Framework Investing

Reviews

JPM's Report on General Electric

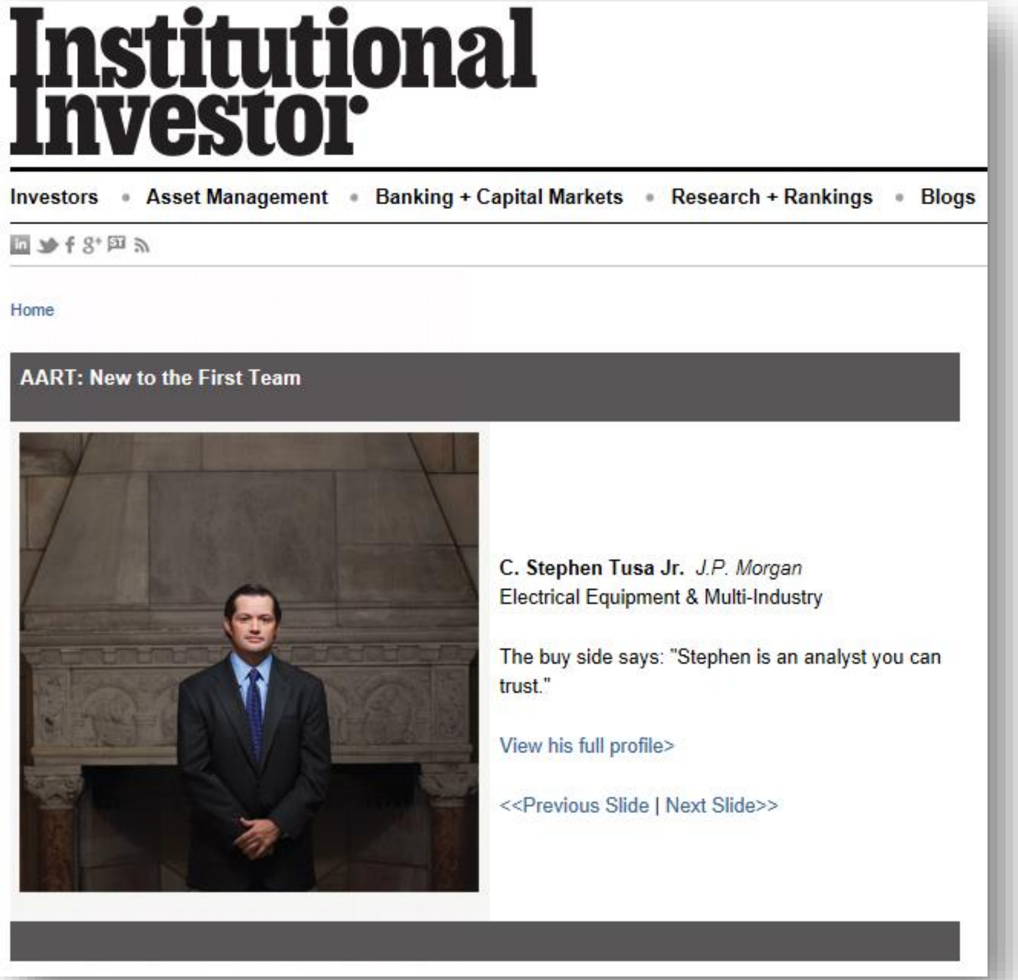
Framework Member Conference Call

Sept 14, 2017

Agenda

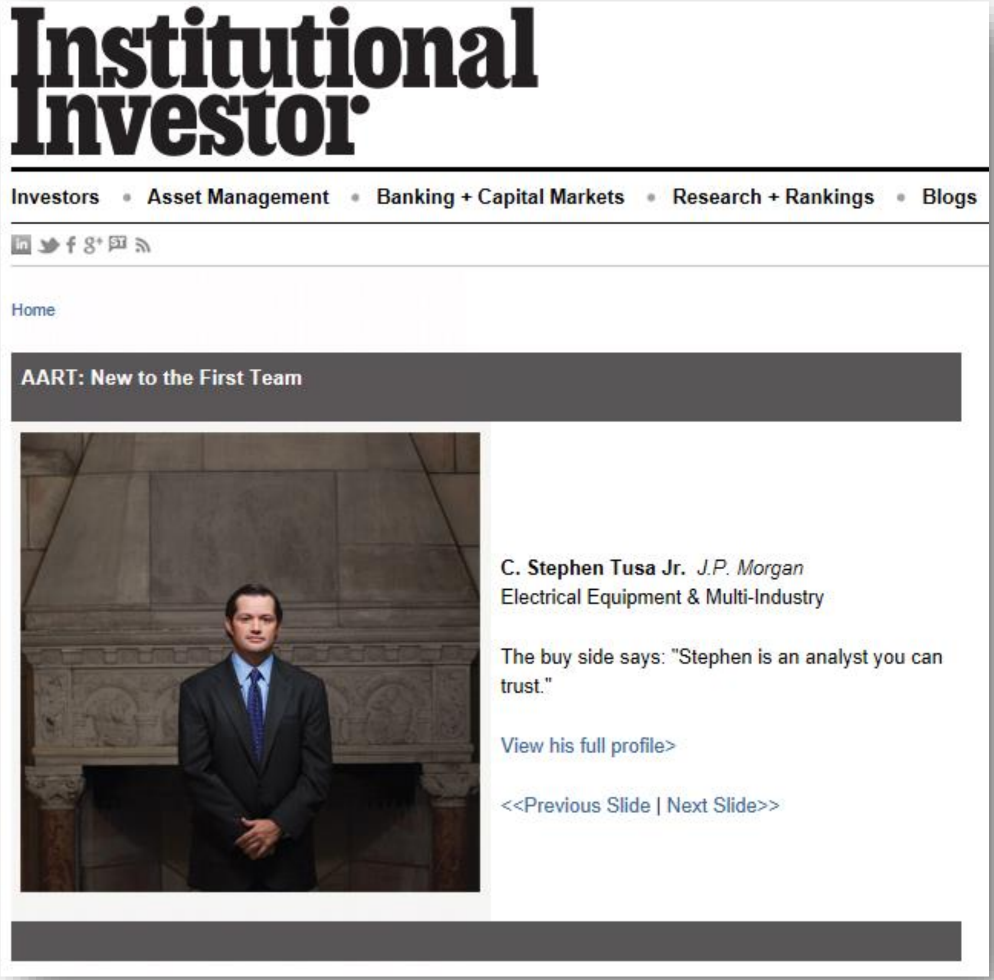
- Introduction
  - Analyst’s background and argument
- Valuation Driver Analysis
  - Revenue projections
  - Profitability forecasts
  - Free Cash Flow
- JPM’s Valid Point
  - Investing efficacy
- Conclusions

C. Stephen Tusa, CFA



- Long career covering General Electric and competitors
- Inside access: Mentioned Jeff Immelt discussing whether or not GE Capital should be jettisoned at a breakfast in *2005*.
- Well thought of on the buy-side – “an analyst you can trust”
- GE report published in July is 133 pages and is very thorough. I was in awe with his knowledge of the company.

C. Stephen Tusa, CFA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AART: New to the First Team

C. Stephen Tusa Jr. *J.P. Morgan*
Electrical Equipment & Multi-Industry

The buy side says: "Stephen is an analyst you can trust."

View his full profile>

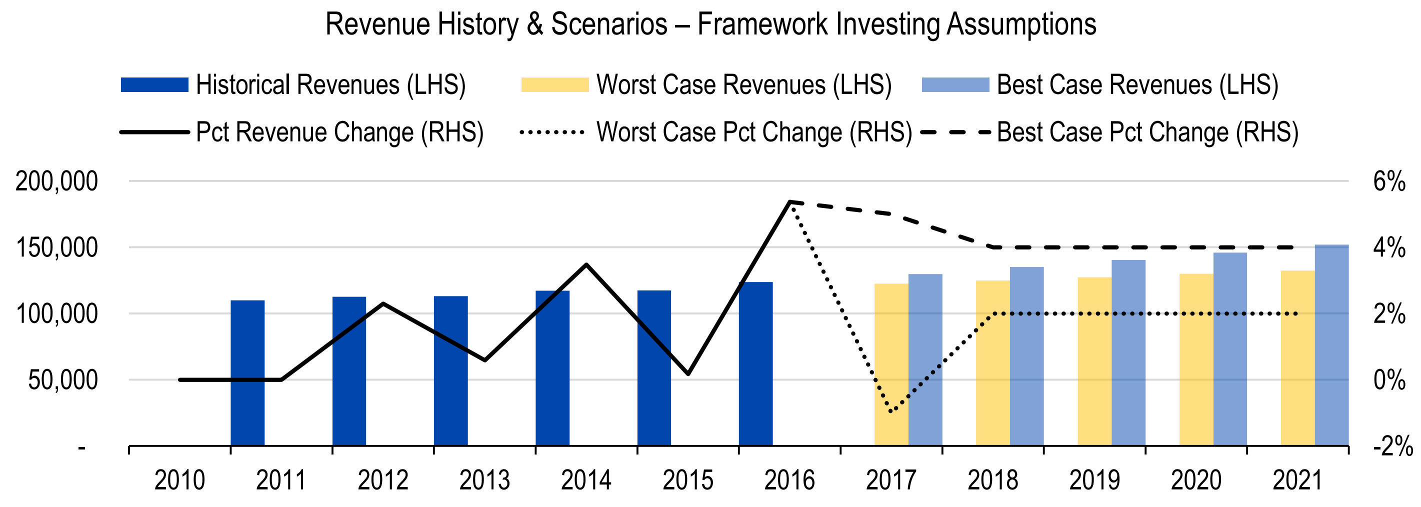
<<Previous Slide | Next Slide>>

- We believe Tusa's call is essentially a bet on the strength of the Power market and for the paradigm for that industry.
- His most credible economic argument is that General Electric, a firm whose Power services are focused on providing "H-Class" gas turbine generators, is ill-placed for a world of renewables.
- Believes that GE is perennially behind the curve regarding strategic portfolio balancing.
- Worries that GE's cash flows are insufficient to cover dividends.

Valuation Driver Analysis

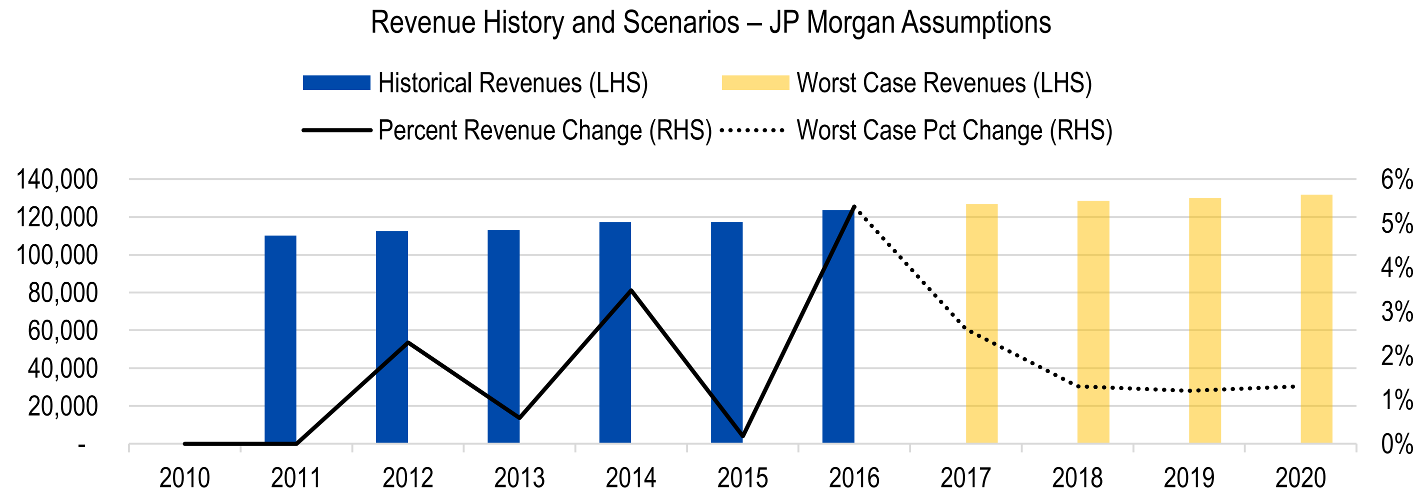
Boiling down 133 pages into its essential economic arguments

