FRAMEWORK Investing

Framework Investing ChartBook – General Electric (GE)

We think GE is at least a good investment at the present price level and it may be a great one

August 5, 2017

Three Things You Should Know About General Electric

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- **A bet on GE is a bet on the continuing prosperity of the human race.**

  General Electric is a global oligopolist that manufactures products and provides services that are vital to humanity's progress and will be in greater demand the more prosperous the world's nations become. Betting against GE is betting on catastrophic failure of modern civilization.

- **GE's "normalized" profitability levels are uncertain after the divestment of the consumer credit businesses, but the idea that its profits will crash to the extent that it can't pay dividends is ludicrous.**

  The past few years' worth of divestures and, to a lesser extent, acquisitions, make it difficult for us to get a clean historical view of our preferred measure of profitability, Owners' Cash Profits (OCP). While we acknowledge that this uncertainty exists, several datapoints – comparable company profits and an analysis of operating profit – allow us to feel comfortable triangulating a profitability range. Recent published reports from sell side analysts calling into question the ability of GE to continuing paying dividends is the financial equivalent to medical malpractice, in our opinion. The company has made phenomenal progress in derisking its balance sheet (though we do identify one potentially negative "Balance Sheet Effect" in our full report) and sharpening the focus and interconnectivity of its Industrial businesses. The company operates in industries in which it is either the number one or two competitor, industries that have enormously high barriers to entry and require sophisticated engineering and intellectual property, and which are, in general, not subject to price competition. It doesn't take a PhD in Economics to say that this is a firm that should generate healthy profits for its owners.

- **We expect GE's incoming CEO, John Flannery, to make some changes to GE's portfolio, but calls for GE to split itself up are just ridiculous.**

  While we are not thrilled about GE's Oil & Gas portfolio, we do see that, with a few exceptions, its various businesses have the potential to continue generating synergies in research and product development, and that the combination of these businesses into a single entity adds rather than destroys shareholder value. Every hedge fund wanna be can come up with some cockamamie scheme to "unlock corporate value" by splitting GE into its component businesses. This is just a reflection of a superficial understanding of GE's business, in our opinion.

  We hope that Flannery will ditch Transportation (Caterpillar would certainly like to buy it, if the transaction would make it past regulators) and Lighting (sorry Thomas A. Edison, but the day of the lightbulb being a technological innovation has long since passed). Splitting the business up would be insanity.

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Valuation Summary

A bet on General Electric is a bet on the future prosperity of the human race.

We believe that the firm can generate from $133 billion to $152 billion in revenues in five years' time (compared to $124 billion in 2016) and generate profits for its owners totaling from 11% to 14% of that. After a long period of disinvestment, the company is normalizing its investment spend at what we think should be its long-term historical level of the mid-teens percentage of profits. This implies a Free Cash Flow to Owners range of between $0.09 and $0.12 per dollar of revenue generated in the short-term.

While not thrilled about all parts of its portfolio, we believe that General Electric has invested in several areas likely to see robust growth during the medium-term, which we assume lasts from years six to 10 of our model. We forecast a growth in cash flows of between 5% and 7% per year during this time.

We assume a long-term cash flow growth rate of 5% and use a discount rate of 10% based on GE's market capitalization.

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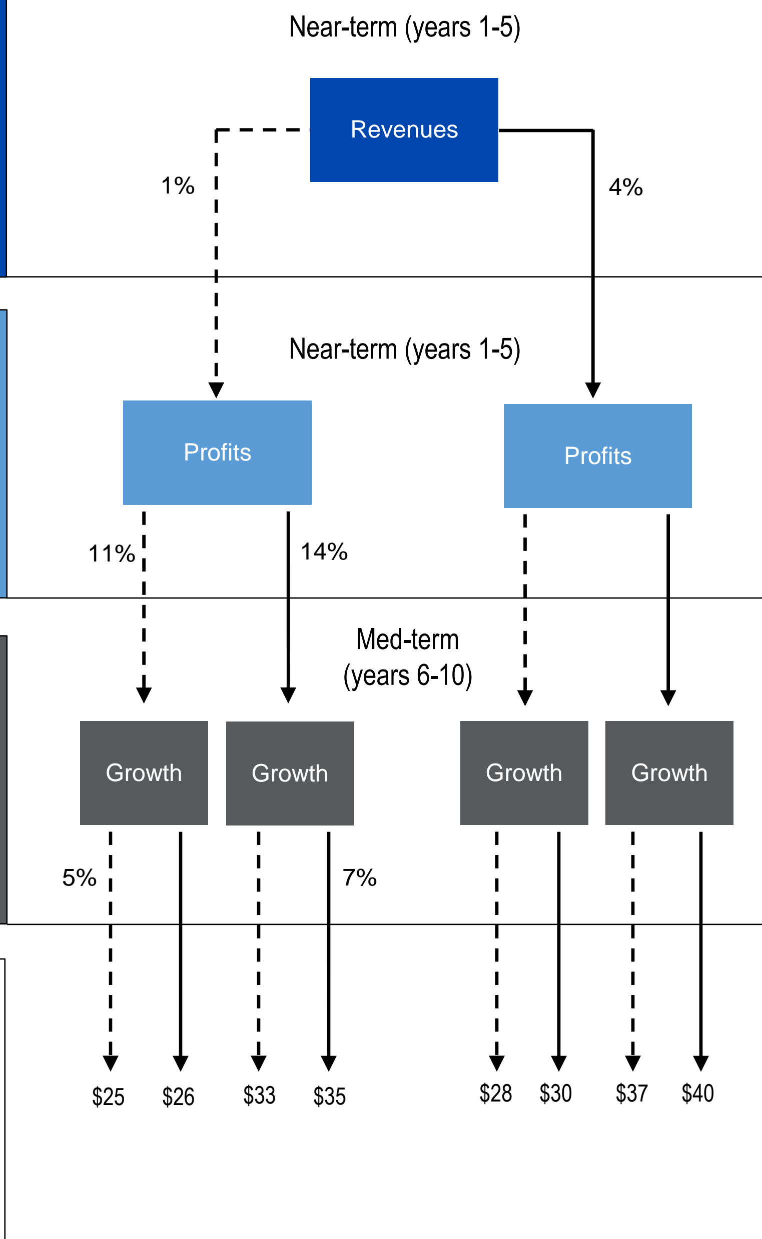
Valuation Waterfall

Revenue Growth
Our best- and worst-case forecasts are based upon an analysis of each of GE's segments and the worst-case incorporates an assumption for an economic slow-down followed by a rebound. Actual revenue growth may differ from our projections due to corporate actions such as divestments or acquisitions, but we are looking at organic growth and assuming that currency fluctuations are as likely to go one way as they are the other.

Profitability
Owners' Cash Profitability of the "new GE" (the one without exposure to consumer credit risk) is still somewhat uncertain due to a lack of clean historical data. We have triangulated the best- and worst-case range shown here by analyzing GE's historical profitability, comparing to GE's nearest domestic competitor, and analyzing GE's operating profits – a measure which should have a consistent relationship to our preferred measure of OCP.

Medium-Term Cash Flow Growth
We believe that GE has built a portfolio of products and services – based on fundamental human and economic necessities – that have excellent growth prospects. We believe that an investment spend of 15% of profits in the near term will allow medium-term Free Cash Flow to Owners (FCFO) growth within the range listed here. Due to changes in GE's portfolio, we did not use an historical assessment of GE's investment efficacy.

Fair Value Range
The dependence on near-term profitability is obvious here. Note that each of the branches associated with dashed profit streams (low profitability) are in the $25-$30 range. The valuation range extends from $25 per share to $40 per share and all but one of the valuation scenarios are above the present price of the stock. We are relatively uncertain about normalized profitability levels, so have not marked any scenarios as more or less likely.



Methodology

Framework Investing analyses focus on three main valuation drivers: revenue growth, profitability, and medium-term cash flow growth. We estimate a best- and worst-case scenario for each of these drivers resulting in a total of $2^3 = 8$ fair value scenarios based on discounted cash flow methodology. Profitability is measured by Owners' Cash Profit (OCP) margin. We use a discount rate of 10% for large capitalization stocks.

A wide spread of lowest and highest fair values indicates a firm whose value is uncertain. Risk depends on the stock price's relationship to the valuation range.

Best-case scenarios are represented with a solid line; worst-case scenarios, with a dotted one.

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Valuation Scenario Overview

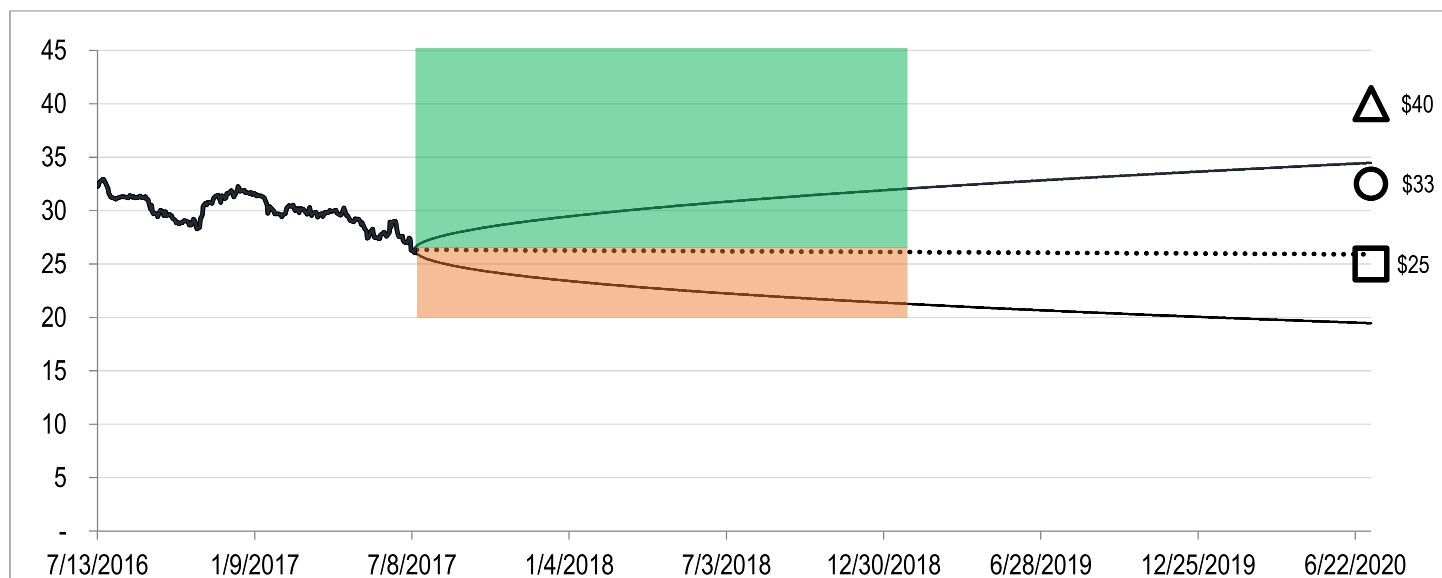

Figure 1. Source: YCharts, CBOE, Framework Investing Analysis. Geometrical markers show FWI's best-case (triangle), worst-case (square), and equally-weighted average value (circle). Cone-shaped region indicates option market's projection of the company's future stock price. The shading indicates a levered long investment structured using an In-the-Money (ITM) call option struck at $20 per share. Several other investment structures are listed in the Investment Structuring section of this report.

	FWI Best Case	FWI Worst Case	Historical Median
Year 1-5 Average Revenue Growth	4%	1%	2% (5-year)
Year 1-5 Average Profitability	14%	11%	14% (3-year)
Year 6-10 Cash Flow Growth	7%	5%	84% (3-year)

The historical median numbers have lower meaning for profitability and are meaningless for cash flow growth due to recent corporate actions taken by the firm. We explain the basis for our best- and worst-case operational ranges within the report.

