30 Years

2018 marked the 30th anniversary for Eagle Capital Management.

At this juncture, we thought it would be useful to take stock. Our investment record has been made possible by an investment philosophy and an investment process, combined with a set of core values, that we have laid out in our quarterly letters. After reviewing these 120 documents, we gathered some of the most important, which are included below.

The first section is a collection of profiles of people who have taught and inspired us. The second is a set of some of the ideas and tenets that animate and guide Eagle. If we can persuade you to read these, you will get a better understanding of who we are and how we work.

Our strategy could never succeed without the right clients as partners, and we are incredibly grateful to everyone who has invested with us over three decades. In an era of fast action and short-term thinking, your patience and trust have given us a valuable advantage in a competitive market.

The Influencers

We have been coached and inspired by many great people, most of whom do not even know that Eagle exists. Parents, teachers, scientists and philosophers have offered us important lessons of wisdom and character as well as logic and investing that have helped to create, improve and energize Eagle today. To all of them we are indebted.

Here are thoughts from and about just a few of Eagle's influencers – our "silent partners."

Please note that the letters set forth herein (and the content extracted therefrom) are current only as of the date originally published. They are intended only to provide the observations and views of Eagle Capital as of the date of writing, and all content has been selected to provide the reader with a deeper sense of certain themes and influences that helped to shape our actions over time. Other than as its related to selected content and editorial changes we made to the original version of the Q4 2018 letter, Eagle Capital has not and does not intend to provide updates or changes to the letters. Performance and markets may be higher or lower than what is discussed in the letters, and assumptions and analysis that may be time-sensitive in nature may have changed materially and may no longer represent the views of Eagle Capital. Statements containing forward-looking views or expectations (or comparable language) are subject to a number of risks and uncertainties and are informational in nature. Actual performance could, and may have, differed materially from the information presented herein. Past performance is not a guarantee of future results. All letters previously published by Eagle Capital are available upon request.

Frederick Law Olmsted – 2015 Q1

We recently read *A Clearing in the Distance*, Witold Rybczynski's excellent biography of Frederick Law Olmsted. Widely considered America's greatest landscape architect, Olmsted designed the grounds of Central Park, the Biltmore Estate, Boston's Emerald Necklace and over a hundred other major parks, colleges and universities. His work, executed over the turn of the last century, now has a daily impact on tens of millions of people who live and work in and around his creations.

What interested us was how Olmsted, who was not trained in landscape architecture, managed to stand so far above his peers. He arrived at his career late in life – his first commission was at the age of thirty-six, which put him deep into middle age for the 1850s. Many of his contemporaries were equally industrious and intelligent, yet none had an impact approaching his.

Olmsted had two characteristics that we especially admire. First, he combined creative vision with rigorous attention to detail. We find that often people plant themselves in one camp or the other – the artist and the accountant regarding each other with suspicion. But Olmsted understood that great visions rested on strong foundations. A contemporary, Reverend Henry Whitney Bellows, noted that Olmsted was "equally wonderful in the management of principles and details."

Olmsted began as a journalist who pioneered the technique of alternating sweeping narratives with statistics to give emotion and logic to his arguments. As a landscape architect, he was a philosopher who spent years studying engineering, surveying and botany. He engaged experts on rigorous fact-finding trips around the world and read hundreds of books on such subjects as the rooting of willow trees. Not only did his hard-won expertise anchor his open-ended imagination, it also fueled him. The puzzling challenges of geology, climate and botany stimulated rather than restrained many of his best ideas. To let his imagination fly without losing respect for science made him unique.

Second, Olmsted had a very long-term perspective. Unlike a building designer, whose final product is visible as soon as the project is complete, a landscape designer's work takes many years, decades even, to fully appear.

To support his battle for Central Park to be arranged in a more natural, fanciful style, instead of the more popular formal promenades, Olmsted suggested that, "the time will come when New York will be built up, when all the grading and filling will be done, and when the picturesquely-varied, rocky formations of the island will have been converted into foundations for rows of monotonous straight streets, and piles of erect, angular buildings… Then the priceless value of the present picturesque outlines of the ground will be more distinctly perceived."

In retrospect, this prediction was no great leap. But only Olmsted bothered to think about the environment his work would inhabit so many years later. "I have all my life been considering distant effects," he wrote, "and always sacrificing immediate success and applause to that of the future." Olmsted could accomplish this because he was able to find clients who shared his perspective. His proposals to clients are filled with discussions of posterity. In his report for Franklin Park in Boston, he quoted the art critic John Ruskin: "Let it not be for present delight alone; let it be such work that our descendants will say…See! This our fathers did for us."

"Genius is nothing but a greater aptitude for patience." – Georges-Louis Leclerc

Benjamin Graham – 2003 Q2

Benjamin Graham (1894-1976) was not only one of the best investment thinkers but also an outstanding teacher, guiding thousands of us who never had the privilege of knowing him. In addition, he was a mentor to Warren Buffett, the most successful investor of all time.

Jason Zweig has just republished Graham's 1956 classic, The Intelligent Investor, with revisions, commentary, and contributions from Buffett. Condensing 580 pages into a letter is impossible, but we thought we would let these three men speak for us in outlining a few of the principles we try to follow. With apologies to these gentlemen, we take some liberties by paraphrasing to allow condensation:

<u>Successful investing does not require a stratospheric IQ, unusual insights, or inside information</u>. What is needed is a sound intellectual framework for making decisions and the ability to keep emotions from corroding the framework. One needs unending fascination with new knowledge and an ability to recast it. One should be a practical thinker who has felt firsthand the anguish of financial loss and who has studied the history and psychology of the markets. Good investors never forget that they are handling other people's money. They must have total integrity and a realistic picture of themselves.

<u>Investors may be categorized as defensive or enterprising</u>. Defensive or passive investors place emphasis on the avoidance of serious mistakes and on the freedom from effort and annoyance. The determining trait of enterprising investors is a willingness to devote time and care to the selection of securities that are both sound and more attractive than the average. Over time they expect a worthwhile reward for the extra skill and effort.

Intelligent investors must first exclude from consideration poor-quality companies as well as high-quality companies whose prices have risen to a point that signals considerable speculative risk. They should not seek companies with the best prospects of growth and the best managements and buy those at any price any more than they should avoid less-than-the-best companies no matter how low their shares. It is true that a fairly large segment of the stock market is often discriminated against, and intelligent investors may profit from the resultant under-valuations.

But to do so, they must follow specific methods which are not generally adopted on Wall Street where it would be strange to find approaches that are both sound and relatively unpopular. Yet my own career and reputation has been based on this seeming contradiction.

<u>Challenged to distill the secret of sound investing into three words, we venture the motto, MARGIN OF SAFETY</u>. The buyer must place particular emphasis on the ability of the investment to withstand adverse developments. The risk of paying too high a price for good-quality stocks is not the chief hazard confronting the buyer of securities. The greatest losses to investors come from the purchase of low-quality securities during times of favorable business conditions. Current good earnings are viewed as sustainable, and investors assume that prosperity assures future safety.

A true margin of safety is one that can be demonstrated by figures, persuasive reasoning, and reference to a body of actual experience.

Common sense should tell us that a stock is an ownership interest in an actual business with an underlying value that does not fluctuate with its daily price. Intelligent investors search for discrepancies between the value of a business and the price of a small piece of that business in the market.

<u>While the market is mostly accurate in pricing stocks, it is occasionally very wrong</u>. The manic-depressive Mr. Market pays more than a company's objective value when the market is going up; when it is going down, he is desperate to dump the stock for less than its true worth. Mr. Market's job is to provide the investor with prices every hour; our job is to decide whether it is to our advantage to act on the offerings. We do not have to trade with him just because he constantly begs us to. By refusing to let the bipolar Mr. Market be our master, we transform him into our servant. Intelligent investors are realists who sell to optimists and buy from pessimists. The higher the price one pays, the lower the return will be, and the greater the loss when one makes a mistake. In the end, how one's investments behave is much less important than how one behaves.

David Ogilvy – 2004 Q2

In recognizing best practices, as well as employing best practices in our firm, we are indebted to David Ogilvy, a contemporary of Phil Fisher.

Ogilvy built an extraordinary advertising agency and has written extensively about his business philosophy and his ideal employees. "I admire people who work hard…and with gusto…people who bite the bullet…people with first-class brains…. But brains are not enough unless they are combined with intellectual honesty.

"I admire self-confident professionals, the craftsmen who do their jobs with superlative excellence. They always seem to respect the expertise of their colleagues…. I admire people who hire subordinates who are good enough to succeed them…and who build (and develop) them. I admire people with gentle manners who treat other people as human beings…and well-organized people who deliver their work on time."

Although we have not followed Ogilvy's advice on publicizing our firm, we have tried to follow his example of talking straight to our clients. In one anecdote, Ogilvy told about being rebuffed by Sir Alexander H. Maxwell, head of the British Travel Association. "Our advertising is good, very good indeed. I haven't the remotest intention of changing agencies," said Sir Alexander after hearing Ogilvy's solicitation. The adman's reply: "When Henry VIII was dying, it was believed that anyone who told him the awful truth would be decapitated. But reasons of state required a volunteer, and Henry Denny stepped forward. King Henry was so grateful to Denny for his courage that he gave him …a knighthood. Sir Henry Denny was my ancestor. His example inspires me to tell you that your advertising is very bad." Maxwell exploded, but Ogilvy got the account, and the number of American tourists to Great Britain quadrupled over the next ten years.

Philip Fisher – 2004 Q2

As a high school student, Ravenel had the good fortune to come across Phil Fisher's best book, Common Stocks and Uncommon Profits, in his father's library. The wisdom of Fisher and his contemporary, David Ogilvy, has been most influential in setting the basic principles that have guided the formation and development of Eagle Capital Management. Fisher's investment approach and Ogilvy's advice about running a creative professional organization are largely responsible for our firm's success.

Fisher became a security analyst in 1928. Through diligent study he recognized and articulated a set of investment principles that were different from those commonly used at that time. While Benjamin Graham taught us to value tangible assets and to always have a "margin for error," Fisher took investment thinking to another level, focusing on the drivers of long-term business value.

Fisher's advice may seem obvious today, but most investors continue to focus their research time on short-term developments with little time allocated to a larger view.

He looked for companies that could generate market-surprising earnings by creating new businesses – or revolutionizing old ones – with cutting-edge technology, superior products or better processes. Fisher grounded his vision with rigor. He demanded that his companies be run by outstanding management teams with unquestioned integrity and the same long-term view that he had. He was also quick to spot potential problems. As early as 1958, he wrote that "probably most costly of all to the investor is the abuse by insiders of their power of issuing common stock options." While he expected his managements to run tight ships, he also wanted them to invest for the future without regard for the quarterly fluctuations. "The investor wanting maximum results should," he said, "favor companies with a truly long-range outlook concerning profits."

Fisher focused on people, products, markets, and the underlying economics related to the building and running of an outstanding business for the long term. His critical requirements: strong or potentially strong profit margins and a strategy to maintain or improve them, accounting controls, stockholder-friendly financial planning, and outstanding labor and personnel relationships.

Warren Buffett has frequently cited Fisher as his second-most important influence after Graham. "From [Fisher] I learned the value of the 'scuttlebutt' approach: go out and talk to competitors, suppliers and customers to find out how an industry or a company operates." If one talks to enough people in an industry, the names of the best people will surface over the years. Listen to them. Question them. Fisher used painstaking research to ensure that the entire organization – not just top management – shared the vision and was the best in the industry, from sales and marketing to research and development. As Buffett famously pointed out, "Investing is simple but not easy." Fortunately, it is a lot of fun.

Benoit Mandelbrot – 2004 Q4

Benoit Mandelbrot, a renowned Yale mathematician, takes on modern portfolio theory, the random walk and efficient market theory in a new book, The (Mis)Behavior of Markets. These theories have dominated pension fund management for a generation, and corporate financial executives have been less than satisfied with the results.

As a scientist and a theoretician, Mandelbrot looks at data and results as well as theory. He doesn't confine himself to a single silo; by using physics, economics, biology, and math, he is better able to synthesize new ideas.

Mandelbrot invented (or discovered, depending on your view of these things) something called a fractal, which is a pattern that can be broken into smaller parts, each of which resembles the whole. Fractals appear frequently in nature. For example, look at a picture of 100 miles of Brittany's rough coastline, taken from a satellite. Then compare the terrain to a picture of just one mile of the same coastline, taken from a balloon next to the shore. The tiny crags reveal the same patterns and frequencies as the huge bays.

This is also true for other phenomena, including price movements in many markets. A price chart showing monthly data for a security often has the same characteristics as one showing weekly or hourly quotes. Take the labels off, put them side-by-side, and you can't tell which is which.

