Capitalization		**98,401**
Shares outstanding		867
FVE $/Share	**$**	**113**

* balance sheet as of December 31, 2019

Cash includes $6 billion in cash distribution from Otis and $10.7 billion in cash from Carrier

Source: Company reports, Bloomberg, and *The Spin-Off Report* estimates.

Valuation: Post-Spin Carrier Global Corporation

As a starting point for determining the valuation of the post-spin Carrier Global, one can project 2021 EBITDA based on recent financial guidance. Modeling 2% and 4% revenue growth in 2020 and 2021, respectively, Carrier Global could reasonably generate 2021 revenue of $19.7 billion (see Exhibit 12). Note that our growth assumptions are consistent with management's 2020 outlook provided in January 2020. Assuming a 21% EBITDA margin on estimated 2021 revenue implies Carrier Global could generate $4.1 billion in 2021E EBITDA (see Exhibit 13). Applying a 13x multiple to estimated 2021 EBITDA results in an implied enterprise value of $54 billion for Carrier Global.

Exhibit 13 Post-Spin Carrier Global Corporation: Valuation Based on Multiple of 2021E EBITDA
($ in millions, except per share data)

	Carrier
2017 Revenue	$ 17,812.0
Growth	5.0%
2018 Revenue	18,702.6
Growth	-0.5%
2019 Revenue	18,608.0
Growth	2.0%
2020E Revenue	18,980.2
Growth	4.0%
2021E Revenue	19,739.4
EBITDA Margin	21.0%
EBITDA	4,145.3
Multiple	13.1x
Enterprise Value	**$ 54,303.0**

Source: Company reports, Bloomberg, and *The Spin-Off Report* estimates.

Based on estimated 2021 revenue of $19.8 billion, and 21% EBITDA margin, the post-spin Carrier business could reasonably generate estimated 2021 EBITDA of $4.1 billion (see Exhibit 14). Assuming depreciation and amortization of $350 million and interest expense of $379 million, post-spin Carrier could be estimated to generate pre-tax income of $3.4 billion, or net income of $2.5 billion (based on a 28% tax rate) and EPS of $2.84, based on an estimated 867 million shares outstanding (1:1 distribution). Applying a 15x multiple, in line with peers, results in a fair value estimate of $43 per share.

Exhibit 14 Post-Spin Carrier Global Corporation: Fair Value Estimate Based on 2021E EPS
($ in millions, except per share data; shares in millions)

2021E Revenue	**$ 19,739.4**
EBITDA Margin	21.0%
2021E EBITDA	4,145.3
D&A	350.0
EBIT	3,795.3
Interest Expense	379.0
Pre-Tax Income	3,416.3
Tax Expense	956.6
Net Income	2,459.7
Shares Outstanding	867
2021E EPS	**$ 2.84**
Multiple	*15x*
FVE $/Share	**$ 43**
Implied Market Capitalization	**36,896**
Implied EV	48,369

Source: Company reports, Bloomberg, and *The Spin-Off Report* estimates.

An analysis of potential dividend yield for the post-spin company can also be considered. Based on estimated 2021 net income of $2.5 billion (derived in Exhibit 14 above), and assuming a dividend payout of 50% (approximating peers), Carrier Global could reasonably be expected to generate $1.2 billion in cash toward a dividend payment, or $1.42 per share, based on an estimated 867 million post-spin shares outstanding, or a 1:1 distribution (see Exhibit 15). At an implied yield of 3.0%, approximating peers, shares could be fairly valued at $47.

Exhibit 15 Post-Spin Carrier Global Corporation: Fair Value Estimate Based on Projected Dividend Yield
($ in millions, except per share data; shares in millions)

2021E Net Income		2,460
Dividend Payout [1]		50%
Cash available for dividend		1,230
Share Count		867
Dividend	**$**	**1.42**
Yield [2]		3.00%
FVE per share	**$**	**47**
Implied Market Capitalization		**40,995**
Implied EV		52,468

[1] approximates peers

[2] discount to UTX current yield

Source: Company reports, Bloomberg, and *The Spin-Off Report* estimates.