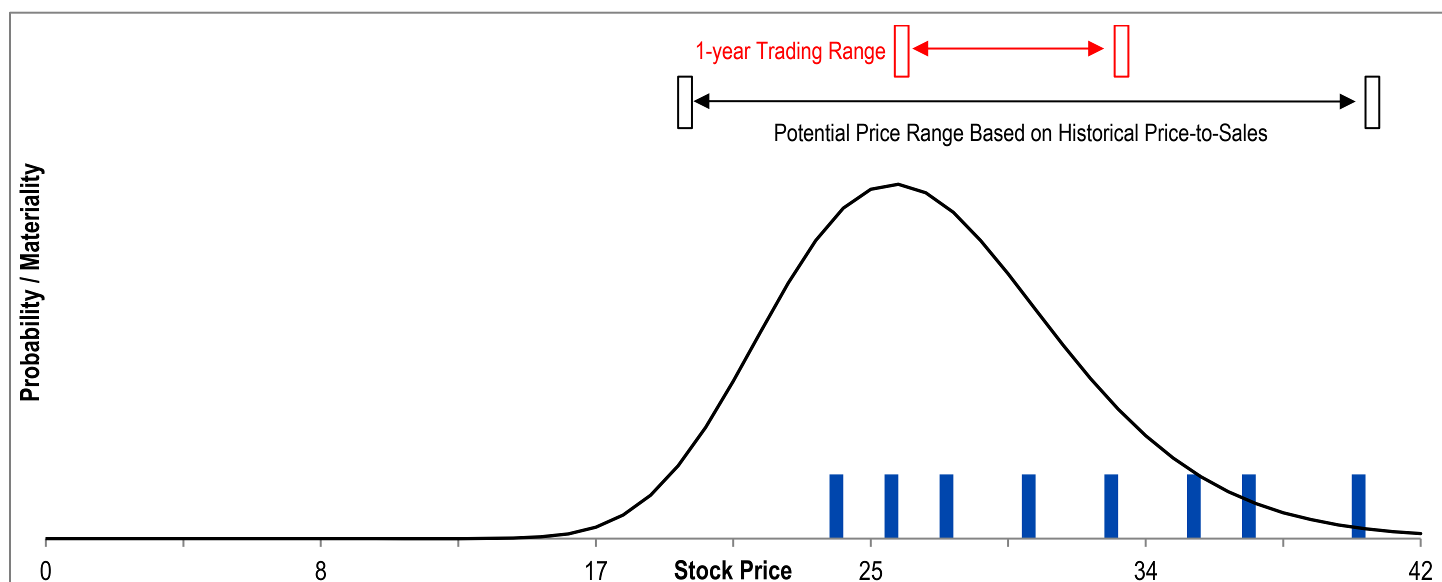

Figure 2. Source: CBOE, Framework Investing Analysis

We do not believe we have enough data to make a reasoned argument related to which of the above eight valuation scenarios are more or less likely. We believe that the valuation range is likely skewed to the upside, but this could be a behavioral bias born out of our bullish position in the stock and options.

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Valuation Drivers

Revenue Growth

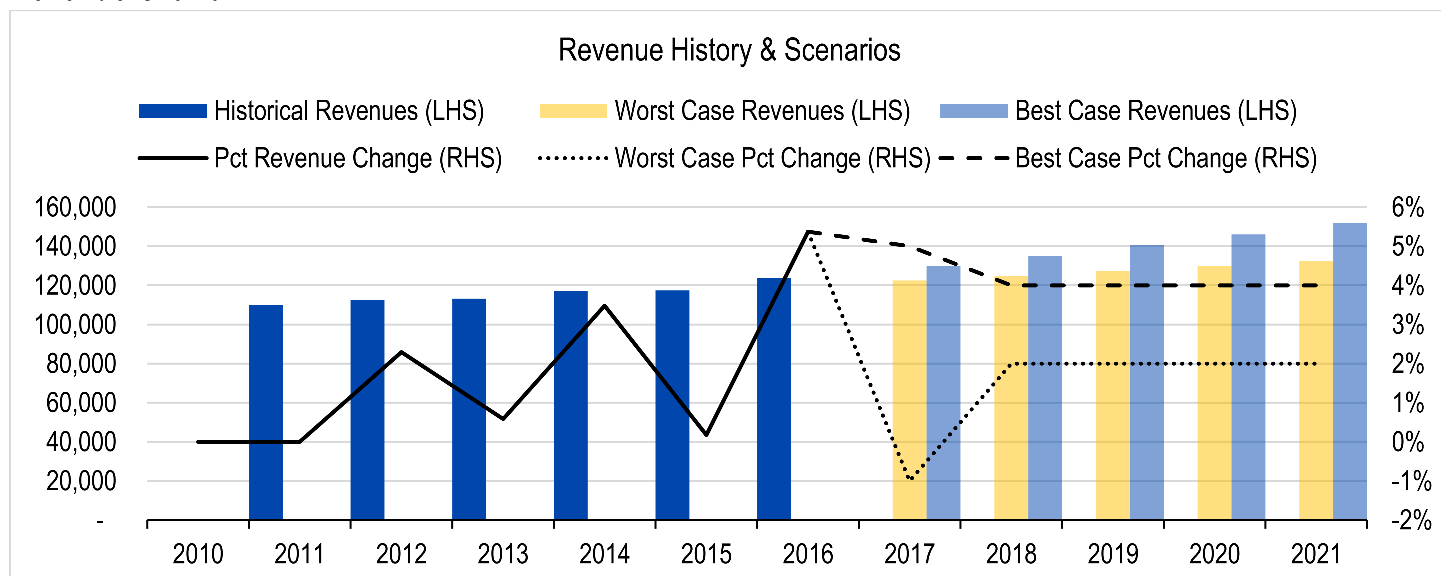

Figure 3. Source: Company Statements, Framework Investing Analysis

Our revenue growth assumptions – averaging a bit over 4% per year in the best case and around 1% per year in the worst case – is based on our analysis of GE's underlying segment growth and is a bit lower than the firm's management's own revenue growth targets. GE has built a strong portfolio of businesses that are top competitors in their respective industries (thanks to Jack Welch's policy of culling weaker businesses), and that are well-integrated and complementary (thanks to Jeff Immelt rethinking of the company). It has also focused energy and resources on building digital monitoring capabilities that we believe are a natural marriage of technology and manufacturing that will be matter-of-fact in another generation; GE will be the leader in this area.

Unlike businesses like Caterpillar and Union Pacific, we have not explicitly modeled our revenue projections on segment growth. The reason for our decision against a reductionist model is that General Electric's segments are much more changeable from corporate actions such as divestments and acquisitions than those of Caterpillar or Union Pacific. We have made our projections by looking at the drivers of each business line, the proportion of revenues each business line presently represents, and the likely demand for the business lines' products and services on a fundamental basis. The likely reason our revenue growth forecasts are lower than those of company's management team is our circumspection related to the Oil & Gas business (see explanation in the Oil & Gas section below).

One note regarding comparable companies: GE essentially operates as a US national champion in its primary business lines. Its competitors are companies like ABB, Siemens, and Hitachi – national champions of other countries. We believe that most comparisons to domestic companies (e.g., 3M) are deeply flawed. However, due to cultural and legal differences between the US and other countries' firms, the comparison of GE's operational measures to those of its true international competitors is also problematic (e.g., we estimate Siemens 2016 OCP margin to be around 6% – this would represent disastrously low profitability for GE). When we talk about economic competitors to GE, we are mainly talking about foreign countries' national champions. We do triangulate GE's normalized profitability with that of a decent US competitor – Honeywell – but are cautious about extrapolating domestic comparisons too far.

GE breaks its business into two parts – Industrial and Financing. While the legacy GE held consumer finance exposure, the current Financing business is essentially an extension of the Industrial business (Financing segments are arranged in "verticals" associated with industrials segments) with a strong tax management component which we discuss below. As of the first half of 2017, revenue proportions for each of GE's segments are as shown on the next page.

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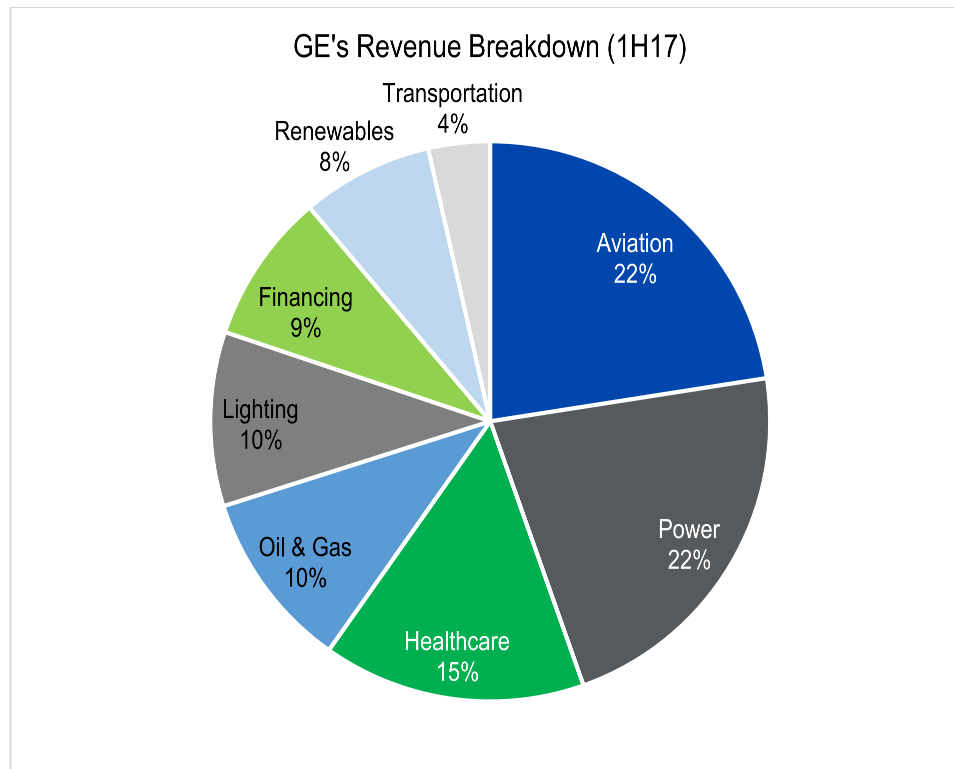

Figure 4. Source: Company Statements, Framework Investing Analysis

Each Industrial segment and its demand drivers and revenue history are discussed in the sections below.

Aviation

GE produces engines for all types of commercial aircraft and, to a lesser extent, military aircraft, and provides inspection and maintenance services for these engines. A smaller part of its business is designing the electrical and other systems in aircraft, and in providing "additive manufacturing" (e.g., 3D parts printing, etc.) equipment to its customers. Almost three quarters of its revenues come from commercial sales, the remainder being evenly split between military sales and "Systems and Other." Services usually represent a little more than half of revenues, with equipment a little less than half.

Its main competitors include Rolls Royce and Pratt & Whitney. It has formed joint ventures with French defense manufacturer, Safran, Pratt & Whitney, and Honda Aero of Japan. While Pratt & Whitney is a US firm, we believe that the other joint ventures have been set up partially as a strategic move to increase business in Europe (Safran) and Japan (Honda). We believe that GE Aviation leads its competitors in market share for commercial jet engines.

Revenues for GE Aviation's products and services stem from demand for cost-efficient, reliable commercial travel and vary with the number of new planes being ordered and the miles flown by airlines using GE's engines. Especially to the extent that orders for new jets increase during good economic conditions and fall off during poor economic ones, this business is cyclical, though that cyclicality is reduced by exposure to services.

The firm competes on its ability to increase the fuel efficiency of aircraft engines and increasingly on its offering of advanced digital monitoring of engines. We believe the company also collects data from its engines in service to help design more efficient engines in the future. Its joint venture with Safran (called "CFM International") has produced the LEAP engine, which is advertised as being more fuel-efficient and is sold to both Airbus (European) and Boeing (US).

The Aviation segment has an associated Financing vertical called GE Capital Aviation Services (GECAS). The main business of this vertical is not to loan money to airline manufacturers so they will by GE engines, but rather aircraft leasing. We discuss GECAS in the Financing section below.