One feature of fractals is that their patterns can seem chaotic, with outliers building upon outliers, instead of the smoothing effect you see in normal statistical distributions. Mandelbrot uses the math behind this phenomenon to describe financial markets, which behave far more violently in the real world than orthodox finance theory predicts.

Mandelbrot's studies demonstrate that two key assumptions of modern finance theory are false. One is that price changes are continuous, moving smoothly. The other is that each change in price is independent from the previous change. Together, these two assumptions imply that price movements are random and distributed in a "normal" curve, such as the one you get by flipping a coin thousands of times.

In fact, prices jump around more often than a normal distribution curve suggests. And they do so in clumps. The discontinuities and interdependencies mean that the degree of turbulence (or roughness) in markets is far greater than predicted by the finance theories that underpin many of the tools used today, including options pricing, portfolio construction, and the capital asset pricing model.

Such turbulence also means that the odds of financial ruin have been grossly underestimated.

"From 1916 to 2003," Mandelbrot writes, "orthodox theory suggests that there should have been fifty-eight days when the Dow moved more than 3.4%; in fact, there were 1,001. Theory predicts six days of index swings beyond 4.5%; in fact, there were 366. And index swings of more than 7% should come once every 300,000 years; in fact, the twentieth century saw forty-eight such days.

"Whatever the stock index, whatever the country, whatever the security, prices rarely follow the predicted normal pattern.... Large changes, of more than five standard deviations from the average, happened 2,000 times more often than expected."

In addition to inspiring acute concern, Mandelbrot's work reinforces the importance of a few sound principles:

1. <u>Invest in rigorous fundamental, bottom-up research</u>.

Mandelbrot demonstrates that markets can be extremely inefficient. Top-down strategies and portfolio construction are confounded from time to time, creating investment opportunities for those with a fundamental understanding of value.

2. Think long-term.

As the time horizon stretches beyond five years, Mandelbrot found that his fractal patterns break down, and markets behave more as predicted in traditional theory. So, if we have the psychological and financial wherewithal to endure turbulence in a given month – or year – we will be ultimately less vulnerable.

Think of diversifying by time instead of by security. In October 1987, it didn't matter if you had twenty stocks or 200, your portfolio fell by around 27% in one day. But if you held those stocks through the next year, you gained it all back again. In the century's biggest shock, it wasn't the stocks that cancelled each other out; it was the days.

Note that it is difficult to maintain a long-time horizon if one employs financial leverage. If the losses caused by a temporary shock are multiplied, an investor may be forced to liquidate, even if he would prefer to be patient.

3. Prepare for short-term pain.

Mandelbrot found, against the prediction of efficient market theory, that if a stock price falls sharply for one month, the price is likely to fall again in the next month. But five years later, the story is the opposite; the depressed stock is likely to have outperformed.

In other words, for short-term traders, a momentum strategy appears to work most of the time, but for long-term investors, a contrarian strategy is superior in the end.

Mandelbrot does not address this paradox, which helps explain why long-term investing is so difficult for people to practice. Not only does it require hard work and patience, it also systematically demands that its practitioners endure short-term pain. When a stock has fallen to a level that is attractive enough to get our attention, it is likely to continue to fall as we build a position.

This can hurt, but it is a good barrier to competition. We are not worried about too many investors jumping on our bandwagon anytime soon.

Charlie Munger – 2005 Q3

Charlie Munger, the longtime partner of Warren Buffett, is a great investor in his own right and may be the only man smarter than Buffett in any room they share with others. To think efficiently, Munger has adopted some 100-odd models of the way the world works, most of them devised from other sources. "I believe in the discipline of mastering the best that other people have ever figured out," says Munger. "I don't believe in just sitting down and trying to dream it all up yourself. Nobody's that smart."

Inspired by Charlie's investing success, as well as his apparent general happiness, we at Eagle have tried to collect our own list of great models. Many of them have been gleaned from the annual meetings of Berkshire Hathaway and Munger's insurance company Wesco.

Our job was made easier after our friend Whitney Tilson recently helped assemble Poor Charlie's Almanack, a book of Charlie Munger's accumulated wisdom. Along with Seeking Wisdom, by Peter Bevelin, PCA organizes Munger's models for anyone to use. Here are a few Mungerisms interspersed with some of our own thoughts:

Psychological Models

Our human brain is wired in a way that helped ancient hunter-gatherers process and react quickly to various threats and opportunities. Sometimes this wiring is unhelpful.

<u>Relative vs. absolute value</u>

When offered a choice between $60 and a fancy pen, most people will take the $60. When offered the choice among $60, a fancy pen, and a lousy pen, most people will take the fancy pen even though they actually prefer the cash. It is so much easier to think about a direct comparison than about absolute value that most people compare the two pens and quit there, ignoring the best option. That shortcut can be dangerous for an investor. One dot-com stock may be cheaper than others, but perhaps they are all too expensive. We won't buy a stock just because it is cheap compared to its own history or others in the industry – that is a way to lose touch with reality.

<u>Overweighting short-term incentives</u>

In repeated experiments, quick rewards overwhelm much larger but less frequent incentives in driving behavior. At Eagle, we are interested in our analysts' long-term analysis, not short-term trading. But how do you encourage someone to focus five years out when glittering bonuses distract the eye toward quarterly price movements? Bonuses are almost guaranteed to divert attention from long-term gains. So at Eagle we have no such incentives.

When a bridge was completed in ancient Rome, the project's architects and engineers had to stand beneath the structure as the first carriages passed overhead. If the bridge collapsed, the men were crushed. Now THAT is an incentive that aligns behavior with client interest. Our system is a little less drastic: we invest our own money in the same stocks that we buy for our clients. Our only bonus is shares in Eagle, earned after years of demonstrated performance.

<u>Probability – expected value vs. likelihood of success</u>

Imagine that there are two six-sided dice, A and B. A is marked 1-1-1-1-1-13. B is marked 2-2-2-2-2-2.

If you bet on which die will win, then you pick B. (In five out of six rolls, B will beat A.) If you bet on points, however, you should pick A. The expected value of A is 3, while the expected value of B is only 2. Usually A loses, but occasionally the die wins enough points to more than make up for the many small losses.

Most people think in terms of <u>likely</u> wins; they hate to lose. But in investing, points matter, not the number of wins. This is especially true over the long run. While much of the market is looking for the reassurance of frequent small wins, we look in the less competitive arena of companies that eventually can give us a 13.

Physics and Biology

Appropriate scale

Why are there no giant people? A human that is ten times bigger might seem to have certain advantages in strength and speed over the rest of us, but increases in scale are multiplicative. A giant who is ten times taller, wider, and thicker than a normal human would weigh 1,000 times more (10x10x10). Since his bones and muscle would only be 100 times stronger (strength is determined by the cross-section – 10x10), the giant's mass would crush him.

Similar to a living organism, each business has an optimal size. A growing business might increase profits very fast as it leverages management, technology, brand and buying power. At some point, however, the added size creates so much bureaucracy and complexity that the business begins to grind more slowly. So we try to determine the natural size for a given business and how it is changing. Which factors will get more powerful as the business grows? Which will create more difficulty? It is tempting to assume that growth can go on forever or, having stopped, will stay stopped. Changes in technology, industry structure and markets can alter the natural size of a business, with huge implications for its value.

In the past, a cable system was mostly about local service and the company's relations with a municipality. The bureaucracy of a larger system, such as AT&T's cable operation, was a disadvantage in trying to manage its moving parts. Today, new technology and programming power offer the greatest advantage to the biggest player in cable. In addition to being well-run, we think that Comcast's size offers it the chance to develop and offer proprietary content and services that could stave off the competitive challenge of the phone companies.

Back-up systems vs. integrated systems

An airplane navigation system that has a 99% success rate and is backed up by a system with a 90% success rate will fail only 0.1% of the time. If the plane has an integrated system and needs both, it will fail nearly 11% of the time. The second scenario is a hundred times more dangerous than the first.

Backup systems multiply ways to win; integrated systems give you more ways to fail. We look for two kinds of backup systems.

The first is price. If the price we pay for an investment does not reflect the valuable change that we see, then we won't be hurt when we are wrong. We gain another line of defense against faulty analysis.

The second type of backup system is embedded in the business. Some businesses have integrated risk, which can increase failure rates. For instance, a hit-driven business (such as a computer graphics chip manufacturer) may fail to bring their new product in on budget, making it too expensive to sell profitably. Or it may not work as well as a competitor's product. Or the industry the company serves may have a downturn. If any one of those events happens, the business will disappoint.

On the other hand, a company with a multi-pronged platform has inherent backup systems. For instance, Dell has a superior method of selling that can be applied to many types of products in many markets. In addition to selling business and personal computers, Dell has started to offer new products, such as storage systems and Dell-branded printers. Moreover, Dell has entered into new market segments, such as flat-panel TV sets for the home entertainment market. The company has also moved into China and Germany. There are several ways to win. If printers work out, if sales grow in China, or if consumers start buying flat-panel TVs, Dell can boost its earnings. If direct sales fail in India, or if their new printers are too costly, Dell can offset those disappointments with gains in other areas.

Breakpoints

Long before Malcolm Gladwell published The Tipping Point, physicists observed that steady changes of an input can suddenly cause an irregular response. Pressures can build with no apparent effect and then suddenly explode. Add energy to water and the molecules will vibrate more and more rapidly, but only at one precise moment will they vaporize.

It is tempting to extrapolate trends smoothly into the future, but looking for breakpoints can sometimes reveal great opportunities – or risks – that do not otherwise give you fair warning.

Cellular phone manufacturers have resisted using Microsoft's operating system, even though that would allow their customers to synchronize their phones easily with their computers. Despite years of development and marketing, Microsoft's mobile device business has grown very slowly. Finally, last year, Motorola decided to test offer a model with a Microsoft operating system. The phone was a surprise hit. Then, last week, Palm Inc. announced it would replace its operating system with Microsoft's in the Palm Treo phones. As more phones use the operating system that integrates seamlessly with most PCs, the pressure will rise on all phone manufacturers to convert. It is possible that, after many years of resistance, all phone manufacturers may capitulate or risk being left out. Market share may grow not by 1% a year, but may leap to dominance.

Meanwhile, the credit markets watch the slow rise of interest rates and wonder about a break in real estate prices and what speculative owners will do in response. At Eagle, we watch such developments closely, not to predict the end of the property boom, but to understand how our investments will fare in the inevitable blow-off.

<u>Lollapalooza</u>

Charlie Munger calls the confluence of many models the Lollapalooza Effect. "Especially big forces come out of these one hundred models," he says. "But when two, three, or four forces are all operating in the same direction…you don't get simple addition. It's often like a critical mass in physics where you get a nuclear explosion if you get to a certain point of mass…."

We are concerned that four events will happen at some point in the future:

- rising interest rates will dash the psychology of ever-upward real estate prices
- adjustable-rate, interest-only mortgages will reset at higher rates
- normalization of construction trends in the U.S. will eliminate 2 million jobs
- end of mortgage refinancing will pull $150 billion per year of spending from the economy and may cost 1.5 million jobs

Eventually, the powerful, long-term march of American and global productivity gains will bail us out of almost any adverse problem. But the simultaneous and reinforcing impact of all four of the above events, at a time when the normal safety levers of monetary loosening and fiscal stimulus have already been used up, could give us quite a surprising lollapalooza effect. This is worth monitoring carefully.

John Coates – 2014 Q3

We had the privilege of spending a couple of days with John Coates, a neuroscientist at Cambridge University who examines the biology of risk-taking, particularly how hormones like adrenaline, testosterone, and cortisol affect participants in financial markets and help shape the markets themselves.

His book, The Hour Between Dog and Wolf, provides valuable insights for any investor, and our time with John gave us the opportunity to explore how Eagle's investment strategy, process, and time horizon can be informed by his findings.

Most of us think of the brain as our core, directing the body to execute rational decisions, but Coates argues that the brain is actually a tool of the body. He studies how the human body, developed over thousands of years of evolution in response to mostly physical threats, can distort our thinking and actions in dangerous ways as we deal with modern stresses, which are mostly social and psychological.

<u>Testosterone is the molecule of bull markets and bubbles.</u>

In animals and people, the winner of a fight experiences a spike in testosterone that makes the winner more aggressive, more focused, and temporarily stronger. The loser sees a decline in testosterone that encourages retreat and quicker capitulation to the next challenger.

This "winner effect" has an evolutionary purpose: animals that win a fight can generally reproduce more successfully if they press their advantage, while losers are more likely to survive to fight another day if they pull back and rebuild.

Coates's study of traders revealed that success in the morning boosted their testosterone levels and made them more likely to make money in the afternoon session. A statistical study of their trades, however, indicated that their increased profits came from higher risk exposure.

This feedback loop of increasing success, testosterone levels, and risk-taking continues until the inevitable correction takes levels back to normal.