The above exercises generate an average implied enterprise value of $51.7 billion for post-spin Carrier Global Corporation (see Exhibit 16). Factoring in net debt of $11.5 billion (balance sheet as of December 31, 2019), and assuming 867 million shares outstanding (a 1:1 distribution), post-spin Carrier Global Corporation can be fairly valued at $46 per share.

Exhibit 16 Post-Spin Carrier Global Corporation: Valuation Summary
($ in millions, except per share data; shares in millions)

Average EV		**51,713**
Net Debt[1]		11,473
Implied Market Cap		**40,240**
Shares outstanding [2]		867
FVE $/Share	**$**	**46**

[1] balance sheet as of December 31, 2019

[2] represents a 1:1 distribution

Source: Company reports, Bloomberg, and *The Spin-Off Report* estimates.

Valuation: Post-Spin Otis Worldwide Corporation

As a starting point for determining the valuation of post-spin Otis, one can project 2021 EBITDA based on recent financial guidance. Modeling 2% and 3% revenue growth in 2020 and 2021, respectively, Otis Worldwide could reasonably generate 2021 revenue of $13.8 billion (see Exhibit 17). Assuming a 17.9% EBITDA margin on estimated 2021 revenue implies Otis could generate $2.5 billion in 2021E EBITDA. Applying an 11.6x multiple to estimated 2021 EBITDA, approximating the peer average, results in an implied enterprise value of $28.6 billion for Otis Worldwide. Notably, Otis has the highest EBITDA margin of its peer group, at almost 18%; that said, we apply an in-line multiple given a higher debt level and higher tax rate relative to peers. While the company's estimated post-spin net debt of $11.5 billion is not excessive, peers Schindler and KONE have substantially lower or negative net debt. In addition, Otis has a much higher tax rate (33%) versus peers.

Exhibit 17 Post-Spin Otis Worldwide Corporation: Valuation Based on Multiple of 2021E EBITDA
($ in millions, except per share data)

		Otis
2017 Revenue	$	12,341.0
Growth		4.0%
2018 Revenue		12,834.6
Growth		2.2%
2019 Revenue		13,118.0
Growth		2.0%
2020E Revenue		13,380.4
Growth		3.0%
2021E Revenue		13,781.8
EBITDA Margin		17.9%
EBITDA		2,466.9
Multiple		11.6x
Enterprise Value	**$**	**28,616.5**

Source: Company reports, Bloomberg, and *The Spin-Off Report* estimates.

Based on estimated 2021 revenue of $13.8 billion (derived in Exhibit 17 above) and EBITDA margin of 17.9%, post-spin Otis Worldwide could reasonably generate 2021 EBITDA of $2.5 billion (see Exhibit 18). Assuming depreciation and amortization of $180 million and interest expense of $191 million, the company could generate pre-tax income of $2.0 billion, Assuming a 33% tax rate (consistent with 2020 guidance), the company could generate net income of $1.4 billion, or $3.22 in EPS based on an estimated 435 million post-spin shares outstanding (1:2 distribution). Applying a 18x multiple, in line with peers, results in a fair value estimate of $58 per share.

Exhibit 18 Post-Spin Otis Worldwide Corporation: Fair Value Estimate Based on 2021E EPS
($ in millions, except per share data; shares in millions)

2021E Revenue	**$**	**13,781.8**
EBITDA Margin		17.9%
2021E EBITDA		2,466.9
D&A		180.0
EBIT		2,286.9
Interest Expense		191.0
Pre-Tax Income		2,095.9
Tax Expense		691.7
Net Income		1,404.3
Shares Outstanding		436
2021E EPS	**$**	**3.22**
Multiple		*18x*
FVE $/Share	**$**	**58**
Implied Market Capitalization		**25,277**
Implied EV		29,861

Source: Company reports, Bloomberg, and *The Spin-Off Report* estimates.

An analysis of potential dividend yield for Otis Worldwide can also be considered. Based on estimated 2021 net income of $1.5 billion and an estimated dividend payout ratio of 40%, consistent with management guidance, post-spin Otis can reasonably be expected to generate $591 million in cash toward a dividend payment, or $1.36 per share based on an estimated 436 million post-spin shares outstanding (1:2 distribution; see Exhibit 19).