Revenues



2020 Assumptions (FWI)

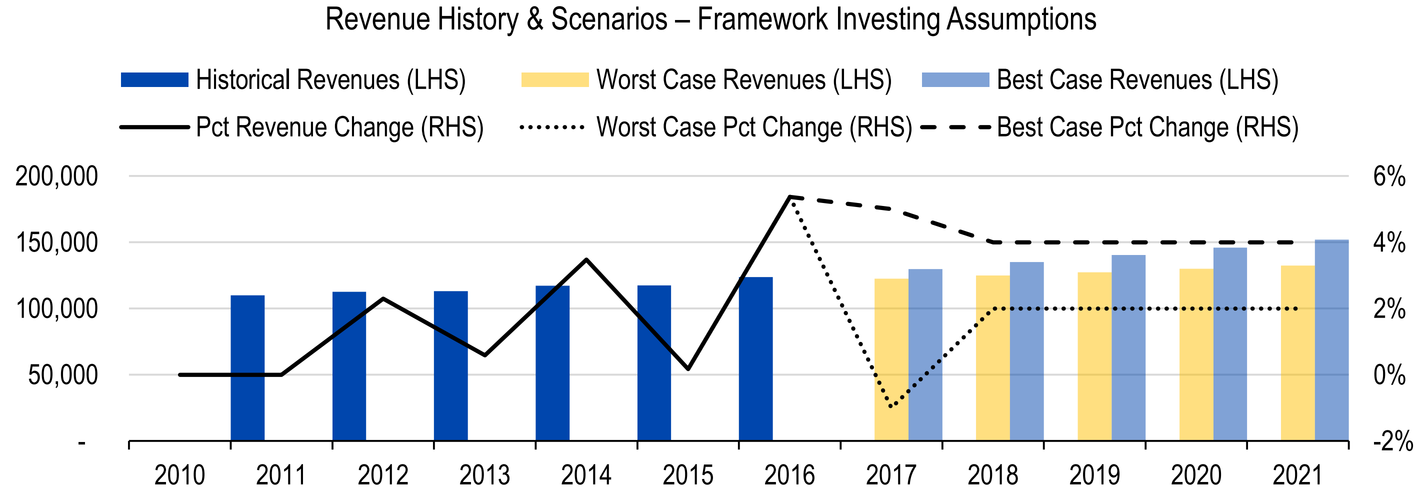
Worst Case: $129.9 billion - 1.2% CAGR
Best Case: $146.1 billion - 4.3% CAGR

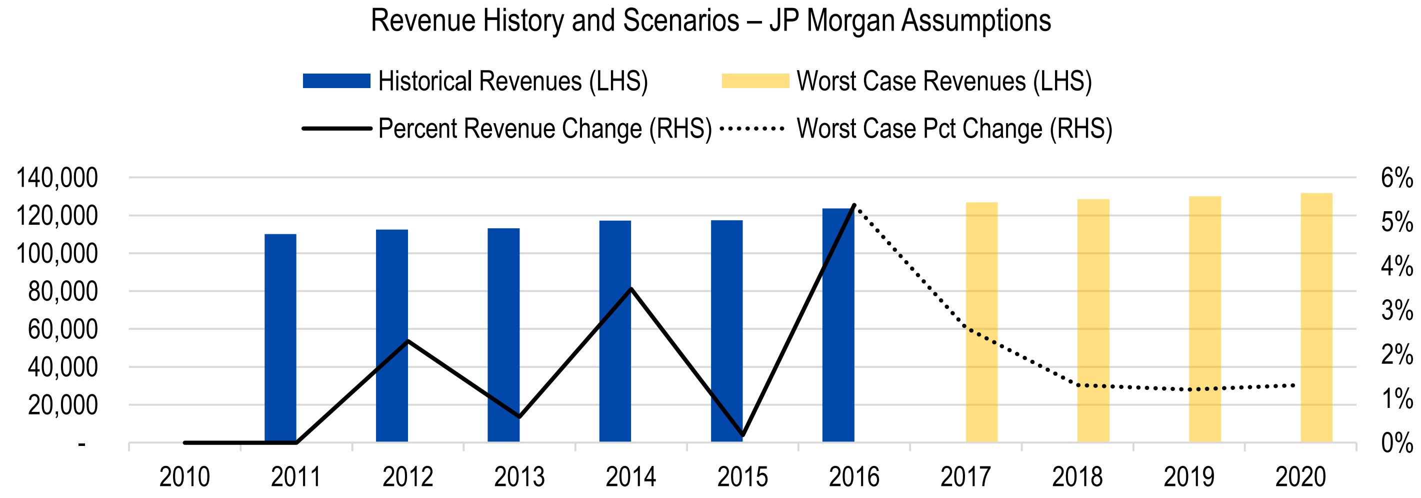


2020 Assumptions (JPM)

Base Case: $131.8 billion - 1.6% CAGR

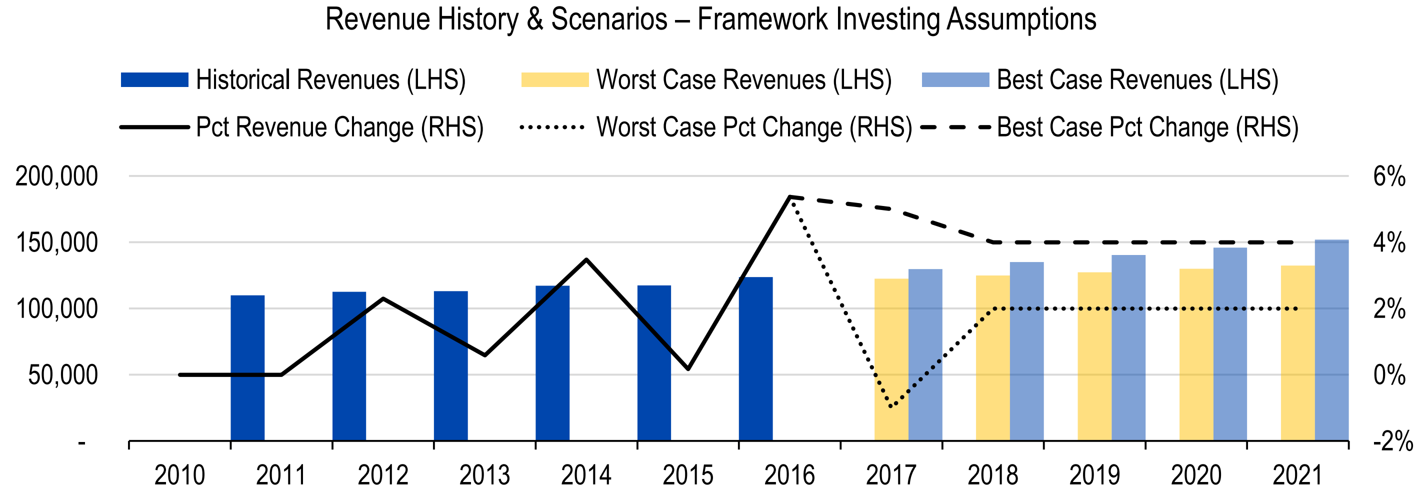
Revenues

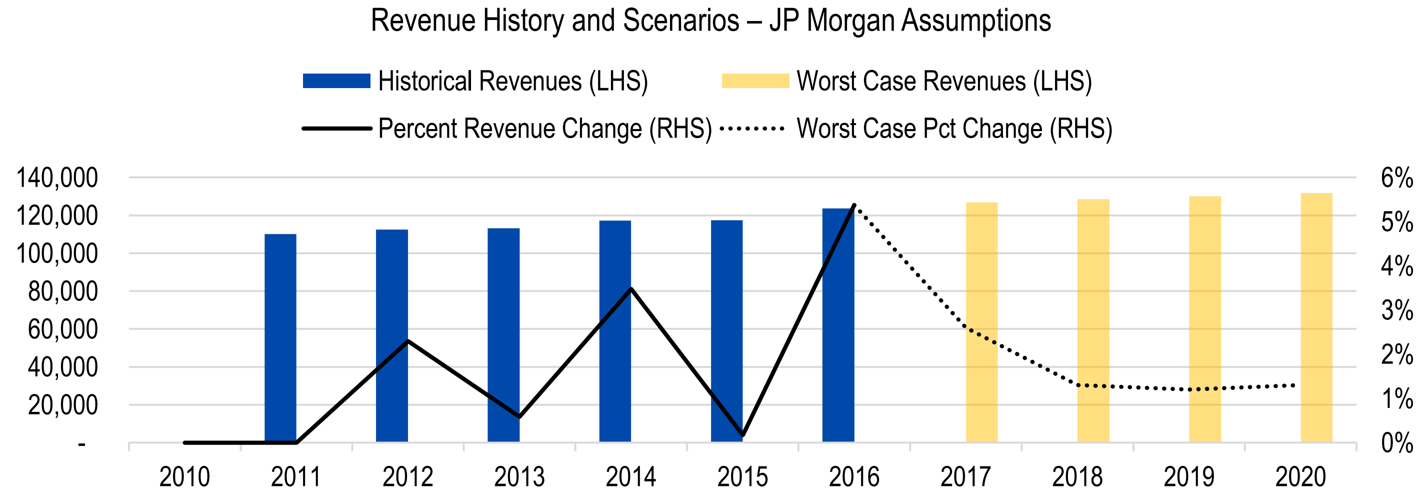




- Tusa's argument relies upon projections for gas turbine (GT) market over the next four years.
- In his view:
  - GT market is oversupplied right now – EM buildouts and developed world switch to renewables.
  - GE holds largest market share but Siemens is close, Mitsubishi Heavy and an Italian firm also in the running.
  - Increasing competition for business and lower service contract payments cause GE's Power business to decline at 4%-5% per year in 2019-2020.

Revenues

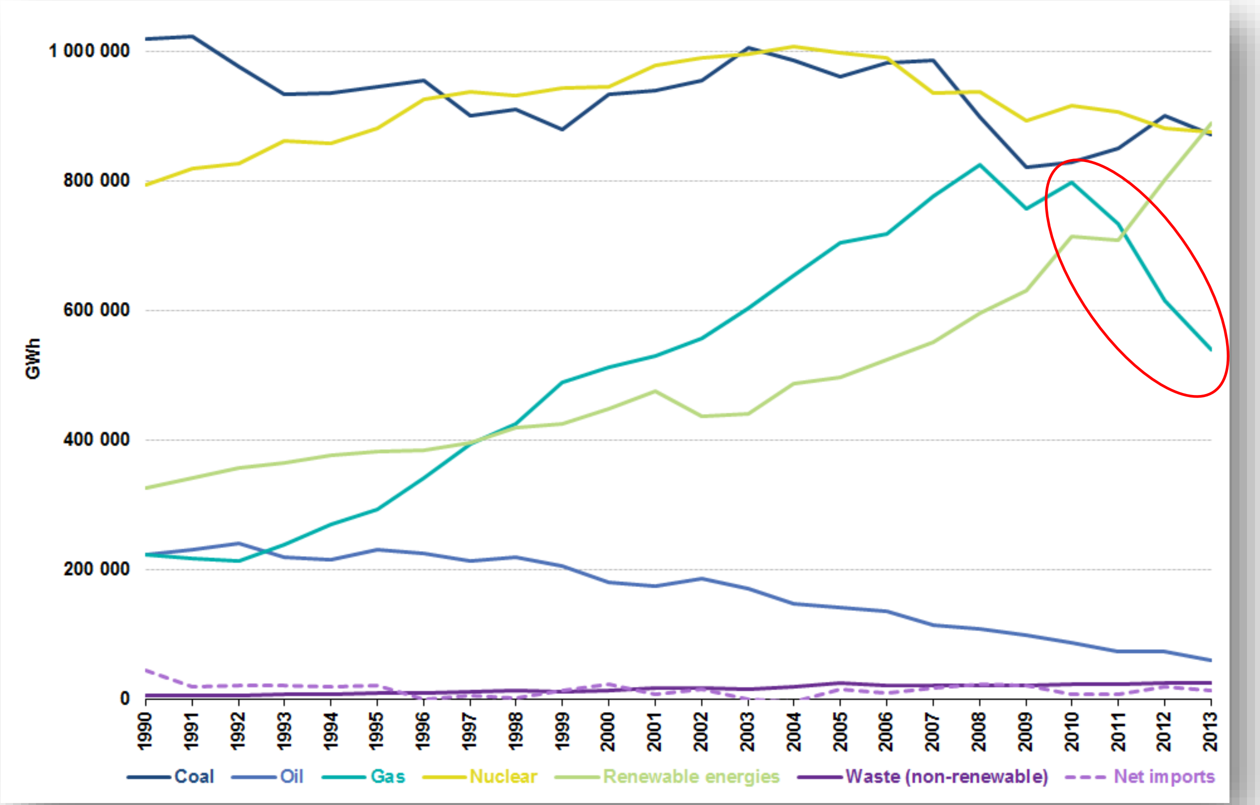




- Tusa is probably right about near-term conditions. GE also said 2017-2018 will be weak, partially due to competition and oversupply.
- His 2019-2020 forecasts rely upon his implicit assumption that heavy-duty gas turbine (HDGT) generation is no longer needed because of renewables' generation ascendency.

