GE and Alphabet: A Tale of Two Conglomerates

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Abstract

GE, an American icon, is a falling giant, and Alphabet, of Silicon Valley, is a rising one. In this paper, we review writings on the organizational structure of conglomerates and the facts in the two cases, analyze the fall of GE, and the rise of Alphabet. Though GE is a conglomerate, its executives did not recognize it as such and attempted for decades to "integrate" its unrelated businesses. Its strategy for Internet-of-things and digital transformation of GE faced many internal obstacles, ran in to execution problems, and was not a growth priority. Alphabet played according what theory would suggest: keep the conglomerate structure simple, allocate resources efficiently, and act transparently. In contrast to GE, Alphabet networked some of its businesses and benefited from the networking economies. Though solutions are rampant in the press and elsewhere, this paper looks at how to apply the theory on conglomerates to inform the options for GE. There is a lot GE and Larry Culp can take away from Alphabet and Larry Page.

Introduction

"The GE Mirage: What Happened to an American Icon?" That was the question posed on the cover of *Bloomberg Business Week* in 2018.[1] Inside, the article's title answers: "Conglomerates are broken."

Conglomerates—large diversified corporations with unrelated businesses in the portfolio—populated the business landscape in the 1960s and the 1970s then slowly dwindled in part due to the rise of financially savvy investors who believed breaking them up would unlock value and the vanishing tribe of "super-man CEOs." During a wave of restructurings, the conglomerates were divested, were targets of leveraged buy-outs (LBOs) or underwent major financial reorganizations. Renewed interest in conglomerates has been sparked by major cases including GE, a falling American icon, and Alphabet, a rising giant. GE lost $500B in its market value between

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2000-2018. Its stock price fell from a high of $32.77 on August 19, 2004 to $7.31 on December 31, 2018. Alphabet accumulated about $700B between 2004 (the year Google Alphabet's original business unit went public) and 2018. Its stock price rose from $50.22 on August 19, 2004, the day of its IPO, to $1044.96 on December 31, 2018. Two different companies, two different trajectories. What lessons, if any, does the new digital conglomerate model of Alphabet, grounded in Internet-based products and services, offer the old conglomerate model of GE, based in old manufacturing and services? In this paper, we review writings on the organizational structure of conglomerates and the facts in the two cases, analyze the fall of GE and the rise of Alphabet. Also, we apply the theory on conglomerates to suggest ways forward for GE. Though solutions are rampant in the press and elsewhere, this paper looks at how to apply the theory to inform the solutions.

Conglomerates: A Review of Structure and Performance

When we think of conglomerates several legendary corporations from the past and the present come to mind: ITT, GE, United Technologies, Honeywell, Berkshire Hathaway, and Alphabet, among others. The literature on conglomerates offers insights on their structure and performance.

In his seminal work on strategy and structure Alfred Chandler noted that large diversified corporations use a multi-divisional structure—also referred to as M-form structure—to coordinate and control a vast array of businesses.[2] Coming from a transaction cost perspective, Oliver Williamson proposed that the M-form structure may be the most "efficient" way to organize multi-divisional organizations.[3] However, M-form organizations vary. Some pursue a related-diversification strategy, i.e., business divisions are horizontally or vertically related and one or more activities in the value chain are common among various divisions. In this category, profitability is driven by economies of scale arising from the strategic fit across businesses; business divisions cooperate and incentives are in place to encourage cooperative behavior; overall, there is a degree of centralization of power and corporate managers play an active role in matters of inter-divisional relations. The Walt Disney Corporation, comprised of theme parks, movie studios, cable network and TV stations often tied to stories held in common, is a good example of a corporation pursing related-diversification.

