Economic Moats

The expression economic moat (**moat**), was coined by our investing hero – Warren Buffett – in his 2007 annual letter to Berkshire Hathaway shareholders:

> " A truly great business must have an enduring 'moat' that protects excellent returns on invested capital. The dynamics of capitalism guarantee that competitors will repeatedly assault any business 'castle' that is earning high returns. … Our criterion of 'enduring' causes us to rule out companies in industries prone to rapid and continuous change. Though capitalism's 'creative destruction' is highly beneficial for society, it precludes investment certainty. A moat that must be continuously rebuilt will eventually be no moat at all."

The metaphor is apt and the visual image helpful when trying to understand a business' competitive advantage and, more importantly, the *durability* of that advantage. A free market ensures that businesses with high returns attract competition. But there are certain special companies that possess attributes that allow them to successfully repel competitors and maintain attractive profits over long periods of time.

Why does this matter to an investor? Stock picking is part science, part art. Calculating financial metrics such as a company's price-to-earnings ratio is largely science (math). The art of stock picking and the more difficult part lies in the qualitative judgments made regarding a company's future prospects and profitability. By identifying and assessing the quality of a company's moat, we can conservatively predict a reasonable estimate of a company's future earnings power and, in turn, the intrinsic value of the business. Once we are able to do that successfully, we are able to accumulate a list of stocks that we want to own if and when they are underpriced.

Businesses that possess a weak moat or worse – none at all – are very difficult to value given their vulnerability to competition. As a result, these stocks are unlikely to be investment candidates for the Value Fund. We prefer businesses with wide moats. Unfortunately, other investors also share our preference and as a result, these companies often trade at expensive multiples. But often isn't the same as forever and from time to time an opportunity presents itself.

Moat Sources

Moats come in various forms and Morningstar® has done a good job of organizing them into a few helpful categories: Intangible Assets (Patents, Brands, Licenses), Switching Costs, Scale/Cost Advantages and Network Effects. A few specific examples will help you to understand them better.

Intangible Assets (Patents, Brands, Licenses)

Pharmaceutical manufacturers are an example of companies that benefit from this type of moat. Patent laws in most western countries grant drug makers with a legal monopoly for a set period of time. Once a drug has cleared the regulatory approval process which ensures safety and efficacy, for the remainder of a patent's life, no other company is legally permitted to produce a drug that infringes on that patent. In other words, competition is severely limited and potentially non-existent.

A prime example is **Gilead Science's** (Nasdaq:GILD) novel hepatitis drugs Sovaldi® and Harvoni® which were introduced several years ago. These drugs are true miracles of modern medicine. Patients taking them for 8-12 weeks experience a 96% success rate with very limited side effects. In other words, these drugs provide a *cure* for a life-altering disease. The problem with monopolies is that the lack of competition gives manufacturers tremendous pricing power. Gilead's list price for these drugs has been as high as $94,500 and the company's gross profit margins approach 90%. We will avoid the debate surrounding the difficult policy choices that this creates for society. Our point is that companies with legally-protected monopolies are able to generate enormous profits. For as long as the patents are in place, Gilead can essentially charge what the market will bear.

Many products benefit from powerful consumer brands. Consumers are generally willing to pay a premium for a product that they trust and enjoy (e.g. **Coca-Cola**) and/or one that bestows upon them some form of social status (e.g. **Tiffany & Co**.). Provided that these brands are guarded via quality control and constantly nourished through additional investment in advertising, they can provide their owners with pricing power and high returns for many years.

Switching Costs

A long-term Value Fund holding is technology stalwart **Cisco Systems** (Nasdaq:CSCO). Cisco enjoys a dominant worldwide market share in routers and switches which account for the bulk of the company's revenue. Large enterprise customers have been using Cisco hardware for decades for their mission-critical infrastructure. Cisco's equipment is intertwined in their networks and customers are familiar with and have been trained to use Cisco equipment. Selecting a competing-vendor's products isn't impossible. However, if you were tasked with the purchasing decision at a major company, it is generally safer to pay more for a Cisco product. The risk of something going wrong would certainly make you think twice. No one gets fired for buying Cisco gear at a major telecom company.