Without disappointments to temper things, testosterone levels build up in a long bull market, and risk-taking becomes increasingly foolish, "morphing into rash and irresponsible behavior," argues Coates. The thrill and excitement turn into feelings of invincibility and almost magical powers. Positions become more and more dangerous.

Increasingly, all news is viewed optimistically. "A report of weak growth means lower interest rates, so stocks go up…strong growth means higher profits, so stocks go up."

As higher testosterone levels cause financial behavior to become more emotional, markets can move to levels that make no sense. Logic is overwhelmed by a cascade of testosterone, and bull markets turn into bubbles that build to a danger point.

In ancient Rome, notes Coates, victorious generals – dangerously high on testosterone – were accompanied on parade by slaves holding a human skull, a "memento mori" to keep irrational exuberance in check, reminding the general that "you are not a god – you are mortal!" At Eagle, we have framed on our wall a letter of apology from a highly successful investment firm manager to his clients after he blew up. It is our own "memento mori."

<u>Cortisol is the molecule of bear markets and irrational pessimism</u>.

When faced with an initial stress shock – a shadow in the dark or bad market news – the body reacts to danger by sending visceral organs into action. The heart pumps faster and lungs expand before the conscious brain even has time to recognize what is actually happening. If the danger seems real, adrenaline is pumped into the body to fuel the initial response of "fight or flight."

If the source of stress seems likely to persist, cortisol floods the system, initially energizing but eventually causing great physical and mental damage, if sustained over time.

In a novel situation, one no longer knows upon what information to focus, so cortisol triggers sustained firing of the locus coeruleus. The brain scans the environment for all types of information and can no longer concentrate, becoming panicky, hurried, and indiscriminate.

After a month, cortisol begins to affect the memory, "causing selective recall of disturbing memories in great detail, such as high school failures, locker room fights, financial losses," and muting memories of pleasant events. Decision-making increasingly draws on negative precedents, which promotes irrational risk-aversion and selective attention to sad and depressing facts.

Cortisol then begins to kill the cells in the hippocampus, the storehouse of objective factual details, shrinking it by up to 15%. At the same time, it grows branches in the amygdala, where emotions are emphasized, making thinking and actions more emotional and less factual and rational.

In the extreme, the prefrontal cortex is taken offline, impairing analytic thought and causing our brains to run impulsively. We become prey to rumors and patterns that do not actually exist and find imaginary dangers everywhere – banks going under, currencies on the verge of collapse, etc.

As a result of this biology, when a bear market or financial crisis moves into its second month, many market participants become clinical. Good news or lower interest rates have almost no impact, and assets can trade for demonstrably low valuations without attracting bids.

<u>Eagle's strategy mutes damaging biological impulses</u>.

The challenge for Eagle is making sure that we are resilient to these chemically-induced emotional ups and downs, keeping our minds clear and rational as we evaluate the risks and opportunities with which we are presented.

Being human, we cannot totally inoculate ourselves against the feelings of greed and stress that our bodies impose on our minds. However, there are a number of structural advantages that help Eagle resist the waves of optimism and pessimism that sweep through the markets and take assets to irrational prices.

For a given experience, stress and cortisol levels are higher when there is a sense of helplessness, lower when there is a sense of control. In experiments, subjects who self-administer shocks experience lower pain than those who have the same level of shock done to them. In the short run, stock prices move to the mood of the crowd, something that is out of our hands and inherently unpredictable. Over time, though, earnings drive stock levels. Our ability to identify and hold a few companies where we have been able to build an advantaged understanding helps insulate us from the daily stress of the unknown and maintain a sense of control.

For a short-term trader, volatility equals risk, and Coates found that traders in markets that are more volatile experience higher cortisol levels. But Eagle thinks about risk as the chance of a permanent loss of capital, not volatility. By making a value floor an important part of our analysis, we reduce the emotional impact of fluctuating prices.

Aside from shortening an investor's time horizon explicitly, short-term compensation schemes also link the investor's lifestyle more tightly to investment performance. When Coates observed traders in losing positions, their testosterone levels in good times and their stress levels in bad times seemed heightened as they pictured their consumption of luxuries when markets were strong and the evaporation of these items when markets reversed. At Eagle, our investments take many years to play out, and the analyst compensation is based on equity earned over those years, not annual bonuses that depend on twelve months of returns.

Events that are surprising create more emotional responses than equally impactful events that are foreseen. Novelty is a major stimulant of cortisol. We try to stress-test all of our investments against a wide range of negative macro- and company-level possibilities, and we make a special effort to envision how even improbable long-tail kinds of events would affect our companies and what we would do. When these micro or macro crises occur, as they inevitably do from time to time, we are less surprised.

Cortisol levels are also raised by low-grade chronic stress. A Stanford study indicates that the waves of information and "always on" aspect of electronic input – from our emails, cell phones, TV screens – create elevated cortisol in the general population. At Eagle, we largely ignore daily price movements and the chattering of financial news snippets, which are irrelevant to our time horizon anyway.

Other aspects of Eagle that reduce cortisol levels include the following:

- The long-term partnership culture helps us stay rational and calm in tough moments by reducing "novelty stress." We know each other well, so the degree and sense of uncertainty is less.

- Having to make lots of decisions, even small ones, can deplete glucose and raise cortisol. At Eagle, we generally make three to seven investments a year, and our trading turnover is one of the lowest.

- Emotional resilience, built up by brief periods of acute stress that is then resolved, trains the body to deal with unexpected situations as exciting challenges rather than harmful threats. We use lively debate and scenario risk analysis to constantly press ourselves, which toughens us against damaging chronic stress.

- The very nature of Eagle's analysis – opportunities and risks that may not occur for many years – lends itself to rational, deliberative thinking that is less likely to stimulate emotional responses and chronic levels of adrenaline and cortisol.

Perhaps most important, our clients allow us to stay calm and focused as they understand our strategy and our competitive advantage. In a market that has recently been increasingly volatile, and could be for some time now, your contribution to our healthy hormone levels is invaluable.

Albert Einstein – 2011 Q1

We recently had the good fortune to read Walter Isaacson's biography of Albert Einstein (like Sergey Brin, an immigrant who helped our nation overcome great challenges).

Einstein is famous for the theory of relativity, but his legacy is a far wider range of breakthroughs. Despite his enviable intellectual gifts, Einstein was not a Mozart, so gifted that insights and formulas simply dripped effortlessly out of his head. He was a hard worker who built his success on foundations that would well serve any investor. Here are some of the man's qualities to which Eagle most aspires:

<u>The contrarian</u>. "I enjoy controversies," Einstein wrote to a friend. Many of his academic contemporaries brushed up against the concepts that Einstein would develop, but they backed away from the brink. The ideas were too much at odds with received wisdom. Einstein, on the other hand, had no academic standing to risk, and he naturally recoiled at anything popular or expected; the opportunity to overturn established order was bait to him.

Skeptical even of his own models, he looked for outliers and exceptions, rather than reassuring confirmation. What was surprising, different, or unusual?

As one might imagine, Einstein's fierce independence extended to other spheres as well. When the political situation in Germany darkened after 1915, his fellow scientists went quiet. The previously non-political Einstein went in the opposite direction. "This type of cautiousness…is the cause of the entire wretched situation," he complained of his colleagues' reticence. Later in life, when he was successful and world-famous, he delighted in surprising the public with his simple tastes and avoidance of fancy trappings.

<u>The collaborator</u>. Einstein's "merry skepticism" was not mean-spirited or antagonistic, and his willingness to think independently did not make him a recluse. One difference between a crank and a successful revolutionary is that the latter is eager to enlist others in his crusade.

Einstein was socially awkward and spent long periods working in solitude, but he also enjoyed conspiratorial fellowship. His math was not world-class, so he partnered with great mathematicians to flesh out his theories and uncover new implications. He engaged astronomers to measure the results of his esoteric ideas. He sought out engineers to help with experiments. He loved testing his constructs against the best minds.

Einstein's motley crew of contacts came from a wide range of disciplines, which prevented him from falling into any one school's established thinking. One of his mathematician friends, David Hilbert, knew little about physics, forcing Einstein to explain his theories in the most basic terms. Hilbert's smart but naïve questions helped Einstein to rethink his assumptions.

Einstein despised snobbery, for its meanness, its irrationality, and its self-destructiveness. When he moved to Prague for a higher-paying job, he complained about the lack of social mobility. "The people are haughty, shabby-genteel, or subservient, depending on their lot in life." Discriminating in his friendships, he nevertheless drew from high and low. His disdain for social convention made him a perfect partner for many ignored by his established competitors.

<u>Attacking problems from many directions.</u> Einstein combined inductive and deductive reasoning, playing them off each other. His time working in the patent office and for an uncle who built electric generators gave him a real-world practical feel for abstract concepts that most academics lacked. He achieved many of his important breakthroughs with thought experiments, such as imagining himself riding a beam of light next to a train or envisioning a painter falling through the air with his paint can. Rather than getting lost in the dense complexities of the formulas, he used math as a tool to play out the implications of his creative musings.

Einstein was able to see things that other people missed (people who were equally smart and sometimes more skilled), because he mixed disciplines. "He had an urge – indeed, a compulsion – to unify concepts from different branches of physics," writes Isaacson.

Critical to his ability to play in so many fields was an understanding and knowledge of each. There is in our culture a myth of creative insights coming like lightning bolts to the very gifted, but Einstein explained that while "a new idea comes suddenly…intuition is nothing but the outcome of earlier intellectual experience." To earn the ability to break the rules and flip them around creatively, one first has to do the work.

Love of work. "Throughout his life," writes Isaacson, "Einstein would retain the intuition and awe of a child. He never lost his sense of wonder."

Einstein's work was not always fun, in the sense of easy pleasure that serves as the ultimate goal for many. His labors could be long and frustrating. Sometimes the payoff took years, and it was always far from certain. Often, he would lose weight and write despairing letters. To earn a living in the early years, he would show up six days a week, haggard from late night research, for his job at the Swiss patent office. Even after publishing dozens of papers, having "devised a revolutionary quantum theory of light, proved the existence of atoms, explained Brownian motion, upended the concept of space and time, and produced $E=mc^2$," Einstein was refused academic jobs, and his application to be a high school math teacher was rejected.

Realistic, bloodied, and occasionally persecuted, Einstein pressed forth with not only endurance but enthusiasm and optimism. It is possible to churn out pedestrian results under duress, driven by money or fear, but intellectual leaps are difficult unless one finds the process intrinsically wonderful. Passion and good nature fortify persistence.

One night at dinner, on the verge of fleeing Germany to escape increasingly violent anti-Semitism, Einstein was asked by a dinner companion how he managed to remain so cheerful, "given the depravity of the world." He responded, "We must remember that this is a very small star, and probably some of the larger and more important stars may be very virtuous and happy."

Fiercely independent but social. Skeptical but optimistic. Rigorous but creative. Driven but jovial. Lessons for life and investing that we take to heart.

Concepts

In 120 letters over thirty years, we have shared our perspective on the markets, Eagle and investing. Here are some of the most enduring.

Titanic Lessons – 1997 Q4

My mind wandered as I watched *Titanic*. The big ship was sinking, and I began to see the tragedy as a metaphor for the past year in the Asian financial markets:

The vessel was filled with hubris, gloating, and an obsession with being the biggest and best. During the long, recent economic expansion in Asia, the money and power flowed to the most aggressive and most leveraged businessmen. When political power can be used as insulation from economic reversals and when the high growth overwhelms one's business errors, humility and reflectiveness are in short supply. In Kuala Lumpur, the finishing touches are being put on the tallest office towers in the world. Bangkok boasts the longest shopping center on earth. Both facilities will stand empty for years to come.

The repeated warnings were ignored by the captain and passengers. Anyone questioning the "Asian Miracle" and any contrary anecdotal evidence was loudly derided by everyone from the prime minister of Singapore to New York investment bankers.

The first-class passengers left the ship first. Rich businessmen and politicians in Jakarta and Bangkok quietly began wiring money offshore well before the collapse of their currencies.

The workers down below who made the ship run got the worst of it. Ditto everywhere. Governments have been tempted repeatedly by the apparent advantage of currency devaluation, but history shows high relative inflation is a much more likely result than economic prosperity. Also, the wealth destruction for those "still on the ship" has exceeded the U.S. Great Depression.

About 25% of the passengers survived. This is about how much of the capital remained after a year invested in Thailand, Indonesia or Korea.

Lessons Relearned

What does Asia mean for American investors? Aside from the obvious economic slowing and financial risk, I think there are three interesting takeaways:

1. You have to do the work. Most of the people who invested in Asia never kicked the tires of the underlying companies. If they had, they would have realized that most of them were run without regard for cost-of-capital or shareholders' returns, often in an unethical manner. And they were expensive. But the allure of the Asia concept was so appealing, and doing the due diligence was hard work.