Examples of the other M-form structure can be seen in corporations pursuing strategies of unrelated diversification; i.e., the products, markets, processes, and technologies of the business units are not related to each other and the value chain of each division tends to be different. A good example is Berkshire-Hathaway which owns a wide range of businesses, e.g., insurance (GEICO), BNSF Railway, NetJets, among others. The competitive advantage of these firms resides in the way corporate

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managers in the headquarters allocate capital and other resources across the divisions to generate profit.[4]

However, research findings show that the values of firms pursuing unrelated diversification strategies are discounted; and their stock valuations lag behind corporations that are specialized single businesses. That is, the sum total of the intrinsic value of the businesses in a conglomerate tends to be higher than the market value of the whole conglomerate. During 1990-2012, the conglomerate discount averaged at 13.9%; it was relatively high (15-20%) in early 1990s, relatively low (about 5%) shortly after the Internet bubble burst in 2001, and has hovered a little above the average (13%) in more recent years.[5]

The discount seems to persist over years. A comparison of the performance of single-business firms vs. relatively diversified firms in the S&P 500 over a ten-year period showed that performance of the pure-players and diversified firms was about same; the results indicate that executives in the diversified firms over time learn how to manage the diversity.[6]

Conglomerates are prone to several disadvantages:

1. Ron Langford and Jim McTaggart of Charles River Associates, a management consulting firm, identified several disadvantages of conglomerates, including the following:[6]
   - Managers in the conglomerates are distracted by the issues related to the other businesses; the *lack of focus* may hurt performance of the divisions as well as the corporation as a whole.
   - The *decision-making processes* tend to be relatively long, slow and complex in the conglomerates. *Associated control systems slow things down further*. As a result, the individual businesses may not be as agile as their pure-play rivals.
   - Managerial *incentives and rewards* tend to be based on performance of their own business units *and* of the corporation as a whole; to the extent that divisional managers see the corporate performance as something that is "beyond their control," the managers many not work for the good of the whole corporation. This choice may show up in the overall performance of the conglomerate.
2. Professor Joseph Bower of Harvard Business School, in his classic work on *resource allocation process* in large complex organizations, observed that the process could get political and inefficient at times.[7] Pursuing that line of thinking, Jens Kengelbach and associates of BCG noted that in large diversified corporations, e.g., GE, resource allocation may result in over investing in relatively unattractive businesses or under investing in the attractive divisions. Either way, the corporation underperforms.[5]

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3. According to Professor Aswath Damodaran of New York University, from the investors' stand point, valuation of the conglomerate is more difficult than pure plays because investors cannot see through them. The *opacity* depends on business-mix, e.g., firms that are diversified in manufacturing and financial services such as GE, may be more opaque than firms that are only in manufacturing or only in financial services. The way the divisions are structured, e.g., firms that treat their divisions as autonomous financial units and accordingly report performance of each unit separately, are seen as relatively less opaque whereas firms that bundle their divisions into one financial report are conversely more opaque.[8]
4. From the stand point of executives in head quarter offices of conglomerates, it is quite a challenge to stay on top of all the businesses that are in the portfolio—the managers *lack in in-depth knowledge* of the businesses. In the absence of the knowledge of all their businesses the managers tend to rely on the financial metrics, e.g., ROI. The metrics may be too blunt with the result managers may not see weak and early warning signals of coming decline.[4]

Collectively the above factors may depress the performance, if they are not managed well.

During a wave of restructurings of the conglomerates in the 1960s and the 1970s, the overarching argument was that the break-up value of the conglomerates was higher than sum of the value of the divisions. As recently as November 2018, United Technologies announced that it will split in to three separate units—a slimmed down United Technologies comprised of Collins Aerospace Systems and Pratt & Whitney businesses, Otis, and Climate Controls & Security which will be renamed Carrier. Yet, lately in the emerging countries, e.g., India, conglomerates seem to fill an institutional void and they flourish.[9] And they are rising in Silicon Valley once again!

A Falling Giant – GE

ABB Group. Amazon. Anheuser Busch. Apple. Best Buy. Blockbuster. LL Beans. Caterpillar. Coca-Cola. City Corporation. Crown Cork & Seal. Dell. Dow Chemicals. EI DuPont. Facebook. Ford Motors. GE. General Motors. Google. HP. IBM. International Harvester. Lincoln Electric. Marks & Spencer. Microsoft. Netflix. Nucor Steel. Pepsi-Cola. Procter & Gamble. Siemens. Toyota. US Steel.

This is a short list of corporations that were part of a "cast of characters" in business school class rooms in the US and abroad. Generations of business graduates and executives learned "strategy" from studying them. Among the wide collection of case studies, however, GE was a favorite of many instructors and students alike. There is a lot to teach and learn from the GE-based cases.