Revenues – GT Demand

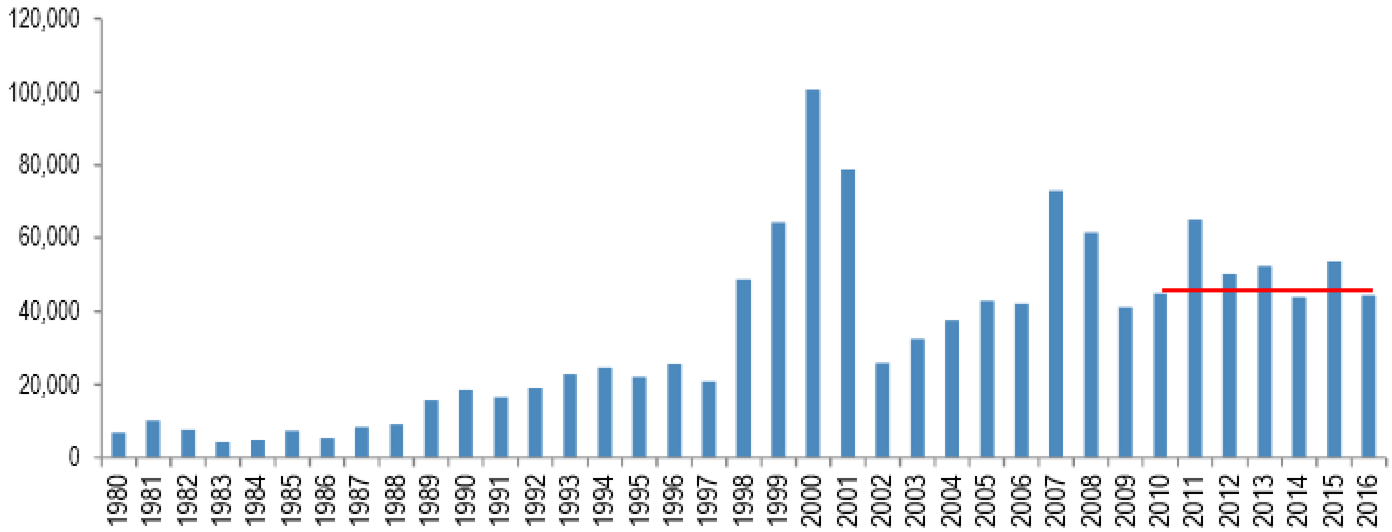
European Generation Fuels - Wikipedia



- Europe has seen a rapid fall-off in GT generation since 2010.
- Siemens, GE’s closest competitor has been affected by this and are skeptical of the health of the (HDGT) market.

Revenues – GT Demand

Figure 80: Global Gas Turbine Orders – Utility Use (MW)

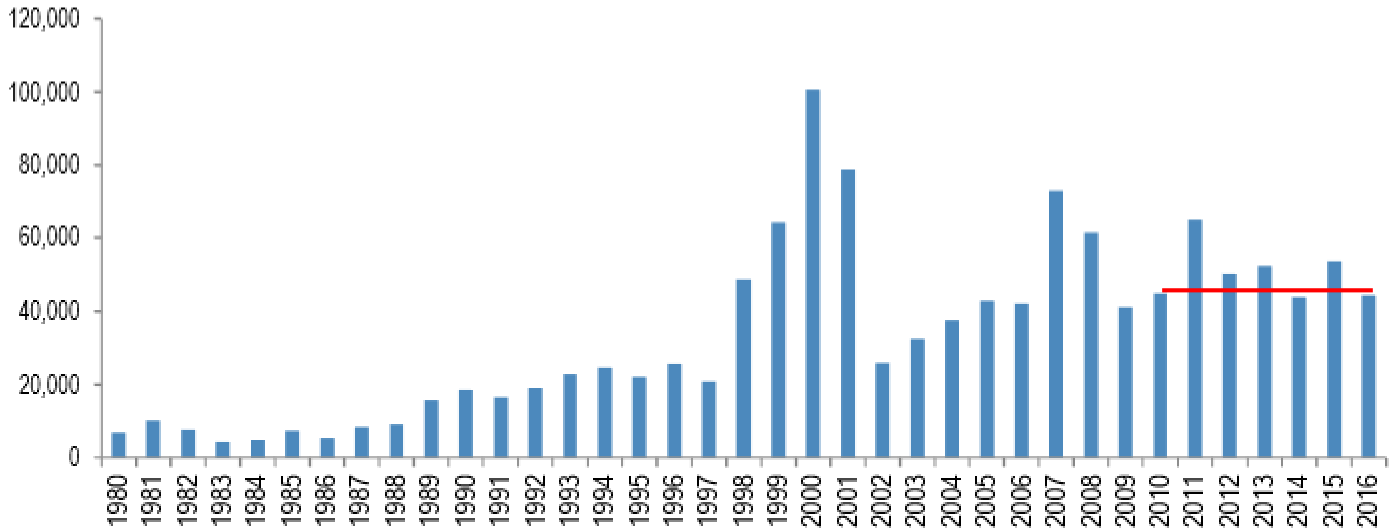


Source: McCoy

- Europe has seen a rapid fall-off in GT generation.
- Siemens, GE's closest competitor has been affected by this and are skeptical of the health of the heavy-duty gas turbine (HDGT) market.
- However, EU decline did not show up in the GT order data Tusa quotes in his own report
- EM might be oversupplied right now, but it is hard to draw a trendline four years out on the basis of these data.
- IEA and others also see GT generation as largest single source through 2035

Revenues – GT Demand

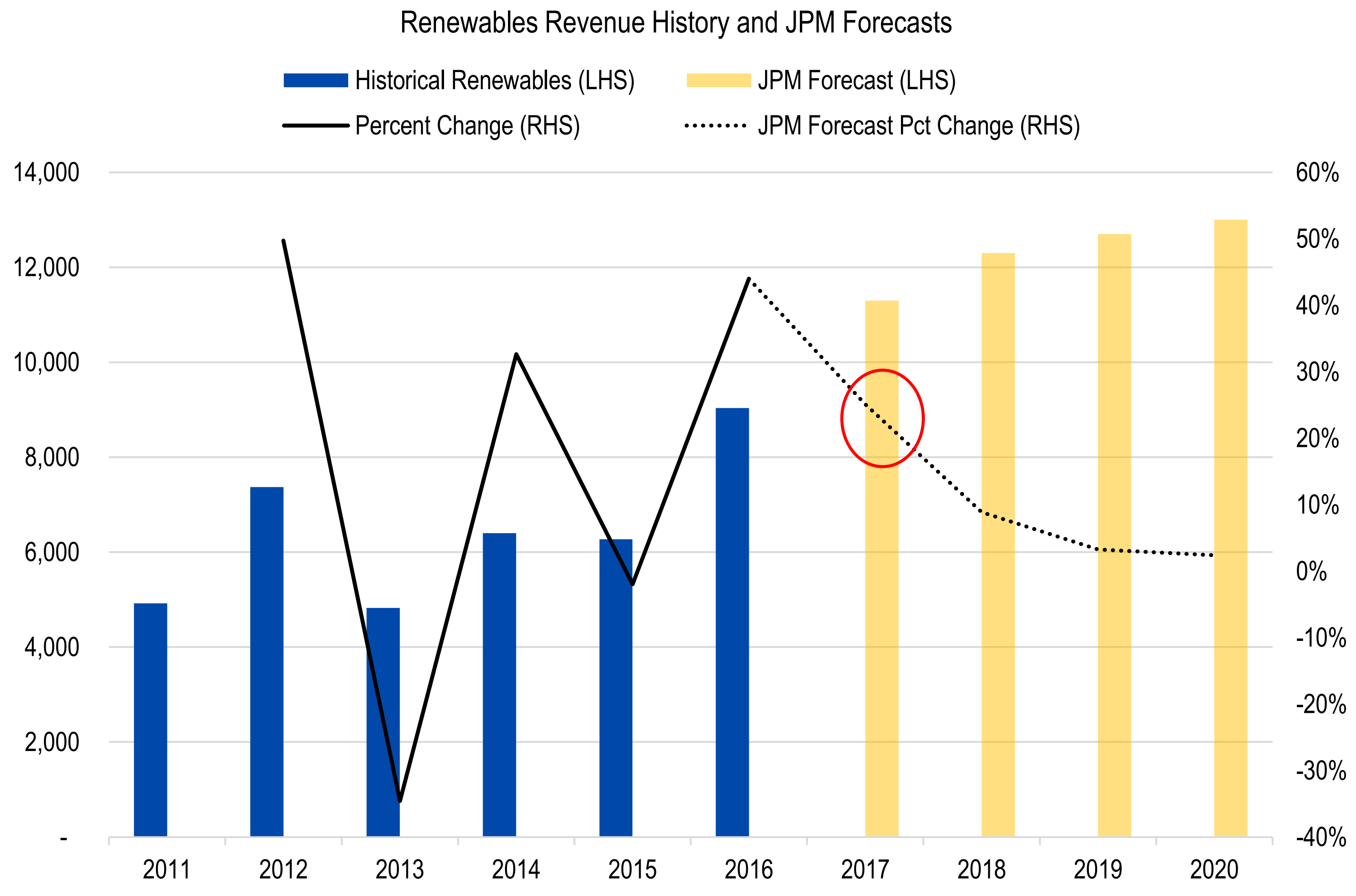
Figure 80: Global Gas Turbine Orders – Utility Use (MW)



Source: McCoy

- GE’s sales also derive from industrial demand – GT generation for smelters and mini-mills – in addition to utility demand.

Revenues – Renewables



- Tusa's main point is that GT generation will lose out to Renewables.
- But Tusa's forecasts for GE's Renewables business falls off very quickly after 2017's guided numbers
- Tusa talks about tough Renewables competition and competition will certainly be a factor in revenue growth.
- GE might not win all of the boom, but to assume that it *loses* market share in a boom doesn't make sense.

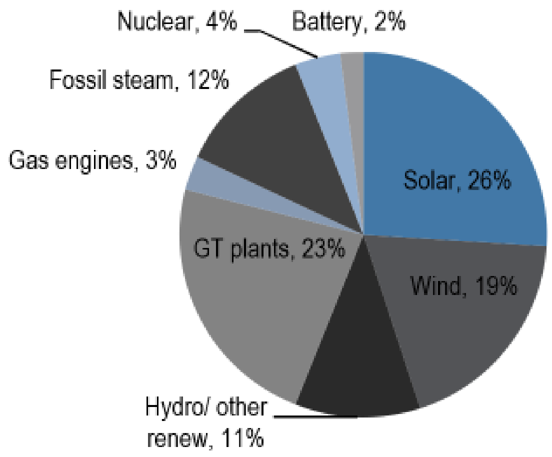
Revenues – Renewables

Renewables: Pricing Pressure and Tough Markets

This segment has some growth but lower margins, challenged by coming price pressure, and smaller services potential. As per GE, renewables are expected to drive >55% of power gen capacity adds over the next decade, with solar leading the way (26%), where GE currently has no presence. Wind is seen adding 19% of new global capacity, with hydro/other at 11%. Gas turbine plants, meanwhile, are expected to represent 23% of new global capacity through 2026, with another 3% from gas engines, and steam/coal will be 12%.

Figure 98: Renewables Lead Growth in New Global Capacity Adds Over Next 10 Years

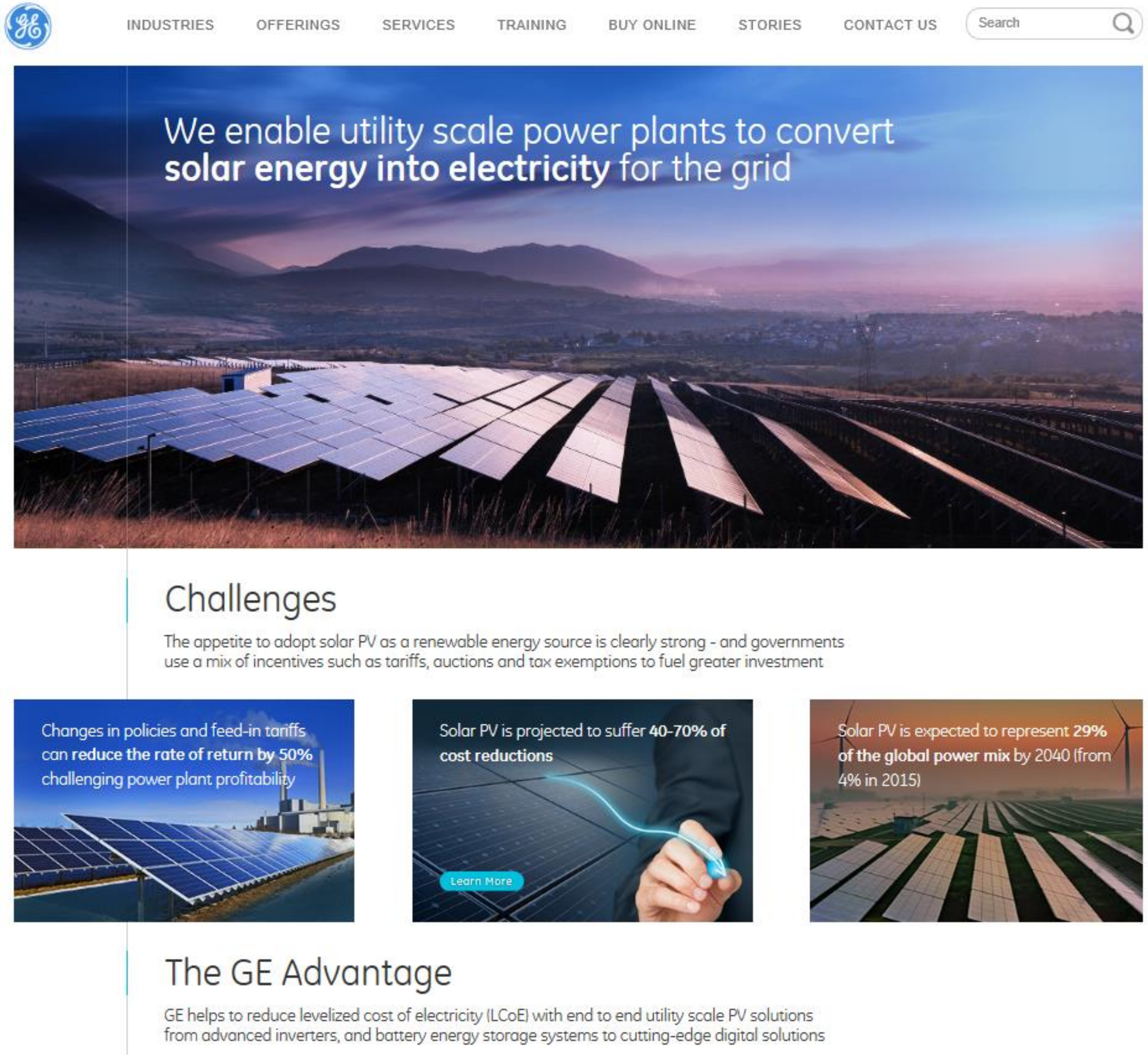
% of new global capacity adds, 2017-2026



- Maybe Tusa's dim view of GE's Renewables competitiveness is because it doesn't have presence in solar.

