Innovation Matters

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Innovative companies tend to enjoy greater profits, faster growth, higher profit margins and/or higher returns on capital than their peers. Not surprising, these benefits can result in greater stock market performance.[1] This explains the title of this report: Innovation Matters.

There is more to investing in innovative companies than simply investing in a list of trendy, hot names. Valuation matters. Further, innovation and disruption are not synonymous terms; there is a lot more to innovation and investing in innovation than is commonly believed. We examine all of these points in this paper.

Rapid Change & Competition

While we like to think of innovation as a relatively new concept, it has been an area of academic study for over 100 years.[2]

"How about you just shout out innovative ideas and I'll keep writing them down until this Post-it is all filled up."

Thus, while innovation is not a new concept, it is difficult to argue with the notion that innovation and change are occurring at an ever-increasing rate. Rapid change is a given and the rate of change is increasing.[3] This puts a great deal of pressure on businesses. Automation, information technology, the network effect, and advantages of scale are all contributing to increasing pressure on profit margins in a wide variety of industries. One article in the Harvard Business Review put it this way:

We live in an era of risk and instability. Globalization, new technologies, and

1 See Praveen Kumar and Dongmei Li, *Capital Investment, Innovative Capacity, and Stock Returns,* University of Houston 2016.
2 Joseph Schumpter wrote about economics and innovation as early as 1911 in his now famous book *The Theory of Economic Development*. For more information see Schumpeterian Profits in the American Economy: Theory and Measurement by William D. Nordhaus of Yale University April 2, 2004.
3 It's not just a perception thing. See *Adaptability: The New Competitive Advantage* by Martin Reeves and Mike Deimler of the Harvard Business Review July-August 2011 issue. https://hbr.org/2011/07/adaptability-the-new-competitive-advantage

> *greater transparency have combined to upend the business environment…Since 1980 the volatility of business operating margins, largely static since the 1950s, has more than doubled, as has the size of the gap between winners (companies with high operating margins) and losers (those with low ones).*[4]

This puts a premium on innovation: innovators enjoy the competitive advantages of innovation; non-innovators suffer from shrinking sales, declining profit margins and low returns on capital. Quite often the non-innovators become irrelevant or simply cannot survive.

Innovation & Disruption

Discussions about innovation often focus on extreme innovation which can disrupt entire industries. But innovation and disruption are not synonymous. And while there are abundant examples of disruptive innovation, most innovation is less dramatic. Less dramatic doesn't mean less effective; as we'll see below, there are examples of companies innovating systematically and continuously over time. Systematic and incremental innovation can provide for a competitive edge without disrupting an entire industry. Further, systematic and continuous innovation is often more important than splashy, disruptive innovation. There are examples of hugely successful disrupters that failed to continue to innovate and were themselves displaced by innovative competitors.[5] While innovation can manifest itself as continuous or disruptive, it is applied in three areas:

1. Product Innovation -- This is the most easily observed innovation; the new exciting product or product category. The pharmaceutical and tech industries most commonly innovate with new products. The smartphone is a good example of product innovation.

2. Business Model Innovation -- Often less obvious is business model innovation. A good example here is Netflix, which took three common components, the US Postal Service, DVDs and the Internet to combine them into an innovative business model that transformed the DVD rental business. Continually innovating, Netflix disrupted their own business model with streaming delivery of content. This is an excellent example of a company continuously innovating. Had Netflix not moved into streaming, another innovative company would have.

3. Process Innovation -- Not necessarily obvious to customers or investors, process innovation involves the *how* of business operations. Examples here include logistics innovations which include just in time delivery,[6] inventory management,[7] automation enhancements etc. Process innovations generally improve profit margins and/or frees up capital for additional investments.

These applications of innovation are not mutually exclusive. Apple's historic innovative process, which focuses on simplifying the user interface allowed them to develop the iPod. Apple wasn't the first company to produce an MP3 player, in fact they might be considered a late entrant. But their process produced the industry leading player and, with a business model innovation, Apple introduced the Apple music store. This one example cuts across all three innovation applications. Systematic innovation allowed the MP3 player to become the smartphone.

While the tech industry captures the headlines for innovation, innovation can be applied to even the most staid industries.

4 Reeves and Deimler 2011.
5 Blockbuster Video is a great example of this. Blockbuster disrupted the video rental industry and became the market leader only to be disrupted themselves by Netflix.
6 Toyota and just in time delivery discussed below is a good example.
7 Walmart's inventory management, an innovation that goes back decades, is perhaps the most significant example of inventory management.