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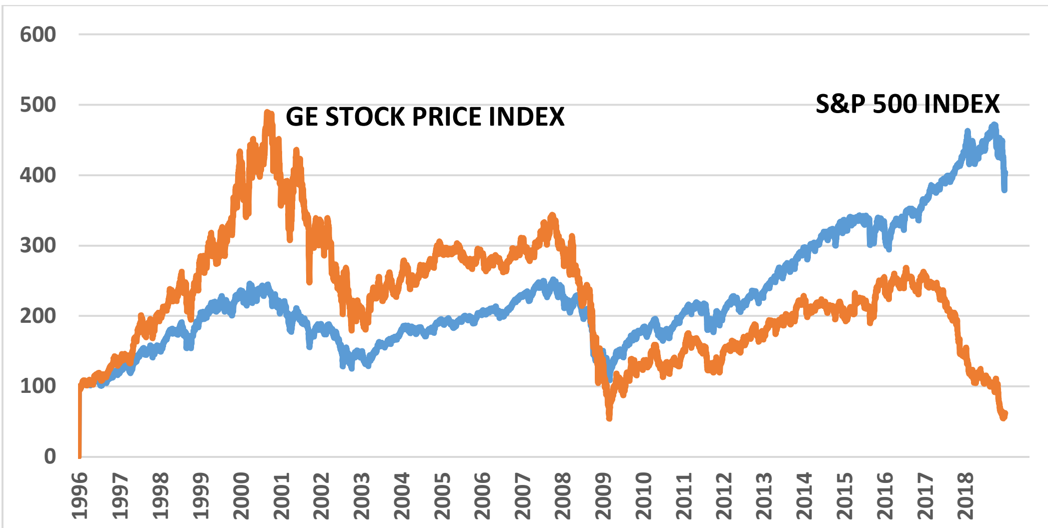
In addition to being a hot bed of technological innovations (e.g., incandescent light bulb, X-ray machine, jet engines), GE gave us several widely used management practices, e.g., "formal planning systems," the "GE-McKinsey Matrix," "Strategic Business Units (SBU)," "If Not Number 1 or 2 – Fix, Sell, Close," "Work-Out—a process to take out unnecessary bureaucracy," "360-degree feedback" to employees, "Stretch—Achieving the Impossible," and the "Six Sigma Quality Initiative," among others. If there were a hall of fame for CEOs, several of GE's would be inducted.

With such a sterling heritage, a steady decline in the performance of GE, as shown in Figure 1, received attention of investors on the Wall Street and business press alike. GE's current situation is a teachable moment! Recent events are puzzling:

Figure 1. GE Stock Price vs. S&P500 Index, 1996-2018 (Year 1996 = 100)



Source: New York Stock Exchange

In October 2015 Barbarians were at the gates! Nelson Peltz, an activist investor and his Trian Fund Management, purchased one percent ownership for $2.5b (the day after that GE stock price rose to $26).[10] Activist investors were given four (out of 16) seats on the board.

In October 2017, Jeffrey Immelt, successor to the legendary Jack Welch, left under pressure after 16 years as CEO. John Flannery, a veteran of GE with strong finance and an M&A background, was appointed as the new CEO. Shortly after he was appointed, Flannery announced several cost-cutting measures, including restricting the use of corporate jets and company cars, closing innovation labs, and pruning the capital budget. Also, he announced that GE was laying-off 4% of all its employees. The new CEO said that GE was searching for its soul. By December 2017, Vice-Chair, CFO, Senior VP of Global Projects, CEO and President of GE Europe, and Chief Human Resources Officer left the company.[11]

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In October 2018 John Flannery was abruptly fired. According to Michael Sheetz of CNBC, the reason was: GE board of directors' "frustration with the pace of his turnaround plan for the embattled industrial conglomerate."[12] And Lawrence (Larry) Culp, an outside director on GE's board and former CEO of Danaher Corporation, was appointed CEO. In GE's 128-year history, Culp was its first outsider CEO.