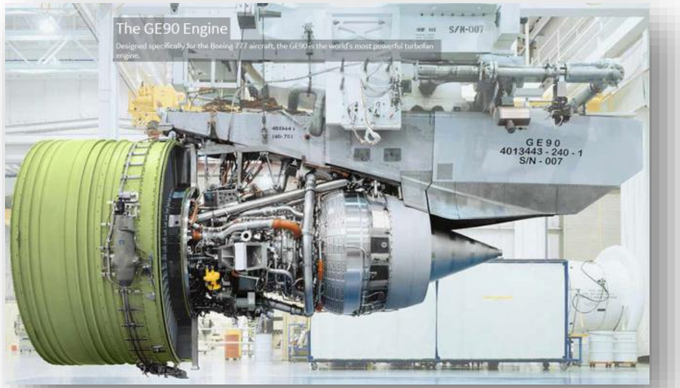
Revenues – Renewables

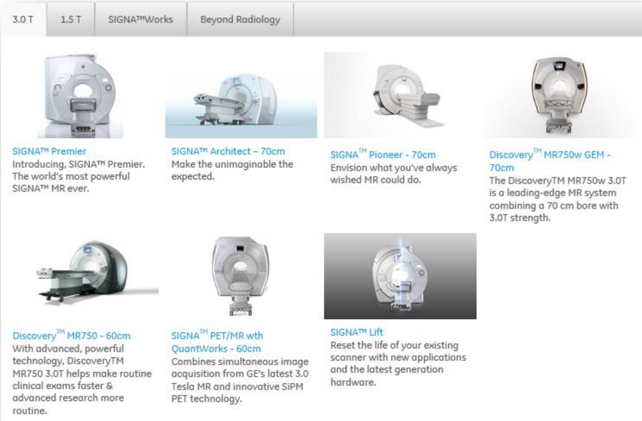
FRAMEWORK Investing



- Except that GE *does* have an offering in solar – in the Power Conversion business.
- GE looks to invest in businesses that offer advantages to difficult-to-replicate technical competencies.
- GE does not compete in the commoditized business of building solar panels or arrays, but does offer products and services to help installed arrays efficiently feed an electrical grid.

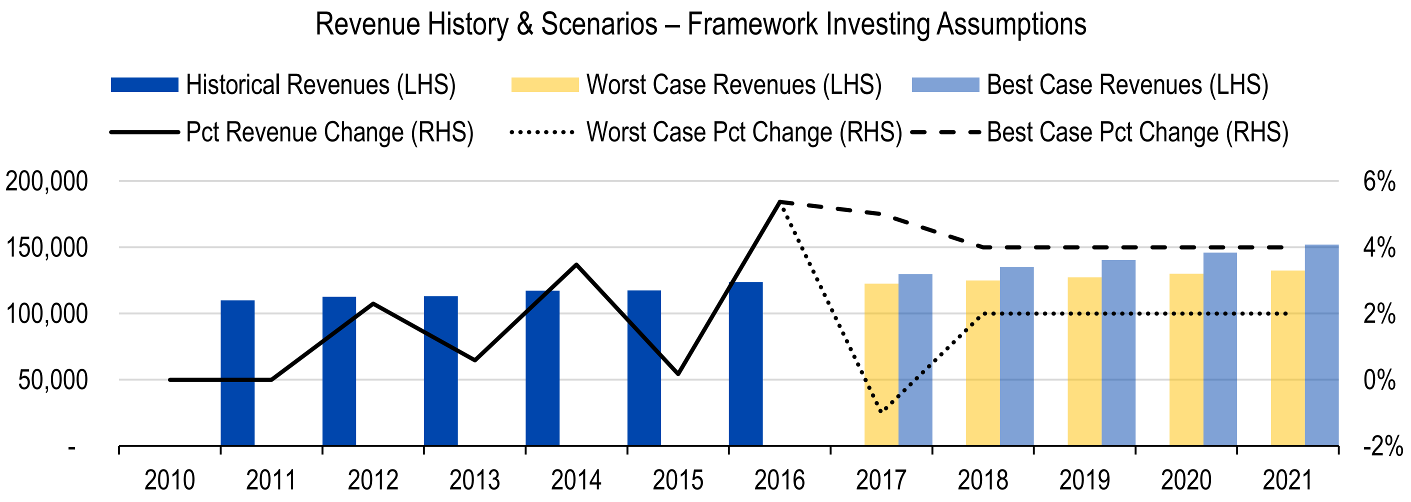
Revenues – Other Businesses

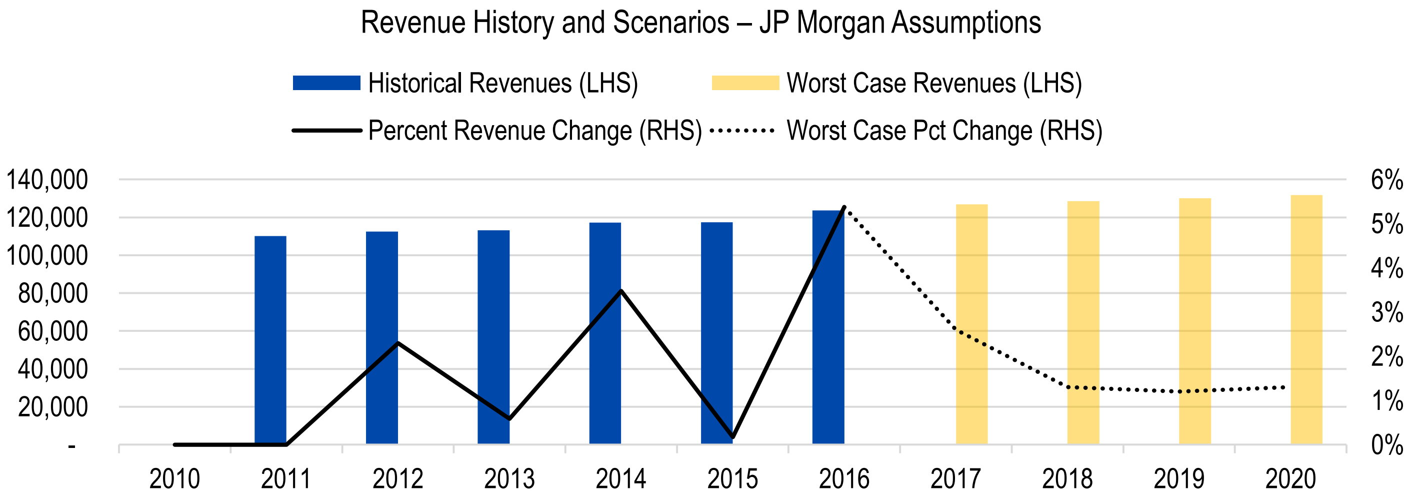




- We largely agree with Tusa on other businesses.
- We are worried about Oil & Gas as well, but probably more about terminal value of that business than short-term dynamics.
- We're hoping Flannery gets rid of Transportation, but the US market is a dog now, so probably not the most strategic time to unload it.

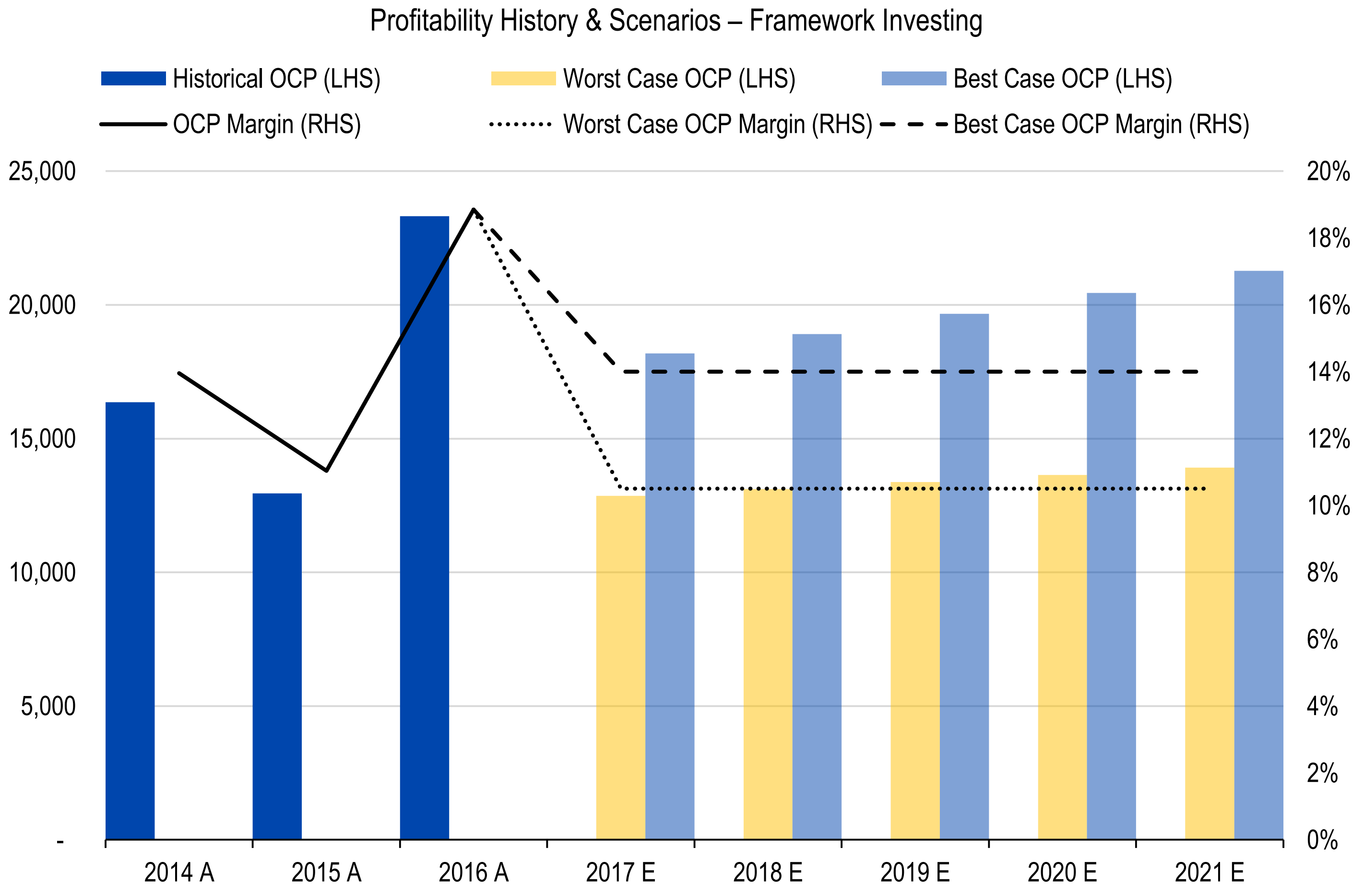
Revenues – Summary





- Tusa may be right about GT generation demand, but probably gives GE too little credit for Renewables.
- Framework's worst-case revenue growth assumptions are actually *worse* than those of JP Morgan's in terms of 2020 sales.
- We see our worst-case revenue projections as representative of a cyclical dip / rebound scenario or of a "muddle along" economic scenario.
- Considering push for increased electrification, GE's Power business seems well-positioned longer term.

Profits



- Framework uses "Owners' Cash Profits" (OCP) – a cashed-based measure of profitability that deducts an estimate of maintenance capital expenditures from Cash Flow from Operations.
- Tusa does not offer enough information in his report for us to recreate his profitability assumptions in OCP terms, so we can't compare directly.
- However, Tusa does make an analysis of GE's Industrial Business's CFOA (Cash From Operating Activities). We find errors in how he analyzes these figures.

Profits – CFOA Analysis

FRAMEWORK Investing

STATEMENT OF CASH FLOWS (CONTINUED)

For the years ended December 31 (In millions)	GE(a) 2016	2015	2014
Cash flows – operating activities			
Net earnings (loss)	$ 7,898	$ (6,061)	$ 15,182
Less net earnings (loss) attributable to noncontrolling interests	(279)	83	(50)
Net earnings (loss) attributable to the Company	8,176	(6,145)	15,233
(Earnings) loss from discontinued operations	952	7,807	(5,698)
Adjustments to reconcile net earnings attributable to the Company to cash provided from operating activities:			
Depreciation and amortization of property, plant and equipment	2,597	2,473	2,508
Earnings from continuing operations retained by GE Capital(b)	21,345	12,284	1,625
Deferred income taxes	1,107	(1,800)	(476)
Decrease (increase) in GE current receivables	929	666	(473)
Decrease (increase) in inventories	(1,337)	(282)	(877)
Increase (decrease) in accounts payable	1,716	276	884
Increase (decrease) in GE progress collections	1,913	(1,010)	(528)
All other operating activities	(7,438)	2,083	2,973
Cash from (used for) operating activities – continuing operations	29,960	16,354	15,171
Cash from (used for) operating activities – discontinued operations	(90)	(12)	(2)
Cash from (used for) operating activities	29,870	16,342	15,169

- Tusa is most concerned about dividend payments made by GE's Financing business to the Industrials business.
- As pieces of the financing business were sold off, large special dividends were paid to the Industrials business.
- He makes a sensible point that if these large payments are backed out of Industrials' cash flows, Industrial CFOA will be much lower. So much so that it will be hard for GE to support the dividend.