As stock and property prices in Asia rose over the past decade, people bought, not because they analyzed the intrinsic value of the shares or real estate, but because they thought they could sell the assets to someone else for even more. When the game stopped, investors were stuck with overpriced assets.

Americans who are paying high-growth multiples for earnings increases which are either not real or not sustainable are following the same path.

We must avoid being manipulated. The CFO has the ability to “manage” the reported earnings as well as an ability to reward or punish investment banking firms through fees awarded. He can, therefore, persuade most analysts at the large brokerage firms to accept the company's "guidance" in making earnings estimates. As one highly-regarded analyst explained to me after acknowledging that his earnings estimate was way too high, "The CFO wants to control estimate cuts by having a conference call. If I cut it before he is ready, he and his staff will have to field numerous calls from investors reacting to my call. He’ll become angry with me if I get ahead of him." Does that mean the analyst is just a messenger? In too many cases, yes.

2. High stock prices can lead to competitive destruction. For example, Indonesia was growing quickly and building up its cities. The construction required a lot of cement; cement prices rose, and cement companies became quite profitable. The high profits led cement-stock prices up. Suddenly, a cement plant that cost $100 million to build was trading on the market for $300 million. Enterprising Indonesians could build cement plants and float the stock, picking up an easy $200 million.

This “entrepreneurial arbitrage” led to a lot of new capacity in cement, steel, petrochemicals, banks, real estate, and whatever else could be built and flipped into the public market.

U.S. companies typically have tougher barriers to entry, so the competitive forces take more time to build up. But they are building. In telecommunications, banking, consumer products, technology, financial services, and entertainment, high stock prices are adding to capacity. Baby Bells may join other carriers in long distance, and cable operators are beginning to compete for local telephone business. Telephone rates (and profits) have a long way to fall. Coca-Cola and Pepsi have driven their profit-growth in the U.S. to zero. Film studios have been churning out movies at an unprecedented rate of one per day.

The proliferation of capacity also means that "franchise" owners will lose some of their pricing power to suppliers and employees. When Seinfeld announced he was leaving NBC, the network offered half of their profits on the show to prevent his departure, so what is NBC's franchise really worth?

3. Investors often focus completely on the most likely scenario rather than on the weighted cost and benefit of all possible outcomes. In Thailand, banks earned extraordinary returns by arbitraging the difference between local and foreign interest rates. In any given year, it was most likely that the peg between the baht and U.S. dollar values would hold, guaranteeing huge profits. Investors bought these banks under the assumption that there would probably not be a devaluation. But they did not calculate the cost of being occasionally wrong. For years, bank stocks rose. But when the peg broke in 1997, the loss to investors was nearly absolute. Every bank in Thailand today has negative equity, if it has not already been shut down.

In the U.S. we must constantly think about "what if” scenarios. The valuation of many stocks does not allow room for anything to go wrong. In 1980, oil prices reached $100 per barrel in 1998 dollars. Imagine the impact on the economy – and stock prices – if that happened today. While this may be unrealistic given our current Federal Reserve policy, it is a part of our recent history. Government errors here or abroad can lead to other extreme dislocations, causing earnings and P/Es to collapse.

Conventional wisdom sees demand for gas and oil temporarily reduced by the second warm winter in a row, Asian economic weakness and increased OPEC production, and concludes there should be no place in the portfolio for energy stocks. We, on the other hand, see several possible scenarios which, when probability-weighted, give us very attractive risk/reward ratios for the next three years.

How Do These Excesses Develop?

Confidence begets confidence which begets certainty, and trends become ever more powerful until they reverse and become unglued. For example, the well-grounded confidence in the work ethic of Asia attracted both debt and equity capital. As the economies and businesses grew, so did the confidence, until basic financial principles were forgotten by corporate executives, lenders and investors. Basic credit analysis, understandable accounting practices, and sensible balance sheets were forgotten. Returns on invested capital were no longer required, leading to excess capacity.

To ask the rude question of how companies would be able to service the enormous debts with the minuscule returns they earn was the equivalent of asking how the current Social Security and Medicare plans can be maintained when the baby boomers retire.

Thinking Clearly – 2004 Q3

New York Times columnist David Brooks recently discussed a study of voters' tendencies to affiliate with a political party and to then interpret developments through that partisan filter. What we found most interesting – and relevant to our own field of investing – was the assertion that "affiliation even shapes people's perception of <u>reality</u>."

For instance, in 1988, when voters were asked if the inflation rate had fallen during Reagan's presidency (it had, from 13% to 4%), only 8% of Democrats said yes. Conversely, when voters were asked about economic growth at the end of the Clinton administration, most Republicans got it wrong.

Note that these polls did not ask voters about their assessment of the previous administration, just numerical facts. And yet people with the same access to the same information had dramatically different answers, depending on which party they had joined. If facts contradict theory or threaten identity, most people ignore the facts.

There are at least two forces at work here. The first is people's resistance to changing preconceived notions. The second is people's emotional desire to belong to a group. Both are dangerous for investors.

<u>1. Preconceived Notions</u>

None of us is immune from the natural inclination to retain only the information that supports what we already believe, but it is an impulse worth fighting.

We once heard Warren Buffett complain that the problem with politics is that voters see everything through the lens of their own experience. Many farmers think that they should be subsidized, because after all, they feed the nation. Some lawyers believe that every legal principle is worth any cost to defend. Businesspeople often push for targeted tax breaks that will stimulate critical activity.

Borrowing from the political philosopher John Rawls, Buffett proposed that voters detach themselves from their current situation and imagine that they have not yet been born. You do not know if you will be smart or dull, if your parents will be nurturing or neglectful, if you will be rich or poor. How would you vote then?

At Eagle, we run a number of Rawlsian/Buffettesque exercises to ensure that we are thinking clearly about our long-held companies:

<u>Would we buy this stock today</u>? The stock may have performed well, but we owe it no loyalty. If our initial thesis is well-recognized by the market now, the risk/reward may be less favorable.

<u>How would we feel if the price fell 30% tomorrow</u>? Panicked that we had missed the opportunity to sell, or excited that we can pick up more of this wonderful company at an even better price?

<u>What could possibly go wrong</u>? What if interest rates spike? Might the accounting be misleading? Could competitors leapfrog the technology? Can this company beat back Wal-Mart?

<u>Why doesn't Wall Street agree with us</u>? There are lots of smart, hard-working people out there looking for good investments. Why don't they want this stock? Is it because they are focused on short-term issues, or because they have talked to competitors we haven't? If we don't know <u>why</u> the opportunity exists, then there is a good chance it doesn't.

Eagle's willingness to look at new information and cast old notions aside has been important in finding most of our big winners.

Over a twenty-year period, energy stocks underperformed the stock market, falling from 29% of the total market capitalization to just 5% in 1998. Anyone who has joined the investment world in recent decades "knew" that energy was a bad business, with growing supply and ever-falling prices. When we looked at Newfield Exploration, the executives at their presentations outnumbered the people in the sparse audience. Numbers – widely available – that indicated a coming shortage of natural gas were dismissed, and a stock price that valued the company for less than its proved assets in the ground was ignored by analysts.

As we dug deeper, we realized that we weren't uncovering any big secret; smart investors were simply not paying attention to facts that contradicted their long-held (and long-successful) model of the world. No one with any brains or ambition wanted to waste their time in a dead sector. That dynamic created the opportunity.

2. Belonging to the Group

The delusions of crowds have been well-documented in financial histories, and mass groupthink remains something to avoid. But in today's fractured environment, where we have divided into smaller tribes, an equal risk is a smaller kind of groupthink. This happens when investors identify themselves emotionally with acolytes of a particular company, industry, or investment group, and then stop analyzing new facts in a balanced way as they present.

For example, some growth investors, looking for the next big thing, will discard a company once its earnings growth has slowed, even if the price is a bargain. Members of the value club, meanwhile, may insist on a low price-to-earnings or price-to-book ratio, even though reported earnings and book values may not reflect actual cash flows or asset values.

Warren Buffett made one of his greatest advances when he combined the discipline of Graham and Dodd with an understanding that intangible assets, such as a brand or a patent, could be as valuable as a hard asset, such as land or a factory. This was a radical departure from his deep value brethren.

A recent addition to our portfolio is Microsoft, and one of the reasons Microsoft became cheap enough for us to consider is that it is an orphan of both growth and value clubs. The deep value investor can't believe that the old momentum stock could actually be cheap. The aggressive growth investor threw in the towel when Microsoft announced slower top-line growth targets. Neither would be caught dead at a dinner party with their associates admitting ownership of a name that their group either labels tired (the growth guys) or speculative (the value guys).

We think that the stock is fairly priced for its current business and that Microsoft may be best positioned over the coming years to exploit the changes that are taking place in the interplay between personal computing, communications, and digital media.

We certainly make our share of mistakes, and Microsoft faces many threats that we monitor closely. But the risk-reward for Microsoft today, at an adjusted free-cash-flow multiple of 15x and on the edge of a consumer media revolution, seems dramatically better than it did four years ago at a P/E of 70x at the tail end of a PC boom.

Secular Destruction – 2005 Q4

The typical year-end investor exercise features questions about the economy. Where are interest rates headed? When will the next recession hit? How much longer can America's consumers borrow their way to apparent prosperity?

While we find these questions interesting, the greatest investment opportunities tend to spring from insights about specific companies. It is easier to understand whether a certain bank can thrive through various interest rate environments than to predict where rates will be. It is more useful to identify how a retailer can exploit technology to its advantage than to guess how innovation may affect national productivity figures.

Between the macro trends debated by economists and the nuts and bolts operations of an individual company, there are powerful forces that will destroy some long-established franchises and give new growth and value to others.

Rapid technological change, combined with accelerating globalization, is impacting the value of old business models faster than ever. This makes "investment-by-extrapolation" – always dodgy – even more problematic. The environment calls for constant revision, both rigorous and imaginative.

As we review our industries, nearly all of which face imminent change, a recurring pattern emerges: dominant players are threatened, but they are also in a position to exploit emerging opportunities. In the worst case, a company may salvage some value by cannibalizing itself before anyone else does. But sometimes a company that is willing to trade its old dominance to seize the future may find itself better off than ever.

Take the newspaper industry. Internet search technology is one of the prime threats to newspapers, both as a delivery mechanism for news and as an efficient method of advertising. We have avoided apparently cheap newspaper stocks because online classified ads seemed to be more effective and less expensive than print ads when looking for a car, apartment or job. Over time, cheaper and better wins. One newspaper chain executive told us that whenever the online notice board called craigslist.org opens in one of their markets, they see an immediate 10% decline in classified ads. We expect this trend to accelerate.

Perhaps things might have been different. The market value of Google today is greater than the market capitalization of all the major newspaper companies combined, net of non-paper holdings. And yet the most frequently searched material on Google and Google News is the content of those faltering newspapers. If they had joined together to launch their own search engine, and made their content available to it exclusively, perhaps a newspaper consortium – and not two Stanford kids – would control a company worth $130 billion.

In retrospect, it always seems obvious who the winners and losers were going to be. Prospectively, things are more opaque. Below we share some key questions that we are wrestling with now. We ponder them in our offices, but more importantly we address them with our companies and other sources to get a better sense of which are preparing to exploit these epic changes and which have their heads in the sand.

<u>Cable</u>

Within a decade – at the longest – it seems that consumers will be able to download a nearly infinite number of video channels through internet pipes available from their phone companies, electric utilities, or one of the new wireless options being planned by satellite and media companies. When this happens, will today's cable television leaders have used their current dominance and cash flow to build the richest proprietary selection of content options, or will they be one of many dumb pipes fighting for a sliver of the market they once owned?

<u>Pharmaceuticals</u>

Eagle has resisted the value trap of big pharma, believing that traditional chemistry productivity is in a secular decline and that the easy targets have been exhausted. But as biotechnology discoveries accelerate, is there a big drug company that is better prepared to make the switch to protein-based development? And is it well-positioned to add value to biotech patents with its skills in development, manufacturing and marketing?

Retail

Amazon has grown sales from zero to $8 billion by using the web to offer a wider selection at lower cost. Can e-commerce eclipse bricks and mortar? Are the old chains so mired in antiquated practices that they are doomed to follow the newspaper industry? Or can some large retailers, with their massive supply and logistics networks, provide their wares online and more cheaply?

Financial Services

After twenty years of product innovation, consolidation and declining interest rates, financial services make up 25% of S&P 500 net income. Is that sustainable? Will technology and competition compress margins and commoditize more of this industry, or will new global markets, innovation and cost savings sustain those margins?

No business model has ever been rock solid, and the world has been buffeted by monumental shifts before. What is different today is the speed at which one change after another is pounding at the base.

