

General Electric Company (GE) Memo

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Company Description

General Electric Company operates as an infrastructure and financial services company worldwide. The company's **Power and Water segment** offers gas, steam and aero derivative turbines, generators, combined cycle systems, controls, and related services; wind turbines and solar technology; and water treatment services and equipment. Its **Oil and Gas segment** provides surface and subsea drilling and production systems, equipment for floating production platforms, compressors, turbines, turbo expanders, reactors, industrial power generation, and auxiliary equipment. The company's **Energy Management segments** offers electrical distribution and control products, lighting and power panels, switchgears, and circuit breakers; engineering, inspection, mechanical, and emergency services; motors, drives, and control technologies; and plant automation, hardware, software, and embedded computing systems. Its **Aviation segment** offers jet engines, turboprop and turbo shaft engines, related replacement parts, and aerospace systems and equipment for military and commercial aircrafts; and maintenance, component repair, and overhaul services. The company's **Healthcare segment** provides medical imaging and information technologies, medical diagnostics, and patient monitoring systems; and disease research, drug discovery, and remote diagnostic and repair services. Its **Transportation segment** offers freight and passenger locomotives, diesel engines for rail, marine and stationary power applications; railway signaling and communications systems; underground mining equipment; motorized drive systems; energy storage systems; and information technology solutions. Its **Home and Business Solutions segment** manufactures home appliances and lighting products. Its **GE Capital segment** offers commercial loans and leases, fleet management, financial programs, home loans, credit cards, personal loans, and other financial services. The company was founded in 1892 and is headquartered in Fairfield, Connecticut.

Thesis / Key Points

- **GE has strong fundamentals with favorable growth margins and history.** It takes decades to build a company as diverse as GE. From the invention of the first practical incandescent light bulb to building America's first Central Power Station, the GE tradition of life-changing innovations was underway. With power and light, GE provided the basis of modern life, quickly redefining everything from the length of the day to our knowledge of the human body through the development of the first X-ray machine. Although in a Technology era like today, no firm can possibly have monopoly power, however, one have to admit that GE is dominating some industries. For the Healthcare sector, GE has advanced technologies that hardly any firm can compete with—not all firms have this R&D Capacity. Moreover, the brand takes decades to build as well. This growth has come through organic investment and focused acquisitions. Over the last decade, GE has grown infrastructure platforms by investing in adjacencies, pursuing opportunities that are closely related to its core. Double-digit Industrial earnings growth, significant cash from GE Capital, Industrial segment organic revenue growth are constantly shown on its financial reports. In 2013, GE ranked among the Fortune 500.
- **GE is working towards smaller but more profitable business.** During the Financial Crisis in 2008 and 2009, GE's stock was significantly influenced due to its overexposure to the financial market. Historically, GE is a strong technology company and therefore its executives decide to focus more on the industrial portion other than financial portion. As a result, they have constantly been taking efforts reducing GE Capital. GE made an important decision: to separate its North America Retail Finance Unit. However, GE plans to offer shares in its North American retail finance unit in 2014 before spinning it off entirely the following year, according to a regulatory filing. As shown in the latest record, GE continued to reduce the size of its financial unit - GE Capital - by exiting from non-core, riskier businesses while growing its core mid-market financing business. According to the latest 10-Q, GE Capital ended the third quarter with an ending net investment (ENI) of \$385 billion, down from \$391 billion at the end of the second quarter. ENI excludes cash and provides a measure of GE Capital's size. GE eventually targets to reduce GE Capital to an ENI of \$300-\$350 billion by the end of 2014. In addition, GE Capital's profits jumped 13% annually to \$1.9 billion in the third quarter driven by exits from riskier assets and supported by the continued recovery in the global financial markets.
- **GE has built deep customer relationships based on an outcomes-oriented model, which has significant advantage over its competitors² in some the related sectors.** Like the case in all companies, customer relation plays a key role in the company's growth especially in services. In recent years, GE has been constantly building relationships with their customers especially in healthcare, Oil & Gas, and Aviation sectors. Service contract plays an important role, as well as post purchase service. The service revenue has been grown from \$21 billion to \$43 billion over the past decade. Services represent about 75% of its industrial earnings. With \$157 billion of service backlog, GE has the momentum to grow in the future. As shown on its annual report, the executives in GE believe in a solutions-oriented selling model, one that can deliver outcomes for customers. Especially in Healthcare, they are aligned around the major accounts to help them transform ahead of U.S. healthcare reform. In Oil & Gas, GE delivers comprehensive technical solutions for customers. In Aviation, GE creates value through the performance of the new technologies. Some of its competitors, such as Philips, United Technologies, and Caterpillar do not have a strong relationship as GE does, which gives GE competitive advantage.
- **GE's Product Portfolio favors long term growth because it include both traditional and Disruptive Technology³** As indicated by both Solow Model and modern growth theory, technology plays an important role in the growth of nation. In the short run traditional technology is generally preferred because of the low cost and low risk. However, the economic trend will eventually favor the disruptive technologies, which will bring huge potential to the economy. Some of this economic potential