Profits – CFOA Analysis

FRAMEWORK Investing

	2014	2015	2016	2017E
GAAP FCF				
Industrial CFOA	12,171	12,054	9,775	8,205
Gross Capex	(3,970)	(3,785)	(3,758)	(3,950)
Ind FCF GAAP	**8,201**	**8,269**	**6,017**	**4,255**
GE Capital Dividends (Ex-divestitures)	**3,000**	**0**	**0**	**0**
Industrial FCF/Share	***$0.81***	***$0.83***	***$0.66***	***$0.49***
Total FCF/Share	***$1.11***	***$0.83***	***$0.66***	***$0.49***
Industrial Conversion	*84%*	*72%*	*51%*	*36%*
Total Conversion	*67%*	*63%*	*44%*	*31%*

40% drop in cash flow per share!

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Profits – CFOA Analysis

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- However, we believe that these dividends were paid to Industrials to offset extraordinary tax and other charges related to the complex business realignment.
- 2015 saw charges of over $15 billion related to the discontinued financing business.
- 2016 saw a $7 billion cash charge also related to divestment, as well as nearly $2 billion in I/S charges.
- Adjusting out the positive dividends without adjusting out the negative effects of the divestment doesn't make sense. We think Tusa's conclusion about CFOA per share is not valid.

Profits – CFOA Analysis

FRAMEWORK Investing

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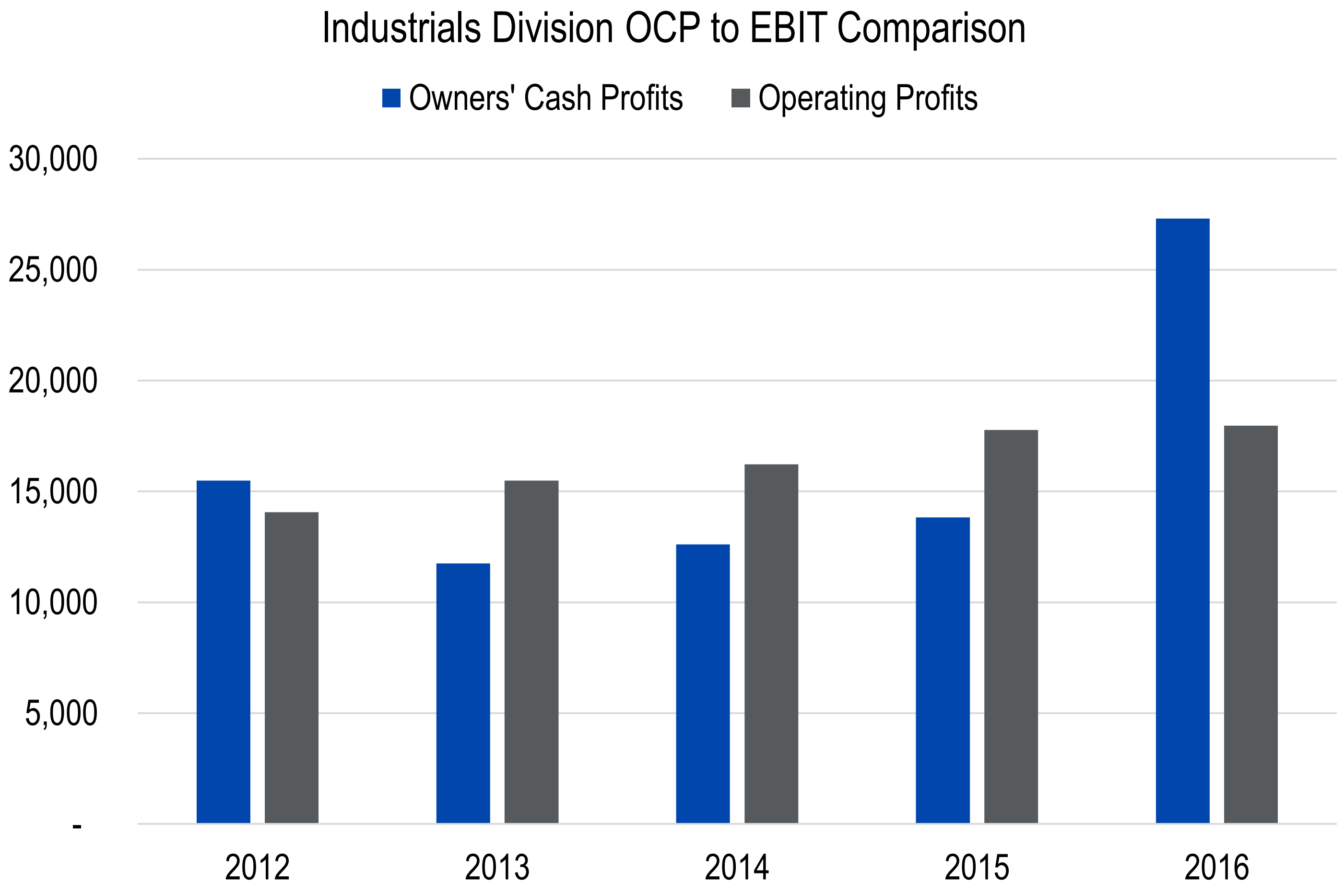
- Presumably, GE management engineered the divestment accounting in such a way as to compensate Industrial for negative effect on the Statement of Cash Flows.
- As we wrote in previous work, we do not believe we can make projections for GE's "normalized" profitability by looking at the historical numbers, because these historical numbers are not comparable.
- We "triangulated" the Industrial business's CFOA in two ways.

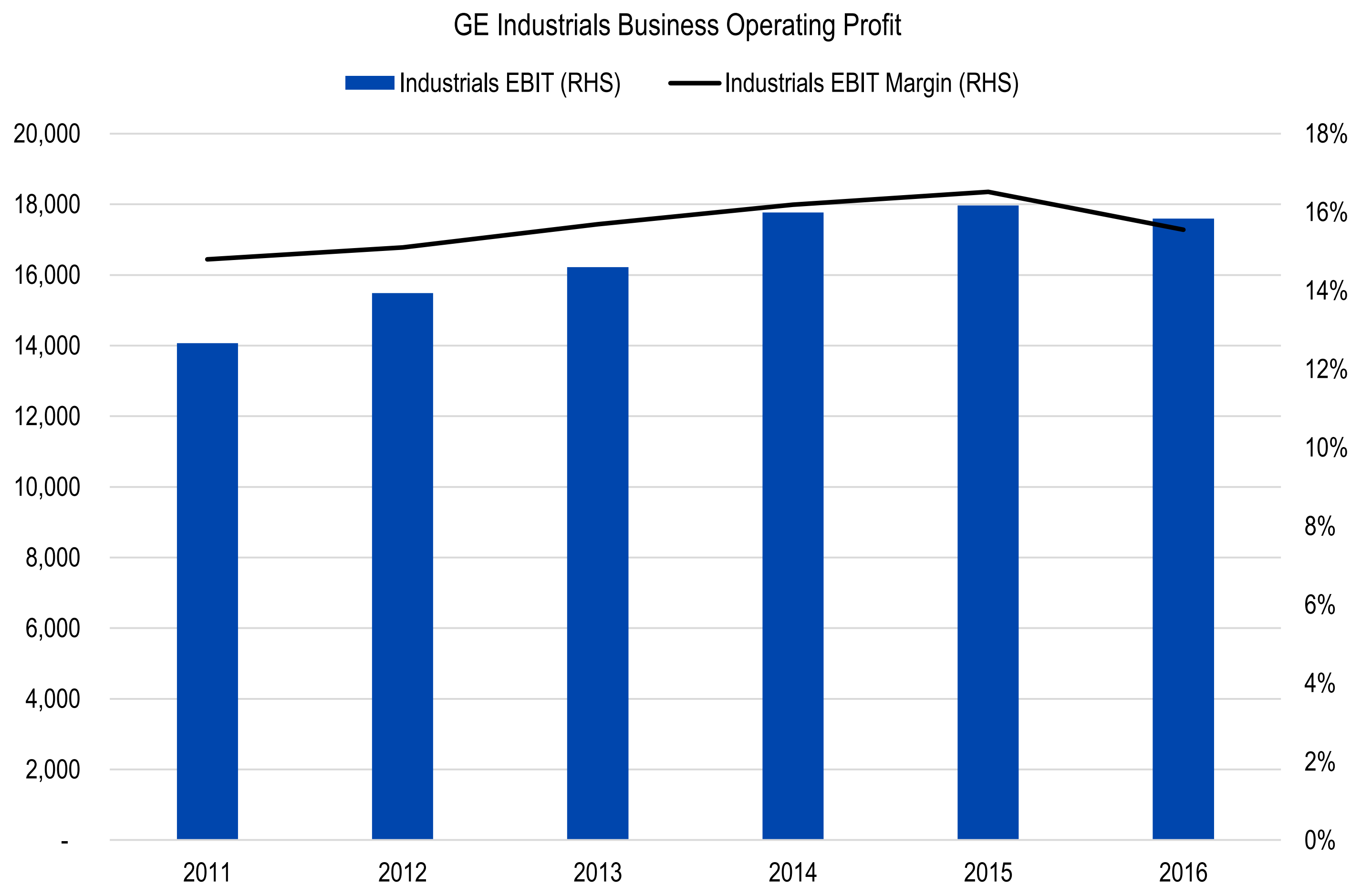
Profits – OCP Triangulation

FRAMEWORK Investing



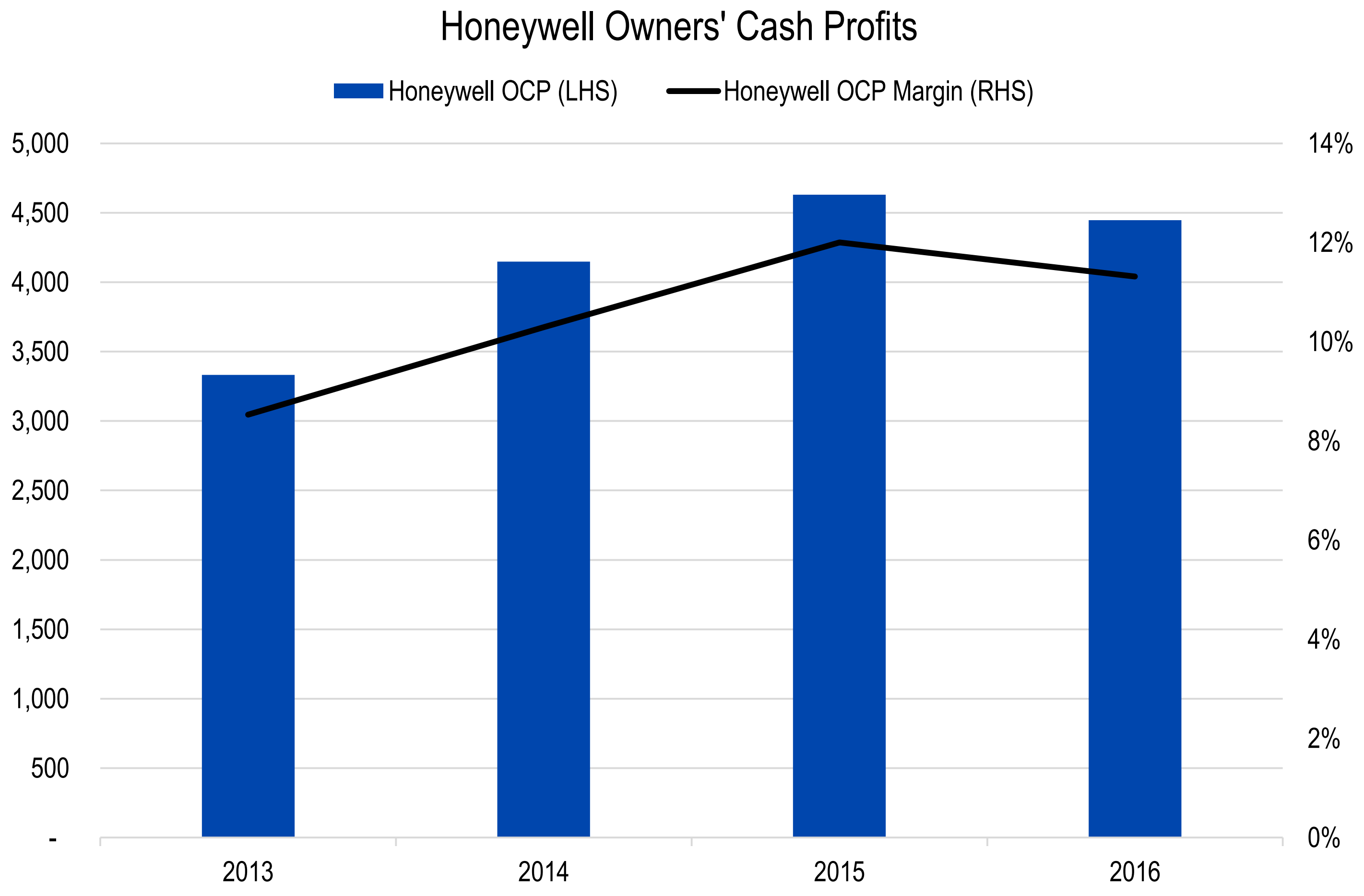
- Earnings before interest and taxes (EBIT) will normally be higher than OCP because the latter is a post-tax, post-interest number.
- Comparing EBIT to OCP over the last five years, and keeping in mind the 2015-2016 issues we just addressed, we see a consistent relationship between EBIT and OCP.
- 2012 OCP is higher due to working capital changes.
- From this, we suppose that eyeballing EBIT as an anchor for OCP is a reasonable strategy.