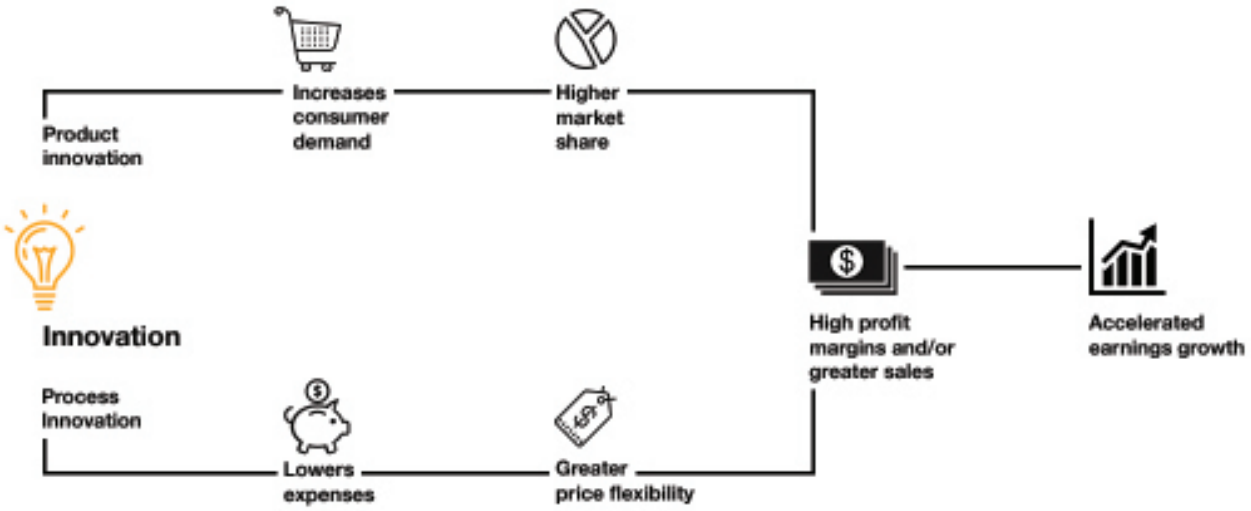

Figure 1. How both product and process innovation matter when attempting to reach high profits/increased profits.

How Innovation Matters

Innovation can make a difference in a variety of ways.

Faster Profit Growth

Perhaps the most important benefit of innovation is that it can accelerate economic growth rates. This is often due to the ability to introduce new products that meet previously unmet consumer needs — as in the introduction of an improved product or an entirely new product category.

> *"Sustained high profitability may result when a firm repeatedly introduces valuable innovations that service previously unmet consumer demands."* [8]

The profits from any single innovation can be limited in time since competition grows as time progresses.

> *"An innovative new product tends to face low competition at the point of introduction and therefore earns relatively high profits. These high profits attract imitators, which increases the level of competition faced by the product as time passes."* [9]

Innovative companies protect against this inevitability through a process of continuous innovation.

> *"…an innovation explanation recognizes that relatively high profits may persist at the firm level even though competition is relatively intense. In such a case, the excess profits associated with any single innovation are transitory, but firms successfully introduce multiple innovations over time."* [10]

This is why truly innovative companies seek continuous innovation.

Larger Profit Margins

Innovation can lead to higher market share for

8 Peter W. Roberts, Graduate School of Industrial Administration, Carnegie Mellon University, *Product Innovation, Product-Market Competition and Persistent Profitability in the US Pharmaceutical Industry*. 1999
9 Roberts, 1999.
10 Roberts, 1999.

the innovator. This is because innovators often introduce new products, and new product categories or enhancements of existing products.

> *"Innovators…should take market share from non-innovators and grow at their expense, until such time as the quasi-monopoly position is undermined first by imitations of new products and processes, and ultimately by yet newer products. In the long run, therefore, innovators will grow faster, be more (dynamically) efficient, and ultimately be more profitable than non-innovators."* [11]

New product innovation can create what is often referred to as a moat; a competitive advantage that competitors find hard to breach providing a barrier around the innovator's market share. This competitive edge, which affords greater pricing power, often results in greater profit margins.

Greater profit margins can also be achieved by cost advantages which can result from process innovation. Process innovation can include the way a company does business; a business model can be highly innovative. "A better business model often will beat a better idea or technology."[12]

Just in time delivery, an innovation that has been largely credited to a Toyota, was able to provide a sustainable competitive advantage. By reducing the amount of inventory required at each stage of the manufacturing process Toyota gained a substantial cost advantage. While this innovation was copied by manufacturers worldwide, Toyota gained market share on its global competitors. Where it was once one-half the size of the largest automobile manufacturers it became the world's largest automobile manufacturer.[13] This suggests that while one can copy specific innovations it is more difficult to systematically innovate. And it is systematic innovation that wins the day.

According to *The Economist*, one study characterized the average savings among American firms adopting just in time processes as "…a 70% reduction in inventory, a 50% reduction in labor costs and an 80% reduction in space requirements."[14] The strategy that preceded *Just in time* delivery was known as "just in case;" manufacturers would maintain excess inventory to meet a wide variety of production and sales circumstances.

This competitive advantage of just in time delivery is most obviously found in cost savings but can include "improved service offered to customers, more effective operations, improved working environment and lower costs…"[15] Sometimes, it pays to save money.