¹ Yahoo Finance, GE Profile. 12.1.2013

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will end up as consumer surplus, a substantial portion of this economic potential will translate into new revenue that companies will capture and that will contribute to GDP growth. As categorized by McKinsey Global Institute, GE has ten of the twelve disruptive technologies, which are 3D printing, Advanced materials, Advanced oil and gas, exploration and recovery, Advanced robotics, Automation of knowledge work, Autonomous and near-autonomous vehicles, Energy storage, Internet of Things, Mobile Internet, and Renewable energy. Due to the space limit and GE's product range, I introduce only one example here: 3D Printing/Painting, which will show GE's innovation. The prominent players in the 3D printing industry include Voxeljet AG, 3D systems, ExOne, and Stratasys. All these companies are exclusively focused on 3D printing technology and offer 3D printers along with the related products and services. Unlike all the established companies, GE is developing an enhanced version of 3D printing that it wants to use initially for complex repairs. The company's technology is different from the normal 3D printing in many ways; hence, the company's decision to refer to the process as 3D painting, not 3D printing. Unlike 3D printing, which is very much limited in the size of the objects it can create, 3D painting is only limited by the spread of its spray. So, 3D painting is much more scalable and more attractive for the production of large structures. 3D printing is a fast-evolving multibillion dollar industry. GE is developing technology that will further enhance the scale and usability of existing processes. This new technology will deliver multiple benefits for the company: Enhance brand image, unique offerings, and cost effective. As mentioned in the annual report, "About one-third of our infrastructure revenues come from businesses we weren't in a decade ago. These include fast-growth businesses like Oil & Gas, Life Sciences, and Distributed Power. This growth has come through organic investment and focused acquisitions."

Misperception

- The major misperception is investor's lack of knowledge of GE's portfolio and the financial market information. By merely looking at the financial sector performance, it is easy to undervalue GE's intrinsic value (although some people maybe just "unsure" about the current condition). GE has been overexposed to the financial market, and its managers are trimming the business and enhancing the industrial focus.
- Other than the first factor, I believe there is not further misperception by the market, and the current stock price is fair.

VAR

- See Exhibit 2

How It Plays Out

- According to my thesis, GE is an innovation and strategy-lead company with diverse focuses. The technology innovation as well as the financial management is driving new revenue and therefore gives it sustained growth for at least decades.
- GE is a global company. As its continuous expansion, the risk associated with the unstable European economy outlook would do harm to the company.

Risks / What Signs Would Indicate We Are Wrong?

- **The number of "major regulations"**—regulations with more than \$100 million of impact—has exploded in the last few years. The result has been an additional burden on business.
- **GE's growth is subject to global economic and political risks.** GE operates in virtually every part of the world and serves customers in more than 100 countries. In 2012, approximately 52% of revenue was attributable to activities outside the United States. Especially, GE's revenue has been slowed down due to the business in Western Europe. While some of these global economic and political risks can be hedged using derivatives or other financial instruments and some are insurable, such attempts to mitigate these risks are costly and not always successful, and the ability to engage in such mitigation may decrease or become even more costly as a result of more volatile market conditions.
- **GE's intellectual property portfolio may not prevent competitors from independently developing products and services similar to or duplicative theirs.** As a technology company, the patents and other intellectual property may not prevent competitors from independently developing or selling products and services similar to or duplicative of GE's, and there can be no assurance that the resources invested by us to protect the intellectual property will be sufficient or that the intellectual property portfolio will adequately deter misappropriation or improper use of the technology.
- **The prime risk of IPO and spin-off** is the total separation of RF unit from GE as the unit will no longer be the part of GE beyond 2015. This means that the unit will not be entitled for any funding or bailout in any sort of crisis from GE after the separation. Investors may over or undervalue the Retail Finance unit due to limited amount of knowledge.