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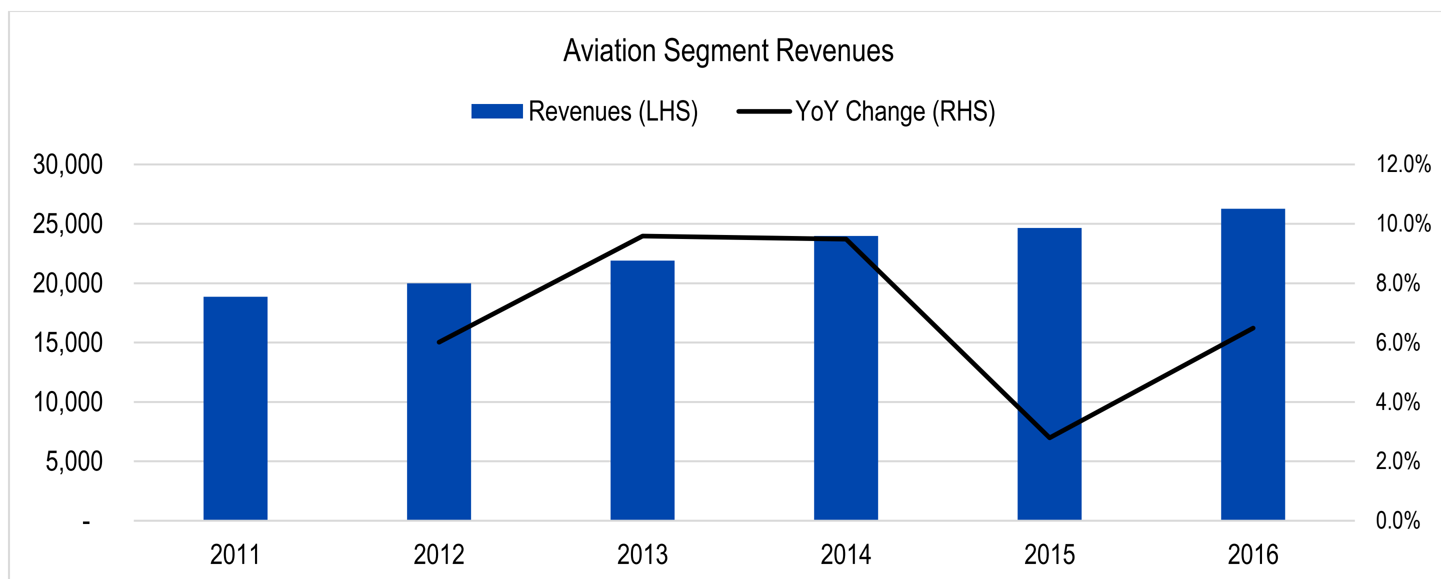

Figure 5. Source: Company Statements, Framework Investing Analysis. GE Aviation's 5-year rolling growth rate (RGR) has averaged 6.8% per year.

Power

GE manufactures and services equipment sold to electric utilities worldwide. Its sales are skewed toward energy production fueled by natural gas (33% of segment sales) and away from production fueled by coal (7%) or nuclear (less than 5%), but most of its revenues (55%) are driven by services.

This business grew with the acquisition of French firm Alstom in 2015, but part of the business – GE Water – will be divested as a regulatory condition of the Alstom merger. The business has exposure to the Oil and Gas market due to its production of generators used to provide power to oil drilling facilities. While the turbines it builds for power generation are very different from those that are used in jet engines, we believe some technological advances made by the Aviation segment are used by the Power segment.

Roughly one third of its revenues are generated in the US, with around 20% of revenues coming from Europe, Asia, and the Middle East. The remaining 10% are generated in the Americas ex-US. We were not able to find market share data, but GE is clearly a global leader in this field – more so after the Alstom acquisition – and competes with such global heavyweights as ABB, Siemens, and Hitachi-Mitsubishi.

Clearly, this business is very closely related to overall economic activity in the areas in which the company operates, though revenue growth may be lumpy due to timing for equipment orders.

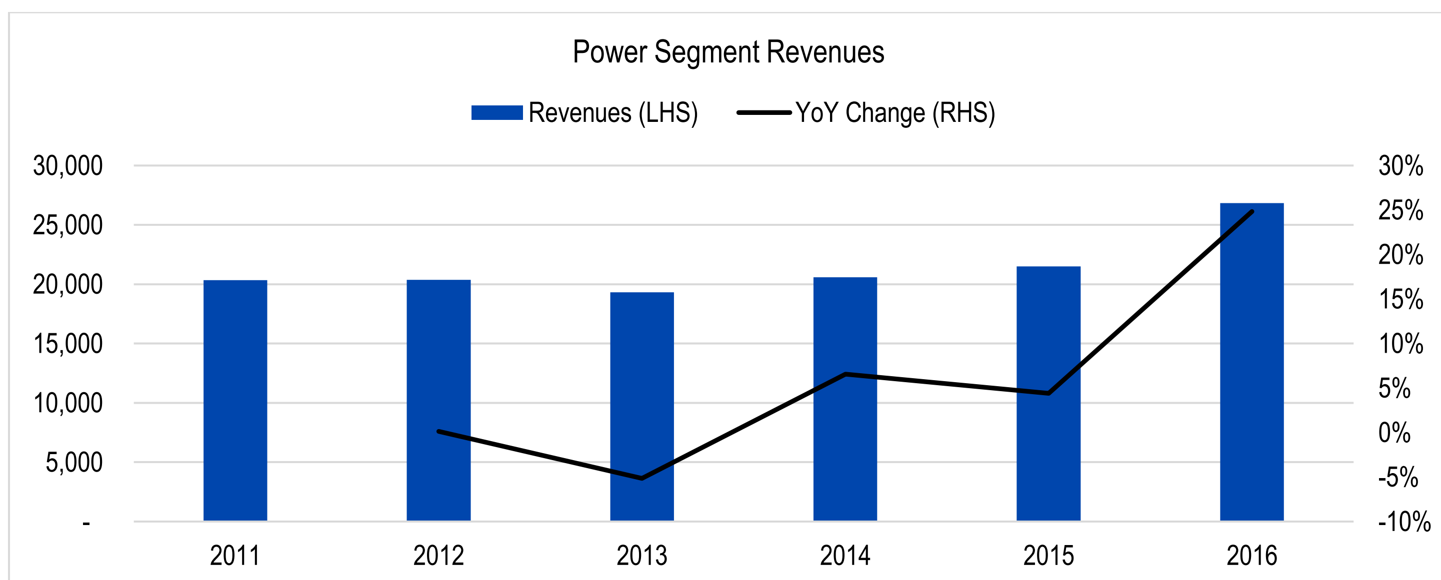

Figure 6. Source: Company Statements, Framework Investing Analysis. GE Power's 5-year RGR is 6.4% per year, aided by the Alstom acquisition, the revenues of which hit GE's books in 2016.

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Healthcare

GE produces and services medical equipment and offers digital services for healthcare providers. Seventy percent of its revenues are generated from the sale and servicing of medical equipment used by hospitals. The first image that comes to my mind for GE Healthcare is that of an MRI machine, but the company also produces other imaging tools (X-Ray and CT scan equipment) as well as more mundane items like baby warmers. Another one-fourth of its revenues are generated by sales of systems to researchers for drug discovery. The remainder of its business – less than 10% – is related to its data business. Nearly half of its revenues are generated in the US and 90% from the developed US, Europe, and Asia regions. Nearly 60% of its revenues come from equipment sales and the remainder from services, though, as the digital business grows, this will likely shift toward being more equal.

The business for hospital equipment – especially large imaging devices – is slow-growing, thanks to its maturity and pressure from government payers and insurance companies to keep costs down. GE has been doing some interesting things in the offering for researchers, including providing modular turnkey research facilities such as one recently implemented in Wuhan, China. The healthcare software business, while the smallest part of the portfolio now, has been growing very quickly (on the order of 20% per year by one report) and is focused on providing Cloud-based services to healthcare providers.

Again, GE operates in a comfortable oligopoly with regards to its imaging systems, albeit one that is under the shadow of political wrangling regarding healthcare spending (other players include Philips, Siemens, and Hitachi). This business is important to GE not only because of its size and prominence, but because GE's new CEO, John Flannery, has been president of this business since late-2014, and engineered a rethinking of the division (including a focus on digital and research) that is credited with increased segment revenue growth and profitability.

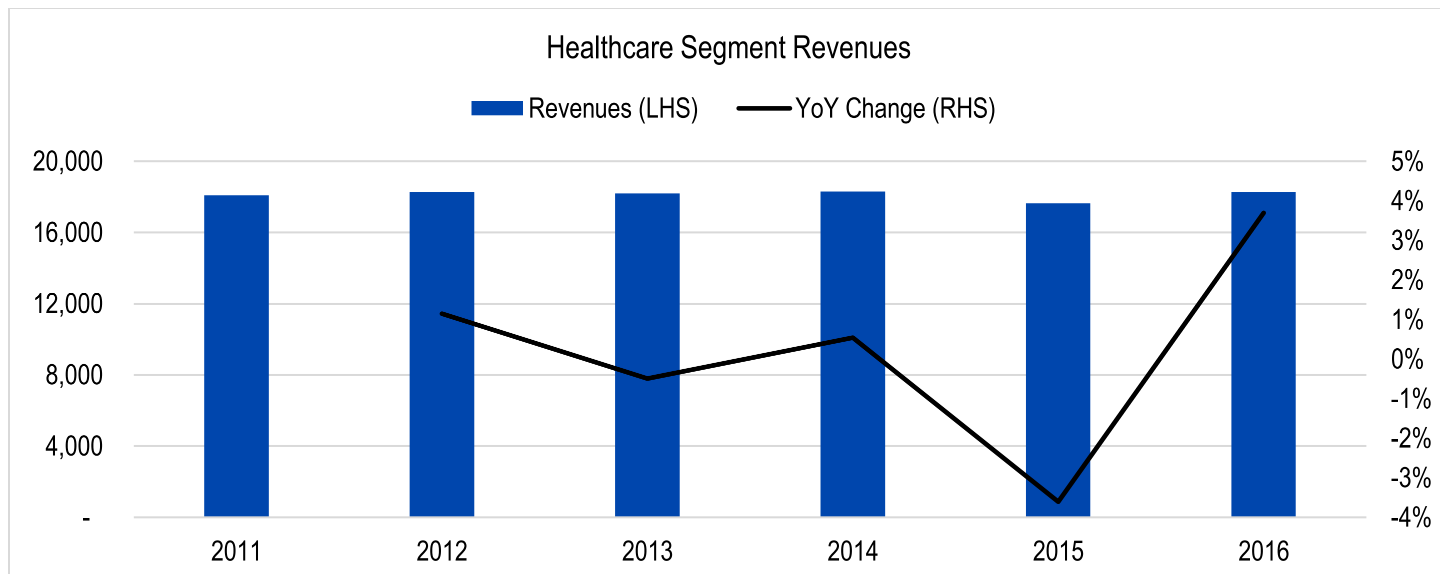

Figure 7. Source: Company Statements, Framework Investing Analysis. GE Healthcare's 5-year RGR is 0.2% per year. The notable dip in 2015 was caused by US Dollar strength, exacerbated by pricing pressures in systems.

Oil & Gas

GE's legacy Oil & Gas division specialized in gas turbines used to power drilling operations and deep-sea drilling equipment (such as Blowout Preventers made famous in the Deepwater Horizon incident). The acquisition of a majority stake in Baker Hughes to form a new company called "Baker Hughes a General Electric Company" and traded under the ticker symbol BHGE gives GE a much broader service offering in the Oil & Gas space and decreases the reliance on deep-sea drilling.

Deep-sea drilling fit GE's corporate profile to a "T" in that it required well-engineered, technologically sophisticated industrial equipment with a strong service component. However, it is a business that has suffered mightily with the decrease in oil prices and a reduction in the attractiveness of expensive deepwater exploration. GE's control of Baker Hughes gives GE a portfolio that is more balanced and less dependent on the price of oil.

GE took control of Baker Hughes in a smart way as well, retaining 62.5% control and leaving the rest publicly traded, spending a total of $7 billion in the process. It also combined with Baker Hughes at a relative low point in the oil market – buying low as you would hope an intelligent investor would do. The historical series below represents GE's legacy Oil & Gas business. A half a year of Baker Hughes results in 2017 will drive up revenue growth this year, and a full year of results in 2018 will do the same.