Exhibit 19 Post-Spin Otis Worldwide Corporation: Fair Value Estimate Based on Projected Dividend Yield
($ in millions, except per share data; shares in millions)

2021E Net Income		1,404
Dividend Payout [1]		40%
Cash available for dividend		562
Share Count		436
Dividend		1.29
Yield [2]		2.00%
FVE per share	**$**	**64**
Implied Market Capitalization		**28,086**
Implied EV		32,670

[1] Company guided to 40% of net income
[2] approximates UTX current yield

Source: Company reports, Bloomberg, and *The Spin-Off Report* estimates.

The above exercises generate an average implied enterprise value of $30.3 billion for Otis Worldwide Corporation, or $59 per share based on an estimated 436 million post-spin shares outstanding (1:2 distribution; see Exhibit 20).

Exhibit 20 Post-Spin Otis Worldwide Corporation: Valuation Summary
($ in millions, except per share data; shares in millions)

Post-Spin Otis

Average EV		**30,382**
Net Debt *		4,584.0
Implied Market Cap		**25,798**
Shares outstanding		436
FVE $/Share	**$**	**59**

* balance sheet as of December 31, 2019

Source: Company reports, Bloomberg, and *The Spin-Off Report* estimates

Finally, it is important to consider not only the value of UTX's aerospace and commercial business in the context of the separation but also UTX's value in the context of the pending merger with Raytheon. On a pro forma basis, the combined company can be expected to generate approximately $16 billion in 2021 EBITDA (see Exhibit 21). Applying a blended multiple of 12x to estimated 2021 EBITDA generates an implied enterprise value of $178 billion for the combined company, or a market capitalization of $156 billion based on the company's pro forma balance sheet as of March 31, 2019.

Based on the current number of shares of Raytheon common stock outstanding, UTC expects to issue approximately 648 million shares of UTC common stock to holders of Raytheon common stock in the merger, resulting in approximately 1.5 billion post-merger shares outstanding.

On a pre-merger basis, based on 43% ownership in the combined company, RTN shares can be valued at $241 per share. Post-merger, based on an estimated 1.5 billion shares outstanding, RTX can be fairly valued at $107.

Exhibit 21 Pre-and Post-Merger Raytheon: Preliminary Valuation
($ in millions, except per share data; shares in millions)

2018 Revenues	69,172
Growth	8.0%
2019 Revenues	74,706
Growth	8.0%
2020E Revenues	80,682
Growth	8.0%
2021E Revenues	87,137
EBITDA Margin	17%
2021E EBITDA	14,855
Implied Multiple	*12.0x*
Implied EV	**178,254**
Net Debt [1]	22,463
Implied Market Capitalization	**155,791**

Implied Market Capitalization	Pre-merger	Post-merger
43% interest in post-merger RTN	66,990	155,791
Shares outstanding	278	1,459
FVE $/Share	**$ 241**	**$ 107**

[1] pro forma balance sheet as of March 31, 2019

[2] includes issuance of 648 million shares of UTC and equity awards that vest on merger close; RTN shareholders own 43% of the combined company

Source: Company reports, Bloomberg, and *The Spin-Off Report* estimates.

Based on the above valuation exercises, pre-spin UTX, including the company's 57% ownership interest of RTX, can be valued at $179 per share. With the pre-spin sum-of-the-parts estimate implying over 50% potential upside from UTX's current share price ($115 as of this writing), the transactions appear to unlock considerable upside.

Exhibit 22 United Technologies Corporation: Pre-Spin Sum-of-the-Parts Fair Value Estimate
($ in millions, except per share data; shares in millions)

Carrier	40,240
Otis	25,798
UTX 57% interest in RTX	88,801
Total	**154,840**
Shares outstanding	867
FVE $/Share	$ 179
Current UTX share price (3/9/20)	$ 115.12
Implied Upside	*55%*

Source: Company reports, Bloomberg, and *The Spin-Off Report* estimates.