The downward trajectory of GE stock price may be attributed to several factors: external factors—financial crisis of 2008, recession that followed, Dodd-Frank Act of 2010, world-wide economic cycles, among others; the list of GE-specific factors include: its aggressive push in to the financial services under Jack Welch's leadership, Jeff Immelt's growth strategy in early years (2001-2003) of acquiring media and entertainment properties, making large commitments to R&D, pushing in to energy and infrastructure sectors in later years (2004-2006), efforts at rebalancing GE's business portfolio by acquiring more businesses, including initiatives to enter Internet-of-things businesses, and divesting a few businesses in 2006-2018, Jeff Immelt not responding in a timely fashion to the deteriorating performance, his management style, and "feel good" culture of GE.

While there was not one factor behind GE's down fall, in this paper we will focus on a pattern in the "management" of complexity of the structure brought on by the vast array of GE's businesses over the years: GE's products ranged from aircraft engines, to power generation, from oil and gas production equipment to medical imaging, from financing to industrial products. GE adopted an M-Form structure: for reporting purposes GE was organized into several business divisions that included Power, Renewable Energy, Oil & Gas, Energy Management, Aviation, Healthcare, Transportation, and Appliances & Lighting.

Though GE is a conglomerate, management did not like the label. In his interview (date unknown but likely between 2003 and 2006) with Professor Christopher Bartlett of Harvard Business School, Jeff Immelt described GE's approach to managing its multiple divisions in the following terms:

> "One hundred twenty-five years we have grown as a multi-business company. If you're a multi-business company what brings it together? Management then becomes a study of what brings us together. What brings NBC and plastics together? What brings the plastics and power systems together? What brings medical and financial systems together? Operating model, operating rigor, balance sheet, cash flow generation. It's culture and people."

> "I spent two years at your school (Harvard Business School) studying why conglomerates are stupid. The one thing they miss is the fact when you build a culture, a set of values, you can create a difference. You can create a real value-add across a multiple set of businesses and that's something that we truly believe in. It's one of my contentions that if you're in a multi-business company people

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is [sic] a big part of competency; it has to be a big part of the operating model and that's what we have in GE. That is how we do things here. You can't do it unless you're totally committed to career development, recruiting, hiring, and retaining the people. My contention is that I've got better people in medical systems, got better people in plastics business, and better people in financial services [than my competitors do]."[13]

The above statements show that Immelt and his predecessor Welch believed that GE's multiple businesses could be "related" to produce premium results, i.e., resources and knowledge can be shared across businesses and transferred between them. If, indeed, GE was managed appropriately, the "management premium," should be seen in the performance charts. However, as shown in Figure 1, GE's management premium, as measured by the spread between its stock price and the S&P 500 index, was steadily decreasing: Right until 2006 – five years into Jeff Immelt's term as CEO and about five years after the 911 crisis, GE's stock price was still growing faster than the S&P 500 Index. After 911, GE's stock slide was relatively small indicating that GE's much touted "management" strength cushioned it from the crisis. Between 2009 and 2017 GE's share price tracked the S&P 500 Index closely. By 2018 GE was underperforming the index significantly. The "management premium" was deteriorating since 2008 suggesting that GE has been in decline for some time. The lagging performance puts the focus back on the organizational structure of GE: it is a conglomerate and it must be managed accordingly.

A Rising Giant – Alphabet

In contrast to GE, Silicon Valley giant Alphabet's performance, as shown in Figure 2, was impressive: it was out performing S&P 500 at exactly the time GE was faltering and then failing. In August 2015, Larry Page, former CEO of Google, announced the creation of Alphabet. It was comprised of the search engine, web browser Chrome, YouTube, Google Play, Gmail, and a wide assortment of "Other Bets." It was split into Google—the primary business of Alphabet—and the "Other Bets" that include Access, Calico, Capital G, Google Ventures, Nest, Verily, Waymo, and Google X. Google itself was reorganized in to limited liability corporation. According to Page, "We believe this allows us more management scale, as we can run things independently that aren't very related." Commenting on the creation of Alphabet, Conor Dougherty, a reporter at *New York Times,* wrote: "Google's move is the most significant step by a Silicon Valley giant to get a handle on the sprawl of businesses that it has entered, an issue that increasingly afflicts other technology companies like Facebook and Amazon. While all of these tech companies began as entities focused on one main business, online bookselling or a social network, for example, many have diversified over the years into numerous side businesses including cloud computing, photo sharing and even satellites."[14]