Enterprise software from companies such as **Oracle** and **SAP** possess similar switching costs. Once the software is embedded within a company's systems and employees trained to use it, switching to another vendor is very painful. As a result, these organizations are blessed with captive customers and have the ability to raise prices year after year. As a result, they tend to deliver very high and stable profitability for their shareholders.

Scale/Cost Advantages

For many businesses, efficiencies that come with increasing scale provide them with the ability to price their products and services lower than competitors and gain market share. Retailers **Walmart**, **Costco** and **Amazon** are just a few examples. However, scale is usually only effective up to a certain point. Eventually bureaucracy and other factors conspire to eliminate (or even reverse) the benefits of scale. We view scale/cost advantages to be one of the more narrow moats and one that is most susceptible to being breached. In fact, just think about the companies listed above. Amazon is currently creating challenges for Walmart and virtually every other retailer.

Network Effects

A network effect is the phenomenon whereby a product or service becomes more valuable as an increasing number of people use it. Credit cards are an excellent example and we currently own two of the major credit card network providers in the portfolio - **American Express** (NYSE:AXP) and **Visa** (NYSE:V). Consumers prefer credit cards that are accepted at most merchants. In turn, merchants prefer to accept cards that are carried by a large number of consumers. This creates a virtuous cycle that over time has led to a market oligopoly dominated by just few providers. There is some risk that a new technology may disrupt the credit card networks, but for the moment, most firms have chosen to partner with the existing providers. Creating a payment network with the breadth, reliability, efficiency and trust of the major providers is a formidable task.

The money in your wallet is another example of something that benefits from a network effect. There is very little intrinsic value in the paper that it is printed on. However, we are all comfortable accepting it in exchange for goods and services as we trust that others will do the same. The more that a currency is widely accepted and in use, the more valuable it becomes as a medium of exchange.

Certain software created by Microsoft also benefits from a network effect. In the PC world, Windows has long been the dominant operating system. As a result, software programmers have been motivated to create products that were compatible with the operating system used by the vast majority of users. Even more impressive is Microsoft's Office suite of productivity tools. Most businesspeople use at least one of these products (Excel, Word, Outlook, PowerPoint) frequently. Exchanging files with other users and collaborating with colleagues makes the standardization offered by these products difficult to replace. Google has tried to break Microsoft's stranglehold by introducing competing products (Google Docs, Sheets and Slides) and has even offered them to users for free. Some ten years later, Microsoft Office still dominates. Network effects are very powerful. As a result, Microsoft has continued to retain its pricing power over a broad and captive user base and generates tremendous profits.

Durability

Given enough time, capitalism's creative destruction usually results in moats eventually eroding. Drugs come off patent, brands wither as consumer tastes change and new technologies leapfrog and replace current ones. However, for certain rare companies possessing strong moats, this erosion tends to happen very gradually over long periods of time. Assessing the quality of a moat, competitive threats and the changing business landscape can give an investor the ability to assess a company's future earnings power over a reasonable period of time. That relative stability in a sea of competitive chaos provides value investors with their opportunity when the market misjudges the situation.