Exhibit 23 United Technologies Inc.: Comparable Valuations

($ in millions, except per share data; shares in millions)

		Aerospace								Carrier					Otis		
3/6/2020	United Technologies Corp	Honeywell International Inc	Parker-Hannifin Corp	Thales SA	Boeing Co/The	Lockheed Martin Corp	Northrop Grumman Corp	Safran SA	Boeing Co/The	Johnson Controls International plc	Trane Technologies PLC	Emerson Electric Co	Ingersoll Rand Inc	Parker-Hannifin Corp	Dover Corp	Kone Oyj	Mitsubishi Electric Corp
Ticker	UTX	HON	PH	HO.FP	BA	LMT	NOC	SAF FP	BA	JCI	TT	EMR	IR	PH	DOV	KNEBV FH	6503. JP
Price	123.69	161.11	164.73	88.88	256.66	372.39	320.81	115.15	256.66	37.55	108.70	61.55	27.70	164.73	100.24	49.03	1,330.00
Shares Out	864.4	711.1	128.4	#N/A N/A	562.9	280.0	167.8		562.9	764.0	238.3	611.6	205.1	128.4	144.3	517.8	2,145.1
Market Capitalizat	107,030.1	114,807.0	21,145.3	18,959.7	144,538.6	105,058.3	53,784.7	49,196.2	144,538.6	28,686.2	25,914.2	37,658.8	11,511.5	21,145.3	14,467.4	25,956.3	2,855,778.1
Net Debt (Cash)	41,510.0	6,510.0	8,819.5	6,494.8	18,819.0	12,216.3	13,197.4	11,968.1	18,819.0	4,734.0	4,881.0	4,921.0	1,164.0	8,819.5	2,846.2	3,308.0	(2,828,327.7)
EV	148,540.1	121,317.0	29,964.7	25,454.5	163,357.6	117,274.7	66,982.1	61,164.3	163,357.6	33,420.2	30,795.2	42,579.8	12,675.5	29,964.7	17,313.6	29,264.3	27,450.3
Revenue																	
2019	76,805.9	36,812.2	14,320.7	19,868.1	80,238.5	59,182.0	33,976.9	26,536.8	80,238.5	24,109.7	16,608.2	18,441.8	2,445.7	14,320.7	7,160.4	10,920.3	40,357.2
2020E	78,121.3	37,448.8	14,335.9	21,678.6	92,287.5	63,685.3	35,653.8	27,204.9	92,287.5	24,546.1	14,795.7	18,379.5	8,435.9	14,335.9	7,293.9	11,566.7	42,580.7
EBITDA																	
2019	14,156.4	8,867.9	2,606.9	2,833.4	2,779.5	9,465.6	4,744.5	5,142.0	2,779.5	3,268.6	2,624.1	3,896.3	563.8	2,606.9	1,337.9	1,604.7	4,171.7
2020E	14,291.1	9,332.3	2,513.3	3,056.2	7,683.0	9,979.4	5,332.1	5,516.9	7,683.0	3,502.5	2,474.1	3,861.9	1,250.3	2,513.3	1,421.7	1,712.8	4,137.3
2021E	15,625.7	9,872.2	2,822.9	3,302.9	15,542.7	10,676.8	5,840.8	6,168.9	15,542.7	3,692.2	2,670.3	4,140.9	1,375.5	2,822.9	1,487.8	1,848.2	4,510.8
Net Income																	
2019	7,044.8	5,945.5	1,532.5	1,495.3	0.3	6,141.9	3,463.7	2,844.6	0.3	1,700.7	1,564.7	2,249.1	326.8	1,532.5	860.4	1,077.7	2,066.3
2020E	7,080.2	6,332.7	1,384.6	1,670.7	3,267.2	6,826.7	3,893.8	3,130.1	3,267.2	1,925.5	1,491.6	2,232.9	889.8	1,384.6	936.8	1,153.8	1,990.2
	8,089.8	6,727.6	1,514.2	1,789.1	9,660.1	7,447.2	4,328.3	3,567.1	9,660.1	2,088.6	1,627.8	2,407.1	994.1	1,514.2	947.3	1,243.2	2,311.5
EV / Sales																	
2020E	1.9x	3.2x	2.1x	1.2x	1.8x	1.8x	1.9x	2.2x	1.8x	1.4x	2.1x	2.3x	1.5x	2.1x	2.4x	2.5x	0.6x
2021E	1.8x	3.1x	2.0x	1.1x	1.4x	1.7x	1.8x	2.1x	1.4x	1.3x	2.0x	2.2x	1.5x	2.0x	2.3x	2.4x	0.6x
average		*2.0x*								*1.9x*					*1.8x*		
EV / EBITDA																	
2020E	10.4x	13.0x	11.9x	8.3x	21.3x	11.8x	12.6x	11.1x	21.3x	9.5x	12.4x	11.0x	10.1x	11.9x	12.2x	17.1x	6.6x
2021E		12.3x	10.6x	7.7x	10.5x	11.0x	11.5x	9.9x	10.5x	9.1x	11.5x	10.3x	9.2x	10.6x	11.6x	15.8x	6.1x
average		*13.9x*								*11.0x*					*11.2x*		
FCF Yield	6.3%	5.2%	7.0%	6.7%	-3.0%	5.5%	5.6%	4.9%	-3.0%	2.7%	6.3%	6.8%	5.3%	7.0%	5.2%		6.0%
Dividend Yield	2.0%	1.9%	1.7%		2.5%	2.3%	1.5%		2.5%	2.6%	1.6%	2.6%	0.0%	1.7%	1.7%		
		2.1%								1.7%					1.7%		
P/E																	
2020E	15.0x	18.2x	15.5x	12.6x	52.0x	15.4x	13.8x	17.4x	52.0x	14.7x	20.8x	16.8x	10.6x	15.5x	15.8x	24.4x	13.5x
2021E	13.3x	16.9x	14.0x	11.6x	15.7x	14.0x	12.2x	15.5x	15.7x								
average		*24.6x*								*15.7x*					*17.9x*		