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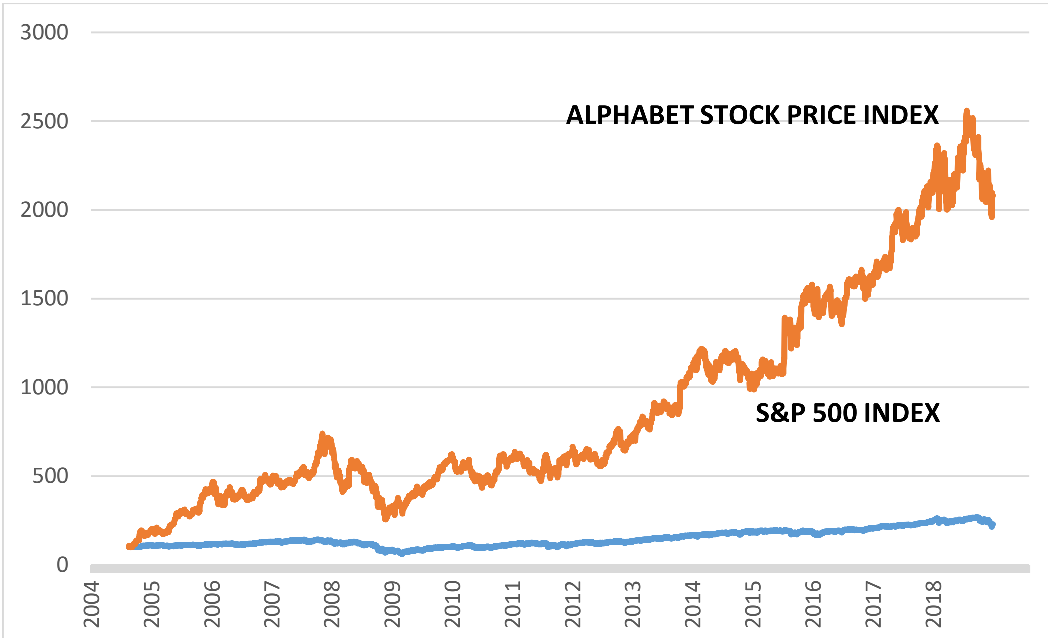
Figure 2. Alphabet Stock Price Index vs. S&P500 Index, 2004-2018 (Year 2004 = 100)



Source: New York Stock Exchange

The announcement was received with shock and surprise. Share price shot up 4.5 percent. Obviously, Wall Street loves Alphabet as its stock grew from $633 in August 2015 to $1,070 in the early days of 2019. Notwithstanding the differences between Berkshire Hathaway and Alphabet (Berkshire bets on big businesses that have great track records measured in decades whereas Alphabet is into new digital businesses and bets on untried moonshots), Larry page was an admirer of Berkshire and patterned Alphabet after it. As one analyst blogged: "...Alphabet is 'Berkshire Hathaway for the Burning Man crowd." Silicon Valley giants, including Alphabet, habitually place huge bets. That is par for the course. Accordingly, they need an organizational structure that supports such betting. M-Form structure could be a big sandbox for the entrepreneurs.

Clear financial reporting continues to be important for the new breed of the conglomerates, as well. The investors on Wall Street ask: What are your profit margins and your earnings? Where do you spend money? What is your future? Wall Street loves transparent corporations. Larry Page seemed to recognize that. We know why Alphabet hired Ruth Porat, a seasoned financial executive from Morgan Stanley shortly after Alphabet was created. Porat understood the value of transparency as well. She promised 15 minutes of one-one "office hours" for stock analysts. Between Porat's first day in office (May 25, 2015) and the day of her first earnings call (July 20, 2015) Alphabet stock price jumped from $545 to $699.[15] A story in Fortune by its

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reporter Leena Rao read: "One year in, Ruth Porat is Google's financial disciplinarian." Investors believed that Larry Page can manage the conglomerate challenges: that he is allocating capital efficiently; and Alphabet is transparent enough.[16]