GE advertises its Oil & Gas business as the only one which deals with up-, mid-, and down-stream businesses (exploration & production, refining, and pipeline transport, respectively). Its up- and mid-stream business have synergies with the Power and Aviation businesses

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(especially the relationship with high-performance turbines and generators) and its downstream business has synergies with Healthcare (because of the imaging and monitoring technology).

If one assumes that hydrocarbon mining is a growing business, this is a well-positioned industry in which to compete. However, we believe that the tide of history is turning against hydrocarbon mining – especially the mining of oil for automotive transportation and especially in the developed world. The somewhat dated chart below from Yardeni using Oil Market Intelligence data highlights the discrepancies between demand in the developed versus the developing world.

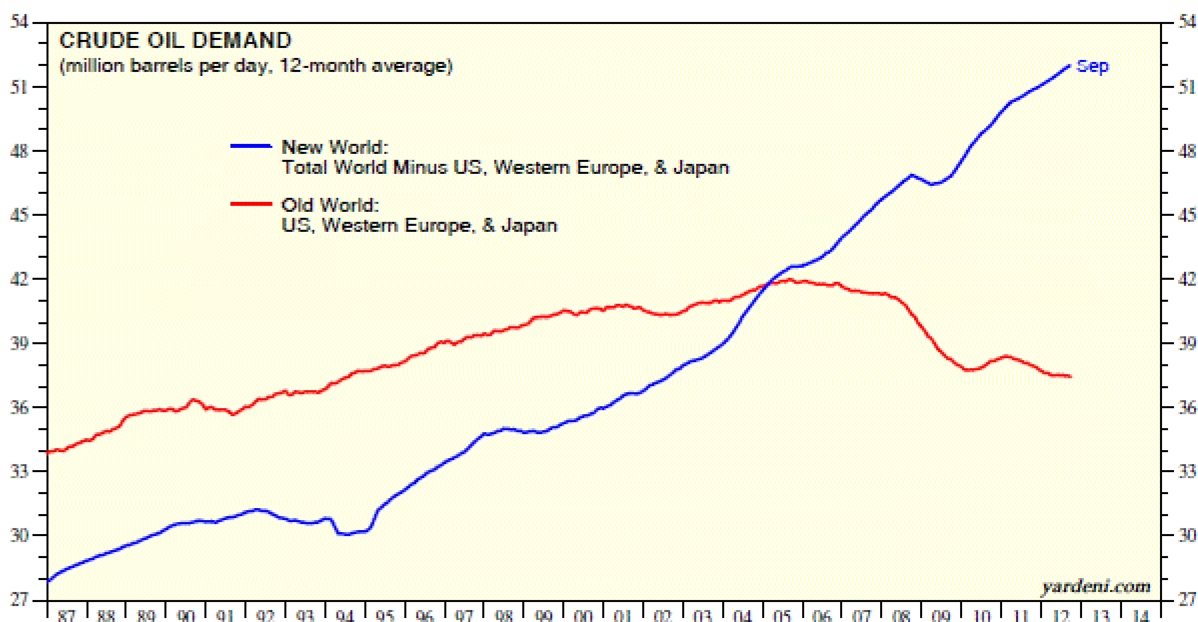

Figure 8. Source: Oil Market Intelligence (data), Yardeni.com (analysis)

The Energy Information Agency's forecasts for global consumption of liquid hydrocarbons is flat for 2017 and increasing somewhere in the 1% range after that. This seems about right considering that the developed world is looking for more ways to conserve hydrocarbon fuels or switch off them entirely while the developing world is demanding more and more. At some point (maybe sooner rather than later, if reports from China are to be believed), the developing world will make the same sort of switch the developed world is in the process of making, and this business will peter out.

This petering out will not happen overnight and there may a boom or two in between now and when it does, so it is not as though GE is investing in buggy whips, but overall, this is the part of GE's portfolio about which we are least excited. It makes a bit more sense once another segment, Renewables, is considered in conjunction with it. Please see below.

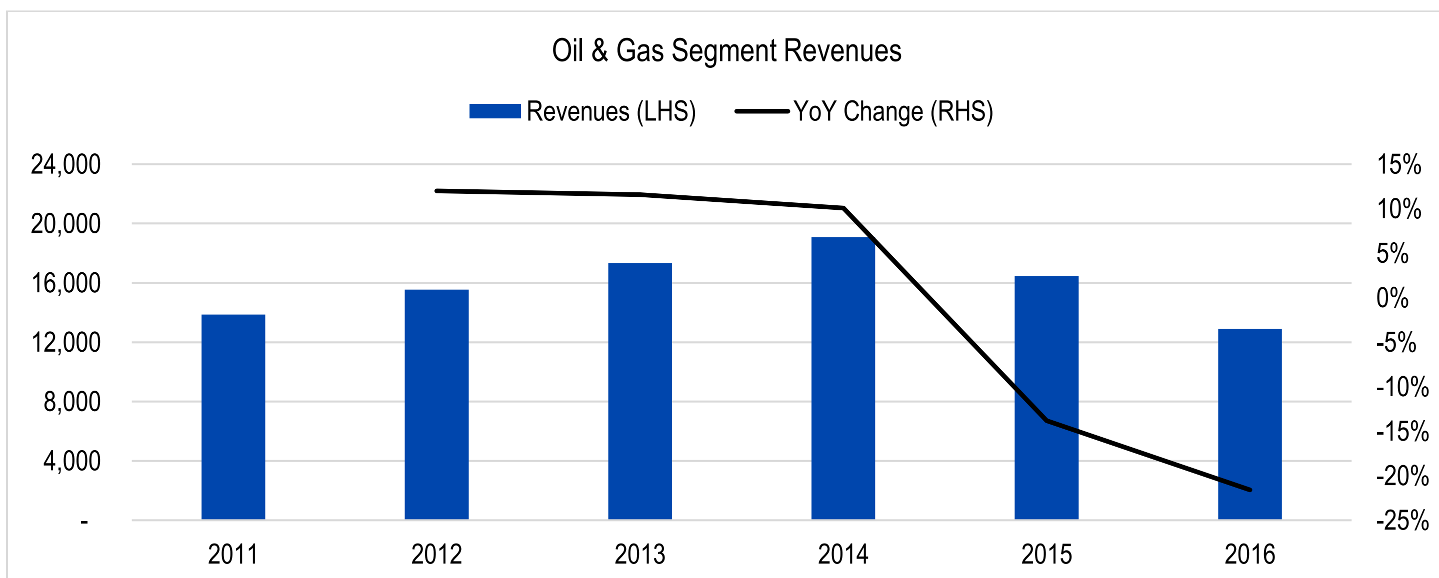

Figure 9. Source: Company Statements, Framework Investing Analysis. GE Oil & Gas' 5-year RGR is -1.2% per year.

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Energy Connections & Lighting

Part of this business – related to power generation and transmission controls – will be consolidated with the Power segment in 3Q17. Also, we believe that the Lighting business – the consumer facing business that is the very kernel of General Electric Co. from the time of its founder, Thomas Edison, will be sold off. Selling lightbulbs was a high-tech, high-margin business in the Edwardian era…not so much anymore. The historical revenue graph is shown below, for what it's worth.

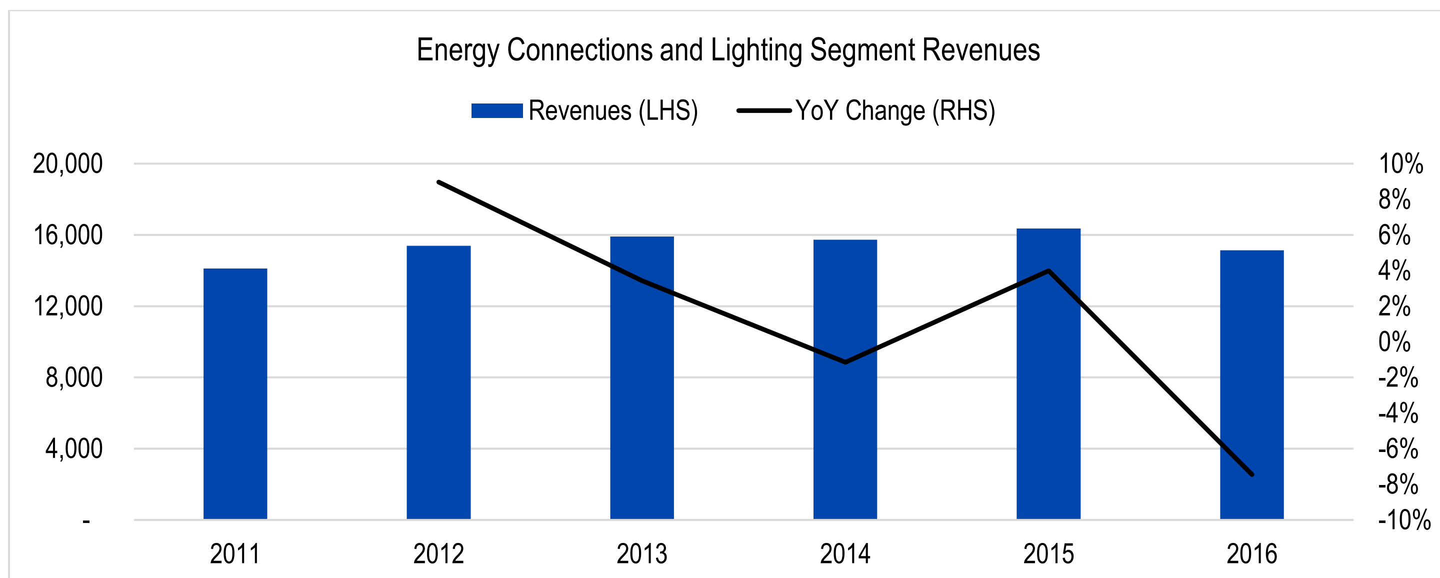

Figure 10. Source: Company Statements, Framework Investing Analysis. GE Energy Connections and Lighting's 5-year RGR is 1.3% per year.

Financing (a/k/a Capital)

The bulk of Financing revenues – about half – is taken up by GECAS, the unit that specializes in aircraft leasing. GE's is the largest aircraft leasing operation in the world; its next largest competitor is the NYSE-listed AerCap Holdings (AER). This business is largely a profit-center in its own right; it is not the same as automobile manufacturers' financing arms (e.g., GMAC, Ford Credit) whose primary purpose is to pull consumer demand forward. A smaller percentage of the GECAS business does provide financing for aircraft engine purchases, but we believe this is a relatively small proportion of the business.

Another third of the business are insurance-related and connected to GE Capital businesses that the firm has spun off and is being run off through the life of the contracts. Fifteen percent of the business provides financing to Industrial businesses (especially healthcare financing) and working capital management services; the remaining 7% relates to Oil & Gas financing.

Beyond the revenues generated by these businesses, their most important role in GE strategy is related to tax management strategies. GE is infamous for exploiting every loophole in America's Byzantine Tax System, and at times, it leans pretty far over its legal skis. ProPublica has done some good reporting on this issue, which features the role of GECAS as a tool of tax management.

Everyone talks about how wonderful it would be if the US Tax Code was made simpler. For GE, though, a simplification of the tax structure, coupled with the closing of some of its tax loopholes would cause big problems for its business model. We address this issue in greater detail in the Balance Sheet Effects section. (See GE Capital's revenue chart on the following page.)