As important as it is for us to understand these forces, perhaps the most important thing we can do is to find great management teams. With such a fast-changing landscape, it is a better time than ever to be aligned with great leaders who can see the world with clear eyes and marshal the resources to respond defensively and offensively. One sector, having recently gone through many shifts, demonstrates the two paths that our companies can follow:

Product Brands

The margin of safety that stable brands offer their owners has been declining, pressed by more informed consumers, shorter product life cycles, and the consolidation of retailer power. Will the high be brought low? Coca-Cola, Anheuser-Busch, and Gap have fallen over five years, as they rested on a dominant iconic position. But Procter & Gamble, Apple, and Toyota have managed to use their cash flow, brand name, and distribution strength to innovate, upgrade, and sell a lucrative wave of new products that an upstart would have found difficult, if not impossible, to launch.

A supremely confident investor is one who isn't paying close enough attention, but this is an interesting time with exciting opportunities, and we are grateful for the privilege of searching for them on your behalf.

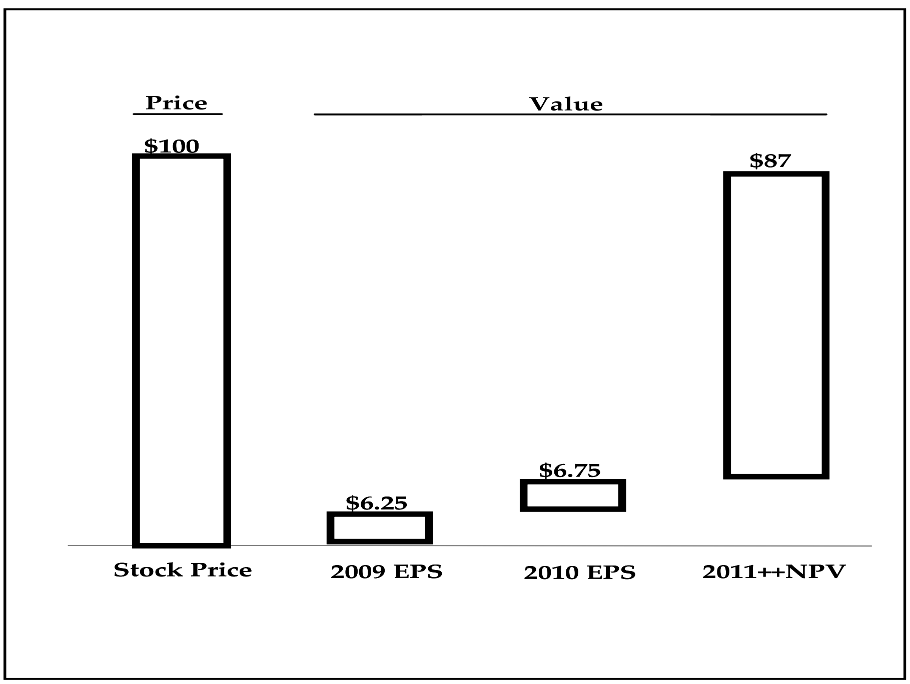
The Long Game – 2008 Q3

For investors with a long time horizon, the current stock prices of selected companies offer up some of the best future returns that we have seen in our twenty-year history.

We say this three-quarters of the way through Eagle's worst-ever year. We have no certainty that the market has finished its decline or that it will rebound any time soon. Earnings estimates across every industry are almost certainly still too high. U.S. consumers will – in the best case – spend the next few years rebuilding their personal balance sheets rather than leading a retail recovery. Recessions are in place or looming in every major developed economy, and emerging markets are slowing rapidly. Most OECD governments are too indebted to launch massive stimulus programs. Central banks will do whatever is necessary to un-stick the credit market, but poor credits will not regain access to funds. In addition, the printing press solution to the credit crisis will have a cost: to vacuum up the liquidity they have poured on the problem, responsible central banks will have to meet any rebound with much tighter money.

How can we be excited about stocks when the near-term prospects are bleak and the timing of a recovery is uncertain? It sounds like a paradox, but it is no coincidence. Great companies would not be selling at such extremely low valuations if a recovery seemed imminent or if the timing were clear. It is the widespread fear – legitimate fear, by the way – about earnings in 2009 and 2010 that allows us to buy long earnings streams at such a deep discount.

In evaluating each company, it is important to focus on the fact that their earnings in 2009 and 2010 are only a small portion of what we are buying. The bulk of what we are paying for is the present value of the earnings that each company will earn in 2011, 2012, and forever after.



It is by directing attention to the most important part of the value – the enduring franchise rather than near-term earnings – that long-term investors can beat those with a shorter time frame.

The current market is rich with opportunity. Great businesses like Coca-Cola, Comcast, and American Express are selling at normalized earnings yields of 8% to 20% and higher. When will earnings be back to normal? We don't know, but we do know that we will get there and that when we do these stocks will trade at substantially higher prices.

Of course, businesses need to make it to 2011. Some will not survive the downturn, others will suffer permanent declines in their franchises, and some will be forced to dilute shareholders. Much of our work today is to be sure that each of our investments can withstand the coming pressure and emerge from the recession with its core value intact.

Looking out further, have recent events somehow reduced the earnings power of our companies? Are there new competitors on the horizon? Or new technology threats? Will the citizens of China, India and Brazil permanently cease their march into the global economy? Will productivity gains suddenly reverse?

We think the opposite. In fact, the current crisis may end up making many businesses more valuable in the end, not less. As a result of the current problems:

- Consumers, finally forced to save, will become stronger financially.
- Homebuyers, paying more reasonable prices, will have an easier time servicing their mortgages.
- Financial companies, led by more thoughtful management, will refocus on actually creating value instead of leveraged risk-taking.
- Constrained by capital markets, competitors will subject their capacity additions to a higher hurdle.
- The new financial system, with thicker equity cushions and better underwriting, will be more resilient against future shocks.

Of course, there is always political risk; the Great Depression was just another downturn until tariffs, new taxes, and other calamitous decisions turned it into a full-blown collapse. Will today's governments suddenly abandon market-based solutions to embrace the failed policies of the '70s? Much of the risk seems discounted today, and Senator Obama seems to have backed away from early anti-NAFTA rhetoric. His proposed tax increases are concerning but less aggressive than initially put forth.

Nonetheless, great assets are being offered up without regard to price and value. Stocks are moving 5%, 10% and 20% in a single day, not because new important information has emerged, but because someone is forced to sell by redemptions or margin calls. This gives calm, rational, long-term investors opportunities that we have not seen before and may not see again.

In 1981, long-duration U.S. government bonds were trading at yields of 14%. Investors knew that the yield was too high but were afraid to own anything so volatile in a scary time. Those who stepped up had to wait but eventually earned extraordinary profits. We believe equities are in a similar position today, but the deal is better. Those high bond yields eventually extinguished. Many of the companies now on sale will pay us a high yield on the current price for decades. And, unlike bonds, the yields should grow with inflation and global prosperity. The price is patience.

Shelby Cullom Davis said, "You make most of your money in a bear market. You just don't realize it at the time." The next two years are going to be very challenging, and we cannot tell you what the stock market will do now. What we can say is that, after years of beating the bushes to find a few bargains in an expensive market, our job has become far easier.

U.S. Companies – 2010 Q2

Across Victoria Harbour blaze the massive neon signs of some of the world's great multinationals: Siemens, NEC, HSBC, Hitachi, Samsung. Of the two-dozen competing for attention at the gateway to China, only Mirage and Wynn are American.

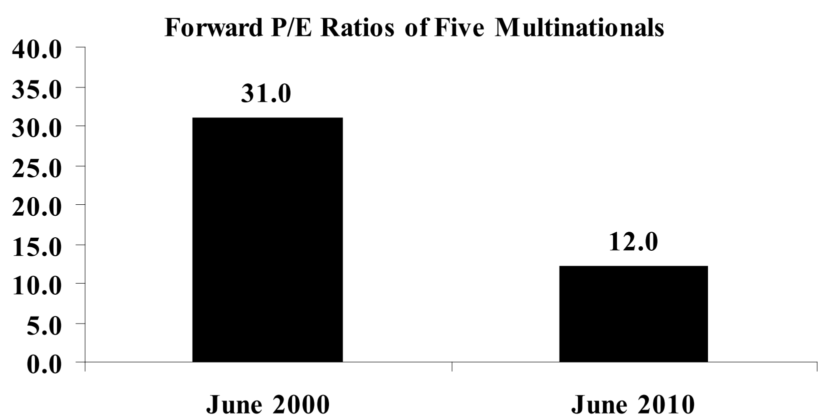
One might wonder if our casinos (gaming and financial) are America's only remaining source of global income.

Still, a number of great U.S. companies stand on the world stage; they are just increasingly ignored by investors.

A decade ago, when we looked to invest in strong businesses with high returns on equity, barriers to competition, and global growth prospects, we were often priced out. Microsoft, McDonald's, Coca-Cola, Wal-Mart and 3M had an average P/E ratio of over 30 back then. At that multiple, investors receive an earnings yield of only 3% on their investment, and any misstep could take the total return sharply negative.

After some hunting, we were fortunate to find other companies that offered earnings yields that were twice those of the "New Nifty Fifty." With a greater margin of safety, these stocks helped us generate a first percentile return over a decade when the S&P 500 declined.

Those multinationals that were out of reach in 2000 have since more than doubled their earnings per share and asset base while their stock prices have fallen. As a result, earnings yields now are closer to 8%, about the same as the overall market. With some organic growth, modest inflation and various interesting initiatives underway, total returns could compound at 10% to15% per year for a long time. All five are in your portfolio now.

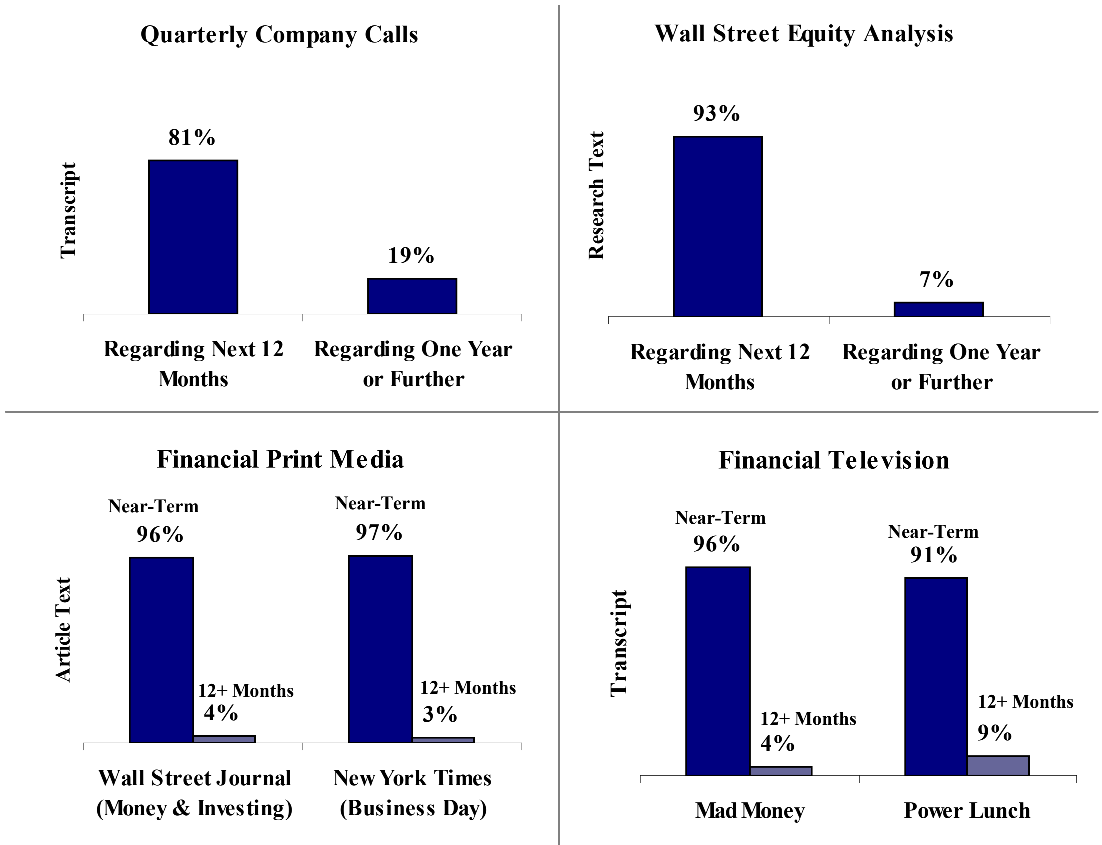


Backward-looking investors and asset-allocation formulas focus on recent stock performance rather than intrinsic value, while "big picture" analysts focus on macroeconomic scenarios rather than a bottom-up profit outlook. By those criteria, most U.S. equities seem to deserve a pass. But a more fundamental study reveals that many companies have increased their intrinsic value substantially over the past ten years.

