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# General Electric Company (GE)

Deep Dive Valuation Analysis

**Update Type**

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Given the complexity of its business mix and financial structure, valuing GE is not an easy exercise even under benign economic conditions. The task is made even more difficult when there is considerable uncertainty about prospects for the global economy.

Up until the emergence of the coronavirus, investors and analysts were better able to take the global economic outlook as a constant and consider the changes in GE's operating and financial performance as mostly self-inflicted. After GE disclosed its problems in 2017, valuing GE primarily required assessing how long it would take for the company to get back on track.

Over the past month, however, the near-term outlook for the global economy has worsened considerably. Although much of the uncertainty about GE's efforts to restructure its operations has subsided, the company now faces a global economy that almost certainly will see a sharp drop in activity over the next couple of quarters and possibly beyond. Now, valuing GE requires us to assess its prospects in a far more uncertain global economic environment.

On March 4th, GE held its annual outlook conference call. CEO H. Lawrence Culp said that the company's 2020 priorities include solidifying its financial position, strengthening its businesses and driving long-term profitable growth. The first two priorities are repeated from 2019; the third – driving growth – is new this year. GE still has work to do to improve its financial strength and the operating efficiency of its businesses; but the heavy lifting to achieve these goals is closer to completion. Going forward, the company will maintain its focus on improving efficiency –through the continuous application of "lean" principles, for example – but it is now turning its attention to growing its industrial businesses again.

Management's guidance anticipates adjusted EPS of \$0.50-\$0.60 per share in 2020, down from \$0.65 in 2019. The decline is due to industrial dispositions, primarily the sale of BioPharma (\$0.11), and lower expected earnings at GE Capital (\$0.05-\$0.07), partially offset by improvements in other businesses (\$0.02-\$0.07) and lower interest and tax expense (\$0.01-\$0.04). The guidance incorporates the expected effect of COVID-19 on the company's 20Q1 performance, but not for the balance of the year.

With the sale of BioPharma, the 2020 adjusted EPS guidance range represents a modest downward reset of the company's earnings base. GE is still looking to sell its remaining 36.8% stake in Baker Hughes (BKR), which is now worth \$4.8 billion (at a \$10.96 BKR share price, including a \$706 million promissory note due to GE), down from \$10.4 billion at the beginning of the year (when BKR share price was \$25.62). Other than BKR, GE's disposition program appears to be nearly complete. GE may continue to look for ways to peel off smaller assets or operations from GE Capital, but any major dispositions would be a surprise.

Management's adjusted EPS guidance reflects an accumulation of the outlooks for each of GE's industrial segments and also for GE Capital. These were discussed in some detail on the 2020 Outlook conference call. My summaries and observations on the outlook for each of the segments, except for GE Capital which I will cover in a separate post, are provided below:

**Power.** GE's Power team sees encouraging signs of progress across the business, but it is still too early to declare its multiyear turnaround effort a success. It expects that a stable gas turbine market and recently reclaimed market share will produce low single-digit growth in revenues and modest margin expansion in 2020, driven by improved performance on outages and ongoing cost-out efforts.

The power industry booked orders for 39 gigawatts (GW) of gas turbine capacity in 2019, up from 29 GW in 2018. GE Gas Power's gas turbine orders increased from 8 GW to 13.6 GW, as reported in GE's 10-K, which translates into a market share recovery of 730 basis points to nearly 35%.

Management says that it is underwriting new projects with greater discipline, including fewer turnkey projects (which have suffered cost overruns), improved risk assessment and more built-in cost contingencies. The business has made significant strides in improving quality and on-time delivery.

Gas Power expects to ship 45-50 gas turbines in 2020, up from 38 in 2019. It is also looking to take another 10% out of fixed costs this year. Management believes that the increase in volume, which helps absorb fixed overhead, coupled with the efficiency gains from the application of lean management techniques, will improve Gas Power's competitiveness further in 2020.

The gains in Gas Power in 2019 were partially offset by ongoing challenges in the Power Portfolio (PP) division, which includes GE's steam power, nuclear and power conversion businesses. New construction of coal and nuclear power plants has virtually ceased in the U.S. and coal plant closures have reduced upgrades and maintenance work. This has hurt sales of new steam power units, forcing a downsize of PP's manufacturing footprint, a shift of some of its manufacturing capacity to lower cost regions (e.g. Asia) and an increasing focus on the services business. Likewise, with almost no new construction of nuclear plants, PP has been focusing on services, helping customers improve operating efficiency and lower refueling costs.

In contrast, PP's Power Conversion is a growth business benefiting from the increasing trend toward electrification. It has refocused its sales effort to concentrate on the most profitable opportunities, exiting unprofitable business and targeting growth niches, such as medium-voltage projects in marine, oil & gas and industrial applications. It is applying lean principles to improve cycle times and reduce costs. While the business remains unprofitable, these efforts provide a path to profitability.

On balance, GE's Power business has made significant strides over the past few years; but a sustainable rebound in its revenues and profits still requires further recovery in demand for new turbine units and related services from electric power producers. This, in turn, depends upon continued growth in global electricity usage. Early signs from regions affected by COVID-19 suggest that overall [electricity demand has declined between 5% and 20%](#)<sup>1</sup>, with a sharp drop

in commercial and industrial usage offset partially by increasing residential usage. As long as this contraction is short-lived, the recovery in global power industry demand should continue. For 2020, I project that Power's segment EBITDA will increase 10% (off of a low base) to \$1.4 billion, which is consistent with management's guidance.

**Renewable Energy.** GE is a market leader in onshore wind, hydro and grid solutions: three out of the four businesses that comprise its Renewable Energy (RE) segment. It is also aiming to gain significant share in offshore wind with the introduction of the Haliade-X, a 12-megawatt prototype, which will be the most powerful offshore wind turbine in the world.

As with all of its businesses, GE aims to build, maintain or improve its leadership positions through the application of emerging technologies to its existing products. In wind, it seeks to increase competitive advantage by incorporating technologies that drive down the cost of producing electricity for its customers, who are predominantly utility-scale operators. Grid Solutions, which was transferred from the Power segment in 19Q2, is not a renewable energy business per se; but it stands to gain from the efforts to incorporate decentralized and intermittent renewable energy power sources and battery storage into the power grid. a challenge for many utilities, 90% of which already utilize Grid Solutions' products and services. Similarly, GE is looking to enhance the efficiency of its hydropower technology by incorporating digital solutions. GE's existing hydropower customers represent 25% of global installed capacity.

Onshore wind, RE's largest business, produces two-thirds of its revenue and is profitable. The business is supported by LM Windpower, a leading supplier of blades to the wind power industry, which was acquired in 2017. In the U.S., onshore is benefiting from the positive effects of the Production Tax Credit (PTC) cycle, which will lift U.S. wind turbine sales to a record in 2020 before falling and levelling off in 2021; but the extension of the PTC to 2024 could provide some upside. Outside the U.S., onshore likewise continues to grow rapidly, but industry sales are also expected to fall and level off in 2021 and beyond. RE anticipates stronger onshore sales in 2020 with expanding profit margins.

Offshore wind is a growth opportunity. RE took 5GW of orders in 2019 for the Haliade-X, which offers lower development and operating costs for offshore operators. Besides its 12MW generating capacity, which leapfrogs competitors' 10MW turbines, the Haliade-X has a high capacity factor, giving it the potential to produce more than 60GW hours of electricity annually, enough to power 16,000 European homes. When the initial units are shipped in 2021, RE anticipates \$2 billion of profitable sales.