Source: Bloomberg.

CONCLUSION

Shares of UTX are fairly valued on a pre-spin basis at $179 per share. On a post-spin basis, Carrier and Otis can be fairly valued at $46 and $59 per share, respectively, based on a 1:1 distribution for CARR and a 1:0.5 distribution for OTIS. With the pre-spin sum-of-the-parts fair value estimate suggesting over 50% upside to UTX's current share price ($115 as of this writing), the transaction appears poised to unlock incremental value, and as such, we recommend pre-spin shares for purchase. Note that the markets have been extremely volatile owing to heightened global COVID-19 (coronavirus) concerns, with the Dow declining 7.8% yesterday, the largest decline since October 2008 (UTX shares declined 9% yesterday). As such, continued market weakness could compress sector valuations, and in turn, our fair value estimates considerably going forward.

On a pre-merger sum-of-the-parts basis, RTN can be fairly valued at $241. Post-merger, based on 1.5 billion shares outstanding, RTN can be fairly valued at $107.

Exhibit 24 Otis Worldwide Corporation: Pro Forma Income Statement for the Year Ended December 31, 2019
($ in millions, except per share data; shares in millions)

	Historical	Pro Forma Adjustments	Pro Forma Year Ended December 31, 2019
Net sales:			
Product sales	$ 5,648	$ —	$ 5,648
Service sales	7,470	—	7,470
	13,118	—	13,118
Costs and expenses:			
Cost of products sold	4,640	—	4,640
Cost of services sold	4,652	—	4,652
Research and development	163	—	163
Selling, general and administrative	1,810	(38)	1,772
	11,265	(38)	11,227
Other (expense) income, net	(39)	31	(8)
Operating profit	1,814	69	1,883
Non-service pension (benefit)	(33)	42	9
Interest (income) expense, net	(14)	205	191
Income from operations before income taxes	1,861	(178)	1,683
Income tax expense	594	(29)	565
Net income	$ 1,267	$ (149)	$ 1,118
Less: Noncontrolling interest in subsidiaries' earnings	151	—	151
Net income (loss) attributable to Otis Worldwide Corporation	$ 1,116	$ (149)	$ 967
Earnings per common share			
Basic			$ 2.24
Diluted			$ 2.22
Weighted-average common shares outstanding			
Basic			432.7
Diluted			436

Source: Company reports.