By keeping a disciplined eye on the long term – combining a value-based price discipline with a growth perspective – we were able to avoid some traps a decade ago. We now believe the same discipline gives us the chance to participate in extraordinary opportunities with little underlying risk, despite our skeptical view of the larger economy.

In a world obsessed with short-term blips, Eagle's core competitive advantage has always been our long-term focus. Just as we revisit our companies to confirm their competitive advantages, we thought it would be interesting to see if we could measure the degree to which one of our success drivers is secure. Of all moats, a long-term horizon ought to be among the shallowest. It seems so easy to copy.

Our four studies looked at major sources of financial information for investors and measured the percentage of material from each source that referred to the short term (next twelve months) versus the percentage that referred to a longer view (beyond one year). We were both relieved (for our investors) and disappointed (for financial markets) to find that time horizons have become ever shorter:



Source: Eagle Capital Management Analysis

Unfortunately, the desperate need for short-term results infects politics as well. There is much talk about whether the stimulus program has done enough to "relaunch" the economy and whether consumer confidence is back – as if liquidity and emotion were the basis of underlying growth.

America's problem is not cyclical; it is structural. We have built an economy to serve a nation that consumes more than it produces. Our children want to be retailers and real estate investors rather than engineers and biotech scientists. Relative prices and incentives need to adjust before we can consistently grow again.

Aggressive stimulus, backed by economists who look at top-line numbers rather than underlying drivers, is pouring gasoline into a car that is broken. Piling up debt to drive consumers back to their old ways will merely delay the day of reckoning and make the aftermath drearier than it needs to be.

But the government is not powerless. Aside from increasing immigration of skilled workers, which we have discussed in these letters, a cut in the corporate income tax rate from 35% to 25% would have the advantage of short-term stimulus and long-term growth.

Companies tell us that they are actively shifting their manufacturing, R&D and other critical activities abroad to more tax-friendly (i.e., almost any) nations. With a 25% tax rate, this march would stop or reverse, and more new projects would clear corporate return targets.

Despite America's structural problems, we continue to find great investments.

Slow Thinking – 2011 Q4

In Daniel Kahneman's great new book, *Thinking, Fast and Slow*, the Nobel laureate explains how some of our most valuable cognitive tools can, in certain types of situations, lead us to terrible decisions. The implications for investing are especially important.

The basis of his work is that the human brain has evolved over 100,000 years to help us efficiently deal with challenges to our survival. For the most part, our quick-response reactions are highly accurate. For instance, it only takes a quick glance at the picture below to know that the woman pictured is angry and is "about to say some very unkind words, probably in a loud and strident voice."

Paul Ekman Group, LLC

This intuition is what Kahneman calls our "System One." Efficient, effortless, instantaneous and – usually – very helpful. When faced with matters of computation, however, System One fails. Even those who are quite good at math cannot immediately intuit the solution to:

73 x 67 =

Matters of computation require "System Two" to kick in, a more difficult, effortful grinding of gears. For the most part, System Two problems are matters of modern society, with which we have not evolved to deal. Luckily, when System One fails, we usually know to switch over to System Two, pull out the pencil, and concentrate a little harder.

The real challenge that interests Kahneman is the type of situation in which System One is not well-suited to answer a question but people use it anyway, either because they do not realize what type of problem they face or because they are lazy, or a combination of both.

For instance, Californians buy more earthquake insurance in the years immediately following a major earthquake, even though the statistical odds of an earthquake have not risen. We do this because we have evolved to weigh recent events and vivid anecdotes strongly (System One), while most of us are not intuitively good at probabilities (System Two).

Kahneman's book reviews dozens of System One biases, and his hope is that if we recognize the types of situations in which we are likely to be led astray we will know when to mute the intuitive, emotional, fast-acting System One and activate the more labor-intensive System Two.

The 400-page book is dense with theories, studies, and real-world examples. The sections on work-planning, managing relationships, and evaluating your own happiness and life goals are especially worth the considerable effort the book demands.

Our focus is on the many System One mistakes that relate directly to investing. As a field that emerged at the very end of our evolutionary timeline, the combination of judgment and computation makes investing an area that is unusually susceptible to bias error. Decisions based on apparent patterns, emotion, and intuition can be catastrophic for investors.

Here is a small selection of biases that Kahneman has identified:

<u>Overweighting recent events</u>: Excited by five years of great returns, investors piled into multinational stocks in 2000, paying astronomical prices that made no sense for shares that had already done well. After a subsequent decade of poor performance, investors today are selling those same companies at relatively cheap valuations, despite the fact that their go-forward returns are statistically more promising.

<u>Misperception of randomness</u>: System One is programmed to find patterns, causality, and order, and it will often do so even when none actually exists. Many basketball fans and coaches believe that players occasionally acquire a “hot hand,” but a statistical analysis of thousands of actual shooting sequences demonstrated that this may be an illusion. The desire to see patterns in the chaos of life is so strong that many will ignore the statistics, even when they are clearly articulated. Boston Celtics coach Red Auerbach responded to the hot hands study, “Who is this guy? So he makes a study? I couldn’t care less.” Deeply-held beliefs need not collapse in the face of one study, but the hard numbers always bear consideration.

<u>Overweighting a small number of highly-visible factors</u>: System One jumps to strong conclusions from a few kernels of evidence, such as a presentation by a charismatic CEO, a successful new product line, or a glowing magazine article. Letting System One pick investments after an inspiring CEO speech is a problem for two reasons. First, the correlation between public speaking and growing profits is not high. Second, if other investors are responding to the same impulse, then they have bid the price up to a level that already (more than) reflects the actual value. In fact, a twenty-year study of “Fortune’s Most Admired Companies” found that the stocks of the lowest-rated companies went on to outperform the stocks of the highest rated companies. Some of our most successful investments have been companies with modest, low-key CEOs whose cautious outlook left many investors cold.

<u>Question substitution (heuristic substitution)</u>: When System One encounters a question that is difficult to answer, rather than passing the question to System Two, it sometimes substitutes an easier question. For instance, when most investors are asked if they like a stock, their answer more often reflects whether they like the <u>company</u>. The implied question, of course, is “how much do you think this company is worth and is the current stock price higher or lower than that?” But that is a hard, System Two question! The easier question is “do you like this company?” which is what our System One tries to substitute, if we let it. This will lead us to overpay for popular stocks and to neglect companies that may be undervalued.

<u>Overweighting events that are easily recalled or envisioned</u>: Consider the letter K. Is K more likely to appear as the first letter of a word or the third? Most people answer that it is more likely to appear at the beginning of a word, but this is wrong. Because of the way we classify things in our heads, it is easier to think of words that begin with K than to think of words that have K as their third letter, and we confuse the ease of recall with actual frequency. Conversely, we underweight possibilities that are hard to imagine. This is especially problematic in a time when technology and globalization can upend long-held franchises in unpredictable ways. Leaving room in your analysis and valuation for the “unknown unknowns” is critical. At Eagle, we are adopting the “reverse stress test.” Rather than just modeling risks to our thesis, we imagine that the position has permanently moved against us and then think “what could have caused that to happen?” This exercise activates System Two and flags potential problems that might otherwise be glossed over.

<u>Internal consistency bias</u>: Rather than analyzing every aspect of everything, it is often efficient to classify things emotionally, into “good’ and “bad” buckets. Occasional evidence that goes against thesis is discarded. This may be a nice way to keep smooth relationships with your family or tribesmen, but it is extremely dangerous when researching stocks, especially positions that you have owned for a long time and think you know well.

<u>Loss aversion</u>: Kahneman explains that “closely following daily fluctuations (in stock prices) is a losing proposition, because the pain of the frequent small losses exceeds the pleasure of the equally frequent gains.” This leads investors to churn their portfolios, overacting to small negative news and distracting them from the more important trends.

One of Kahneman’s most interesting findings is that, even when we are aware of our cognitive biases, they continue to hold great sway. None of us is exempt, and some of the smartest of us are most susceptible. Therefore, it is critical to be alert to these tricky problems and to structure our process to push back.

Two aspects of Eagle's work naturally engage System Two analysis in a way that mitigates many cognitive problems.

The first is that we try to quantify the worst-case outcome for each company, and everyone on the team is encouraged to creatively come up with bad scenarios that could derail our thesis. Because we have such low turnover (in people as well as positions) and no annual bonuses, there is no incentive for analysts to "perform" or "look good" to our fellow analysts – the long-term incentive structure helps drive us to welcome challenges to our thesis from one another (and outsiders) before the market tells us we are wrong.

Secondly, our long-term holding period dulls the emotional, quick-twitch thinking that drives so many of the breakdowns Kahneman identified. "Our thoughts and our behavior are influenced, much more than we know or want, by the environment of the moment," writes Kahneman. But Eagle's research focuses on how the business may look in five or ten years. That exercise helps take one out of the moment and triggers System Two.

A longer-term perspective also requires the analysis of factors that are less susceptible to System One bias. Kahneman demonstrates repeatedly that "humans are guided by the immediate emotional impact of gains and losses, not by long-term prospects of wealth and utility…the combination of loss aversion and narrow framing is a costly curse." One solution he suggests is that "investors can avoid the curse…by reducing the frequency with which they check how well their investments are doing."

2011 was a perfect example of the cost of manic-depressive action and quick response. Thousands of bits of information cascaded in from CNBC, investment blogs, newsfeeds and other flashing sources. Emotional, vivid, and reminiscent of recent catastrophe, these blips scared institutional and retail investors alike into marking stocks up and down, often in wild swings, on rumors and self-cancelling actions. At the end of the year, the market was roughly where it had begun, up a little on higher actual earnings (remember earnings?). Yet most investors – including 85% of mutual funds – did worse.

As we look forward, it will help all of us to keep in mind the wide range of bad things that can still happen in the world and to build confidence not by jumping in and out but by building a portfolio that can withstand a full range of those possible shocks.

Massive liquidity injections and continued government deficit spending may give global equity markets a strong boost in 2012, but they cannot keep the world economy going forever. Eventually, monetary debasement will cause inflation and have to be curtailed. At some point, austerity will be introduced, either by brave political leaders or by exhausted debt markets.

In the worst case, there will be inflation, recession, and a new chain of financial crises. In the best case, the gradual removal of monetary and fiscal stimulus will mute the growth that productivity gains and global trade would normally provide.

Fortunately, we continue to find a number of companies that are priced attractively and whose businesses do not depend on a strong recovery. If there is a sharp liquidity-driven rebound in 2012, we may underperform a roaring market. But if we stay focused on long-term earnings growth and business resilience, the portfolio should compound good absolute returns in a tough, multi-year period of slow growth.

Purpose And A Puzzle – 2012 Q3

Early in Tom Wolfe's *The Bonfire of the Vanities*, "Master of the Universe" Sherman McCoy's daughter asks her father to explain what he does at work. When he stumbles, Sherman's wife jumps in. "Daddy doesn't really make anything. Imagine that a bond is a slice of cake. Now you didn't bake that cake, but every time you hand somebody a slice of that cake, a little bit comes off, little crumbs fall off."

In a world of high frequency trading and tricky derivative products, the popular view that Wall Street is largely a casino, collecting a vig on pre-existing assets, is understandable. But capitulation to the notion of Wall Street as a parasite on other people's hard work is corrosive.

When it works the right way, when asset values are priced correctly for their long-term potential, bright entrepreneurs can raise money and management teams with good strategies can use their highly-priced shares to grow and make acquisitions. Conversely, incompetent or negligent CEOs are pushed out when a sliding stock turns their boards restive and attracts activists or hostile bids.

Vigilant investors, focused on long-term value, can help steer capitalism in the right direction, enabling trillions of dollars and millions of workers, executives, and scientists to focus on the most profitable ventures.

A thoughtful professor once observed that the difference between what is best for the world and what is best for the individual may be wide in the short-run but narrows as one looks further out in time. Cheat a customer once and you will make a little extra today, but provide good value and over time you can build a relationship and a valuable enterprise.

The wreckage on Wall Street and the asset flows away from active management are the inevitable results of short-term focus. The question for investors to keep in mind is "how do our work and decisions make the world a better place?" If you cannot answer that, then the odds of winning in the long run are probably low.

<u>The Puzzle of the Missing Yield</u>

As bottom-up investors, we spend most of our time combing through financials, calling competitors, and questioning management. But even as we focus on individual businesses, we can better frame our analysis by studying the larger sweeps of market history and aggregate numbers.

For instance, here is an important puzzle:

Since 1900, the U.S. equity market has averaged a P/E ratio of about 13.5x, which corresponds to an earnings yield above 7%. If companies had not grown at all in real terms, and if they limited their capital expenditures to cover depreciation, and if management had paid out 100% of earnings, then the total annual return to a (very) long-term shareholder should have been over 7% plus inflation.