Profits – OCP Triangulation



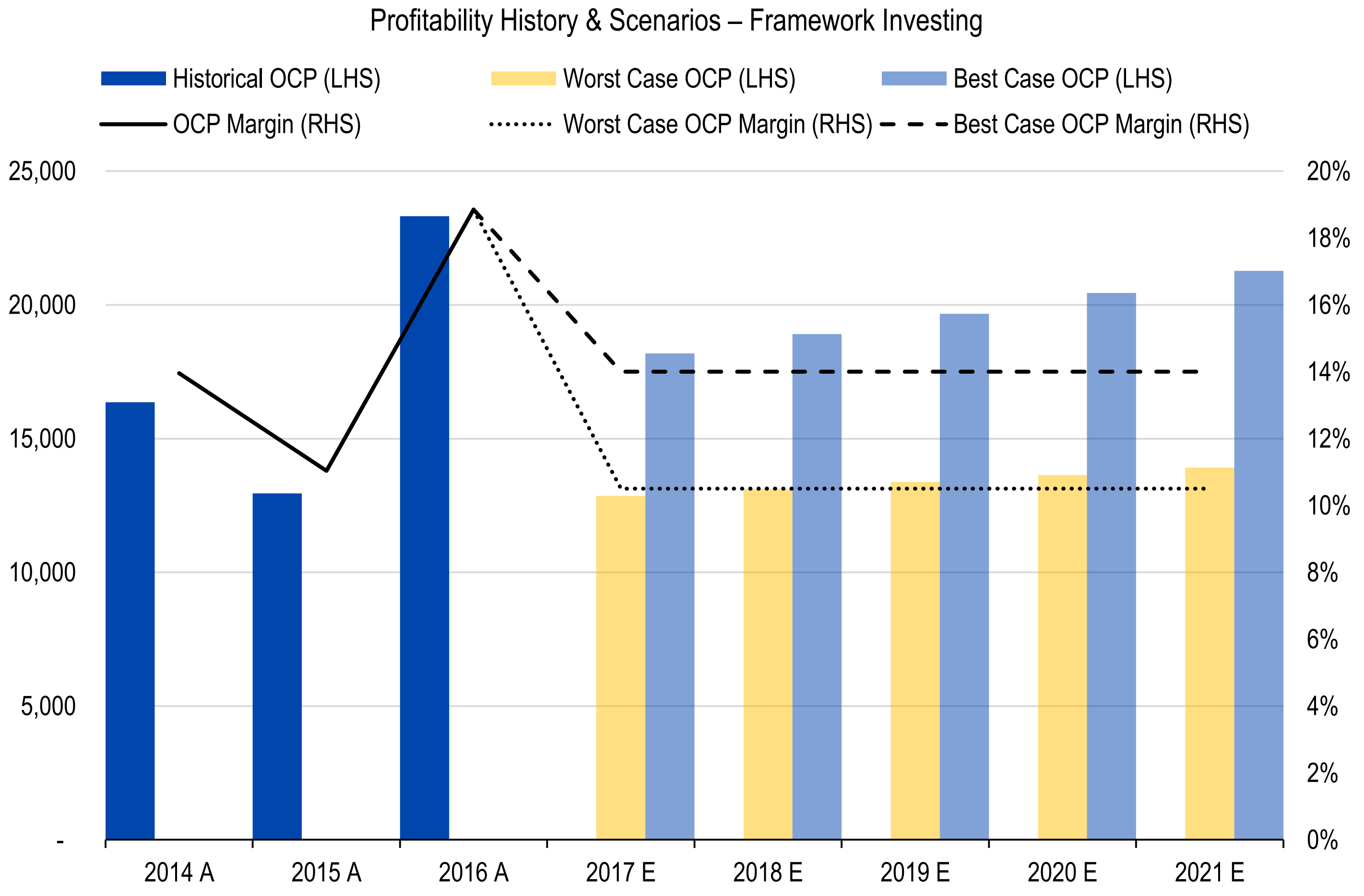
- Industrials EBIT margin looks dependably in the 15.0%-16.5% range. (2016 weak due to Oil & Gas)
- If OCP is 20% below EBIT, that would put OCP margin in the 12%-13% range.
- Is this a reasonable profit for an industrial firm? To get a sense, we looked at Honeywell (HON).

Profits – OCP Triangulation



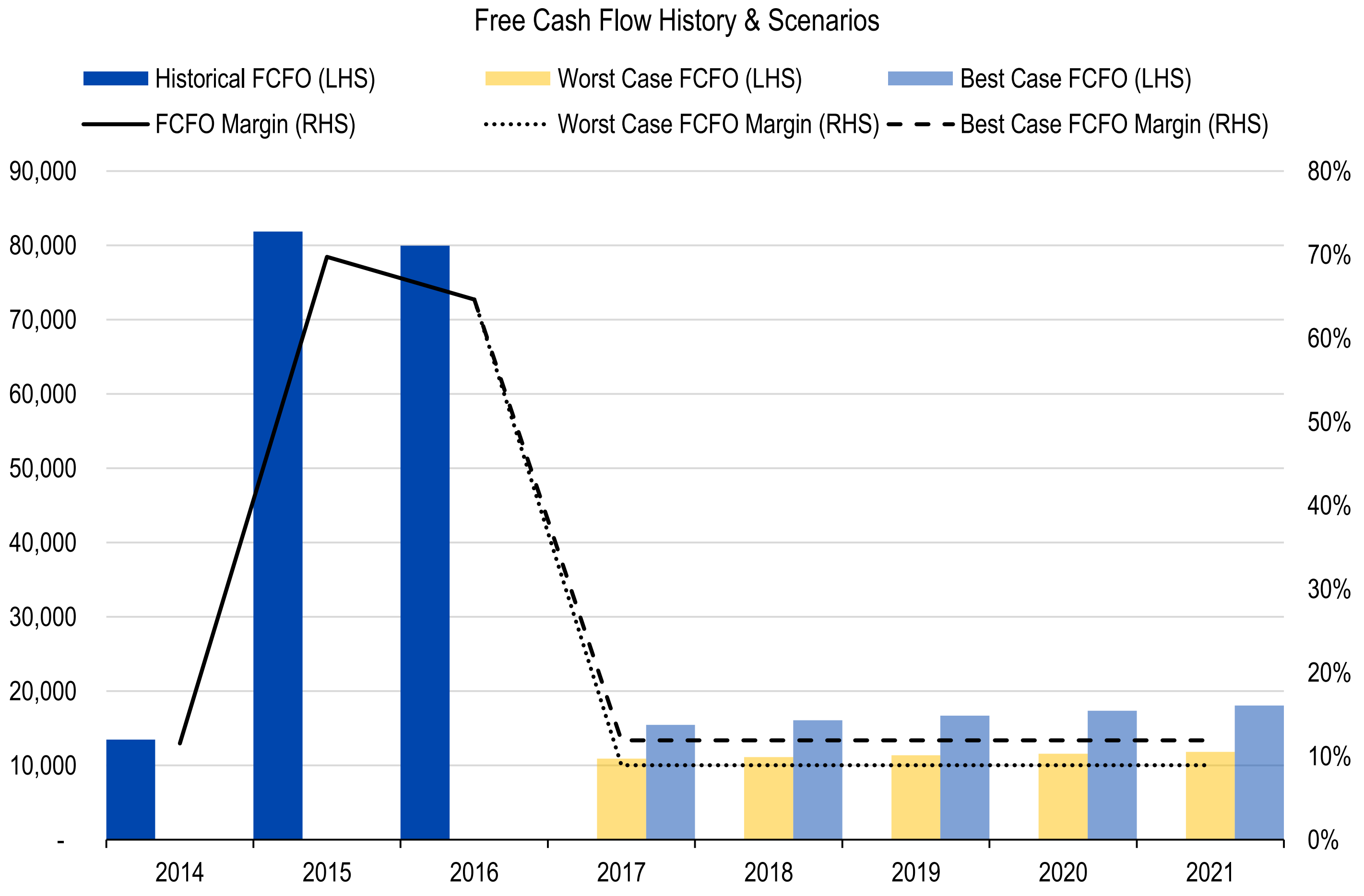
- Indeed, Honeywell is generating OCP margin in the 9%-12% range.
- It is reasonable that Honeywell's profitability should be lower, considering its product and service offerings and that it does not have access to GE's peerless tax "management" abilities.

Profits – Summary



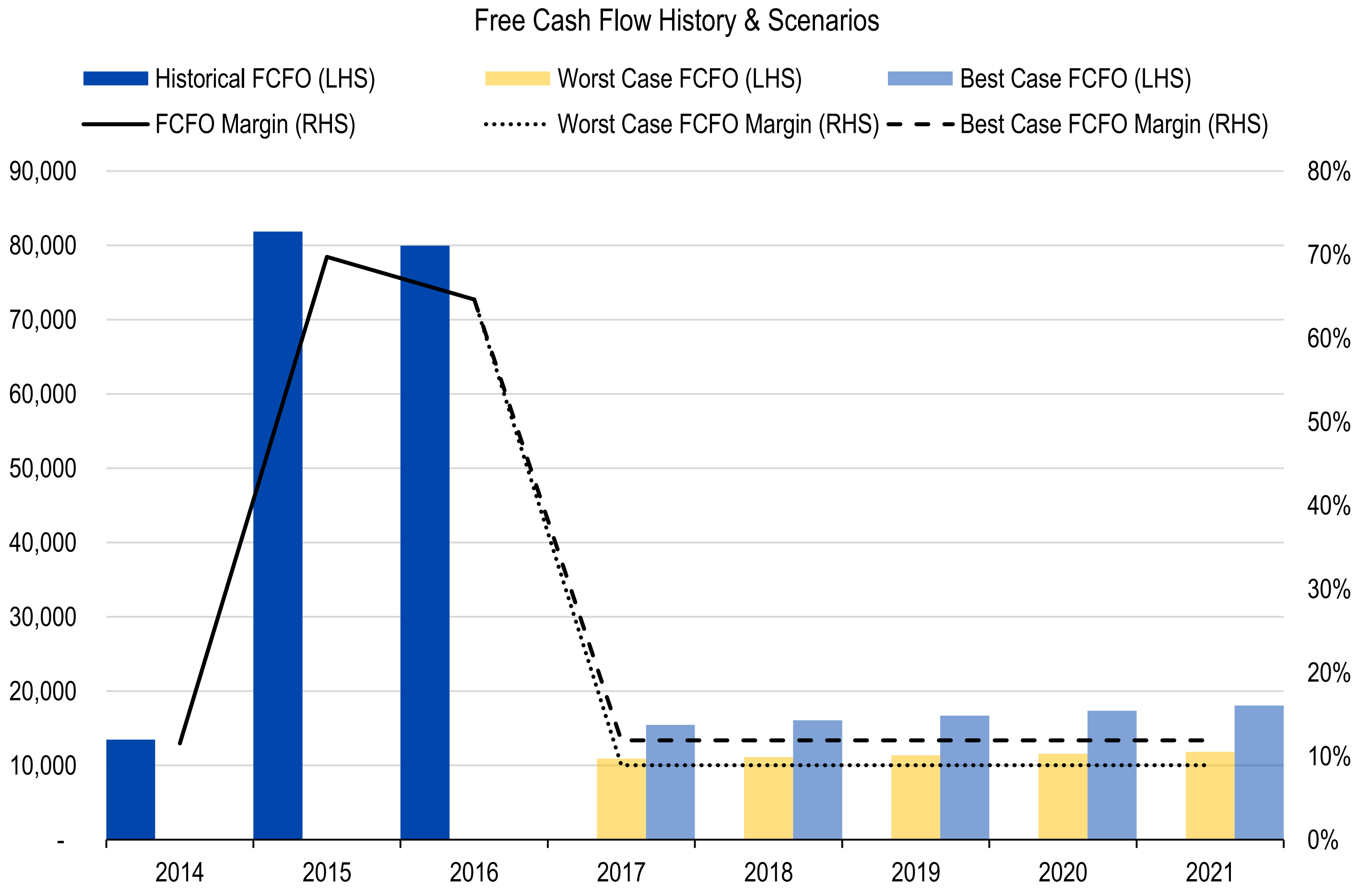
- We think that Tusa's characterization of Industrial CFOA – which forms the basis for our measure of OCP – is just wrong. He's not backing out both "halves" of the spin-off transactions.
- Our estimates of normalized best- and worst-case OCP margin is 14% and 11%.
- Our worst-case OCP margin scenario implies GE's Industrials business is really suffering and / or the GE financing verticals were not adding any profits.
- Our best-case OCP margin assumption suggests GE is firing on all cylinders.