In contrast, RE's Hydro and Grid Solutions businesses are turnarounds in progress. Management says that the two businesses, which account for a third of segment revenues, have both suffered from poor project execution, subpar quality and poorly underwritten deals before 2016, about \$1.5 billion of which remain in backlog (but down from \$7 billion a few years ago). RE has installed new leadership in each of these businesses and expects them to return to profitability, probably in 2021.

GE's Renewable Energy segment is a leader in what remains a competitive market. While many of the profitability challenges that it faces are internal, the segment's profitability has been subpar for quite some time. RE's profit has declined steadily from \$0.7 billion (on \$14.0 billion of revenues) in 2017 to a loss of \$0.7 billion (on revenues of \$12.3 billion) in 2019. As noted,

much of the segment's woes are attributable to the acquisition of Alstom's Renewables and Grid businesses in 2015. The poor profitability of the acquired Alstom joint ventures was masked to a degree until late in 2018, when GE bought out the noncontrolling interests (who previously were allocated their share of the joint ventures' losses in accordance with contractual terms).

Besides the internal problems and despite rapid growth in industry sales, RE cut prices to match competitors and retain share, which squeezed margins. Importantly, its price index on orders has recovered, due to both market dynamics and improved pricing discipline. If this continues in 2020, as management expects, a significant headwind on margins should begin to subside. Management is laser-focused on improving RE's profitability. Although it expects improvement in 2020, it does not anticipate a return to breakeven profitability until 2021.

**Healthcare.** With the expected March 31 sale of the GE BioPharma business, Healthcare's portfolio will consist of Healthcare Systems (imaging, ultrasound, life care solutions and enterprise software and solutions) and Pharmaceutical Diagnostics. In 2019, these businesses generated an estimated \$16.6 billion of revenues and an estimated \$3.4 billion of EBITDA. (My EBITDA estimate assumes that [BioPharma generated \\$1.2 billion of EBITDA in 2019<sup>2</sup>](#).)

GE estimates that the combined global end markets served by the remaining Healthcare businesses had 2019 sales of \$47 billion, growing at a 3%-4% annual rate. Management anticipates that those businesses will grow their combined 2020 revenues at a similar rate, with the Healthcare Systems businesses gaining share in stable market conditions and Pharmaceutical Diagnostics sustaining its mid-single-digits growth rate. It also expects modest improvement in segment margin, driven by continued productivity gains and cost reductions, partially offset by increased R&D spending.

Healthcare sees new product introductions as essential to winning share in stable markets. At the Radiological Society of North America Conference in December, it showcased 61 new products. Digital analytics and artificial intelligence applications, which are the backbone of the push toward personalized medicine, are key focus areas for its new product efforts.

Healthcare has responded to the challenges posed by COVID-19 first in China and now across the rest of the world, especially in the US. While seeking to protect its workforce, it has been expanding production (and in some cases manufacturing capacity) for products such as CTs, ultrasound devices, mobile X-ray systems, patient monitors and ventilators that are used in the diagnosis and treatment of the disease. Last week, it announced a plan to work with Ford Motor Company to scale up the production of ventilators in the U.S. Revenues generated from this effort will probably not be significant and will not offset the product and service revenues lost from its customers taking steps to cancel elective procedures in order to concentrate on caring for those infected by the virus.

At this time, I project that Healthcare will generate 2020 EBITDA of \$3.7 billion, down 20.5% from \$4.6 billion in 2019. All of the decline is due to the sale of BioPharma. I anticipate that EBITDA on the remaining Healthcare businesses will grow 9% for the year. My projections do not reflect any loss of sales or profits from the impact of COVID-19.

Beyond 2020, management believes that its focus on better commercial execution, cost cuts, productivity improvements and product innovation, as well as modest market growth will allow Healthcare to continue growing revenues, expand margins and increase free cash flow. Its

ongoing expansion in China, where it is adapting its products to local market needs, expanding manufacturing capacity and diversifying its supplier base, is key to achieving these goals.

**Aviation.** As GE's Power and Renewable Energy segments have struggled, its Aviation segment has picked up the slack. In 2019, Aviation accounted for 38% of GE's total industrial segment revenues and 65% of its profit. That's up from 30% of revenues and 47% of profit in 2017. Despite the challenges posed by the grounding of the 737 Max and COVID-19's impact on air travel, management sees strong underlying fundamentals in the business. 2019 segment revenues increased 7.6% to \$32.9 billion. Equipment revenues rose 11.3% to \$12.8 billion, while service revenues rose 5.2% to \$20.1 billion. Commercial engine unit sales were up only slightly, as strong growth in deliveries of the LEAP, which powers Boeing's 737 Max, offset a decline in the legacy CFM product family. Military engine unit sales increased 6.4% to 717 engines, even though Aviation missed its forecast because of supply chain delinquencies. Service revenues rose due to higher prices, higher spare part shipments and higher revenues on long-term maintenance agreements.

Aviation's 2019 segment profit increased 5.5% to \$6.8 billion, slower than the growth in sales. Most of the increase came from services. Equipment profits benefited from the internal sale of LEAP-1b engines to GE Capital Aviation Services (GECAS) in anticipation of the 737 Max's recertification, partially offset by lower margins on LEAP and Passport engine sales, which are still early in their product life cycles, and a bad debt charge.

Aviation has successfully transitioned its three biggest commercial product families – the LEAP, GE9X and GENx – for the future. Having been specified on the Boeing 737 Max (sole source), Airbus A320neo and China's Comac C919, the LEAP is well positioned for future orders. Aviation also has high hopes for the repositioned GE9X, which will power Boeing's 777X in 2021, and the high-thrust GENx, which is the best-selling engine on the 787 Dreamliner. GE's Passport engine powers Bombardier's Global 8000 business jet.

Aviation's installed base now includes nearly 40,000 engines. 63% of the fleet has seen one shop visit or less. The expected growth in the three product families will increase the installed base further over the next few years, raising the growth prospects for services.

In military, Aviation's T901 was named as replacement engine for the Army's Black Hawk and Apache helicopters. This represents a life-of-program opportunity of \$20 billion. Its F404 engine will power the new advanced T-7A red Hawk trainer aircraft, a \$5 billion opportunity.

In its March 3 2020 Outlook Presentation, Aviation forecasted higher segment earnings this year, despite the headwinds of the 737 MAX and COVID-19. From its original production goal of 2,000 units, it has cut LEAP annual production capacity to 1,400 engines, based upon an assumed return of service of mid-year for the MAX. At this level, Aviation believes that it has sufficient capacity to handle the anticipated ramp in MAX production into 2021.

Aviation also expects that, based upon the expected decline in global air traffic caused by COVID-19, shop visits from its installed base of commercial engines will slow this year, which will reduce service revenues. Aviation's March forecast was based mostly upon the 35% decline in air travel experienced in Asia following the response to COVID-19's rise in China. Since

airlines have cut flight schedules worldwide by as much as 50% since then, it may revise its guidance downward on the 20Q2 earnings conference call, now scheduled for April 29.

While Aviation has reduced commercial production capacity, it is ramping up military capacity, to complete deliveries on 2019 orders that experienced supply chain delinquencies. Although military sales of \$4.4 billion fell short of its original plan of \$4.7 billion, Aviation has reaffirmed its 2025 sales target of \$7.5 billion, which equates to annualized growth of about 10%.