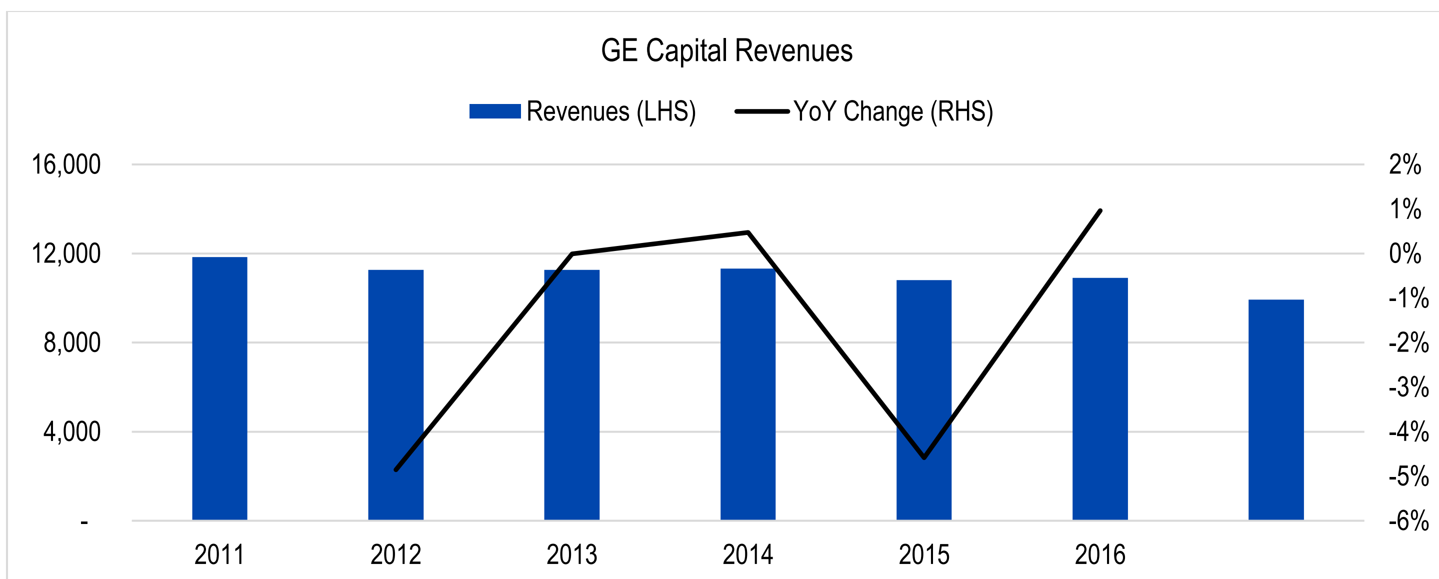

Figure 11. Source: Company Statements, Framework Investing Analysis. GE Capital's 5-year RGR is -1.7% per year.

Renewables

The Renewables business got a big bump with the Alstom acquisition, but was a quickly-growing business even before that. In contrast to GE's Oil & Gas portfolio, this is a business in ascendency, especially in the developed economies, where, as we saw earlier, the trend is for lowered demand for oil.

The business is divided into three sub-segments – onshore wind, hydro, and offshore wind. Of these, roughly 90% is generated by onshore wind, GE's legacy renewables business; 90% of the remainder is generated by hydro – a business GE acquired in the Alstom purchase.

Unlike many of GE's other businesses, the vast majority of Renewables revenues (90%) are generated through equipment sales rather than services, but this may shift in the future as the pace of new wind farm build outs slow and fleets mature. This business likely has synergies with the Aviation segment (especially in materials sciences) and certainly has synergies with the Power segment (which offers products and services required for the complex work of managing diverse generation sources including wind). GE's focus on data and monitoring also adds a competitive advantage.

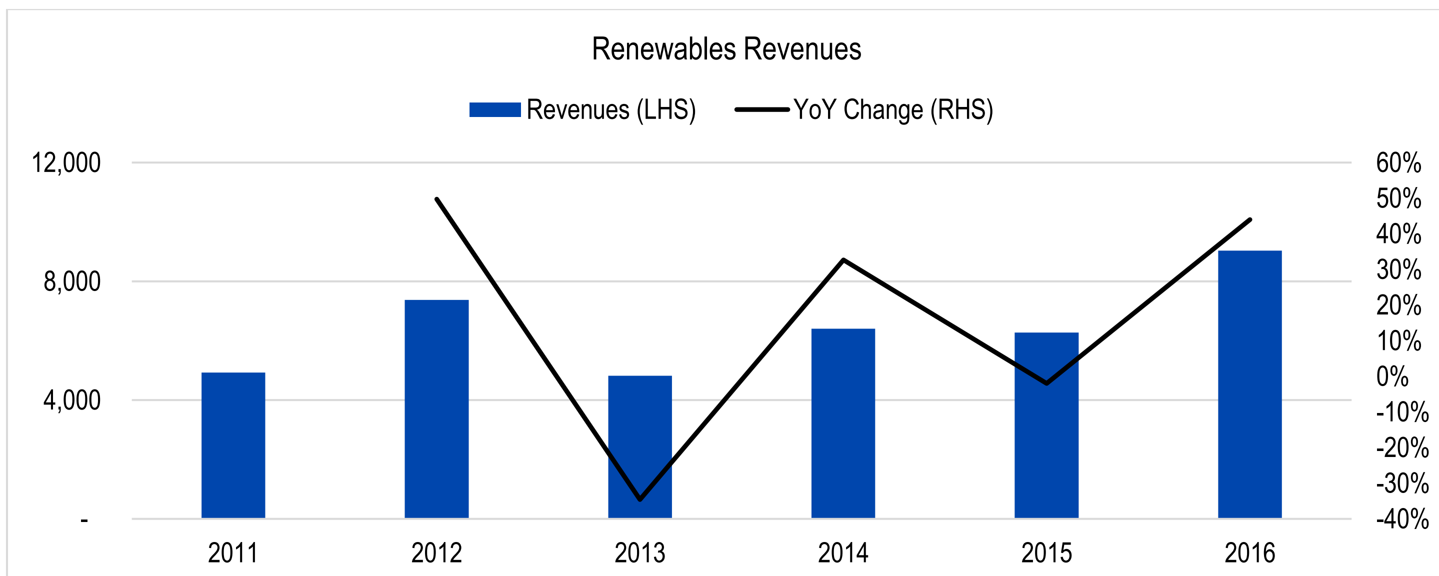

Figure 12. Source: Company Statements, Framework Investing Analysis. Renewables' 5-year RGR is 13.8% per year. Company management ascribed the notable 2013 drop to a fall in sales volumes in wind and thermal equipment. Considering the huge uptick in 2012, we wonder if some of 2013 demand was simply pulled forward into 2012.

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Transportation

One product in General Electric's Power segment's lineup is industrial-grade diesel generators. The Transportation segment places diesel generators on a movable platform and calls them "railroad locomotives." This is the smallest business line (even though it is the leading locomotive manufacturer in the US) and also sells mining products that compete with Caterpillar. We believe (wishful thinking?) this line will be divested soon after Flannery gets settled as CEO. Demand for locomotives is flat in the US but growing overseas. GE might be able to make some overseas acquisitions and build this into a business that makes sense, but right now, it does not look like it has much of a future to us, though obviously, it has synergies with the Power business.

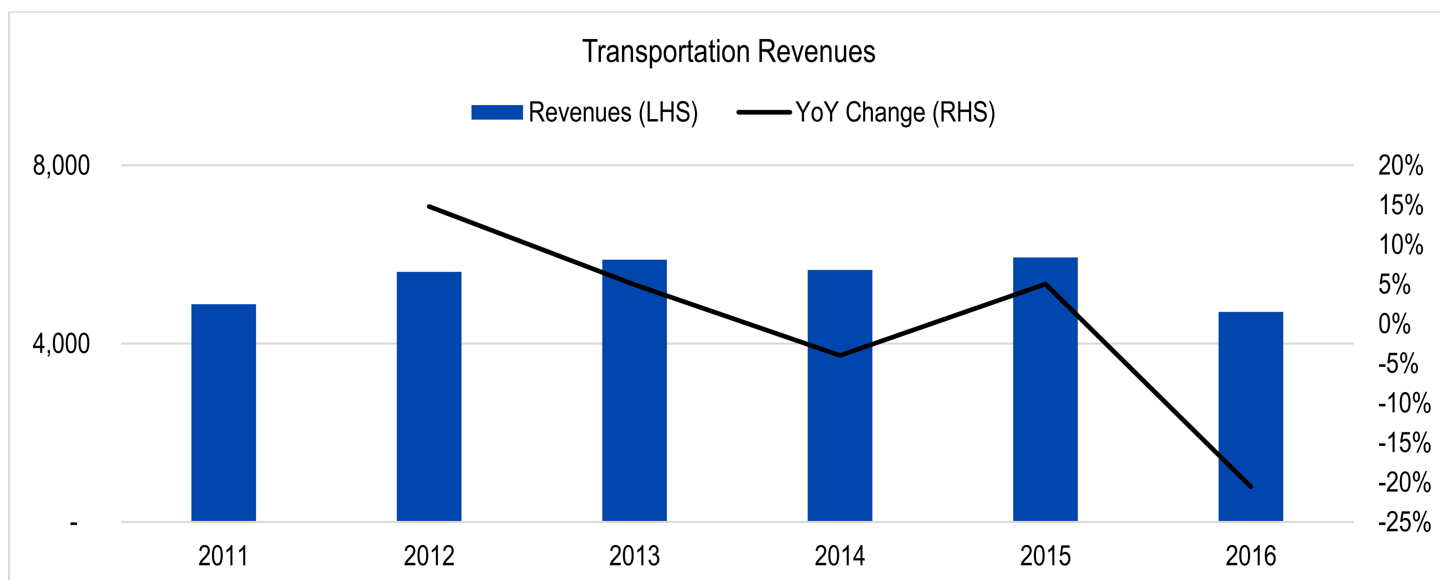

Figure 13. Source: Framework Investing Analysis. Transportation's 5-year RGR is -0.6% per year.

Profitability

Note that we assess profitability using our favored measure – Owners' Cash Profits (OCP) – a measure similar to Buffett's concept of "Shareholder Earnings."

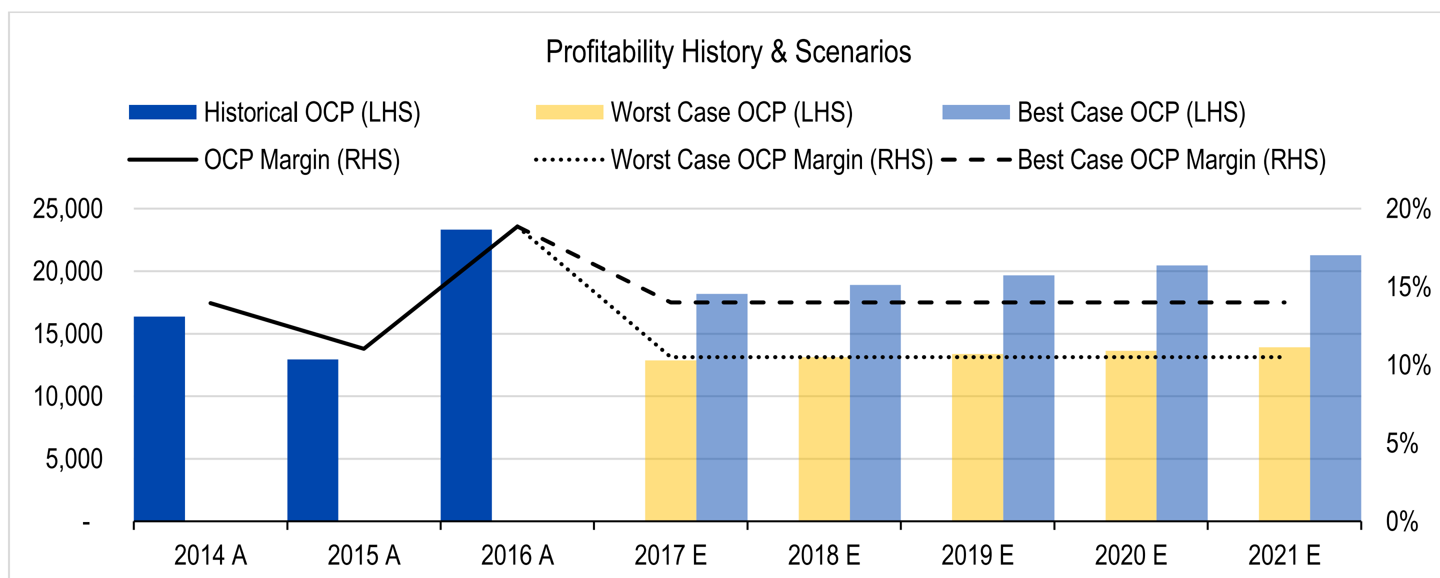

Figure 14. Source: Company Statements, Framework Investing Analysis

Only three years of profitability history are possible as the company only restates three years' worth of complete Statements of Cash Flows. Note that especially 2016's OCP level is misleadingly high as it contains some returns on investments. In general, 2015 and 2016 values are "noisy" so we think that 2014 is the best clean comparable for GE's future profitability profile.