While most of the conglomerates in the old-line industries were struggling, declining, or disappearing, e.g., GE, the rise of the Silicon Valley conglomerates prompted IMD Professor Howard Yu to declare in 2016 that: "Conglomerate discount: A dangerous idea that must die, as Google just proved."[17] Unlike GE, United Technologies and Honeywell, Alphabet plays in networked industries. In networked-industry products and services drive each other: demand for one product drives up the demand for service that is connected to the product setting off a virtuous cycle. In the case of Alphabet, Google's search business, Gmail, Google Cloud, Android-based smart phones, among others, form an ecosystem. The networked-corporations exploit demand-side increasing returns. The players build formidable ecosystems to create the network effects. To be a Silicon Valley conglomerate means to build strong ecosystems by diversifying into a wide array of businesses and "connecting" them to form a network.

In the networked industries firms play for winner takes all; their wins and losses are big. The strategic goal is to get big fast and reach a tipping point when they can dominate, i.e., attain a market share upward of 90 percent. For example, it is hard to name a firm that competes with Google part of Alphabet. Wall Street seems to recognize the winner-takes-all economics governing the networked industries.

While Wall Street is in love with the new breed of conglomerates, there are growing demands to regulate them and even break them up. In September 2018 Russell Brandon of Verge reported that Senators Orrin Hatch called on the Federal Trade Commission "to investigate anti-competitive effects from Google's dominance in online ads and search" and that Senator Amy Klobuchar "has introduced a bill that would place an outright ban by any company with a market cap higher than $100 billion. (As of press time, Google is worth roughly $840 billion.)"[18] Typically, the arguments for regulating or breaking-up are: the new conglomerates are too big, they hold to much of the market, they are too powerful, they act as barriers for new comers, they stifle innovation and entrepreneurship, and breaking them up is good for capitalism.[19,20,21] The demands are similar to those made on Microsoft in the antitrust case back in 2000, which initially resulted in a judgment ordering a breakup. Microsoft settled with the Department of Justice and avoided that outcome. But can the new conglomerates even be broken up like the US did to Standard Oil or AT&T? The new conglomerates are platform-based entities. The parts are all networked. Separating the core from the rest might destroy the value of the whole network, thereby presenting an anti-trust paradox. According to Lina Khan, a legal fellow at the Federal Trade Commission: "the economics of platform markets create incentives for a company to pursue growth over profits, a strategy that investors have

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rewarded. Under these conditions, predatory pricing becomes highly rational—even as existing (antitrust) doctrine treats it as irrational and therefore implausible."[22] To put it differently, the existing antitrust laws have yet to catch up with the business models of the new conglomerates. The new conglomerates may be safe for the time being but they have been forewarned that the growing demands to regulate and break them up will halt or change their trajectory. Well beyond the US anti-trust law and related issues, Google is already facing threats in Europe. According to Shalini Nagarajan of Reuters in March 2018: "The European Union holds "grave suspicions" about the dominance of internet giant Google and has not ruled out breaking it up, according to a warning by the EU's antitrust chief, Britain's Telegraph reported on Sunday."[23] This time the pressures are coming from sources other than investors.

Learning from Alphabet: What are GE's Options?

The key takeaways from our discussion of conglomerate structure and the case of Alphabet are: sustainability of a conglomerate depends on the management's ability to deliver premium performance. And, the premium can be achieved by overcoming the factors that create the conglomerate discount in the first place: stay focused, simplify the role of the corporate executives by clustering the businesses based on the "managerial attention" they demand; emphasize agility in decision-making by decentralizing the decisions and promoting a culture of autonomy in business units; create internal capital markets to allocate capital efficiently; and practice financial transparency so that investors know the answers to three key questions: where do you make profits? Where do you spend capital? And, what is your future?