On balance, while Aviation has a well-positioned portfolio that should sustain its dominance in the industry, its future performance still very much depends upon the prospects for the global economy and especially in the near-term, the 737 Max recertification. Management's guidance anticipates that revenues will rise at a low single-digit rate in 2020, with flat commercial revenues and a double-digit increase in military revenues. Within commercial, a low single-digit increase in services revenue offsets a double-digit decline in equipment. Segment margins are expected to be about 20%, down slightly from 2019's 20.7%. The combination of the low single-digit gain in revenues and the slight decline in segment margin should result in a small lift to segment profit in 2020. My projections for Aviation, which reflect management's guidance, anticipate that segment EBITDA (i.e. segment profit plus depreciation and amortization) will increase by about 3% to \$8.2 billion from just under \$8.0 billion in 2019.

Based upon General Electric's 2020 Outlook guidance on March 4th, I project 2020 Industrial Leverage EBITDA of \$11.6 billion, up roughly 3% from 2019. Industrial Leverage EBITDA was given in the appendix to the company's 2020 Outlook presentation slides and was meant to be used in the calculation of GE Industrial's ratio of EBITDA-to-net debt. The measure excludes non-operating pension benefit costs, which is the part of total pension costs that cover all items that relate primarily to the funding of GE's pension plans, excluding the service cost.

## General Electric Company

Industrial Adjusted EBITDA and EBITDA by Industrial Segment

Actual 2019 and Projected 2020

(in \$ millions)

	Actual 2019	Projected 2020	Percent Change
<b>Industrial Leverage EBITDA by Segment</b>			
Power	1,266	1,390	10.0%
Renewable Energy	(241)	0	NM
Aviation	7,970	8,200	2.9%
Healthcare	4,598	3,730	-18.9%
Total Industrial segments	13,593	13,320	-2.0%
Corporate items and eliminations	(1,857)	(1,360)	-26.8%
Other items minus disposition-related adjustments	(450)	(350)	-22.2%
<b>Total Industrial Leverage EBITDA</b>	<b>11,286</b>	<b>11,610</b>	<b>2.9%</b>

Source: GE's 2019 10-K and 2020 Outlook Presentation slides

Actual EBITDA by Industrial Segment equals segment profit plus depreciation and amortization. The term "Industrial Leverage EBITDA" is based upon GE's calculation of Industrial Net Debt-to-EBITDA, as given in its 2020 Outlook presentation. Projected 2020 segment EBITDA derived from assumptions given in the Outlook Presentation. (I assume that Healthcare's EBITDA is reduced by \$1.18B from sale of BioPharma and its reset EBITDA base grows 9%.)

My projections assume a 10% improvement in Power's EBITDA, reflecting low single-digit growth in revenues combined with modest expansion in its profit margin. Renewable Energy's

EBITDA improves to breakeven. Aviation's EBITDA rises up modestly, which reflects GE's expectations that segment profit will be up. Healthcare's EBITDA declines nearly 19% primarily because of the sale of BioPharma, offset partially by 9% EBITDA growth in the remaining business. I assume that corporate items and eliminations, which exclude goodwill impairment charges and gains (losses) on disposals, should decline by roughly \$500 million, based upon management's specific guidance for adjusted corporate operating costs and its claim that restructuring costs will be lower. I am also guessing that other items minus dispositions, which are defined as part of Industrial Leverage EBITDA, will decline by a net \$100 million in 2020.

My projections reflect GE's 2020 adjusted EPS guidance of \$0.50-\$0.60, as shown below:

### General Electric Company

#### Reconciliation of Projected 2020 Industrial Leverage EBITDA to Adjusted EPS Guidance

(Figures in \$ millions, unless otherwise specified)

Total Projected 2020 GE Industrial leverage EBITDA	\$ 11,610
GE Capital loss from continuing operations (pre-tax)	(570)
Depreciation and amortization	(3,300)
Interest and other financial charges	(1,730)
GE earnings from continuing operations before tax	\$ 6,010
Provision for income tax (@20%)	(1,200)
Preferred dividends	(460)
Projected 2020 adjusted net income (Non-GAAP)	\$ 4,350
Weighted average common shares outstanding (mils.)	8,760
Adjusted EPS (Non-GAAP)	\$ 0.50

Source GE 2020 Outlook Presentation Slides and Lark Research estimates.

Projected 2020 Industrial EBITDA carried over from the previous slide. GE Capital's net loss is projected to increase by \$500M in 2020. Depreciation and amortization decreases by \$200M due to sale of BioPharma. Interest and other financial charges decreases \$528M annually for nine months of 2020 (total \$396M) due to application of \$13.2B of proceeds from BioPharma to reduce debt (\$12.2B intercompany and \$1.0B of other GE debt) with average cost of 4%. At March 3, 2020, GE management anticipated 2020 adjusted EPS of \$0.50-\$0.60.

To get to GE earnings from continuing operations before tax of \$6.0 billion, I deduct from projected 2020 GE Industrial leverage EBITDA, a \$570 million net loss for GE Capital, which is consistent with management's guidance, \$3.3 billion in depreciation and amortization (which is lower by an estimated \$200 million vs. 2019 because of the sale of BioPharma) and \$1.7 billion of interest and other financial charges (which should be down by about \$400 million due to the application of most of the BioPharma sale proceeds to reduce debt). After income taxes and preferred dividends, my projected 2020 adjusted net income is \$4.4 billion which works out roughly to \$0.50 per share.

My analysis, even before the onslaught of COVID-19, suggests that it would be tough for GE to deliver adjusted EPS at the high end of its guidance range. In order to get to \$0.60 per share, GE would have to deliver \$900 million more in adjusted net income, which would require about \$1.125 billion more in earnings from continuing operations before tax. GE could conceivably pick up \$100 million or more from a lower tax rate (in the high teens, which would be within its guidance range). The rest would have to come either from segment EBITDA that is better than what I have projected here or lower costs below the Industrial EBITDA line (e.g. corporate, interest, depreciation and amortization, etc.). Since GE's guidance reflects only the 20Q1 impact of COVID-19, it seems unlikely that segment EBITDA will be significantly better than what I have projected here and more likely that it will be worse.

## General Electric Company

Projected 2020 GAAP Earnings Per Share

<u>Other items</u>		<u>Calculation of BioPharma Pre-tax Gain on Sale</u>	
Non-operating benefit costs <sup>(a)</sup>	(2,262)	Sales price (\$mil.)	21,400
Gain on sale of BioPharma	14,030	Less: net book value <sup>(c)</sup>	(7,370)
Unrealized loss on Baker Hughes	(5,536)	Pre-tax Gain on Sale of BioPharma	14,030
Total other items	6,231	<u>Calculation of Unrealized Loss on BKR Shares <sup>(d)</sup></u>	
Estimated tax impact @20%	(1,246)	BKR share price at 3/30/20	\$ 10.96
Total impact of other items, net of tax	4,85	BKR share price at 12/31/19	25.63
EPS impact of other items	\$ 0.57	Unrealized loss per BKR share	\$ (14.67)
Plus Adjusted EPS (from previous slide)	0.50	BKR shares owned by GE (mil.)	377.4
Projected 2020 EPS (GAAP) <sup>(b)</sup>	\$ 1.07	Unrealized loss (\$mil.)	\$ (5,536)

Source: GE's 2019 10-K, its 2020 Outlook presentation slides and Lark Research estimates.