In addition, many companies have had opportunities to grow, in the U.S. and abroad. If those incremental investments had been attractive, then the total return to shareholders ought to have been even higher, maybe 8% plus inflation.

However, the actual total real return – dividends plus capital gains – was about 6%.

What accounts for this shortfall between theoretical returns and actual returns, and how does it inform our bottom-up investing process?

A number of factors have dragged the return down below the theoretical "zero-growth" level.

First, a company's reported earnings usually exaggerate true profitability. This happens because accounting depreciation understates the cost of staying competitive. Companies depreciate assets based on the price they initially paid, but inflation means that the cost of replacing a worn-out machine is higher than the expense recorded on the old one. Another problem is that competition keeps raising the bar on quality. Some of a company's retained earnings, which in theory provide growth investment, are actually funding upgrades that are required just to hold on to current customers and margins. "Maintenance CapEx" keeps the machines running, but it may be insufficient to make them economically relevant. A steam locomotive – even if well-maintained – is of negligible value today. All of this means that capital expenditures usually need to stay at levels above reported depreciation simply to stand still, so some of what is reported as retained earnings should be expensed as a cost of doing business. Adjusting for this treadmill effect, the average P/E over time is higher and the true earnings yield lower than reported in the statistics.

Second are the unpredictable discontinuities, which can destroy a valuable franchise. These collapses can be brought about by new technologies, global competition, or a widespread change in fashion or taste. A financial crisis or accounting fraud can bring down a leveraged firm overnight. Suddenly, a 7% earnings yield becomes a negative 100% return, wiping out years of gains. Sometimes a big surprise is positive, but they tend to skew negative, and the mathematical impact of even occasional big losses on compounding is severe.

Third, the most profitable businesses attract intense competition, which gradually degrades returns. In 2000, for instance, 230 S&P 500 companies had an ROE of more than 15%. Over the subsequent decade, nearly half of them lost that status. The erosion can come from various quarters. Employee salary demands are more aggressive when a company is highly profitable. Management may take more for themselves or start to run the company more loosely. Governments grow emboldened to tax or regulate.

Fourth, theoretical returns assume that management will release money to shareholders if alternative uses cannot earn above cost of capital. In fact, it is a rare CEO that does not hope to run an ever-larger empire, and CEO pay is more highly correlated to the size of the company than to shareholder returns. In addition to cynical self-interest, we are all susceptible to optimistic bias that distorts decision-making in favor of "accretive" acquisitions and "bold" new initiatives.

Understanding these four systemic pressures against shareholder returns is valuable for a bottom-up stock picker.

1. We try to normalize earnings for "steady-state" CapEx instead of depreciation. Reported earnings of capital-heavy industries tend to be especially exaggerated. We know that Praxair will have to spend more than reported to keep its plants and pipelines operating. When we look at Comcast, we assume they need to provide ever-greater bandwidth to customers just to keep broadband margins where they are.

2. By looking further out in time to imagine far-fetched franchise risks, we have largely avoided blow-ups like Kodak and Lehman Brothers.

3. In predicting profits, we put extra emphasis on asset replacement cost and long-term barriers to competition. This kind of analysis led us to Morgan Stanley this summer. Buying a company at half of liquidation value skews the normal erosion of ROE in the other direction, taking long-term yields up over time rather than down.

4. Our particular attention to management quality and capital allocation can protect us from the degradations of empire-builders. Since 2009, Wal-Mart has bought back 500 million shares, and the company returned nearly 100% of their earnings to owners. Liberty Global and W R Berkeley bought in a third of their outstanding shares in the past five years.

Market Implications

Back in 2000, some clients asked us why we didn't own the rapidly rising (but expensive) Nifty Fifty and technology companies. Our response was to ask if they would want to buy these stocks if they could never sell them on to someone else. Would you buy them if your only return came in the form of dividends? Everyone laughed. With dividend yields close to 1%, surely you only held stocks for the capital gains.

If you aren't willing to live off the income of your investments, you are counting on a greater fool to buy your shares, a dangerous strategy that often ends badly. We never have been good at predicting market directions, but we have been better at figuring out how much cash a company will generate. When your skill is figuring out value, not price, you need to be happy to hold through time.

Currently, we don't see many assets that satisfy the "hold to maturity" test. The 30-year bond offers just enough interest to cover inflation (before tax), even in the unlikely event that inflation holds steady for three decades. REITs and utilities trade on dividend payments that seem barely sustainable. Many technology companies are poised to be upended by the cloud, Apple, or both. U.S. retail is fundamentally overbuilt. Rather than good returns with free call options, most investments today seem to offer meager income with high risk.

Cash, meanwhile, is an expensive place to hide. Normally, short-term interest rates are enough to make up for the cost of inflation, so if one cannot find acceptable investments elsewhere, cash provides the option to wait. But with rates at zero, and inflation running 2% to 3%, a cash account will lose significant buying power over the next five years.

The broad market trades at 16x this year's earnings, a yield of 6%. Given the above discussion, we would expect future returns to end up somewhat lower, especially with current margins elevated. The conundrum is that, while a real return of 5% is not exciting, the pick-up over cash (at negative 2% to 3%) may be as high or even higher than usual, in real terms. But if inflation forces the Fed to raise rates sooner, then cash will become more attractive just as equities get cheaper.

Shared Resources – 2014 Q1

In 1941, Japan launched an attack that led to the annihilation of 7% of the country's population, the impoverishment of millions more, and its seemingly inevitable defeat. Why? A key reason was to protect access to and control over critical natural resources that the island nation lacked.

Since then, the world economy has changed in ways that make a major war less likely. One of the most important and interesting of these shifts is the reduced importance of scarce resources and the rise of products with shared costs.

It is helpful to divide the economy into three buckets:

Scarce Resources exist in relatively fixed supply, so new consumers make the goods more expensive for everyone else, at least in the short run. Oil, copper, gold, impressionist paintings and beachfront property are examples, and we have seen their prices take off as a billion new consumers in China, India, and elsewhere entered the global economy. Lifting China out of poverty has been a moral victory and great news for trade, but there is no denying that American consumers pay more for a tank of gas today because 260 million cars ply Chinese roads that were filled with bicycles 25 years ago.

Shared Resources, on the other hand, are products whose main cost is fixed and additional supply is nearly free. The bigger the market, the more we can spend on development and the cheaper (or better) the products become. Movies, video games, software, computer chips, prescription drugs, and digital information are some examples, and in every case the value proposition for consumers has been improving. When new emerging market consumers double the demand for cancer drugs, pharmaceutical companies can spend twice as much on R&D and still charge the same price to each patient. In effect, additional customers split the fixed cost of shared resources more widely, making us all better off.

Neutral Resources are somewhere in the middle of the spectrum. New auto buyers don't make cars cheaper or more expensive; they just induce new factories to be built. The supply of neutral products is infinite, but – above a certain scale – the cost doesn't fall much with each new unit. However, R&D aspects of traditional businesses are shared. For instance, research-intensive features of cars – battery technology, lightweight materials, robotic manufacturing processes, safety sensors, electronic systems, GPS mapping, etc. – will improve faster if the development costs can be shared across more consumers.

The good news is that shared industries are a much bigger part of the global economy today than they were, and they are growing rapidly. In 1955, not one of the biggest public companies was in shared resources; today, a third of them are. The share of companies in the zero-sum competitive resources has fallen by 75%.

This shift has many implications.

First, it means that new consumers make the world better for the rest of us, and we should integrate as many people as possible into the global economy. Globalization proponents usually focus on the importance of trade in the context of comparative advantage. Shared resources are a second motivation, one that eventually will be even bigger than trade. The life of your daughter may be saved someday by the new drug whose expense could only be supported by a market of 3 billion people.

In addition, many products that are scarce today, like oil, have substitutes that are shared. For instance, modular nuclear plants or cheaper solar farms may someday replace oil, driving down the cost of energy. It would be nice if the inventions happen here in the U.S., but if Chinese companies beat us to it, the impact on our economy, our standard of life, our environment, and even our trade deficit will be hugely positive.

Another example is air travel, a mostly neutral good. An influx of fliers doesn't make flying cheaper or better for the rest of us. GE can afford to develop more efficient engines as the market grows, but airports become more crowded and jet fuel is bid up, so this seems to be a wash in the short run. However, as more people connect to the internet, supporting ever faster speeds, nearly everyone gets access to videophones. As these improve, a good portion of air travel will become less urgent.

A second implication of the shared economy is the flattening of consumption inequality. Since the marginal cost of shared goods is zero, over time competition drives down the price of shared goods toward zero. A price of "almost free" levels the gap between the lives of the privileged and the lives of everyone else. Rich people tend to over-index on status, which is a competitive good. The cost of a van Gogh or a Hamptons estate is up 900% in the past 35 years, substantially reducing the standard of living of someone with $100 million. But for those of us who spend most of our money on shared goods, life is getting better. Who today would prefer the pharmaceuticals that were available in 1980? Who would trade *House of Cards* for *Love Boat*? When Bill Gates watches an episode of *24*, his experience for that hour is roughly the same as someone in the bottom wealth quintile. Statistics indicate that the gap between the rich and the middle class is widening, but the difference in actual daily life experience is shrinking.

A note on income disparity: in the past decade there has been a quick rise in the price of many products that are zero-sum in the short run, like corn, cotton, iron, potash, and coal. As emerging market demand for these items exploded, producers were unable to build supply at the snap of a finger. The higher prices hit low-wage earners especially hard since they spend more of their income on these natural resources. But over time these goods become neutral resources, limited mostly by the time it takes to build production capacity. As producers catch up, prices are falling back. Substitution by shared goods will ameliorate the problem further.

Shared products often have global scale and winner-take-all dynamics, because the largest producer can spend the most and charge the least, so the second-place competitor may be stuck in a permanently inferior position on cost and quality. Given this dynamic and the long-term prospect for continued global growth, finding these businesses at a reasonable valuation is likely to pay off extremely well. Microsoft, Oracle, Google, and News Corp are a few examples.

On a personal level, you may find yourself better positioned if you develop a taste for shared products rather than competitive products, because one will be getting better and cheaper and the other is just a treadmill of pain. Give up those dreams of beachfront property and enjoy the profusion of great new media!

Mistakes – 2015 Q3

"*There is no harm in being sometimes wrong – especially if one is promptly found out*." — John Maynard Keynes

"*Beliefs are hypotheses to be tested, not treasures to be protected*." — Philip Tetlock

In the third quarter, you may have noticed a small position we established in a multinational consumer electronics company, followed by our full exit of the same a few weeks later. What was that?

A mistake. Then a correction.

Initially, the investment seemed to have a number of attributes we like: strong market dominance, good barriers to competition, and global secular growth. The stock was unpopular (and therefore cheap) because of a tough cycle and some temporary setbacks, but it had a new executive team and a restructuring plan likely to unlock stranded value and lift profits for years to come.

We accumulated some initial shares after the first stage of our independent work, but members of our research team began to raise new questions. We reached out to management for a deeper discussion, and six of us met with the company's executives, pressing these concerns over a long session. For the next few days, we debated what we had heard and learned. Then we reversed course and sold everything.

We don't like making mistakes. They are embarrassing. They can be expensive. But worse than a brief, small mistake is a prolonged, big mistake. We are always striving to create a culture and investment process that help us self-correct quickly, before the costs of being wrong build up. That's why Philip Tetlock's new book, *Superforecasting*, about forecasting errors (and improvements), is so interesting to us.

Tetlock studied 20,000 people who volunteered to predict hundreds of geopolitical events over four years to see if it was possible for anyone to sustainably make better forecasts, and, if so, what characteristics they shared.

In his previous work, Tetlock found that the accuracy of expert predictions over twenty years was no better than chance – "chimpanzees throwing darts." In this much broader study of non-experts, the average predictor performed no better, but a small number of participants were considerably more successful, and that success was persistent. The group that did the best in the first year continued to predict more accurately in each of the following years.

What were the characteristics, habits, and tools that these "superforecasters" have in common?

They are cautious and humble in the face of complexity, open to a wide range of possible outcomes, and careful about what they can predict and what they cannot. They don't cling to their own beliefs; their opinions are forever works-in-process and open to testing.

When we first consider an investment at Eagle, we evaluate the company from many angles. There is no final presentation or vote for analysts to stake their positions. We always assume that we may be wrong, and we are always searching for where the holes may be. When we find a hole, our philosophy and process make it easier to reverse course, as we did this past quarter.