Keeping the above in mind, we now consider several organizational structure-related options for GE. The goal of all the options is to outperform S&P 500 Index. When evaluating the options, however, we must keep in mind that GE's financial slack was decreasing rapidly. For example, its pension fund deficit was among the worst of the S&P 500 companies;[24] and its bond ratings were under threat.[25] Activist investors were on its board of directors. There was a sense of urgency to explore various options and execute them. During times of crisis, management tends to focus on fire-fighting. While fire-fighting is important, equally important is exploring ways to better manage GE's complexity and add shareholder value. Also, we recognize the fact that GE is not a digital conglomerate and that the networking economies do not readily apply. These factors, among others, make GE's path forward a challenge. Here are a few options to consider:

Simplify GE

In Alphabet's play book, Google was the core division; when investors think of Alphabet, they associate it with Google; it is the largest and profitable unit. Businesses within Google were already networked or planned to be networked with

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the other businesses within the division. Sundar Pitchai was the face of Google. As Larry Page explained at the time Alphabet was created, separating Google from all "other bets" was a way to simplify Alphabet.

Following Alphabet's model, GE may simplify its structure by identifying one of the businesses as its core – that is what investors would associate with when they think of GE and that is the one GE will invest in, and grow. Based on GE's revenue numbers as of June 2018, there were a few candidates: power ($15b), aviation ($15b), energy (including energy, renewable energy and oil and natural gas businesses) ($14b), health care ($10b), transportation ($9b), and lighting (less than $1b).[26] While the long history of GE matters, potential growth, profitability, competences, and preferences of the top management matter, as well. Selecting the core is always an important choice and during the times when conglomerates are disappearing, selecting the core is critical. Alphabet model would suggest that a simple GE would be comprised of the "core" and the "other businesses." The transparency criteria would suggest that the core business unit would stand on its own bottom line with financial reports separated from the rest of GE for transparency. The core will be headed by a Sundar Pitchai-like executive while GE's CEO will be in charge of the "other businesses." Future of the other businesses will be determined by Michael Porter's "better off test," i.e., would GE be better off selling them vs. turning them around?[27] A few of the businesses may be successfully turned around while others are put out for sale. This is like Jack Welch's "fix, sell, or close" strategy. Selling a few businesses would alleviate cashflow problems and skinny GE would be relatively less challenging to manage, and allocation of capital across the businesses may be done with relatively high efficiency. Small is beautiful! But a lack of business diversity could be risky. And, it would be difficult to exit some businesses and turnarounds take long time.

Act like a competitive M-form

In Alphabet, Larry Page recognized that Google unit and the "other bets" were unrelated, i.e., value chain of each unit was unique. Consistent with competitive M-form structure, Google and the other bets actively compete in an "internal capital market." While head of Google managed his unit, executives in Alphabet headquarters acted more like venture capitalists—decide on winners and losers and seed new ventures in search of opportunities. Sundar Pitchai was CEO of Google unit. And Larry Page was the venture capitalist in Alphabet. Alphabet was decentralized empowering each unit to set its destiny and be held accountable for the results.

Following Alphabet's play book, GE may let the business units—GE Power, GE Energy (including Energy, Renewable Energy, and Oil & Natural Gas units), GE Aviation, GE Health Care, GE Transportation, and GE Lighting—act as autonomous units, more so than they did in the past. For transparency purposes, each unit would

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be responsible for its bottom line and financial reports of each unit will be disclosed. Each unit will be headed by a Sundar Pitchai-like person. The proposed structure would be like the existing one with emphasis on: the unit heads will be empowered to manage their businesses as autonomous units, compete with each other for capital in "internal capital market." Intent here is to make GE act more like a competitive M-form in spirit and in reality. GE's CEO would act like a venture capitalist and allocate capital across the business units with long-term view: where are we making profits? How to allocate capital across current units? What might we acquire next? Which business might we exit? Where is our future growth? It may be appropriate here to revisit what Jack Welch did during his two-decade long tenure: he acted with one eye on the Wall Street, e.g., a steady rise in dividends, and the other on the efficiency of the operations, e.g., raising productivity. He brutally acted to restructure GE: "If Not Number 1 or 2 – Fix, Sell, Close." Welch was able to overcome the conglomerate discount. His successor Jeffrey Immelt could not sustain that approach. Would Culp fit the bill? He may be a good fit with GE that needs a good turnaround strategy. According to reporter Thomas Heath of Washington Post, Culp has earned reputation as a cost cutter and as an executive with regimented management style.[28] He built-up Danaher from about $12b in 2005 into a $45b enterprise by 2015. Being an outsider to GE can be an advantage under the circumstances—he is not bound to GE's ways of doing business. However, compared to GE, Danaher was relatively small corporation: on revenues ($19b vs GE's $120b), on assets ($47b vs. GE's 311b), and number of employees (67000 vs. GE's 313,000). Danaher was a relatively simple corporation with four major businesses: life sciences, diagnostics, dental, and environmental and applied solutions, whereas GE was a more complex enterprise.[29] Changing from a cooperative M-form culture to a competitive M-form culture would be radical and it comes with significant risks. For an outsider like Culp taking charge of GE will be steep learning. The poor financial condition of the firm and its historically low stock price may justify the aggressive turnaround; after turnaround GE needs a strategy to grow in to a profitable firm. That needs Larry Page-like CEO. The way Culp spun-off GE Digital unit—a bet made by Jeff Immelt back in 2013 to launch GE in to emerging digital businesses—and sold some of its assets would give us a window on how he would manage new ventures and emerging opportunities in new spaces. GE Digital's story also speaks to the challenges of incubating "new autonomous units" within GE culture.