(a) Non-operating benefit costs were \$2,828 in 2019. Outlook guidance says these costs will be down double-digits in 2020. I assume they will be down 20%.

(b) Projected 2020 EPS (GAAP) as presented here does not include all items that will determine GE's GAAP results for 2020. In its 2020 Outlook slide presentation, GE says that it cannot reconcile its (Non-GAAP) adjusted EPS guidance with expected GAAP results because of the uncertainty of timing of the BioPharma sale, the sale of its remaining interest in BKR and restructuring costs. I provide an estimate here primarily to highlight the expected impact of two significant items: the gain on sale of BioPharma and the current unrealized loss on GE's remaining investment in BKR.

(c) BioPharma's carrying value (i.e. assets and liabilities), classified as "held-for-sale", is given in the 2019 10-K.

(d) Details on GE's remaining investment in BKR are given in the 2019 10-K.

The table above provides a rough estimate of GE's projected GAAP earnings for 2020. I have furnished it to show a couple of line items that will have a big impact on GE's GAAP earnings this year: the gain on the sale of BioPharma and the unrealized loss on GE's remaining 36.8% equity stake in Baker Hughes (BKR). According to GE's 10-K disclosures of the carrying values of BioPharma's assets and liabilities, I estimate that the pre-tax gain on sale will be \$14 billion. Partially offsetting this gain will be an unrealized loss on its remaining interest in BKR, which is accounted for at fair value. I estimate this pre-tax loss at \$5.5 billion.

Besides these two items, I also pick up in this calculation those non-operating benefit costs, which are excluded from the calculation of (Non-GAAP adjusted EPS). My 2020 estimate for these costs is down 20% from 2019, which is consistent with management's expectations of a double-digit decline.

To these three items, I apply a tax rate of 20%, which is equivalent to the rate that I apply to GE's adjusted pre-tax earnings from continuing operations. That assumption will almost certainly be wrong. Tax rates on asset sales are based upon their book value for tax purposes, which quite often differs from the statutory tax rate. For example, GE's tax rate on the loss that it recognized from deconsolidating Baker Hughes in 2019, which included the previous BKR common stock offering, was about 5.5%. I use the standard tax rate here because I have no basis for assuming a different rate.

**Assessing the Impact of COVID-19.** As noted, GE's guidance was given in early March, before the potential consequences of COVID-19 became apparent to most people (including me), and especially to the financial markets. In response to the realization that it would take a big chunk out of economic activity, the S&P 500 has fallen 16.1% since then, after bouncing off the lows when it was down 21.8%.



Industries affected directly by the fear of contagion include all travel-related sectors, especially the airlines. Over the past 30 days (to March 27), the Dow Jones travel-related sector indices have fallen 26.0%-46.5%. Airline stocks have lost 36.1% of their value. Boeing's stock has plunged 47%, (after being down nearly 70%).

Since GE derives 70% of its segment earnings from Aviation, its stock has mirrored the performance of the airlines and Boeing, falling sharply during most of the month, but then bouncing back recently as the Federal government's \$2 trillion rescue package has taken shape. Still, over the past 30 days (to March 27), GE's stock is down 30.4%.

The plunge in GE and these other stocks echoes the steep decline in air travel that has occurred in the U.S. and around the globe. Airlines will cut scheduled flights in April by as much as 60% and maybe more in the months ahead. Plummeting air travel can hurt GE Aviation in two ways: by reducing the demand for new aircraft and by lowering maintenance shop visits on aircraft engines. If it infects a sufficient number of workers, COVID-19 could also disrupt the supply chains and manufacturing schedules for GE, its joint venture partner, CFM International, and the aircraft makers.

Obviously, these potential risks will become more consequential the longer COVID-19 interrupts daily life. If the airlines become squeezed financially, they will seek to push back or even cancel aircraft orders. For now, GE is most focused on the Boeing 737 Max's long anticipated return to service by mid-year. GE management is highly confident that this will occur. If it does, Boeing will be able to release its inventoried MAXs and restart its production lines.

If the negative impact of COVID-19 stretches beyond the summer, the cumulative effect of the slowdown in air travel will begin to weigh more heavily on Aviation's equipment and service revenues. The 35% decline in air travel in Asia through the end of the first quarter has been incorporated into GE's 2020 full year guidance; but management has not incorporated any effects beyond the first quarter because the wide range of potential outcomes.

Besides Aviation, GE's other businesses will feel the effects of COVID-19. [The Europeans have seen 5%-15% declines in electric power usage](#)<sup>3</sup> since the onset of the crisis. The decline is being driven by a drop in commercial and industrial demand, partially offset by increasing residential usage. Assuming that similar percentages hold in the U.S., GE's merchant power and utility customers could be challenged both by a decline in wholesale power prices, since most U.S. markets are already well supplied, and also by the overall reduction in retail electricity volume. For GE Power, deteriorating market fundamentals could prompt gas turbine buyers to seek to stretch out deliveries, slow new orders and scale back maintenance services.

GE Renewable Energy may also be hurt by COVID-19, but probably less so than Power, because wind farm operators typically take a long-term view on decisions to add capacity. Nevertheless, the decline in electricity demand and wholesale power prices could cause operators to delay new projects. 2020 demand should not be affected because project sponsors are racing to beat the PTC deadline, but there may be delays in completing projects, due to supply chain disruptions and labor shortages. [The American Wind Energy Association failed to get Congress to include an extension of the PTC in the recently passed \\$2 trillion bailout legislation, but it will keep trying](#)<sup>4</sup>.

As noted, GE Healthcare will derive some benefit from COVID-19 through increased demand and utilization of certain products, such as CTs, ultrasound devices, mobile X-ray systems, patient monitors and ventilators. It has formed a [partnership with Ford Motor Company](#)<sup>5</sup> to manufacture ventilators, but it is unclear just how many ventilators will be produced under this arrangement and whether GE Healthcare will derive any financial benefit from it. (On March 27, [President Trump ordered General Motors to make ventilators](#)<sup>6</sup> under the Defense Production Act.) Other Healthcare products, however, may see lower sales and utilization temporarily, as healthcare providers focus their resources on healing infected patients.

At this time, the consensus economic view (with which I agree) anticipates that COVID-19 will cause a contraction in economic activity in the second and third quarters; but the economy should begin to rebound by the end of summer and extend its gains in the fourth quarter and beyond. Although the long-term impact of the [\\$2 trillion rescue package](#)<sup>7</sup> is unclear, it almost certainly will limit the downside in economic activity in 2020 and probably lift the economy well into 2021.

The bailout bill includes \$25 billion in grants and \$25 billion in loans to the passenger airline industry. It allows (but does not require) the Federal government to take [equity stakes in airlines in exchange for cash grants](#)<sup>8</sup>. It also includes [\\$17 billion for aid to industries that are critical for maintaining national security](#)<sup>9</sup>, which could include Boeing.

Despite the general expectations among economists of a two-quarter slide in economic activity, there is considerable uncertainty about the earnings outlook for most companies, including GE. The consensus of sell-side analysts, according to S&P Global Market Intelligence ("SPGMI") anticipates 2020 adjusted EPS right around \$0.50, which is right at the low end of management's March 4<sup>th</sup> guidance. The 2020 first quarter consensus of \$0.10, which reflects some of the impact from COVID-19, is also consistent with management's guidance.