Competitive Threats

In a hyper competitive business environment innovation may provide some protection against adverse business conditions. Economist Paul Geroski found that,

> *"…the process of innovating may affect a firm's general competitive abilities, sharpening its ability to perceive environmental threats and opportunities, and then to respond flexibly to them."*[16]

This sharpened ability can help guard against unexpected innovation from industry peers or new entrants or allow a business an enhanced ability to weather recessions or business downturns.

11 Mica Ariana Mansury and James H Love, Economics and Strategy Group, Aston Business School, Aston University, Birmingham, UK. *Innovation, Productivity and Growth in US Business Services: a Firm-level Analysis.* 2008
12 Henry Chesbrough, Executive Director, Center for Open Innovation, University California Berkeley. *Business Model Innovation: It's Not Just About Technology Anymore*, 2007.
13 On a revenue basis, in 2021 Toyota is the second largest automobile manufacturer just behind Volkswagen. Source: https://www.threadinmotion.com/blog/top-10-biggest-car-manufacturers-by-revenue
14 The Economist Online Extra *Just-in-time* July 6, 2009.
15 *Just-In-Time Manufacturing, An Introduction* (Second Edition) T.C.E. Cheng and S. Podolsky. Published by Chapman & Hall 1996.
16 Geroski, P. (1995) *Innovation and Competitive Advantage*, OECD Economics Department Working Papers, No. 159 OECD Publishing

Stock Performance

Our interest in innovation is a direct result of our belief that innovative companies provide superior stock market returns. In a 2016 study, Praveen Kumar and Dongmei Li of the University of Houston found that "...innovative capacity is positively related to subsequent cumulative stock returns..."[17] In other words, the equities of innovative companies have the ability to outperform their non-innovative peers. This shouldn't be too much of a surprise given that, based on a large number of academic studies, we know that innovative companies tend to enjoy greater profits, faster profit growth, larger profit margins and other profit metrics as compared to non-innovative firms.

Another study found that firms that have been successful innovators

> *"...in the past earn substantially higher future stockmarket returns than firms that invest identical amounts in R&D but that have poor track (innovation) records..."*[18]

This same study found that these firms can be identified, "...a firm's ability to innovate is predictable (and) persistent."[19] This predictability and persistence means that those who understand and appreciate innovation are able to identify these companies.

Innovation Is Not Enough

Investing in innovation has become stylish; in our opinion, for good reason. As we've outlined in this report, innovation can provide a competitive edge and investors are smart for recognizing that. However, a word of caution is in order here. When we launched our Global Innovators Fund nearly a quarter-century ago, we recognized that while innovative companies can outperform, they often trade at a premium. Recognizing that the price you pay can be as important as the stocks you buy, we seek to invest not just in innovative companies, but innovative companies trading at what we believe are reasonable valuations. This means we often miss out on some of the high fliers in the innovation space. We're fine with that.

Conclusion

There is a large volume of academic research to suggest that innovative firms enjoy a meaningful competitive edge. This edge can manifest itself in a variety of ways but in the end usually means greater profits and/or greater market share.

As always, valuation matters and not all innovation companies represent good value. We believe a focus on value is an important element of any investment strategy and perhaps more important when investing in innovative companies. We believe that starting with a universe of innovative companies puts us in an advantageous position as our starting universe is inherently biased towards companies that have a competitive edge.

17 Kumar and Li, 2016
18 Lauren Cohen, Harvard Business School and NBER, Karl Diether, Tuck School of Business at Dartmouth College and Christopher Malloy, Harvard Business School, *Misvaluing Innovation* 2012.
19 Cohen, Diether and Malloy 2012.

Important Information

Hilarious cartoon used by permission of The New Yorker and Condé Nast.

Mutual fund investing involves risk and loss of principal is possible. Investments in foreign securities involve greater volatility, political, economic and currency risks and differences in accounting methods. These risks are greater for emerging markets countries. The Fund also invests in smaller companies, which will involve additional risks such as limited liquidity and greater volatility. The Fund may invest in derivatives which involves risks different from, and in certain cases, greater than the risks presented by traditional investments.

Investors should consider the investment objectives, risks, charges and expenses carefully before investing. For a prospectus with this and other information about the Fund, please call 800-916-6566 or visit https://www.gafunds.com/resource-insight-center?#tab_fundinfo. Read the prospectus carefully before investing.

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One cannot invest directly in an index.

Fund holdings and/or sector allocations are subject to change at any time and are not recommendations to buy or sell any security. The companies mentioned in this report may or may not be holdings of the Global Innovators Fund. For current holdings visit www.gafunds.com or call 800 915-6565.

Top 10 Holdings for the Global Innovators Fund as of June 30, 2022:

1. Thermo Fisher Scientific Inc	4.06%
2. KLA-Tencor Corp	3.95%
3. Microsoft Corp	3.90%
4. Mastercard Inc	3.86%
5. Roper Technologies Inc	3.75%
6. Visa Inc	3.75%
7. Bristol-Myers Squibb Co	3.69%
8. Amphenol Corp	3.67%
9. Zoom Video Communications - A Shares	3.59%
10. Danaher Corp	3.59%

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