Exhibit 25 **Otis Worldwide Corporation: Pro Forma Balance Sheet as of December 31, 2019**
($ in millions)

Dollars in millions	Historical	Pro Forma Adjustments	Pro Forma Year Ended December 31, 2019
ASSETS			
Cash and cash equivalents	$ 1,446	$ —	$ 1,446
Accounts receivable, net	2,861	—	2,861
Contract assets, current	529	—	529
Inventories, net	571	—	571
Other assets, current	251	104	355
Total Current Assets	5,658	104	5,762
Future income tax benefits	373	—	373
Fixed assets, net	721	28	749
Operating lease right-of-use assets	535	—	535
Intangible assets, net	490	—	490
Goodwill	1,647	—	1,647
Other assets	263	52	315
Total Assets	$ 9,687	$ 184	$ 9,871
LIABILITIES AND EQUITY (DEFICIT)			
Short-term borrowings	$ 34	$ —	$ 34
Accounts payable	1,331	—	1,331
Accrued liabilities	1,739	190	1,929
Contract liabilities, current	2,270	—	2,270
Total Current Liabilities	5,374	190	5,564
Long-term debt	—	6,025	6,030
		5	
Future pension and postretirement benefit obligations	590	—	590
Operating lease liabilities	386	—	386
Future income tax obligations	695	(380)	315
Other long-term liabilities	316	247	558
		(5)	
Total Liabilities	7,361	6,082	13,443
Commitments and contingent liabilities			
Redeemable noncontrolling interest	95	—	95
Equity (Deficit):			
UTC Net Investment	2,458	(2,458)	—
Accumulated other comprehensive loss	(758)	—	(758)
Common stock, par value $0.01	—	4	4
Accumulated deficit	—	(3,444)	(3,444)
Noncontrolling interest	531	—	531
Total Equity (Deficit)	2,231	(5,898)	(3,667)
Total Liabilities and Equity (Deficit)	$ 9,687	$ 184	$ 9,871

Source: Company reports.

Exhibit 26 Carrier Global Corporation: Pro Forma Income Statement for the Year Ended December 31, 2019
($ in millions, except per share data; shares in millions)

	Historical	Pro Forma Adjustments	Pro Forma Year Ended 31-Dec-19
Net sales:			
Product sales	$ 15,360	$ —	$ 15,360
Service sales	3,248	—	3,248
	18,608	—	18,608
Costs and expenses:			
Cost of products sold	10,890	—	10,890
Cost of services sold	2,299	—	2,299
Research and development	401	—	401
Selling, general and administrative	2,761	(46)	2,715
	16,351	(46)	16,305
Equity method investment net earnings	236	—	236
Other income (expense), net	(2)	5	3
Operating profit	2,491	51	2,542
Non-service pension benefit	(154)	81	(73)
Interest (income) expense, net	(27)	406	379
Income from operations before income taxes	2,672	(436)	2,236
Income tax expense	517	(67)	450
Net income	$ 2,155	$ (369)	$ 1,786
Less: Noncontrolling interest in subsidiaries' earnings	39	—	39
Net income attributable to Carrier Global Corporation	$ 2,116	$ (369)	$ 1,747
Earnings per common share			
Basic			$ 2.02
Diluted			$ 2
Weighted-average common shares outstanding			
Basic			865.3
Diluted			

Source: Company reports.

Exhibit 27 Carrier Global Corporation: Balance Sheet as of December 31, 2019
($ in millions)

	Historical	Pro Forma Adjustments	Pro Forma Year Ended 31-Dec-19
ASSETS			
Cash and cash equivalents	$ 952	$ —	$ 952
Accounts receivable, net	2,726	—	2,726
Contract assets, current	622	—	622
Inventories, net	1,332	—	1,332
Other assets, current	327	—	327
Total Current Assets	5,959	—	5,959
Future income tax benefits	500	—	500
Operating lease right-of-use assets	832	—	832
Fixed assets, net	1,663	58	1,721
Intangible assets, net	1,083	—	1,083
Goodwill	9,884	—	9,884
Pension and postretirement assets	490	—	490
Equity method investments	1,739	—	1,739
Other assets	256	—	256
Total Assets	$ 22,406	$ 58	$ 22,464
LIABILITIES AND EQUITY			
Accounts payable	1,701	—	1,701
Accrued liabilities	2,325	(38)	2,287
Contract liabilities, current	443	—	443
Total Current Liabilities	4,469	(38)	4,431
Long-term debt	—	10,679 89	10,768
Operating lease liabilities	682	—	682
Future pension and postretirement benefit obligations	456	—	456
Future income tax obligations	1,099	(727)	372
Other long-term liabilities	1,265	481 -89	1,657
Total Liabilities	7,971	10,395	18,366
Commitments and contingent liabilities			
Equity:			
UTC Net Investment	15,355	(15,355)	—
Accumulated other comprehensive loss	(1,253)	—	(1,253)
Common stock, par value $0.01	—	9	9
Additional paid-in capital	—	5,009	5,009
Noncontrolling interest	333	—	333
Total Equity	14,435	(10,337)	4,098
Total Liabilities and Equity	$ 22,406	$ 58	$ 22,464