Based upon recent developments, GE's first quarter earnings could come in below the \$0.10 first quarter consensus. Unless there is clear evidence that COVID-19 has been contained and economic activity is beginning (or will soon begin) to return to normal, GE, like other companies, may withdraw its 2020 guidance.

Under the circumstances, it is likely that GE's 2020 adjusted EPS will come in below its most recent guidance of \$0.50 and possibly a lot lower. It would not be surprising to see actual adjusted EPS come in \$0.10-\$0.20 lower.

Even so, as long as clear signs of a return to economic normalcy begin to surface sometime during the summer, I believe that the financial markets will begin to look through these lower earnings and anticipate improved performance later in the 2020 fourth quarter and in 2021. In that case, I would expect GE's stock to begin to move back toward its pre-COVID-19 level, perhaps before management confirms or reinstates its 2020 earnings guidance.

In my view, the most appropriate way to look at GE's stock valuation is to consider the company as a single enterprise. In this analysis, I compare its current valuation to peers. My calculations for GE's enterprise value-to-EBITDA multiple at 31-Dec-19 and 30-Mar-20 are given in the table below:

## General Electric Company

Valuation of General Electric Company, excluding GE Capital  
at Dec. 31, 2019 and Pro Forma Mar. 30, 2020  
(in \$ millions, unless otherwise indicated)

	Actual 31-Dec-19	Pro Forma 30-Mar-20
GE share price (\$)	\$ 11.16	\$ 7.89
Shares outstanding (mils.)	8,740	8,740
Equity market capitalization (\$ mils.)	\$ 97,541	\$ 68,960
Industrial debt	32,917	19,691
GE operating lease liabilities	3,369	3,369
PV of GE pension deficit (after-tax)	21,941	17,441
GE Industrial noncontrolling interests	1,406	1,406
Preferred stock	5,940	5,940
GE Industrial Enterprise Value	\$ 163,114	\$ 116,807
75% of GE cash and equivalents	(13,210)	(15,510)
Pro Forma Enterprise Value	\$ 149,904	\$ 101,297
Industrial Leverage EBITDA - actual 2019, projected 2020	\$ 11,286	\$ 11,610
EV-to-EBITDA multiple	13.3	8.7

Sources: GE's 2019 10-K, 2020 Outlook Presentation slides and Lark Research estimates

Here, I value GE Industrial as a proxy for the entire company. My analysis assumes that GE Capital has no impact on the valuation, neither adding to or detracting from GE's value. I cover GE Capital in greater detail in a separate post.

The table above assesses GE Industrial's valuation at two separate times: The left-hand column shows its valuation at the end of 2019. The right-hand column at March 30, 2020. The 2019 valuation includes actual results. The 2020 valuation uses my projections for GE Industrial's 2020 EBITDA and also adjusts debt for the application of the anticipated proceeds from the sale of BioPharma.

The components of GE's debt in the table above are, with one exception, those provided by management in its calculation of the Industrial leverage net debt-to-EBITDA ratio, as given in the appendix to the 2020 Outlook slide presentation. "Industrial leverage" is an unusual term. According to GE's definition, it includes the estimated present value of GE's pension deficit. It also includes GE's operating lease liabilities and 50% of the liquidation value of its preferred stock. (In the table above, I use the full liquidation value of the preferred.) GE's total debt is then partially offset by excess cash, defined as 75% of GE Industrial's cash and cash equivalents.

The inclusion of the present value of the pension deficit is required because GE excludes from its calculation of EBITDA non-operating benefit costs (which primarily represent the interest cost and amortization of the net actuarial loss of the pension plans, partially offset by the expected return on plan assets). By using Industrial leverage net debt, GE is providing a more comprehensive look at its fixed obligations that presumably addresses the concerns expressed by some investors that its large pension deficit represents debt.

Another important choice that GE made in its net debt calculation was the exclusion of assumed debt from GE Capital. Besides its external debt, which totaled \$20.7 billion at the end of 2019,

GE Industrial has \$31.4 billion of debt on its balance sheet that it has assumed from GE Capital. Partially offsetting this assumed debt is \$12.2 billion that it borrowed intercompany from GE Capital.

In its financial statements, GE states clearly that the assumed debt should be considered an obligation of GE Capital and that the intercompany debt is an obligation of GE. Consequently, the total \$32.9 billion of debt outstanding at December 31, 2019, as shown in the table above, equals the \$20.7 billion of external debt plus the \$12.2 billion of intercompany loans).

Many investors would disagree with this exclusion and rightly so. (I discuss this issue in greater detail in the post on GE Capital.) However, the \$31.4 billion of assumed debt will probably be reduced by \$12.2 billion or more with the proceeds from the sale of BioPharma, after GE repays its intercompany loans from GE Capital. That would leave \$19.2 billion or less of assumed GE Capital debt outstanding.

Over time, GE has reduced this assumed debt from \$87.7 billion in 2015 to \$46.7 billion in 2017 to \$31.4 billion in 2019. It will probably pay it off completely within the next few years. Nevertheless, in the above analysis, if you include the additional \$19.2 billion of assumed GE Capital debt, net of the \$12.2 billion repayment, GE's TEV/EBITDA ratios would rise to 15.0 (from 13.3) at 31-Dec-19 and to 10.4 (from 8.5) at 30-Mar-20.)

My pro forma debt figures at March 30, 2020 reflect the application of the estimated \$20 billion of proceeds from the sale of BioPharma to reduce to zero the \$12.2 billion of intercompany debt, reduce GE Industrial's external debt by \$1 billion, reduce the present value of the pension deficit by \$4.5 billion ( the midpoint of the \$4-\$5 billion range given in management's guidance) and increase excess cash by the remaining \$2.3 billion.

This stand-alone valuation shows that GE was valued at 13.3 times EBITDA at the end of 2019. By comparison, S&P Global Market Intelligence (SPGMI) calculates that the S&P 500 Industrial sector (SPI) was valued at 13.7 times EBITDA at year-end 2019. Taken at face value, the market was valuing GE at a level pretty close to its peer group, even though GE remains a turnaround in progress (which should give it greater upside earnings potential than the average company in the S&P 500 Industrial sector over the next few years). This valuation may reflect investors taking a "show me" posture in their assessment of GE's value.

There are differences between my calculations of GE's EBITDA and its trailing 12-month net enterprise value-to-EBITDA ratio (TEV/EBITDA) and SPGMI's. These differences also apply to SPGMI's calculations for the S&P 500 Industrial sector. For example, SPGMI bases its calculations on GE's consolidated figures, whereas I focus here on GE Industrial. Also, SPGMI's TEV/EBITDA calculation for 2019 uses third quarter debt levels and trailing 12-month EBITDA and the 31-Dec-19 stock price. (This presents a problem for comparing my 31-Dec-19 TEV/EBITDA calculation with SPGMI's, but not for the 30-Mar-20 TEV/EBITDA calculation, because both are based upon GE's 2019 full year financial statements.)

Given those differences (and others), SPGMI says that GE's TEV/EBITDA ratio at December 31, 2019 was 12.07, compared with my estimate of 13.3. By shifting the basis of comparison to be consistent with mine (i.e. using full year 2019 financial figures and GE's 2019 year-end stock

price), I calculate GE's TEV/EBITDA ratio at 13.4 using SPGMI's methodology, which is surprisingly close to my estimate of 13.3.