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2017 estimates may be a bit high, even in the worst-case scenario as the company management have guided to an extraordinary $2 billion cash charge related to the divestment of the consumer finance business. Nonetheless, we believe that over the next five years, OCP is likely to fall in the above range, with anywhere from $0.10 to $0.14 of profits for owners generated per every one dollar of revenues.

While we are making this projection using very limited historical data, we have triangulated this level of profits several different ways. First, we looked at the OCPs of Honeywell, which, while not a perfect competitor, is probably the closest domestic rival.

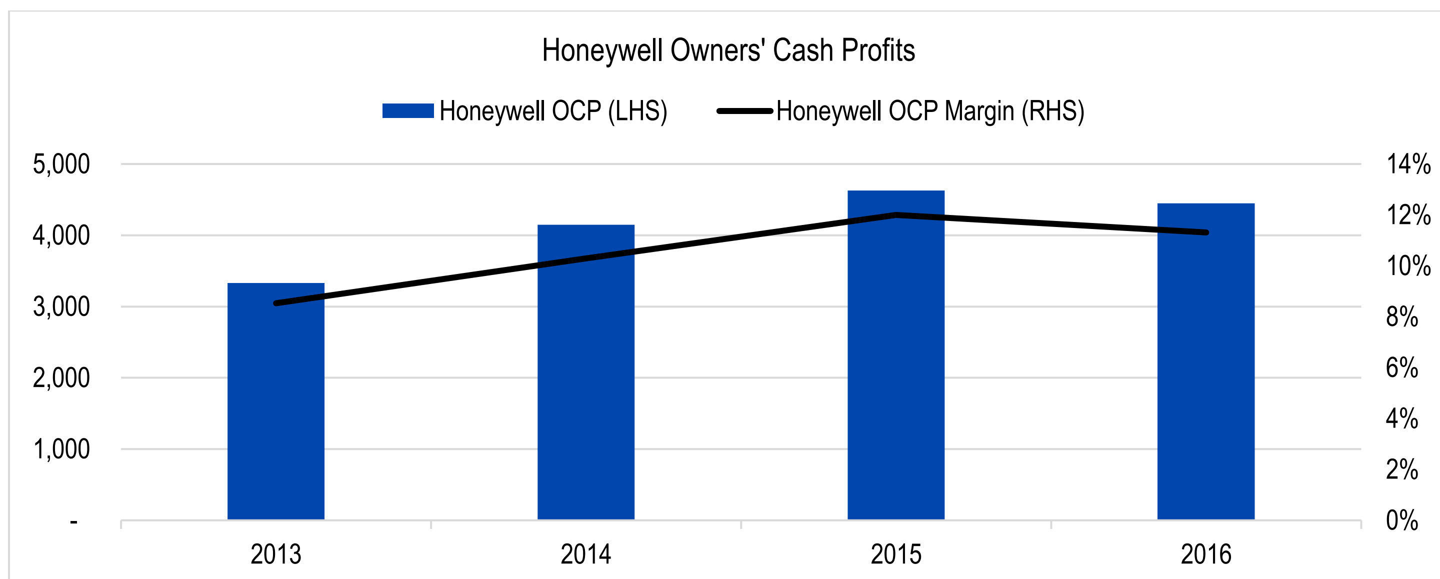

Figure 15. Source: Company Statements, Framework Investing Analysis

Honeywell's average OCP margin over this period was 10.5%. We think that, considering GE's strong competitive positions in each of its business lines and the oligopolistic nature of its markets, GE should be able to generate at least this level of profitability.

Second, we looked at another measure of profitability – Earnings Before Interest and Taxes (EBIT, a/k/a "operating profits") – for the Industrials businesses.

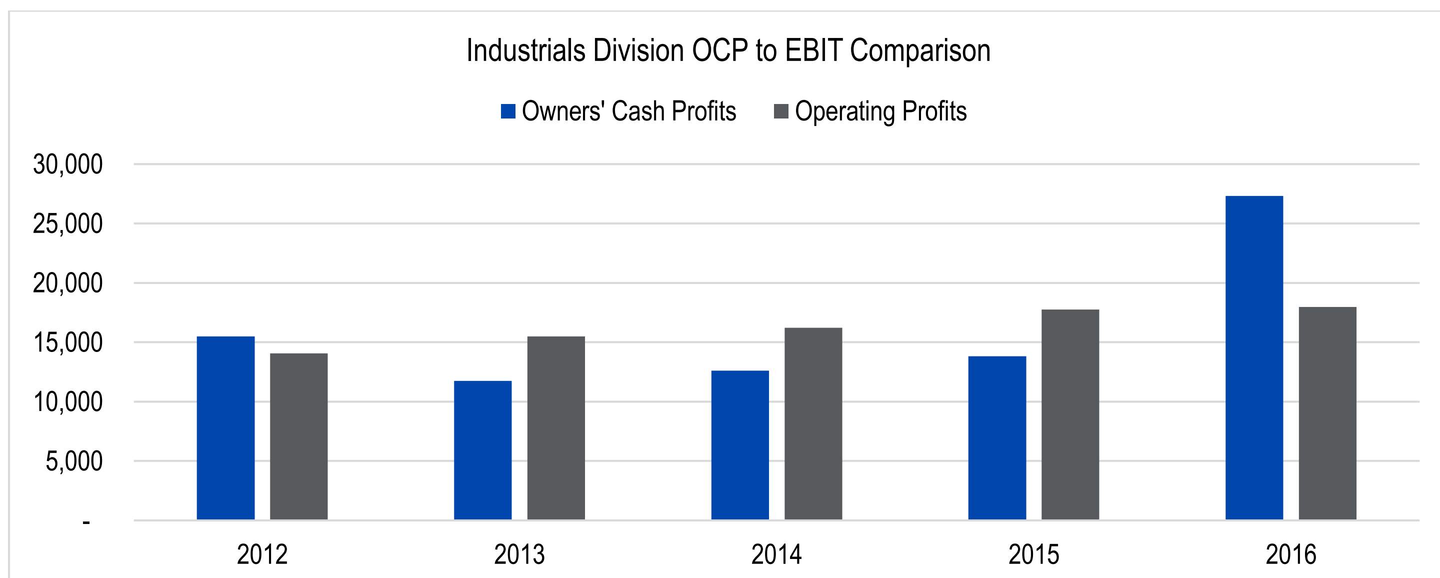

Figure 16. Source: Company Statements, Framework Investing Analysis

EBIT is a pre-interest / pre-tax number, so generally, it should be higher than OCP. Indeed, we see that during the years of 2013-2015, it is higher by roughly an equal proportion. 2016 is an outlier due to gains from the divestment of consumer finance businesses and 2012 saw a non-cash charge related to GE Capital's business that decreased EBIT, but not OCP.

After reviewing historical and competitor data and triangulating with another measure of profit, we are comfortable with our projected near-term profitability range for GE.

Investment Level

Expansionary Cash Flow is Framework Investing's measure of investment spending net of asset sales and divestments.

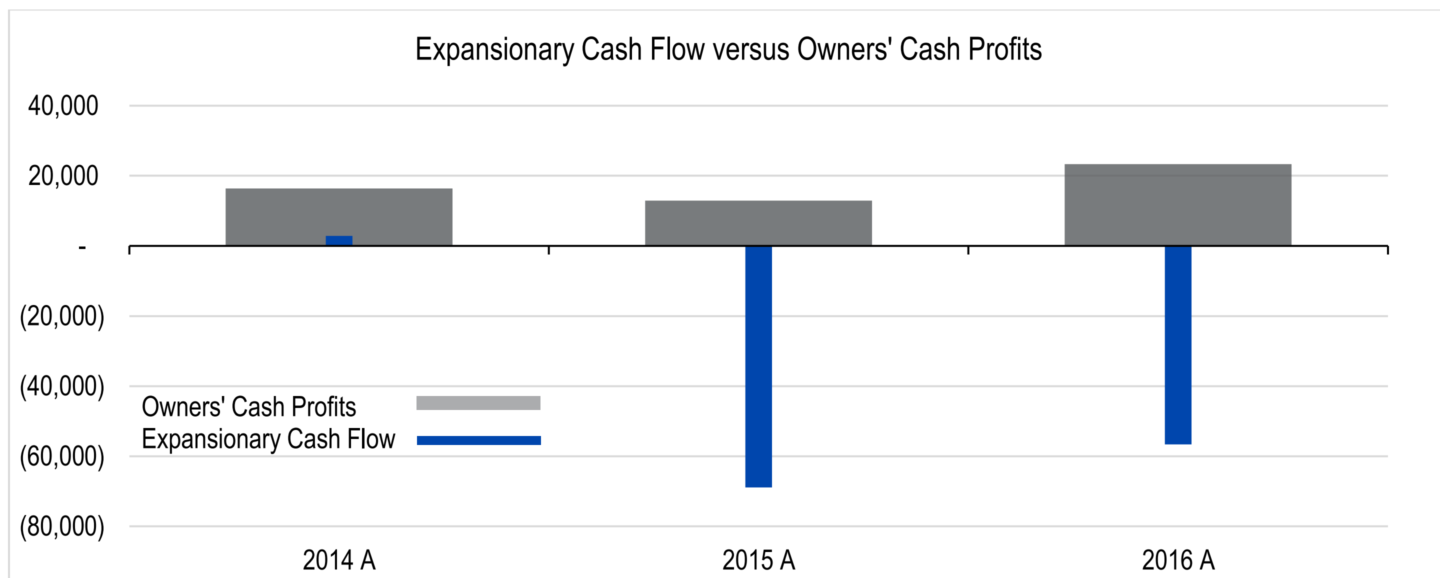

Figure 17. Source: Company Statements, Framework Investing Analysis

GE has spent the last few years divesting non-core businesses and focusing in on the business segments described in detail above. As such, its recent investment spending, shown in the figure above, is certainly not representative of the investment needs of the firm on a normalized basis.

Looking on a longer timescale, we see the firm has gone through three distinct investment / disinvestment phases. In 1990-1998, the company spent a median of 17% of its profits on investments; from 1999-2005, the firm went on an acquisition spree and spent nearly 70% of its profits on investments; during the Immelt period, the firm switched to disinvestment mode and generated nearly 40% of its profits from selling off business lines (i.e., it generated cash from its investments rather than spending cash on them).

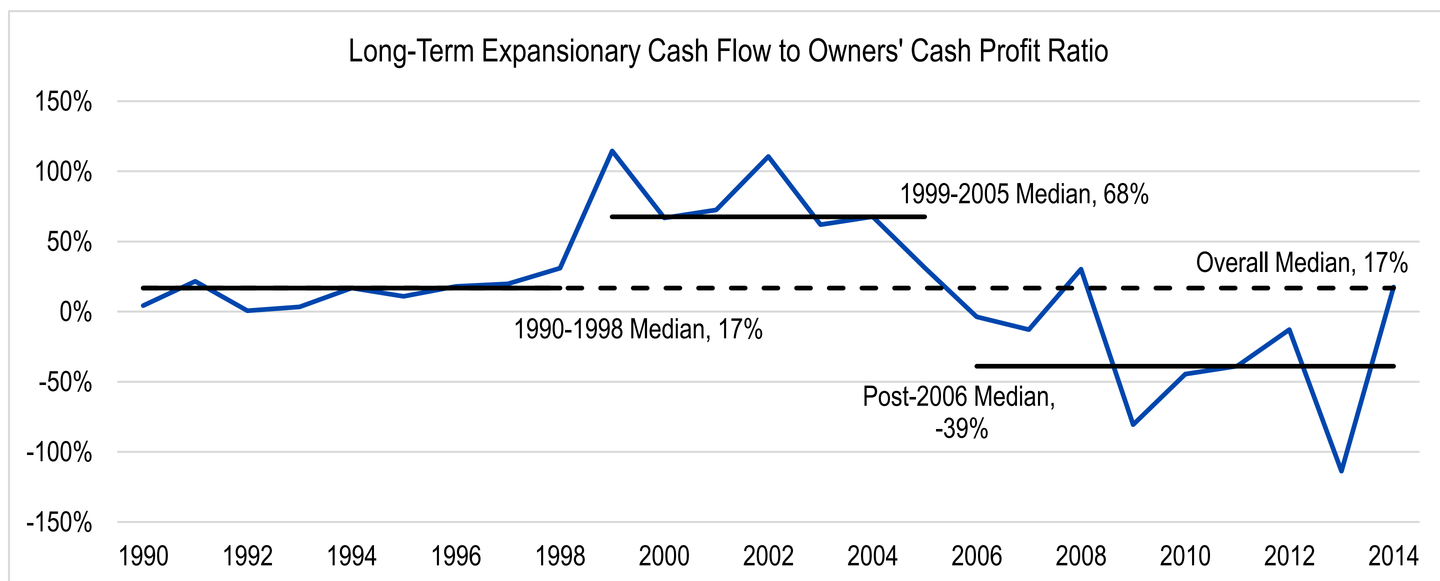

Figure 18. Source: Company Statements, Framework Investing Analysis. 2015-2016 were excluded from the chart for clarity, but their values are included in the calculation of median values.