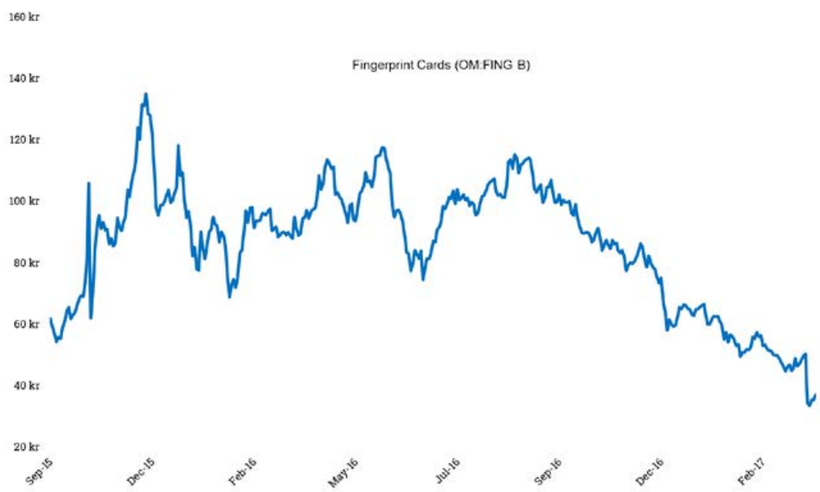
Company/Industry	Moat Sources			
	Intangible Assets	Switching Costs	Scale / Cost Advantages	Network Effects
Credit Card Networks	✓	✓	✓	✓
Enterprise Software		✓	✓	
Microsoft	✓	✓	✓	✓
Consumer Brands	✓		✓	
Social Networks and Online Search	✓			✓

A handful of businesses are fortunate enough to possess multiple moat sources. The combination of multiple moats working together makes these companies very hard to compete against. As a result, their competitive advantages can endure for very long periods of time. Provided that the purchase price is attractive, these businesses have the potential to deliver very attractive long-term returns to their shareholders. The table above provides a few select examples of companies that benefit from multiple moat sources.

At the other extreme are businesses that do not possess a durable competitive advantage. In fact, this is the reality that most businesses face. Talented management teams and novel products and services can lead to temporary success. Over time, that success proves fleeting in a free market as competitors arrive and these companies are unable to maintain an attractive level of profitability.

Local restaurants are but one example of businesses that do not possess a durable competitive advantage. Your local eatery generally competes for your business based on quality, price and location. However, one bad experience and most people tend to eat elsewhere. There is a reason that local restaurants have a very high failure rate – it is simply a very difficult business. There are a few notable exceptions. Large chains like **McDonald's Corporation** (NYSE:MCD) do benefit from scale and intangible assets (their brand), but generally the industry is a graveyard and one that we tend to avoid as investors.

Technology companies are particularly vulnerable to fast-vanishing profits. Tech companies often come up with innovations that are rapidly adopted by consumers. Their reward is often the emergence of an even newer technology which replaces them. Take for example **Fingerprint Cards** (OM:FING.B) – a Swedish maker of biometric sensors for smartphones and tablets. The company's security technology was rapidly adopted and revenues and profits soared. Fast forward just a few years and competition has increased, revenues are expected to decline and the shares reacted as you would expect:



Why Moats Matter

Before partnering with Charlie Munger, Warren Buffett followed the example of his mentor Benjamin Graham and generally invested in inferior businesses that were extraordinarily cheap – "cigar butts" as they came to be known. Over time, Charlie's influence led Warren to discover that it is much better to invest in a wonderful company at a fair price than a fair company at a wonderful price. Charlie knew that great businesses with durable competitive advantages compound intrinsic value faster than those that don't. They also tend to generate enough cash to self-finance their own growth plus excess cash which is then available for dividends, share repurchases and acquisitions. These businesses often possess pricing power and are able to successfully raise prices over time without losing market share or being overly-worried about a competitor's reaction. In addition, they are generally able to maintain their market dominance and generate attractive economics for long periods of time.

Berkshire Hathaway purchased See's Candies in 1972 for $25 million, a price that was in excess of the company's book value at the time. That transaction would likely not have happened absent that shift in thinking. In the intervening 44 years, See's has delivered *over $2 billion* of pre-tax profits on that initial investment.

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We hope that this overview provided you with a better understanding of what moats are, how to spot them, why they should matter to investors and why Warren came to realize that Charlie was right.