As of the close of trading on March 30, GE's stock has fallen 29.3% year-to-date, a steeper drop than the S&P 500 Industrial sectors 26.5% decline. With the drop in the stock, I calculate that its TEV/EBITDA ratio, excluding the pro forma adjustments, has fallen to 10.7 times. SPGMI calculates that the S&P 500 Industrial sector's EV/EBITDA ratio has fallen to 11.2 times. (The basis of the calculation using the March 30 multiple for SPI is the same: both ratios use 2019 full year figures.) The discount between GE and its peer group appears to have widened slightly.

The comparison does not consider the impact of the sale of BioPharma on GE's financial position. On March 19, GE and Danaher reported that the sale of BioPharma had received all regulatory clearances and is expected to close today, March 31.

On a pro forma basis, incorporating the anticipated debt reduction of \$13.2 billion (including the \$12.2 billion of intercompany debt and roughly \$1.0 billion of GE Industrial debt scheduled to mature), reducing the present value of GE's pension deficit by \$4.5 billion and adding the remaining \$2.3 billion of proceeds to excess cash, GE's enterprise value was \$101.3 billion at 30-Mar-19. Against my 2020 projected EBITDA of \$11.6 billion, its TEV/EBITDA ratio is 8.7, which is an even wider discount from the S&P 500 Industrial sector's 11.2 TEV/EBITDA multiple.

The wide valuation gap suggests that the market is not considering the positive impact of the application of the BioPharma sale proceeds to reduce GE's debt. I believe that the discount represents a significant opportunity, but it may also reflect other concerns, including the risk that GE's 2020 EBITDA will be lower than indicated in management's guidance due to the impact of COVID-19 and perhaps the risk that GE Capital might be an ongoing drag on GE's earnings.

As noted above, the consensus view anticipates that COVID-19 will have a significant negative impact on the global economy in the second and third quarters, but assuming that the virus is contained, the economy should begin to rebound sometime in the third quarter and its recovery should gather momentum from the fourth quarter and into 2021. If this happens, the financial markets should begin to look past the negative two-quarter impact of the virus before the economic recovery takes hold. Given the passage of the \$2.2 trillion stimulus package, which includes support for both the airline industry and Boeing should they need it, I believe that the economic effects of COVID-19 should be contained.

From a valuation perspective, if investors regain confidence in GE's turnaround, the current valuation gap between its stock and its peer group should narrow. In the above analysis, if GE's pro forma 2020 TEV/EBITDA ratio rises from 8.7 to the peer group average of 11.1, its stock price would increase to about \$11.16 from its March 30 price of \$7.89. If the market recovers and GE's valuation returns to its year-end 2019 level (i.e. a TEV/EBITDA ratio of 13.3), its stock price would rise further to about \$14.00. Presumably, if the company continues to demonstrate progress in its turnaround in 2021 and beyond, its stock will have additional upside.

As noted above, I believe that it is most appropriate to value GE as a single, stand-alone enterprise. Several unifying investment themes support this view:

1. *Turbines.* GE is a world leader in turbine technology. Its Power business is a global leader in natural gas-fired and steam turbines. Aviation is a leader in jet fuel-fired turbines. Over the years, advances in gas turbine manufacturing and technology from GE's Global Research Center have supported and sustained the competitive advantages of both businesses. In recent years, GE has also become a leader in the application of 3-D printing technology which has reduced the manufacturing cost and enhanced turbine performance.
2. *The Global Leader in Electricity.* Since its founding, GE has been the leading supplier of products and services to electric utilities. Its reach extends globally to at least 90% of the world's utilities. GE is a leading producer of all types of electric power generators, including gas turbines, coal-fired boilers, nuclear reactors, hydro-electric generators and wind turbines. It is also a world leader in electric grid systems. Its strong market position and large customer base support the efforts of its Gas Power and Renewable Energy businesses.
3. *GE Global Research Center.* Over many years, through the application of technologies developed at the [GE Global Research Center](#)<sup>10</sup>, GE has been able to innovate at scale (e.g. the H Class gas turbine), reduce product costs and reap additional value from its installed base (through upgrades and other services). It is a leader in material science, combustion technology, compression technology, sensors, nanotechnology, and miniaturization, among others. More recently, GE has used analytics to improve the productivity of machines in its installed base and inform its R&D efforts. Its expertise has long been applied across all of GE's businesses to initiate and support new product introductions.
4. *Digital Technology.* GE was an early proponent of the industrial internet and the internet of things. Although it scaled up its digital organization quickly seeking competitive advantage, it was forced to scale back as GE has slimmed down its operations, especially in shared functions like corporate and research. Today, the organization targets more immediate digital application opportunities: those that can deliver a quick ROI to GE and its customers. Despite the retrenchment, Digital remains a leader in the space and should derive more benefits from the initiative over time, as GE and its customers discover better ways to apply and utilize digital technologies to industrial machinery and integrated systems.
5. *Management Excellence.* Although its star may seem to have been tarnished over the past few years, GE still embodies America's managerial elite.

While these themes support the case for keeping GE's Power, Renewable Energy and Aviation businesses together under a single corporate umbrella, Healthcare does not seem to be as obvious a fit. It has a distinctly different customer base and utilizes a separate set of technologies. Over the years, it has introduced the world to x-rays, computed tomography (CT) scanners and hand-held ultrasound scanners. It remains a leader in the application of new technology to medical devices and equipment and more recently in the development of digital solutions for health care operators. While different from the rest of GE, its unique product base supports and broadens the capabilities of the Global Research Center and GE Digital.

While GE is best viewed as a single business enterprise, a sum-of-the-parts valuation will inform the analysis of its share price. [My analysis of GE's value as a single enterprise](#)<sup>11</sup> concluded that GE's stock would be worth \$11.16, if its valuation matched the average of S&P 500 Industrial constituents and \$14.00, if its valuation also returned to the year-end 2019 level. My sum-of-the-parts valuation suggests that GE's stock is worth between \$12.00 and \$17.49, based mostly upon current and year-end 2019 peer group valuations.

Conglomerates have historically traded at a discount to the sum of the values of each of their businesses. In my view, the higher sum-of-the-parts valuation supports the view that GE's stock should be valued at a premium to its Industrial peer group average.

## General Electric Company

Sum of the Parts Valuation (Part 1)

(in \$ millions, except valuation multiples)

	Proj. 2020 EBITDA	Valuation Multiple	Estimated Value
<b>GE Industrial segments</b>			
Power	1,390	12.0-15.0	16,680 - 20,850
Renewable Energy	0	NA	9,240 - 12,600
Aviation	8,200	12.0-16.0	98,400 - 131,200
Healthcare	3,730	14.0-16.0	52,220 - 59,680
Industrial segments	13,320	13.3-16.8	176,540 - 224,330
Corporate, other items and eliminations	(1,710)	13.3-16.8	(22,670) - (28,790)
Industrial segments & corporate	11,610	13.3-16.8	153,870 - 195,540
Investment in Baker Hughes (BKR)			4,670
Excess GE Industrial cash (75% of total)			15,510
Total Industrial, BKR and cash less Industrial debt, n/c int. and pref. stock			174,050 - 215,720 (47,850)
Total GE Industrial equity			126,200 - 167,870

Source: GE's 2019 10-K, 2020 Outlook Presentation, S&P Global Market Intelligence and Lark Research estimates

The table above values each of GE's business segments based upon my projections for 2020 EBITDA for each of GE's segments at a range of valuation multiples. The valuation multiples mostly reflect the differences in valuations from the beginning of the year to today. For the three segments whose estimated values are based on their EBITDA multiples, I have used comparable company, sector and market multiples obtained from the platform of S&P Global Market Intelligence (SPGMI) to inform and support my analysis.