Interestingly, the 1990-1998 period median is precisely the same as the overall median from 1990-2016: 17%. Our model assumes that the company will spend 15% of its profits on investments over the next five years.

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Our projected investment level implies Free Cash Flow to Owners (FCFO) of roughly $0.09 to $0.12 for every one dollar of revenue generated by the firm. In aggregate without discounting for the time value of money, we believe the firm will generate around $67 billion in the worst case to $84 billion. At a discount rate of 10%, this implies a value for the five-year Explicit Period ranging from $45 billion to $67 billion.

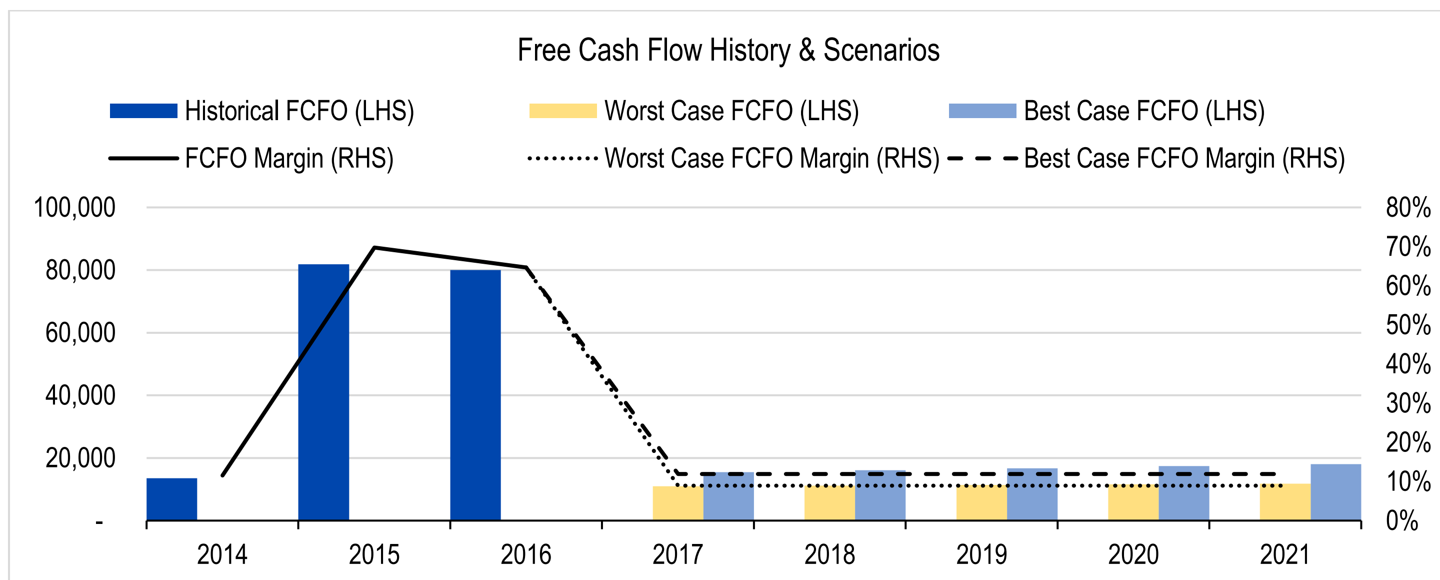

Figure 19. Source: Company Statements, Framework Investing Analysis

Investment Efficacy

Corporate investments lead to profit growth. FWI measures profit growth versus the standard yardstick of nominal GDP growth to assess the efficacy of the company's past investments.

Considering all the divestitures over the past few years, we found it unhelpful to look at our usual charts showing investment efficacy. The firm's profits have decreased, but reduced profits have "bought" owners radically higher free cash flows.

As such, to assess the likely efficacy of GE's present investments, we must simply consider the areas in which it is pouring the most human and monetary capital. We believe the Power business to have an attractive fundamental profile over the next 10 years. The developed world requires power to feed its addiction to Facebook and other time-wasting frivolity; developing markets crave power to fuel economic growth and to eventually be wealthy enough to waste as much time with online banality as Americans, Europeans, and Japanese. In addition to revenue growth, there is likely room for cost efficiencies from the Alstom acquisition, and as GE's Internet of Things (IoT) initiatives gather steam, the company will likely realize even greater efficiencies.

The Renewables business fits well into this conceptual picture and the 10% or so of the GE portfolio exposed to the renewable energy boom should grow quickly. While we are less excited about the growth trajectory of Oil & Gas, this is the kind of business where scale wins, and GE now has the scale to effectively compete in a consolidating industry. This is another area in which even if revenues are flat, cost cutting and selective disinvestment can generate good cash flows on behalf of its owners.

While the Healthcare business now appears to be slow-growing due to political overhang, demographically, time is on GE's side. As China's population continues to age and a greater proportion of the population becomes wealthy, GE Healthcare's products and services will be in greater demand. As developed markets' economies return to a path of more robust growth, healthcare systems will again begin demanding more of GE Healthcare's innovations.

Aviation too is an important field in a shrinking, interconnected world, assuming that xenophobia and isolationism fail to win the day (if not, best to by Defense manufacturers…).

In general, we continue to believe that a bet in General Electric is a bet on the continuing prosperity and productivity of the human race. If GE does not succeed, investors will have more things to worry about than their investment in GE.

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Balance Sheet Effects

Any cash flow-based valuation rests on the implicit assumption that the assets and liabilities of the firm are all operational (i.e., they operate to generate cash in- and out-flows, respectively). In some cases, a company may have assets or liabilities that are non-operation and / or are “hidden” and not commonly recognized as producers of cash flows. We call these assets and liabilities “Balance Sheet Effects,” and they have the potential to immediately add to or detract from the value of a firm. An excellent example of a negative Balance Sheet Effect was Enron’s “special purpose vehicles,” which fraudulently removed liabilities from the company’s balance sheet, but when discovered, immediately detracted from the value of the firm to the extent that Enron was forced to declare bankruptcy.

We believe that Balance Sheet Effects – in the form of the GECAS and other Financing structures designed to shield GE’s overseas earnings from US taxes – have the potential to play a negative role in the valuation of General Electric. General Electric periodically litigates against national tax authorities. We do not believe that any of these litigations have the potential to materially affect GE’s value. However, if the US were to enact a policy of thorough tax reform, the portion of GE’s value associated with its ability to limit its tax liabilities could suddenly become valueless.

We prefer to consider ourselves realistic rather than cynical, but our belief is that the number and power of industry groups that derive great benefits from the present convoluted system of taxation (accounting firms, investment banking firms, tax software providers, CPAs, tax lawyers, etc.), coupled with an election system that can be best described as “the best democracy money can buy,” suggests that the likelihood of comprehensive tax reform is almost infinitesimally slight.

GE’s stock price might be negatively affected by announcements related to tax reform, but our view is this is mostly a matter of market risk rather than the more serious valuation risk. Without a firm legislative tax reform proposal and an assessment of the likelihood of passage, we cannot assess the value of this negative Balance Sheet Effect. We will update our model when and if such information becomes available.

Valuation

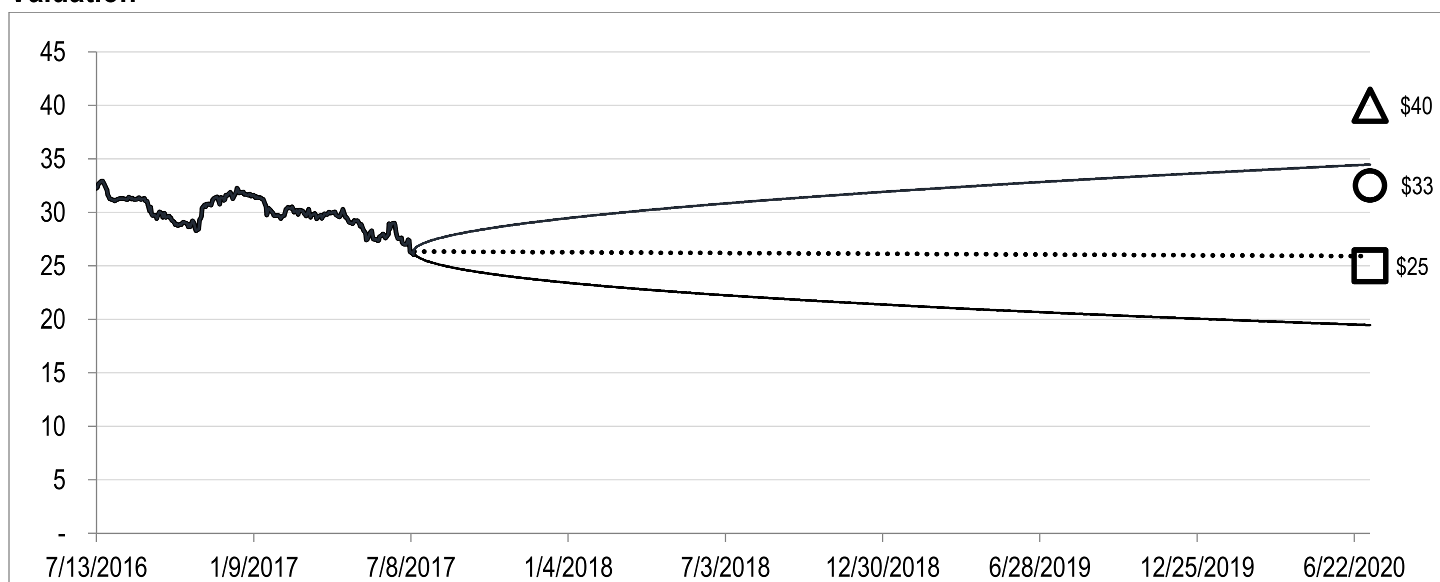

Figure 20. Source: YCharts, CBOE (pricing data), Framework Investing Analysis

The operational assumptions combine to create the valuation range shown above: $40 per share in the best-case and $25 per share in the worst-case with an equal weighting of all our eight valuation scenarios at $33 per share.