Signposts / Follow-Up

- Financial Reports, revenue growth trend, and profitability
- Major "political storms" this year: the fiscal situation, repeated debt-limit controversy and tax reform. US Macroeconomic condition and World Economic Trend need attention.
- The spinning off and IPO of North America Finance Unit will cause uncertainties, and therefore it will be an important factor to monitor in 2015

Important Company Financial Data

Ratios, financial statement data, projections, etc.
 Share Price: 26.66
 Market Capital: 269.73B
 52w Range: 20.26-27.50
 P/E: 20.05
 P/B: 2.20
 P/S: 1.86
 EPS: 1.33
 Beta: 1.28
 Debt/Equity: 300.74
 Current Ratio: 2.67
 Dividend Yield: 2.94%
 Short Float: 16.25%

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Exhibit 1: Stock Chart



Exhibit 2: Value-Added Research

Key Takeaways from (Former) Anonymous Employees:

“Smart and able, technically and emotionally intelligent colleagues. Great lab to learn how to take an idea, manage and scale it across a massive operation in a way that creates value. **GE's all about size and scale.**”

“Training and Development is Top Notch, Peers and Management are A players, **what you learn at GE will last you a lifetime and prepare you for almost anything you will encounter** in the business world. Work-Life Balance can be challenging if you choose to climb the corporate ladder.”

“**Upward mobility, great benefits, team oriented,** you can make your path. You can get lost if you are not goal oriented. “

“GE highly values **talent and innovation.**”

Management is always on the forefront of **creating stronger business relationships** through a six sigma process. Customers are very receptive to listen when GE is involved in a process.

Surrounded by Engineers; ample opportunities to work on interdisciplinary teams. However, as a new employee, it's **hard to understand the organizational structure** and chains of command.

Key Takeaways from analysts:

“GE is reducing a portion of its financial unit because they want to be more specialized in industrial portions, which is something they are good at..... They are choosing the right priority with their excess cash, and I believe it will increase its profitability.....Our DCF model suggests a target price of \$27.”

--Daniel Holland, Morningstar, Inc.

“The power and water unit of the business is still an issue, but I can see GE heading to the right direction. It will not be surprising that GE and GE Capital will be separated to two businesses in the future.”

Nicholas Heymann, William Blair & Company, LLC

Exhibit 3: Revenue & Profit Graphs

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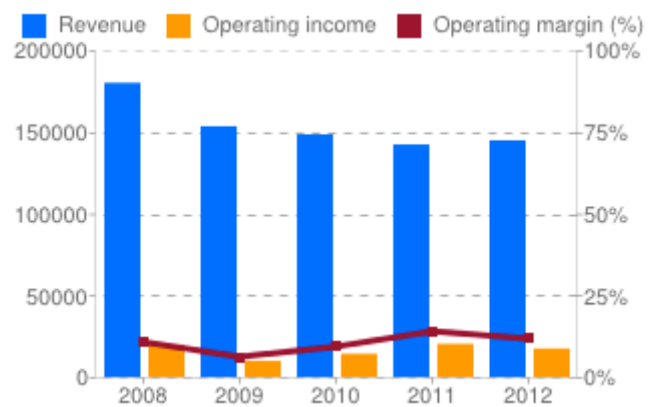
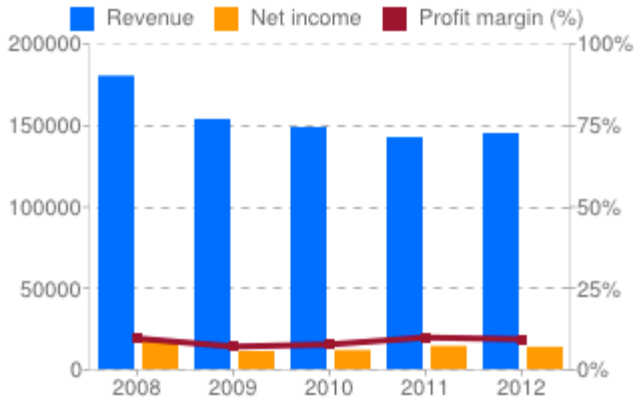
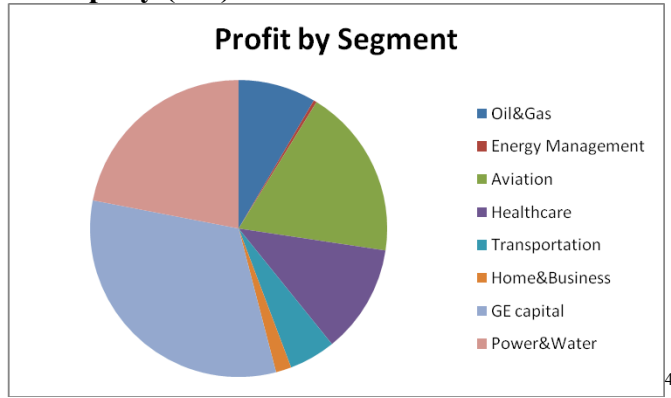
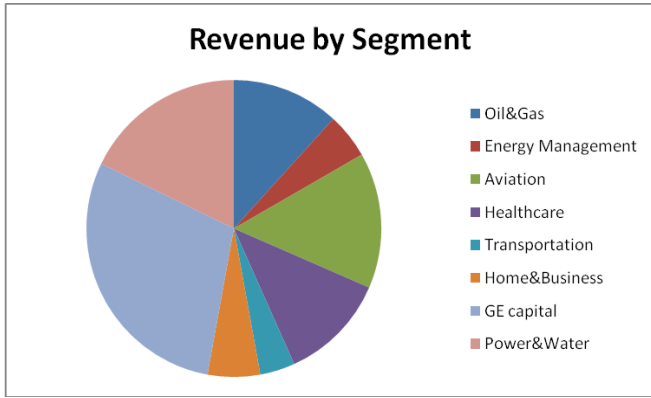