The lower multiples that have accompanied the recent sharp drop in stock prices reflect concerns that forward earnings (and EBITDA) will have to be cut across most sectors. My EBITDA projections, which are consistent with management latest 2020 earnings guidance, are unchanged. Based upon recent events, GE's 2020 second quarter earnings will probably fall short of estimates implied by guidance. Given the uncertainty about the impact of COVID-19, GE may withdraw its full year guidance until there is more clarity in the outlook. It might then choose perhaps to provide only one quarter's forward guidance.

**Power.** GE Power remains a turnaround in progress. The recovery in its Gas Power division is well on its way, but improvement in its Power Portfolio division is still in its early stages. Although segment EBITDA more than doubled in 2019, it has further recovery potential.

Power produced more than \$5 billion of EBITDA annually from 2014 to 2016 when the market was absorbing more than 50GW of new gas-fired capacity annually. Over the past couple of years, it has downsized its capacity in anticipation of a 30GW market. Thus, its maximum potential EBITDA under favorable market conditions may be \$2-\$3 billion annually, as a guess. Even so, because of its recovery potential, Power has greater earnings growth possibilities today from its current earnings base than many industrial businesses.

Power's major competitors include Siemens and Hitachi, industrial conglomerates with broad business portfolios, making them unsuitable comps. Broader market measures, like the S&P 500 and the S&P 500 Industrial sector are both currently valued at about 11.2 times forward EBITDA, according to SPGMI, down from an estimated 13.8 times at year-end 2019.

With the greater earnings rebound potential of Power, I use an EBITDA valuation range of 12-15 times which, based upon my 2020 projected EBITDA of \$1.4 billion, produces a value estimate of between \$16.7 billion and \$20.9 billion.

**Renewable Energy.** GE's Renewable Energy segment posted negative EBITDA of \$241 million in 2019 and I project that its EBITDA will improve only to breakeven in 2020. Vestas (CPSE:VWS) is the global leader in wind turbines and related services, its only business, so it looks like a reasonable comp. Analysts project that Vestas will grow its revenues and earnings per share by 16% in 2020. Without the benefit of positive EBITDA, I believe that valuing Renewable Energy as a multiple of revenues is an acceptable alternative. On its projected 2020 revenues, Vestas currently has total enterprise value-to-revenues multiple of 0.92 times. Using a valuation range of 0.55-0.75 times and projected revenues of \$16.8 billion for Renewable Energy, I estimate that its enterprise value is \$9.2 billion on the low end and \$12.6 billion on the high end.

**Aviation.** Much of the decline in GE's stock can be traced to concerns about GE Aviation, which provided 65% of GE Industrial's pre-tax earnings in 2019. If the steep drop in air travel extends beyond mid-summer, airlines will delay more deliveries of new aircraft, which would lead to further cuts in engine production. With their planes flying less, they would also stretch out engine maintenance.

GE Aviation, through its CFM International joint venture, has already scaled back production of the Leap, due to the grounding of Boeing's 737 Max. Although it delivered 1,568 Leap engines in 2019, it has cut Leap production capacity to 1,400 engines from its original plan of 2,000. The sharp COVID-related drop in air travel could cause production to fall further.

On April 2, GE furloughed half of its Aviation manufacturing staff for one-month, after previously announcing a 10% cut in the workforce. [CEO Larry Culp described this as a defense move that would allow the company to play offense later on](#)<sup>12</sup>. Under the circumstances, Aviation will probably not be able to meet its earnings guidance for the 2020 second quarter and for the full year. Still, if COVID-19 releases its grip within the next few months and air travel begins to recover, the financial markets will begin to look through this earnings shortfall. As expectations of a return of economic activity to pre-COVID 19 levels set in, the outlook for GE Aviation should brighten.



There is upside to Aviation's earnings in 2021, if Max sales push back to earlier targets. A return to the originally planned 2,000 engine production capacity could bring in an additional \$2.4 billion of revenues and perhaps \$700 million or more in profit, according to my rough estimates. In addition, Aviation is rolling out the GE9X engine in 2021 and it expects double-digit growth in its military engine business.

GE Aviation's competitors include Pratt & Whitney, a subsidiary of Raytheon Technologies (NYSE:RTX) and Rolls Royce (LSE:RR), which is also diversified. Rolls Royce is a tough comp because it posted 2019 EBITDA that was barely above breakeven, so its trailing valuation multiples is meaningless. Its forward EBITDA multiple of only 3.8 times reflects uncertainty about its ability to achieve improved performance.

Safran LTD (ENXTPA:SAF), the French aerospace and defense company, is GE Aviation's partner in the CFM International joint venture (which assembles the LEAP and CFM56 jet engines), making it an obvious choice for a comparable valuation, even though it operates in some different businesses. Its stock has suffered a significant setback in 2020, falling 43% from the beginning of the year to March 31 and nearly 40% from its late January 2020 peak, an all-time high. (The stock has also fallen nearly 23% since March 31.)

Since the beginning of the year, forward earnings estimates for Safran have declined 31.7% from \$7.66 (€7.10) per share to \$5.23 (€4.75), currently. Undoubtedly, much of the decline is due to concerns about the impact of COVID-19 on the global aviation industry.

By my rough calculations, the forward EPS decline translates into a forward EBITDA decline of 23.5%. Combined with the drop in the share price, Safran's estimated 2020 forward TEV/EBITDA multiple has fallen from 12.4 times at the beginning of 2020 and 13.5 times at the stock's peak to 9.9 times at the end of March.

I also compare GE Aviation to several large, primarily U.S.-based aerospace and defense companies who are among the largest cap constituents in SPGMI's global Aerospace and Defense industry group, including Lockheed Martin (NYSE:LMT), Boeing (BA), Northrop Grumman (NOC), Airbus (ENXTPA:AIR), L3Harris Technologies (LHX) and General Dynamics (GD). Using SPGMI data and incorporating the performance of the Dow Jones U.S. Aerospace and Defense Index, I estimate that the group's TEV/EBITDA multiple has dropped from 13.5 times at the beginning of the year and 14.7 at its late January peak to 11.4 times at March 31. (Since then, it has fallen further to 10.9 times.)

Based upon these comparables, I value GE Aviation at 12.0 times projected 2020 EBITDA of \$8.2 billion on the low end and 16 times EBITDA on the high end. Those high and low multiples correspond roughly to the 2019 year-end and current multiples of its aerospace and defense peer group, taking into account GE Aviation's uniquely strong market position.

**Healthcare** completed the sale of its BioPharma business to Danaher for \$21.4 billion (and net proceeds of about \$20 billion) on March 31. I project that Healthcare will deliver 2020 EBITDA of \$3.7 billion, down 18.9% from 2019. The decline is due to the loss of an estimated \$1.2 billion from the sale of BioPharma, offset partially by the 9% EBITDA growth in the base business.

For comparable valuations, I have looked briefly at fifteen Healthcare Equipment companies that are constituents in the S&P 500. This group includes ABMD, ABT, BAX, BDX, BSX, DHR, EW, HOLX, IDXX, ISRG, MDT, RMD, SYK, TFX and ZBH. As of April 3<sup>rd</sup>, the group had an average forward EBITDA multiple of 19.2 times, ranging from 10.4 and 13.1 times for Hologic (HOLX) and Medtronic (MDT) at the low end to 27.6 and 29.0 for IDEXX Laboratories (IDXX) and Intuitive Surgical (ISRG) at the high end.