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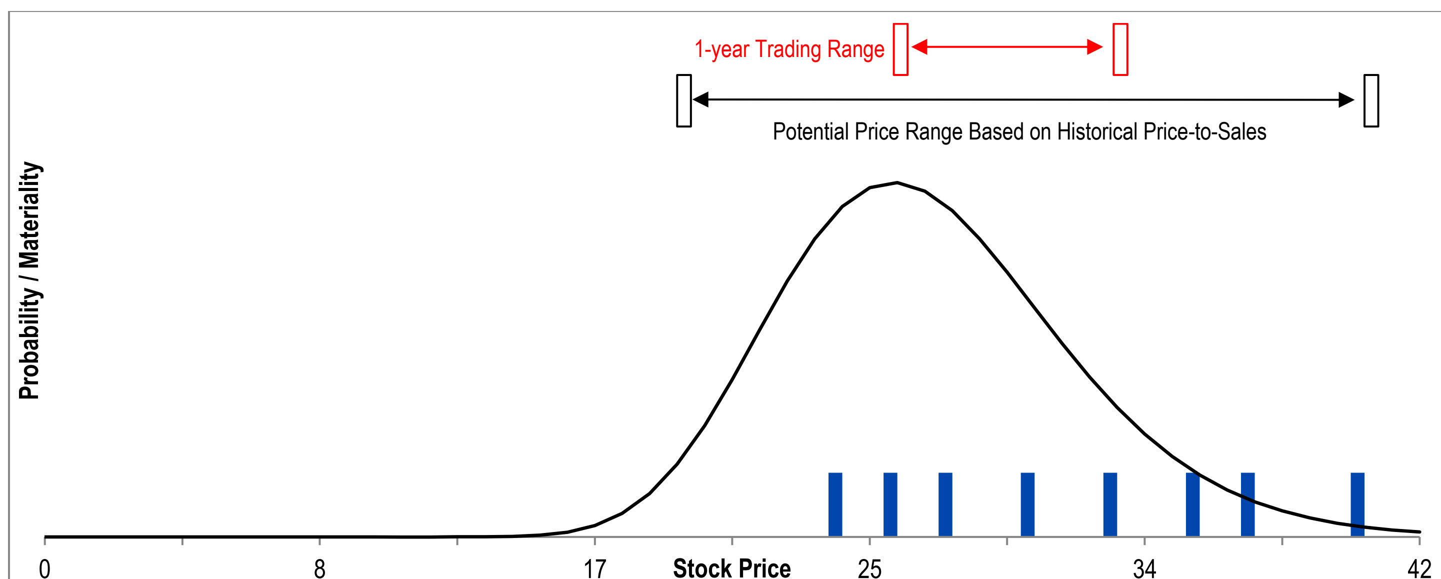

Figure 21. Source: YCharts, CBOE (PSR and option pricing data), Framework Investing Analysis

We do not believe that we have the information about profitability necessary to select any valuation scenarios as being more or less likely, but after following the company for several years, believe that the valuation range will likely be skewed toward the upside. We presently have a position that includes both a stock and option position. If operational data over the next two years indicates that lower valuation scenarios are more likely, we will remove leverage (first) and reduce position size (second).

Even though the lowest valuation scenario sits below the stock's market price, dividend payments will allow us an EBP lower than the worst-case valuation scenario within a year. As such, we consider this investment to have low valuation risk.

Investment Structuring

On the basis of our valuation, we recommended three different investment structures.

Bond Replacement (Short Put)

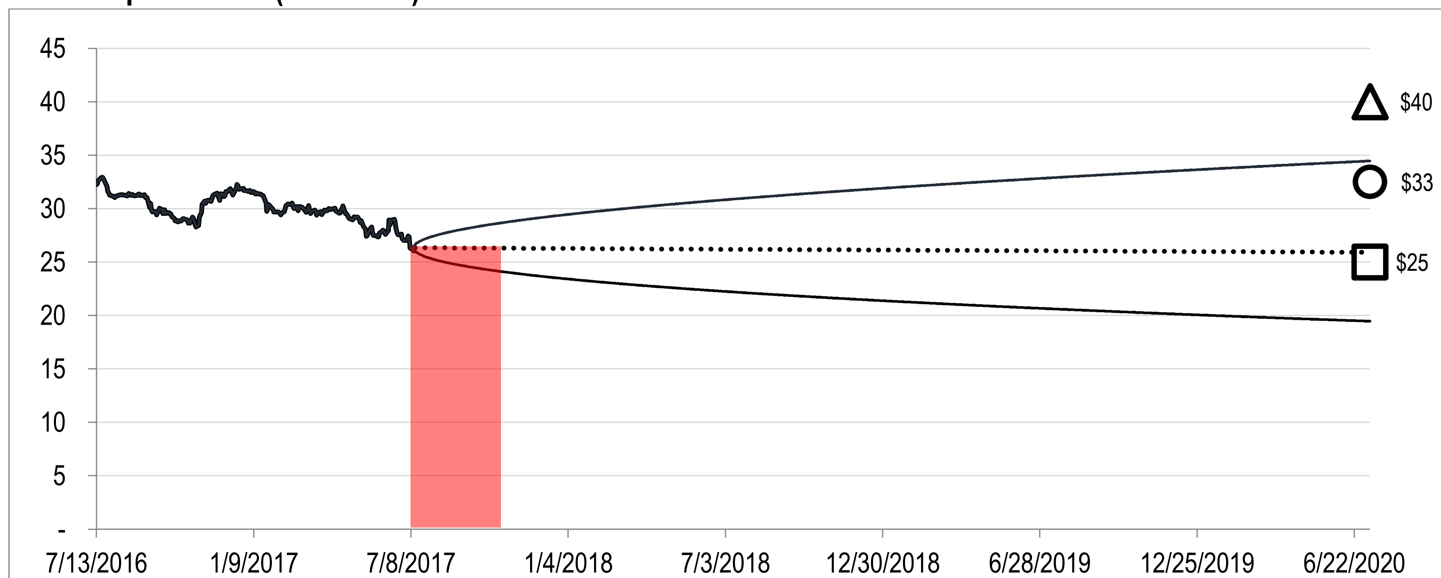

Figure 22. Source: YCharts, CBOE (pricing data), Framework Investing Analysis

This investment structure – a cash-secured put sold ATM and expiring within three to six months – was highlighted in a Tear Sheet published on July 12, 2017. An investor in this structure gets paid a premium for accepting downside valuation risk while taking on almost no valuation risk, in our opinion. We have high confidence that this investment structure will at least break even.

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Levered Long

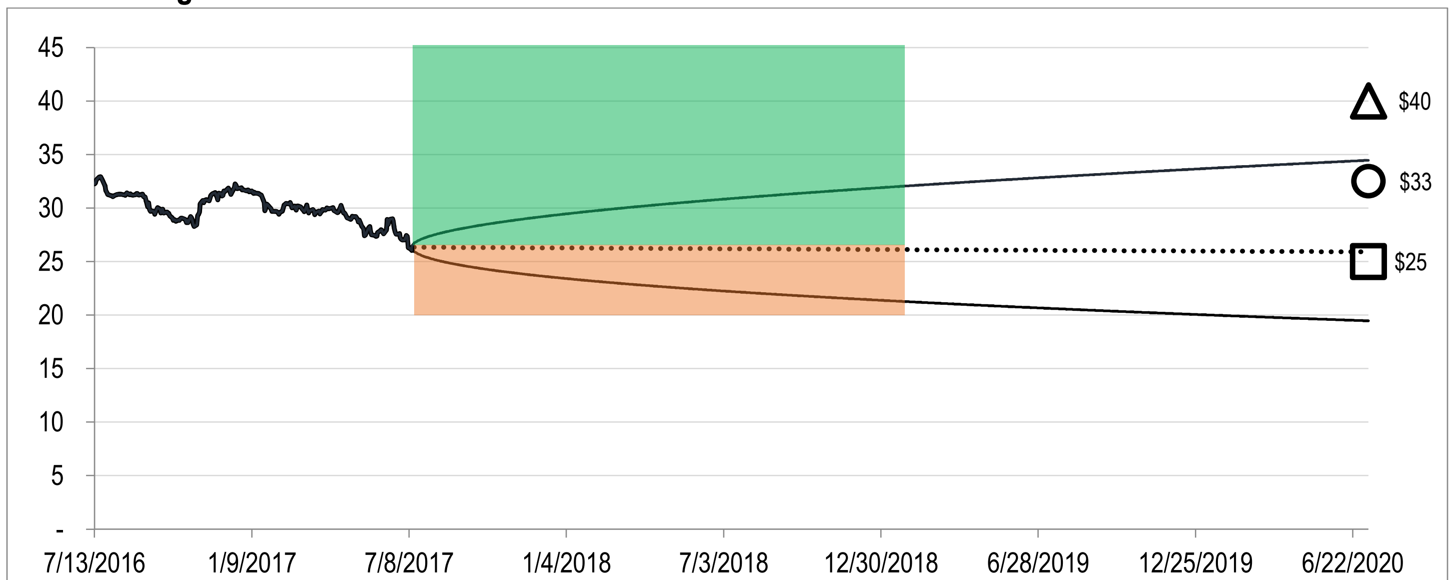

Figure 23. Source: YCharts, CBOE (pricing data), Framework Investing Analysis.

This investment structure – the purchase of an ITM call struck at $20 and having as long a tenor as possible – was highlighted in a Tear Sheet published on July 13, 2017. This structure risks the investor's capital while attempting to minimize the amount of money spent on time value (which we consider to be an immediate realized loss). The strike was set by looking at both the time value on the contract and at the likely lowest price indicated by our Price-to-Sales ratio data (see figure 21 above). Note that the holder of a call option is not entitled to receive dividends, but the price of the option should be cheaper by the discounted value of future dividend payments. In other words, if you hold the stock, you receive dividends; if you hold a call option, you receive a discount on it equal to the value of the future dividends.

This structure can be combined with the next structure in such a way as to tailor the position's overall leverage level.

Long Stock

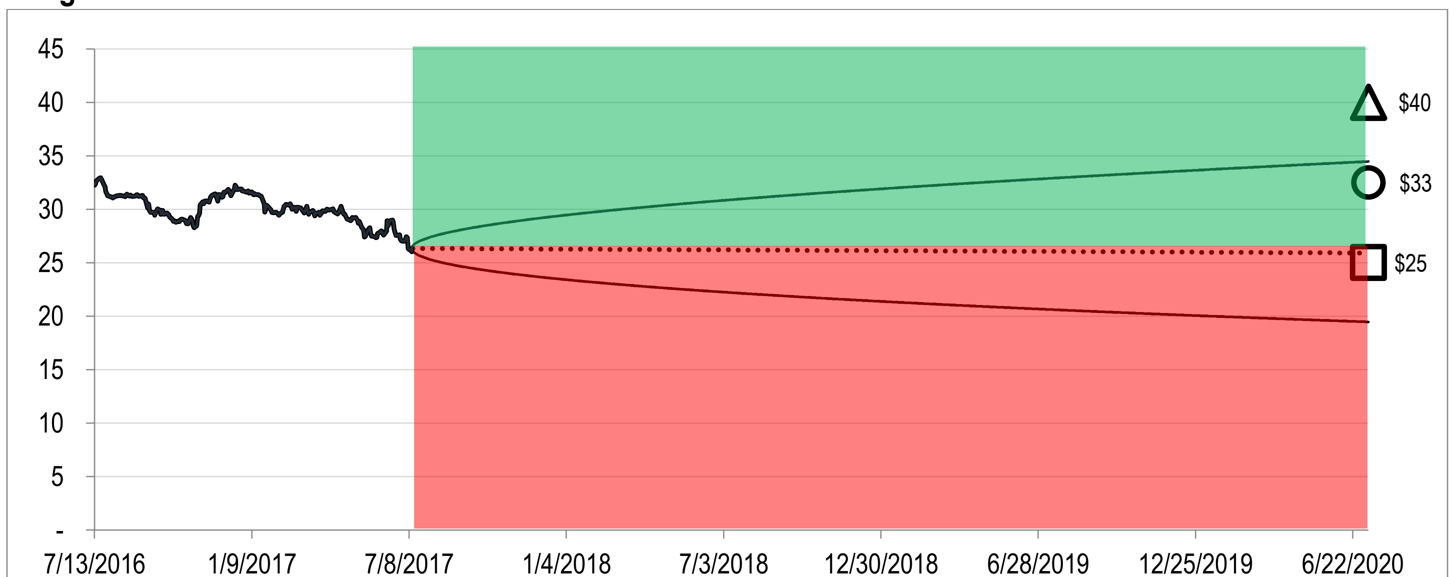

Figure 24. Source: YCharts, CBOE (pricing data), Framework Investing Analysis.

The option structures listed above accept downside risk while gaining upside potential. One can do this using the underlying security by simply buying (a/k/a "going long") the stock.

Options involve risk and are not suitable for all investors. For more information, please read the Characteristics and Risks of Standardized Options.

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