Free Cash Flow



- Framework uses "Free Cash Flow to Owners" (FCFO), which includes cash costs for acquisitions and JV funding plus cash effects of share dilution.
- Tusa uses classical FCF, defined as Cash from Operations less Expenditures on Property Plant & Equipment.
- FCF is usually higher than FCFO because Framework uses a more inclusive definition of "growth capex" (what we call "expansionary cash flow").

Free Cash Flow



- Because Tusa was adjusting CFOA incorrectly, we knew that his analysis of FCF would be off.
- Tusa compared GE's cash flow generating capacity unfavorably to that of Rockwell Automation (ROK).

Free Cash Flow – Comparables

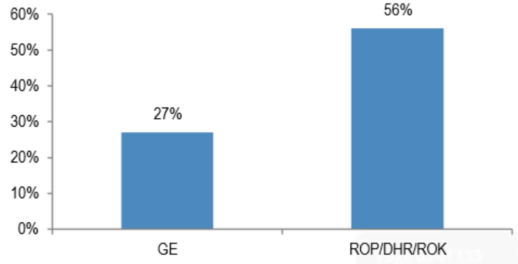
FRAMEWORK Investing

Premium companies like DHR, ROP and ROK have strong FCF and gross margin for a reason

EE/MI Comparisons: Bulls Anoint GE as "High Quality Asset", but Financial Metrics Don't Support It

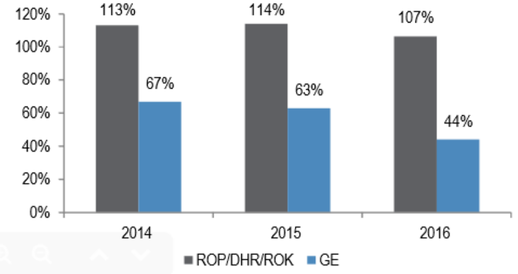
One of the key drivers for premium relative multiples in our coverage over a long period of time has been consistently high and improving gross margin coupled with strong FCF conversion. DHR, ROP and ROK stand out here, and while ROK is more cyclical, they screen as among the best franchises in our coverage. We think the high gross margins and strong FCF conversion at these companies are for a reason. Firstly, on gross margins, we note that these companies are not heavily exposed to multiple secularly challenged markets like GE with ROP and DHR, in particular, exposed to niche industrial, software and healthcare markets where they have created their own moat and are able to supplement with bolt-on acquisitions over time. ROK on the other hand, while less acquisitive and more cyclical, has demonstrated strong execution despite tough resource markets, as other areas of the portfolio have managed to offset, and all this while FCF conversion has remained solid. Equipment sold here aren't big ticket in nature (large projects for ROK is defined as >$5mm) and do not require significant JVs and local capex/investment commitment in order to secure projects (like GE) in challenged markets. In short, the business models at high quality companies are relatively cleaner and simple with little risk of overcapacity and secular growth challenges.

Figure 54: Gross Margin GE vs ROP/ROK/DHR



Source: Company Reports

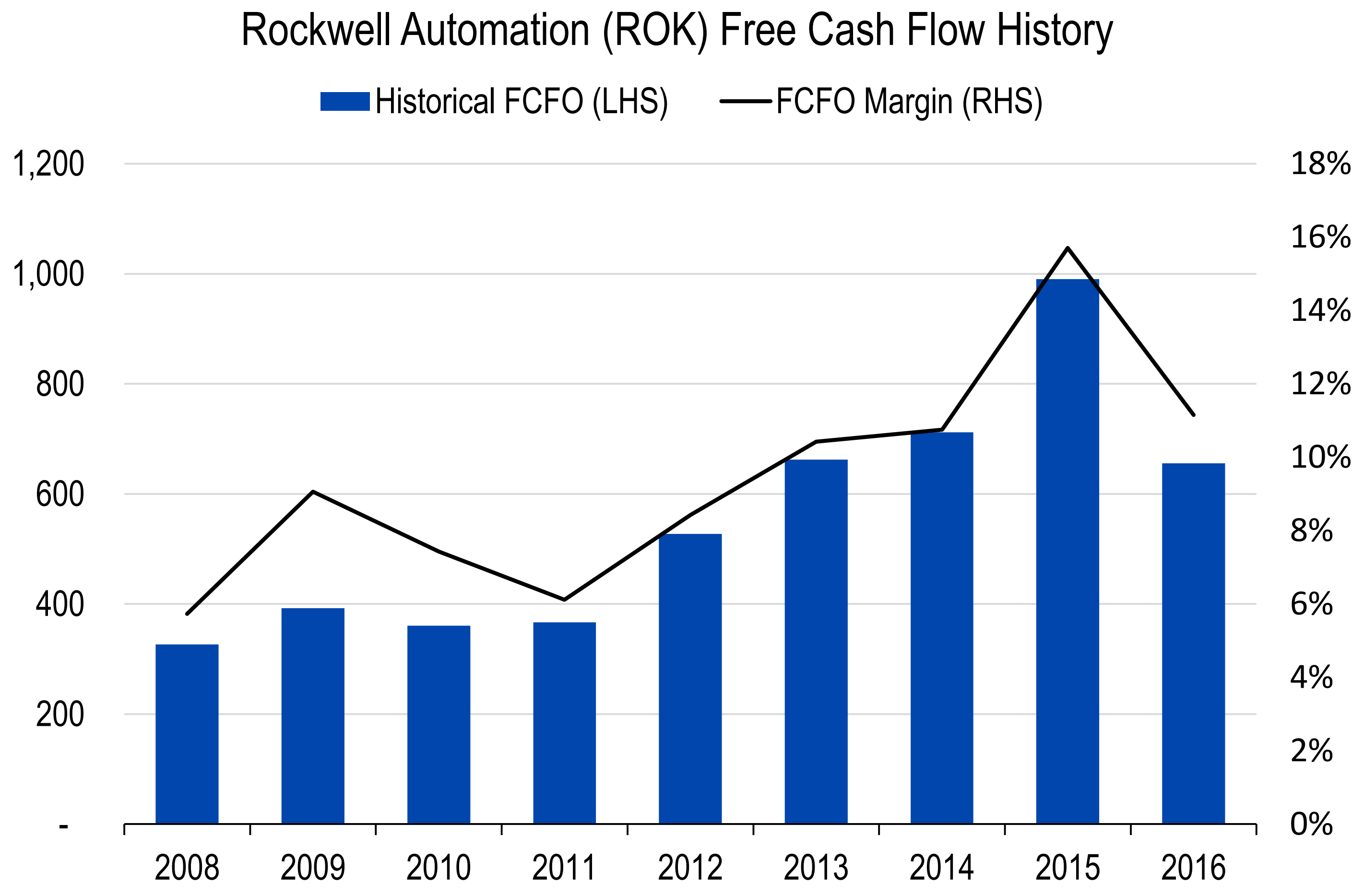
Figure 55: FCF Conversion GE vs ROP/ROK/DHR



Source: Company Reports

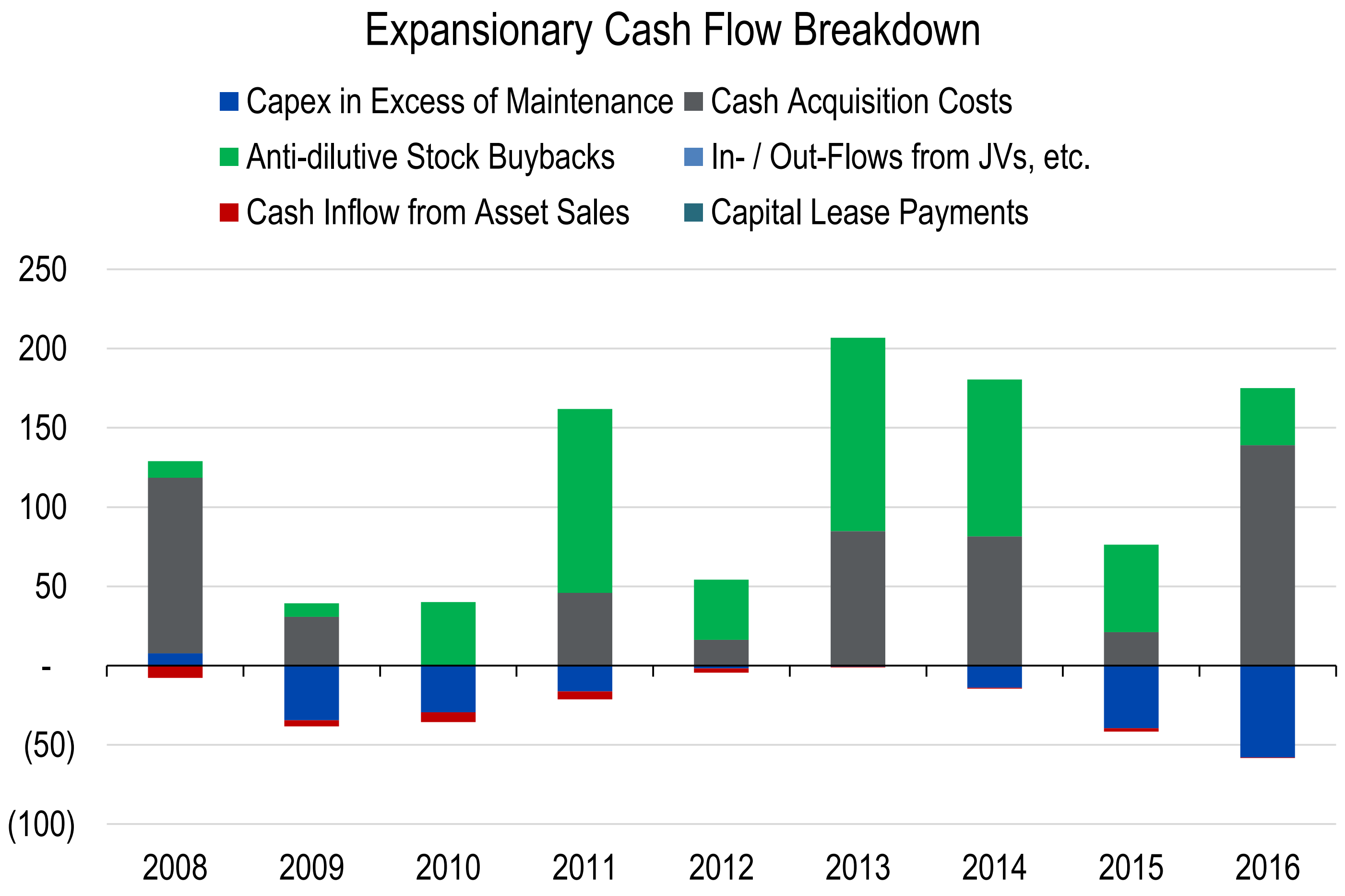
- The chart on the right shows how weak GE's "FCF Conversion" (whatever that means) is.
- Tusa particularly called out Rockwell Automation as an outstanding free cash flow generator, so we went back to look at what Rockwell had been generating on a FCFO basis.
- (The leftmost chart refers to gross margin, which we think is mostly or wholly useless to analyze. We think recent research on "Quality," which relates to gross margins is mainly an artifact of academic data…but that's the topic of another call…)

Free Cash Flow – Comparables



- Average FCFO margin = 9%
- Median FCFO margin = 9%
- Not sure of root cause of upward blip in 2015 – looks like a particularly strong earnings year that year coupled with a year that was light on acquisitions and executive stock compensation.