For this group, there is a strong correlation of forward EBITDA and earnings multiples to revenue and earnings growth. The high-end valuations are held by companies growing revenues and earnings in the double-digits; low end valuations go to low single-digit growers. For the valuation of GE Healthcare, I am assuming forward EBITDA multiples ranging from 14 to 16, which is well below the mean, based upon its revenue and earnings growth rates that are on the low end of the group's range.

**Allocation of Corporate Costs.** Rather than allocate corporate costs to each segment, I capitalize them at the average valuation multiple for the segments and add the total to segment valuations. In my analysis, the valuation multiple for corporate costs ranges from 13.3 times to 16.8 times.

**Total valuation of GE Industrial Segments.** Adding together the segments plus corporate, the total valuation for GE Industrial's segments ranges from \$153.9 billion to \$195.5 billion. The low-end valuation is consistent with current market values for each segment, while the high-end valuation is more reflective of valuation multiples from the beginning of the year before the onset of COVID-19.

**Baker Hughes.** GE has an investment in Baker Hughes that includes a \$706 million promissory note receivable and 377.4 million common shares, equal to a 36.8% stake. At the March 31, 2020 closing price of \$10.50, the shares were worth \$3.96 billion. Together with the promissory note, GE's investment is worth \$4.67 billion, down from \$10.38 billion at the start of the year, when Baker Hughes's share price was \$25.63.

**Excess Cash.** At the end of 2019, GE had \$13.2 billion of excess industrial cash on its balance sheet, defined as 75% of Industrial cash of \$17.6 billion, according to the company. To this \$13.2 billion, I add the estimated remaining \$2.3 billion of BioPharma sale proceeds, after paying down \$13.2 billion of debt (\$12.2 billion of intercompany debt owed to GE Capital and \$1.0 billion of maturing debt at GE Industrial) and contributing \$4.5 billion to GE pension plans. I do not include as excess cash any of the \$18.8 billion held by GE Capital.

**Industrial Debt and Preferred Stock.** From the estimated total value of GE Industrial businesses, its investment in Baker Hughes and excess cash, I deduct \$47.8 billion of Industrial debt and GE preferred stock outstanding. A breakdown of this debt and preferred stock was given above.

**Total Value of GE Industrial.** Based upon my assumptions for each of the segments, I estimate that the equity value of GE Industrial is \$126.2 billion to 167.9 billion. As noted, the low end of the range is based upon current market values, the high end on values existing at the beginning of the year.

## General Electric Company

Sum of the Parts Valuation (Part 2)

(in \$ millions, except valuation multiples)

	Proj. 2020 Segment Earnings	Valuation Multiple Range	Estimated Value
<b>GE Capital segments</b>			
GECAS	950	3.0 - 8.0	2,850 – 7,600
EFS, IF and WCS	250	4.0 -10.0	1,000 – 2,500
Insurance	0	#NA	(6,000)
Other Continuing Operations	(1,600)	#NA	(19,140)
Total GE Capital segments	(400)	14.8-19.0	(21,290) – (15,040)
Total GE Industrial			126,200 – 167,870
Total General Electric			104,910 – 152,840
Common shares outstanding			8,740
Estimated per share value			\$ 12.00 - \$ 17.49

Source: GE's 2019 10-K, 2020 Outlook Presentation, S&P Global Market Intelligence and Lark Research estimates

**GE Capital.** My analysis, indicates a negative value of between \$15 billion and \$21.3 billion for GE Capital. My comp for GE Capital Aviation Services (GECAS) is AerCap Holdings, N.V. (NYSE:AER) and my comp for Energy Financial Services (EFS), Industrial Finance (IF) and Working Capital Solutions (WCS) is CIT Group (NYSE:CIT). Segment earnings, as defined by GE Capital, are equivalent to net income (i.e. after interest and taxes). Projected segment earnings for GE Capital are consistent with management's 2020 guidance of a \$300 million to \$500 million loss.

My analysis assumes that the value of GE Capital's legacy insurance operations is negative \$6 billion, which is equal to the present value of its remaining \$7.1 billion in regulatory capital contributions spread out over the next four years and discounted at a 10% rate.

I estimate that the value of the Other Continuing Operations segment is negative \$19.1 billion. This equals the remaining \$31.4 billion of GE Capital debt assumed by GE, partially offset by the \$12.2 billion intercompany loan to GE from GE Capital.

Importantly, my valuation for GE Capital does not consider the \$18.8 billion of cash on GE's balance sheet. Capital is holding this cash to cover its liquidity needs and other cash requirements. If GE Capital returns to the debt markets in 2021 as planned, it could free up some of this cash to pay down debt.

My valuation for GE Capital also does not consider the potential cash that could be raised from \$2.3 billion of assets held-for-sale, \$0.2 billion of businesses held-for-sale and \$3.8 billion of net assets from discontinued operations at 31-Dec-19.

Despite the negative valuation, GE Capital is on a path to profitability that could bring its valuation to breakeven or better over the next couple of years. With the mandatory conversion

of its Series D Preferred Shares into equity, Capital will save \$460 million of annual dividend payments in 2021, bringing it close to breakeven profitability.

**GE's Equity Value.** Combining my valuation estimates for GE Industrial and GE Capital, GE's sum-of-the-parts equity market capitalization ranges from \$104.9 billion to \$152.8 billion. On a per share basis, that equates to \$12.00 to \$17.50. The range mostly reflects the wide swing in stock prices this year.

As a stand-alone enterprise, I valued GE shares at \$11.16 to \$14.00. The higher sum-of-the-parts valuation supports my view that GE's stock should trade eventually at a premium to its peer group.

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<sup>1</sup> <https://www.bruegel.org/2020/03/covid-19-crisis-electricity-demand-as-a-real-time-indicator/>

<sup>2</sup> <http://investors.danaher.com/2019-02-25-Danaher-to-Acquire-the-Biopharma-Business-of-General-Electric-Life-Sciences-for-21-4-Billion>

<sup>3</sup> <https://www.bruegel.org/2020/03/covid-19-crisis-electricity-demand-as-a-real-time-indicator/>

<sup>4</sup> <https://www.powermag.com/renewable-energy-advocates-decry-lack-of-help-in-stimulus-bill/>

<sup>5</sup> <https://www.genewsroom.com/press-releases/ge-healthcare-takes-additional-actions-help-clinicians-combat-coronavirus>

<sup>6</sup> <https://www.wsj.com/articles/trump-lashes-out-at-general-motors-over-ventilators-11585327749>

<sup>7</sup> <https://www.washingtonpost.com/business/2020/03/26/senate-stimulus-bill-coronavirus-2-trillion-list-what-is-in-it/>

<sup>8</sup> <https://thehill.com/policy/finance/489708-mnuchin-indicates-that-federal-government-could-take-stakes-in-airlines-for>

<sup>9</sup> <https://www.nytimes.com/2020/03/25/us/politics/virus-fineprint-stimulus-bill.html>

<sup>10</sup> <https://larkresearch.com/wp-content/uploads/2014/05/GE-Global-Research-Center-Report-150319.pdf>

<sup>11</sup> <https://larkresearch.com/deep-dive-on-ge-consolidated-enterprise-valuation/>

<sup>12</sup> <https://www.cnn.com/2020/04/02/ge-larry-culp-on-coronavirus-furlough.html>

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