Adopt Alphabet's Organizational Model

Alphabet was a holding company and owns Google—a limited a limited liability corporation called Google LLC—and "other bets."

Following Alphabet's example, reorganize GE divisions into limited liability corporations. GE would be the holding company of the lot. It will be navigated by a Larry Page-like figure in the GE headquarters. Each unit in the holding company,

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managed by a Sundar Pichai-like executive with full transparency. GE's brand name would be left intact. The model distinguishes the value created by various business units; it offers transparency and financial markets may like it for that reason alone.

A variation of Alphabet-model to consider is Berkshire Hathaway model: In the story on the creation of Alphabet, Conor Dougherty a reporter of New York Times, referred to Larry Page's blogs in which he talked about his admiration for Berkshire Hathaway model. Berkshire Hathaway was a holding company.[14] However, Larry Page did not go as far as spinning off Google in to a public corporation. GE could take the next step that Alphabet did not: reorganize in to a holding corporation: sell GE units to the public and hold on to a significant stake in each.

The holding company structure is not uncommon in the US though it is frequently found in the financial services, broadcasting, and retailing. However, the challenge in finding a Larry Page-like leader to run GE was best described in a comment made by fund manager Richard Cook: "It's just unusual to find a CEO with the skill set necessary to run one." [1] Overall, transforming GE in to a holding company would be managerially challenging: liabilities, notably, pensions liabilities, were intertwined and would require financial surgery to separate the units in an equitable fashion. But in this model, efficiencies in the capital allocation would be relatively high and GE would be relatively transparent.

Baby-GEs

Yet another option—an option that goes beyond what Alphabet did—is: in the spirit of M-form theory break-up GE along the lines of baby-Bells formed after AT&T was ordered to break-up by the Department of Justice in 1982. Breaking up GE would be challenging because financials of its units are intertwined.

Each baby-GE, e.g., GE-Power, GE-Energy, GE-Aviation, GE-Transportation, GE-Health Care, GE-Lighting (with new names), will be disciplined by the capital markets and only the fittest will survive. GE brand, as we have come to know, will disappear. But this approach will allow the fittest babies to grow and flourish, some may be acquired by, or merge with other corporations. Untangling the financials of various divisions would be a difficult task. Nonetheless, this option scores well on the efficiencies in capital allocation and transparency.

In sum, the old-variety conglomerates, e.g., GE, have risen and are falling while the digital variety is on the rise e.g., Alphabet. Though GE is a conglomerate, its executives did not like the label and attempted for decades to "integrate" its unrelated businesses. Its strategy for Internet-of-things and digital transformation of GE ran in to execution problems, faced many internal obstacles, and was not a priority for growth. Alphabet played according what theory would suggest: keep the conglomerate structure simple, allocate resources efficiently, and act transparently. As a digital conglomerate Alphabet was able to network some of its businesses and benefit from the network economics. There is a

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lot GE and Larry Culp can take away from Alphabet and Larry Page. To repeat what Michael Useem said: "conglomerate is dead... long live the conglomerate." [30]

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