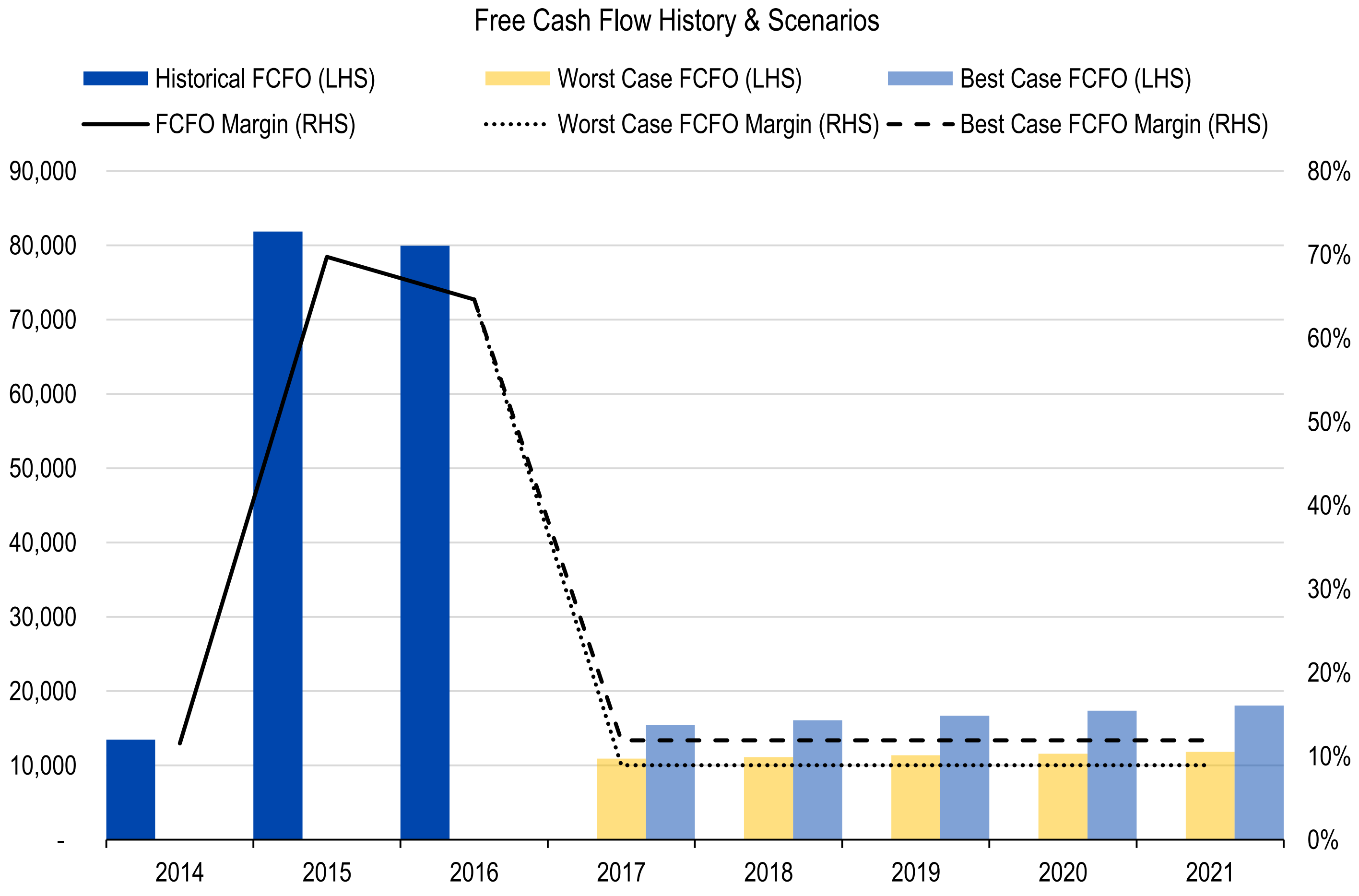
Free Cash Flow – Comparables



- Note the dark blue bars in the columns – these represent “Capex in Excess of Maintenance.” They are consistently below the axis, meaning they represent cash *inflows*.
- We base our estimate of maintenance capex on depreciation, and ROK is consistently spending less on PP&E than it is charging for depreciation.
- ROK underspends on PP&E and uses cash to acquire other firms. This is why its “FCF Conversion” looks good.
- The company is not generating more cash, its simply spending on capex in a way that’s transparent to most analysts.

Free Cash Flow – Summary

FRAMEWORK Investing

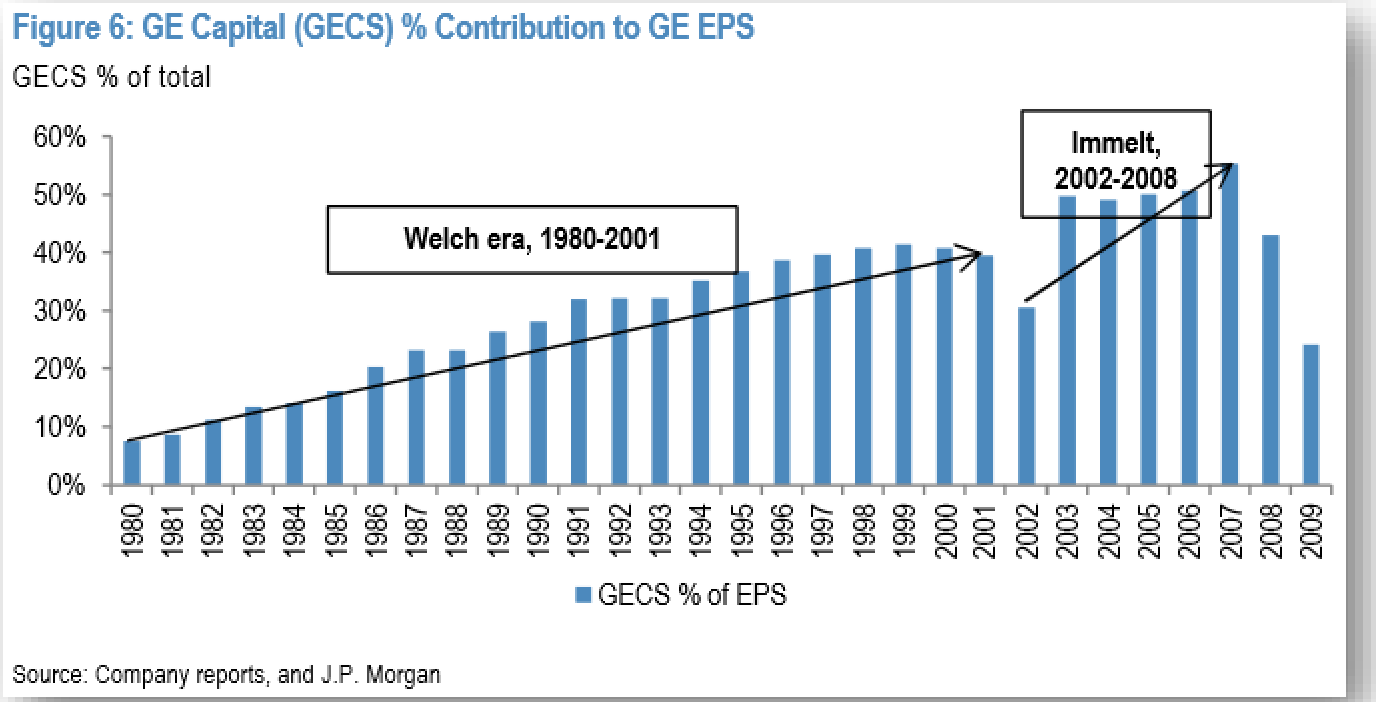


- In previous research, we laid out why we believe that on a normalized basis, GE must spend about 15% of its OCP on expansionary projects.
- Combined with our OCP assumptions, this means we are forecasting FCFO margins between 9% and 12% for GE during the near-term period.

Valid Point Worth Consideration

Tusa knows this company very well and we will pay attention to one point in particular

Investment Efficacy



- Tusa makes the point that GE's history of investments is poor.
- The most stark illustration of that for me was the graph to the left.
- I criticize Welch for running a hedge fund disguised as a conglomerate and using GECC to manipulate earnings.
- Immelt eventually abandoned the Welch model, but very nearly took the company down before that.
- Apparently, Immelt was nervous about the finance business as early as 2005, but rode it out and even allowed it to become a bigger piece of earnings.

Investment Efficacy

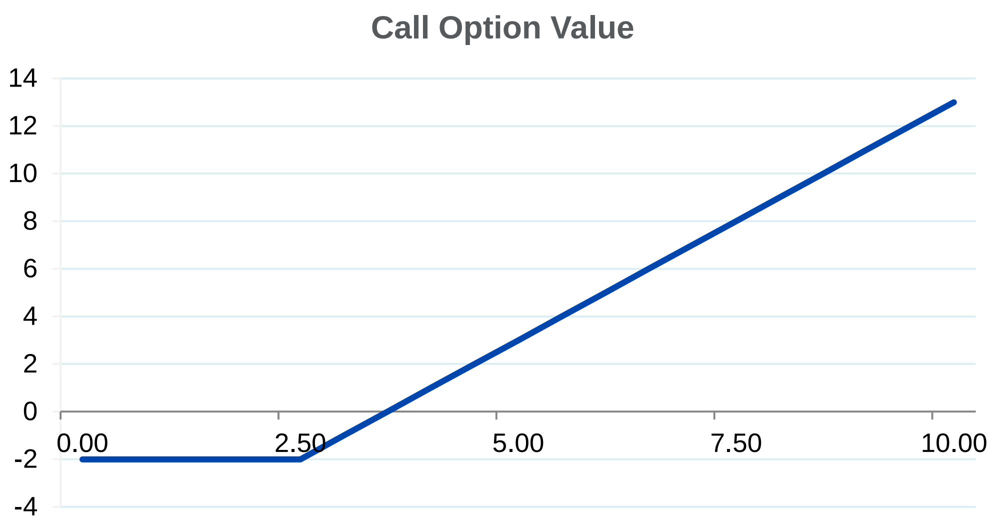
Table 20: Examples Where GE Was Late to Call Market Inflections

	Market inflections	Comment
#1	Gas turbine bubble	Peaked in 2000, GE did not call until 2002
#2	Water/security acquisitions	Acquired water/security assets from 02-06, the fad of day, subsequently sold post-recession for less than they paid
#3	Lack of willingness to sell GECS	We believe GE evaluated in 04-05, but was unwilling to sell given earnings dilution
#4	Aero-derivative bubble	Peaked in 2011 as EMs boom began to fade, and subsequently with oil & gas in 2014
#5	Locomotive boom	Rolled over hard in 2016-17, with management pitching growth until it became abundantly clear the market was unsustainable
#6	Oil & gas boom	Management was too optimistic here until even last year, calling for 10-15% decline vs 43% reported, and is still on the hook for 2017, 2018, and 2020 guidance that is too aggressive
#7	Digital investment ramp	Began investing here to defend position, but only after players like Siemens and ROK had already begun

Source: J.P. Morgan

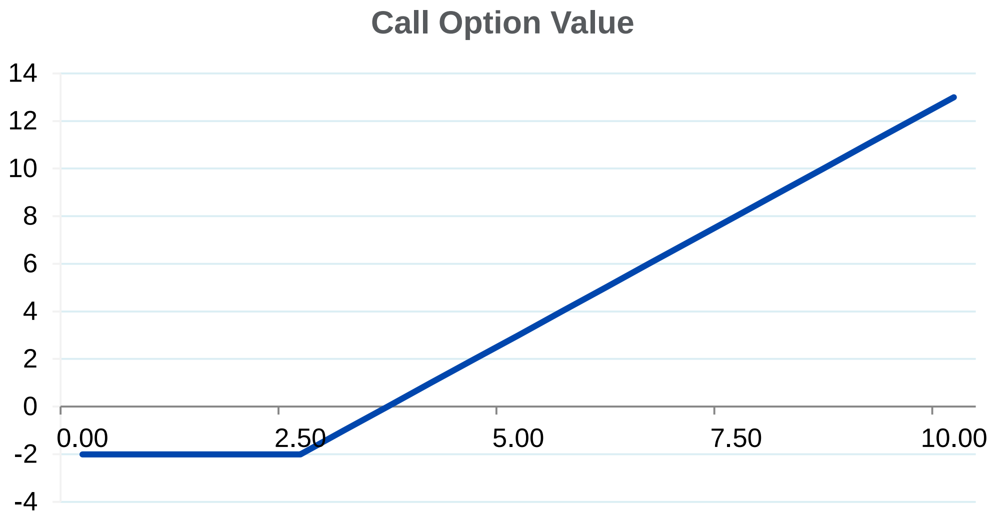
- In addition to the case of the finance business, Tusa offers six other examples of GE's investing late or investing too long in a business in decline.
- Tusa has a much longer history with the company than me, and I tend to trust his judgement here.
- He ascribes this weakness to a company culture that 1) is too fad / marketing driven ("Ecomagination"? Yuck!) and 2) is reluctant to speak truth to power (i.e., tell Jack Welch the truth and you'll get canned).

Investment Efficacy – Our Take



- We think of GE as a call option.
- In order to compete in its industries, the company must have scale, technology, connections to governments, and intellectual property.
- All these things cost money and the money that GE spends to develop its business can be considered the premium paid to access future upside.
- Timing cycles is tricky. GE would be better off if it did it better. However, without making these investments, future participation in lucrative markets is impossible. You can't build connections with Middle Eastern princes overnight.

Investment Efficacy – Our Take



- While we are worried about Oil & Gas considering the move worldwide (ex-USA) to move toward vehicle electrification and low-carbon, the businesses that GE competes in and has dominant positions in share a few characteristics:
  - Technologically complex and differentiatable
  - Requires a deep bench of professional expertise
  - Requires good political connections across borders
  - Offer products and services that thrive as societies become richer and older.
- I hate the word “moat” but that’s a moat.

Conclusions

- Tusa is experienced and knowledgeable – his point about investing efficacy is well taken.
- We believe Tusa underestimates GE's capacity to generate cash flows.
- While we have no idea where the stock will trade, we have a good idea of the company's value.
- Tusa understands the current environment very well and some or most of his prognostications may come to pass.
- This does not mean he has correctly assessed the *value* of GE.

Conclusions - Examples

Reality	Tusa's "Projections"
Buybacks: GE's buybacks are tied to sales of businesses, if dispositions don't close this year, buybacks will slow.	"GE may not be able to support its buyback program."
EPS: If the company cannot retire shares, EPS will be depressed until those shares can be bought back.	"EPS will be weak. It's better to anchor on $1 EPS rather than $2."
Power Business: GE has already announced it sees only 40 GW of orders this year & a soft 2018.	[Hypothetical] "Only 40 GW of GTs shipped this year, even lower than our expectation of 41 GW."

Thank You

Q&A Session