Source: Company reports.

Exhibit 28 Raytheon Inc.: Pro Forma Income Statement for the Three Months Ended March 31, 2019
($ in millions, except per share data; shares in millions)

	Historical United Technologies Corporation	The Separation and the Distributions	Pro Forma United Technologies Corporation Post Separation	Historical Raytheon Company After Reclassifications	Pro Forma Merger Adjustments	Pro Forma Combined Company
Net Sales:						
Product sales	$ 12,875	$ (4,839)	$ 8,036	$ 5,562	$ (48)	$ 13,550
Service sales	5,490	(2,573)	2,917	1,167	(5)	4,079
	18,365	(7,412)	10,953	6,729	(53)	17,629
Costs and Expenses:						
Cost of products sold	10,286	(3,614)	6,672	4,002	8	10,682
Cost of services sold	3,421	(1,665)	1,756	875	2	2,633
Research and development	728	(141)	587	195	1	783
Selling, general, and administrative	1,997	(1,132)	865	534	—	1,399
	16,432	(6,552)	9,880	5,606	11	15,497
Other income (expense), net	112	(40)	72	20	—	92
Operating profit	2,045	(900)	1,145	1,143	(64)	2,224
Non-service pension (benefit) cost	(208)	18	(190)	181	(308)	(317)
Interest expense (income), net	431	(161)	270	31	(13)	288
Income (loss) from operations before income taxes	1,822	(757)	1,065	931	257	2,253
Income tax expense (income)	397	(218)	179	156	59	394
Net income (loss)	1,425	(539)	886	775	198	1,859
Less: Noncontrolling interest in subsidiaries' earnings from operations	79	(29)	50	(6)	—	44
Net income (loss) attributable to UTC common shareowners	$ 1,346	$ (510)	$ 836	$ 781	$ 198	$ 1,815
Pro forma earnings per share of common stock:						
Basic	$ 1.58					$ 1.21
Diluted	$ 1.56					$ 1.2
Pro forma weighted average common shares outstanding						
Basic	853.2					1,501.08
Diluted	860.7					1,508.75

Source: Company reports.

Exhibit 29 Raytheon Inc.: Pro Forma: Balance Sheet as of March 31, 2019
($ in millions)