Exhibit 4: The Primary Global Additive Manufacturing (AM) Market

Primary Global AM Market

US\$ in millions, unless otherwise stated

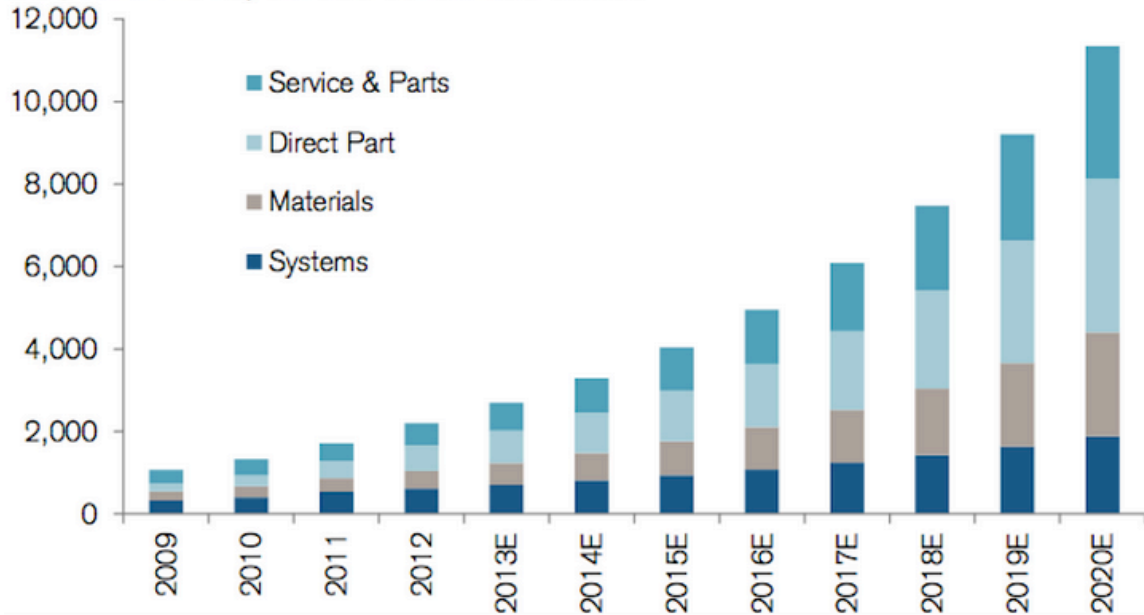


Exhibit 5: P/E Valuation

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Ticker	Price	Consensus EPS			P/E		
		FY13E	FY14E	FY15E	FY13E	FY14E	FY15E
CFX	\$58.81	2.00	2.54	3.12	29.4x	23.2x	18.8x
DHR	\$74.49	3.41	3.80	4.18	21.8x	19.6x	17.8x
DOV	\$93.30	5.28	5.97	6.50	17.7x	15.6x	14.4x
ETN	\$72.30	4.12	4.89	5.74	17.5x	14.8x	12.6x
EMR	\$67.97	3.54	3.82	4.24	19.2x	17.8x	16.0x
GWW	\$260.75	11.57	13.16	14.88	22.5x	19.8x	17.5x
HON	\$88.62	4.95	5.56	6.09	17.9x	15.9x	14.6x
ITT	\$41.18	1.98	2.32	2.55	20.8x	17.8x	16.1x
ITW	\$79.65	3.62	4.46	5.16	22.0x	17.9x	15.4x
MSM	\$77.80	3.91	4.01	4.61	19.9x	19.4x	16.9x
ROK	\$111.98	5.71	6.18	6.81	19.6x	18.1x	16.4x
SPW	\$96.27	3.96	5.22	6.56	24.3x	18.4x	14.7x
Coverage Universe Avg					21.1x	18.2x	15.9x
GE	\$27.20	1.64	1.72	1.87	16.6x	15.8x	14.5x

Exhibit 6: Dividend History