	Historical United Technologies Corporation	The Separation and the Distributions	Pro Forma United Technologies Corporation Post Separation	Historical Raytheon Company After Reclassifications	Pro Forma Merger Adjustments	Pro Forma Combined Company
Assets:						
Cash and cash equivalents	$ 6,240	$ (2,204)	$ 4,036	$ 2,093	$ —	$ 6,129
Accounts receivable, net	13,574	(5,823)	7,751	1,424	(25)	9,150
Contract assets, current	3,795	(1,160)	2,635	5,875	—	8,510
Inventories and contracts in progress, net	10,474	(2,229)	8,245	882	—	9,127
Other assets, current	1,319	(430)	889	512	(17)	1,384
Total Current Assets	35,402	(11,846)	23,556	10,786	(42)	34,300
Customer financing assets	3,182	(11)	3,171	—	—	3,171
Future income tax benefits	1,703	(520)	1,183	321	(551)	953
Fixed assets, net	12,210	(2,323)	9,887	3,152	1,407	14,446
Operating lease right-of-use assets	2,533	(1,319)	1,214	816	—	2,030
Goodwill	48,392	(11,589)	36,803	14,882	20,516	72,201
Intangible assets, net	26,280	(1,743)	24,537	368	19,543	44,448
Other assets	7,678	(2,729)	4,949	1,251	889	7,089
Total Assets	$ 137,380	$ (32,080)	$ 105,300	$ 31,576	$ 41,762	$ 178,638
Liabilities and Equity:						
Short-term borrowings	$ 1,111	$ (43)	$ 1,068	$ —	$ —	$ 1,068
Accounts payable	10,364	(3,007)	7,357	1,361	(25)	8,693
Accrued liabilities	10,750	(3,482)	7,268	2,474	2,953	12,695
Contract liabilities, current	6,107	(3,113)	2,994	1,404	(49)	4,349
Long-term debt currently due	3,071	—	3,071	800	—	3,871
Total Current Liabilities	31,403	(9,645)	21,758	6,039	2,879	30,676
Long-term debt	41,004	(17,152)	23,852	4,256	484	28,592
Future pension and postretirement benefit obligations	3,846	(960)	2,886	6,398	233	9,517
Operating lease liabilities	2,020	(993)	1,027	652	—	1,679
Other long-term liabilities	17,052	(2,178)	14,874	2,091	4,112	21,077
Total Liabilities	$ 95,325	$ (30,928)	$ 64,397	$ 19,436	$ 7,708	$ 91,541
Commitments and contingent liabilities						
Redeemable noncontrolling interest	$ 109	$ (109)	$ —	$ 432	$ —	$ 432
Shareowners' Equity:						
Common stock	22,564		22,564	3	48,372	70,939
Treasury Stock	(32,511)		(32,511)	—	—	(32,511)
Retained earnings	59,279	(3,319)	55,960	20,104	(22,717)	53,347
Unearned ESOP shares	(75)		(75)	—	—	(75)
Total Accumulated other comprehensive loss	(9,519)	3,175	(6,344)	(8,399)	8,399	(6,344)
Total Shareowner's Equity	39,738	(144)	39,594	11,708	34,054	85,356
Noncontrolling interest	2,208	(899)	1,309	—	—	1,309
Total Equity	$ 41,946	$ (1,043)	$ 40,903	$ 11,708	$ 34,054	$ 86,665
Total Liabilities and Equity	$ 137,380	$ (32,080)	$ 105,300	$ 31,576	$ 41,762	$ 178,638

Source: Company reports.

Disclosures

This report was produced by Institutional Research Group, LLC ("IRG"). The following persons employed by IRG contributed to this report: Michael Wolleben, Director of Research, and Joanna Makris, Research Analyst. IRG is located at 100 Wall Street, 20th Floor, New York, NY 10005. At the time of this report, there are no planned updates to the recommendations. IRG has not provided previous recommendations concerning the same issuer(s) during the preceding 12-month period.

PCS Research Services (PCS), an affiliate of IRG, is the exclusive marketer and distributor of this and other reports produced by IRG. Neither IRG nor PCS is an investment firm or a credit institution. Affiliates of IRG and PCS include investment firms that are SEC-registered investment advisers and FINRA Member broker-dealers (together, "Affiliates"). Some employees of IRG and PCS may be dually employed by an Affiliate. The Affiliates have not performed and do not expect to perform investment banking services for the issuer(s), are not market makers, and are not party to any agreements with the issuer(s). The issuer(s) has not been a client of IRG, PCS, or the Affiliates. IRG, the research analysts, PCS, and the Affiliates have not received any compensation from the issuer(s). IRG analysts' remuneration is determined exclusively by IRG management, and is based on the quality and accuracy of the analysts' research. Investment firm Affiliates do not contribute to appraisals of IRG analysts. Remuneration from IRG to research analysts is not linked to investment firm activities of Affiliates.

Conflicts of interest for employees of IRG, PCS, and Affiliates are managed by a formal code of ethics and information barrier procedures which include, but are not limited to, policies related to restricted lists, personal trading rules, and the prohibition of misuse of material non-public information.

For a list of *The Spin-Off Report* recommendations on issuers that were disseminated during the preceding 12-month period free of charge, please contact PCS Research Services at 212-233-0100 or write to PCS Research Services, 100 Wall Street, 20th Floor, New York, NY 10005.