Tetlock emphasizes the risks of binary thinking, which is a danger to anyone in this business. When you see pundits on CNBC shouting about a stock, they are not exercising the skillset of superforecasters. They are not thinking granularly about the many shades of possibility. They are not assuming they might well be wrong and exploring why. They are not open to having their views fine-tuned on the margins. To forecast accurately, we have to override our emotional impulses and remain deeply suspicious of our own strong opinions, which are burdened with cognitive or emotional biases.

Intriguingly, Tetlock discovered that when superforecasters were put on teams with other superforecasters, they became 50% more accurate in their predictions. With good dynamics, people raised pointed questions and challenged each other to improve the process. Biases and assumptions were confronted, and varying perspectives were woven into the calculations.

One hybrid tactic that superforecasters use is a Fermi estimation. Named for physicist Enrico Fermi, this technique breaks down a problem into its components and assigns numerical estimates to each factor. An example Fermi used was the question "How many piano tuners are there in Chicago?" At first glance, this seems impossible to estimate, but by using a Fermi estimation, we can come surprisingly close, even when we don't know much about the topic:

- *How many people live in Chicago*? Around 3,000,000?
- *How many households is that*? Around 1,250,000?
- *What percentage of households owns a piano*? A piano is expensive and needs space, so maybe half of the population could possibly have one, and 4% of those choose to, so around 2% overall? (25,000).
- *How many pianos are in schools and churches*? Probably the same – one for every 50 households (another 25,000).
- *How often is a piano tuned*? Once a year seems reasonable (50,000 times).
- *How many pianos does a tuner tune in a day? A year*? Maybe 3 per day, including travel and down time, so 750 per year?
- *Therefore*: 50,000 tunings divided by 750 equals 67 piano tuners in Chicago.

The actual answer seems to be around 85, so although we weren't exactly right, it's pretty close – and incomparably better than a stab in the dark. Furthermore, if a group is working together, then there are opportunities for improvement by isolating the points of debate. One person may know that Chicago actually has 2.7 million people. Another may know better how long it takes to tune a piano. A third may point out that some piano tuners work part-time. Combining their knowledge and insights in a Fermi estimation will be more accurate than simply averaging their three individual guesses.

When we look at bank stocks, one of the bear cases has been that the Federal Reserve won't let banks return all of their profits for a while, even after they have achieved their new required capital levels. That would leave them with lower ROEs. It's a good possibility and a valid risk, but rather than thinking of this as a simple "no" vote against bank stocks, we try to calculate what this factor is likely to cost an investor:

- *How long is the Fed likely to be overly strict*? Around 5 more years?
- *During this time, how much of earnings will banks be allowed to return via dividends and buybacks*? 70% seems to be the allowed run-rate for decent banks.
- *How much of the retained earnings are likely to be needed for growth*? Assuming 2% growth and 10% ROE, about 20% of total earnings are required.
- *Therefore, what is the cost of the trapped earnings*? 10% of earnings (1% of book value) are "trapped excess" each year, so 5% of book value accumulated over the 5 years. Assume it earns nothing (conservative) and is held on average for about 2.5 years, after which the retained earnings can be released. At a 10% discount rate, the present value of this loss is about 1% of the current stock price.

Of course, one may believe the Fed will be "stricter for longer," or that more or less of the forcibly retained earnings can be put to use – our inputs are just educated guesses. But breaking up the problem allows our team to debate more rigorously what this bear case will cost, rather than arguing vague assertions and unquantified feelings.

Tetlock's work also shows that as you go further out in time, it becomes harder to predict the ways things will unfold. Even a superforecaster's efficacy trails off dramatically for events three to four years from now.

Making this failing more insidious, we are likely to forget our errors of prediction from years ago, which makes it harder to self-correct and calibrate our forecasting skills. For example, in 1988, Tetlock asked experts to calculate the odds that the Communist Party in the Soviet Union would lose its power. Few of them thought this was likely. Five years later, with the USSR in shambles, he asked the experts what they had predicted five years earlier, and they remembered their estimation being an average 31 percentage points higher than it actually had been.

Thus, when we look at Goldman Sachs, we understand that neither we nor even GS can have a clear picture of what global investment banking will look like in five years. For instance, will the electronification of fixed income trading erode margins to make the business less profitable? Or will it give GS a 'winner-take-all' technology and scale advantage, raising volumes faster than spreads narrow? We don't know. But we know GS is smart. They are leaders in financial technology. They are a big part of the central network of trading today. The pieces are in place for them to win. And if they don't, then GS can shrink their fixed income business, unlocking our investment (currently around book value) at par. They have a rigorous, qualitative approach to capital allocation and are likely to return capital they can't utilize profitably. Heads, GS wins; tails, they don't lose.

Given the valuation and the fungibility of GS's balance sheet, we don't need to accurately predict exactly *how* they will profit, the way we do with most businesses. Instead, Tetlock's work shows us that we need to focus on whether Goldman has competitive advantages that will allow them to win in *whatever* environment emerges.

Their brand, their culture, their teams of extraordinary people, their global and cross-industry footprint, their dominant presence in certain trading markets, and their technology investment and expertise all give GS advantages that are difficult for competitors to overcome and make it possible for Goldman to earn sustainable above-market returns over a full cycle.

How did Eagle come to this conclusion? With various Tetlock tactics: asking unconventional questions, engaging our full team, breaking down the balance sheet, focusing on risk controls, and muting our emotional response to scary terms like "levered financials" and evocative but vague and imprecise doomsday talk. Derivatives can be daunting or they can manage risk. Leverage can double a bet or hedge it. The impact depends wildly on the application and the specifics. With GS, we think we have identified a conservatively positioned, valuable, and durable global franchise that currently sells for little more than liquidation value.

Superforecasting has more valuable insights and lessons than we can include in a quarterly letter, but following are a few more abbreviated examples of how Eagle implements them:

In hiring, it is tempting to look for analysts who have deep industry knowledge that we can put to work immediately, but forecasting success is not very linked to industry expertise. In fact, curious, informed outsiders tend to be better forecasters because they are more open to how they may be wrong and better able to integrate various conflicting ideas. More important characteristics are comfort with numbers (an intuition for math formulas rather than applied math genius), high curiosity, voracious reading, and grit. These don't always show in an interview, and we can spend a year or more with someone to figure it out before they join.

In their calculations, superforecasters often start with a "base rate" – an objective "outside view" – before beginning to set odds. Pundits often fail to do this. Tetlock notes that Peggy Noonan once suggested the Democrats were in political trouble because the previous President Bush's poll approval rating had jumped, indicating a kind of "buyer's remorse." But in fact, presidents' poll numbers *always* go up after they leave office, making the fact practically meaningless. The indicator would only have been relevant if Bush's approval numbers had leapt *more* than normal.

At Eagle, we can use base rates to help inform our work in many ways. For instance, studies indicate that IPOs typically underperform for the five years after they go public by around 4% per year. That means that if an IPO looks a little better to us than companies that have traded publicly for years, it may be due to factors unique to IPOs (e.g., unsustainable pre-IPO cost-cutting, an intense communications effort by the management team, market timing on the part of the seller, etc.) and not because it is actually a better investment. For us to participate in an IPO, the opportunity needs to look and model better than a seasoned company.

Another example is that profit margins for the U.S. stock market are at historical highs. There are some structural and business mix reasons for this, but typically, throughout history, market-wide margins revert to the mean. When margins have been abnormally high, they have subsequently fallen. This may mean that the starting assumed base rate for U.S. company margin expansion should be negative. Knowing that, we need to pay extra attention to the sustainability of the high margins of our investments. The risk that a high-margin business will not stay that way is higher today than normal, and this should raise the level of skepticism we bring against high-margin growth company valuations.

One form of base rate adjustment is correcting for our cognitive biases. For instance, we know from Tetlock and others' work that we have an aspect of wishful thinking when we make predictions, so it is incumbent to make a special effort to imagine and take into account the less palatable outcome. For years, at least one member of our team has wanted to adjust our company analysis to account for corporate income tax reform that was so obviously needed that it was always "just around the corner." This has been wrong. We have to adjust expectations that are tainted by our views of what *should* be.

There is a lot of debate about whether to give more credence to quick intuition, popularized by Malcolm Gladwell in *Blink* or to slow, careful statistical thinking, favored by Daniel Kahneman in *Thinking, Fast and Slow*. "Blink vs. Think."

Studies have shown the uncanny ability of firefighters and nurses to act quickly, almost without thinking, on intuition that is a rapid utilization of years of accumulated instinct and experience. Gladwell posits that this "thin-slice" thinking is extraordinarily useful and usually leads to the right decision.

But financial markets are different from everything else. When a fireman withdraws from a burning building because he senses it is about to collapse, that may be a smart move. His withdrawal doesn't change the risk-reward of his decision. But when a sensational headline makes you fear an imminent market collapse, you have to ask yourself, "How does it make everyone else feel? Who is on the other side of this trade buying from me?" Unlike most human endeavors, the market is a discounting mechanism, and alpha is zero-sum. If you beat the market, someone else had to lose. When your investment decisions are driven by your gut, you should assume as a base case that everyone else is feeling the same way. In that case, the feeling is already in the price. The building has already collapsed.

The question, then, for example, isn't whether China is going to slow down – everyone knows this is happening, and most market participants are already scared. The question is how fast and for how long? What is already in the market? If a month of headlines and sell-side reports all focus on China's downturn and how to avoid it, and no one is taking the other side, then we may agree directionally but be able to take an opposite position that exploits a different timeline. The valuable insight is if the emotional market is discounting more (or less) of a China slowdown than is reasonable in the long run. To figure this out requires "think" more than "blink."

Another example: when we meet a CEO who is charismatic, hard-charging, and confident, our initial impulse is to invest with him or her. On the other hand, the first meeting with a CEO who is more careful and tentative may instinctively feel like a red flag. But statistically, we know that "star" CEOs tend to have worse stock performance, not better. And if we initially feel excited about the CEO, then other investors probably do as well – it is an "anti-edge." Our opportunity is finding the careful, even dour CEO who emphasizes the business risks and seems restrained, but who actually is a great leader willing to seize opportunity when the odds are favorable.

The most important characteristics of superforecasters are their work ethic, their tenacity, and their desire and effort to continually improve and adapt. Global financial markets today are intensely competitive, and we need to work hard at self-improvement just to hold on to our advantage.

Thank you for working with us, and please never hesitate to point out something you think we've missed. We are always grateful to learn that we are wrong from our friends before we learn it from the market.

Explaining The World – 2015 Q4

In ancient Greece, the great early thinkers employed deductive reasoning as they tried to understand and explain the world around them. Athenians valued brilliant, lyrical theory over the pedestrian labor of experimentation, and their beliefs about nature, mathematics and philosophy emerged from deep thought and logic rather than testing hypotheses in the real world.

Thus, Aristotle taught that women had fewer teeth than men, a mistake that could have been avoided, as Bertrand Russell noted, “by the simple device of asking Mrs. Aristotle to keep her mouth open while he counted.” Aristotle also asserted that objects fell at a speed proportional to their weight, so that a rock twice as heavy would fall twice as fast, a concept that went unchallenged for more than a thousand years despite the ease of disproof.

In his history of science, *To Explain the World*, Nobel physicist Steven Weinberg traces the development of scientific thought from the beginning. Examining how breakthroughs occurred – and how people became better at making them – provides some insights into investing, which at times seems trapped in the mode of Classical Greece, with its bright, articulate pundits providing terrible advice that sounds quite good.

Up until the Scientific Revolution of the late 1600s, high and low science were largely distinct. Artisans and craftsmen developed better tools and weapons through trial and error, but these were not aided by any great theories or insights and so advanced slowly and incrementally.

Meanwhile, the intellectual elite did not deign to mix with the low world of physical reality, confining their interactions to prestigious institutions and fellow talkers and writers. Their increasingly elaborate ideas were rarely smirched by the feedback loop of the real world, which caused complex and well-argued – but wrong – theories to remain in place and prevented new perspectives from bubbling up.

For instance, the great debate in ancient and medieval astronomy was not about whether the earth or the sun was the center of rotation but between competing theories of how the sun, moon and planets revolved around a stationary earth, which was not questioned. Aristotle and Ptolemy founded opposing camps, which fought vehemently for 1,200 years over which incorrect model of spheres and rotational patterns explained the night sky.

The early mathematicians and natural scientists engaged in a battle between theory and observation, with neither side much interested in a conversation between the two. By the sixteenth century, Sir Francis Bacon still argued against Plato that science should be based solely on what could be seen and only concerned with practical problems. René Descartes, on the other hand, asserted that all knowledge could be “deduced with certainty by pure thought.”

The Scientific Revolution did not really begin until Sir Isaac Newton began to <u>combine</u> tinkering and real-world experiments with general theories that could lead to wider applications and intellectual development. Newton is often considered to be the founder of modern science because his great discoveries and insights about gravity, moving objects and the nature of planets formed the basis of what came next. Perhaps his more important contribution was demonstrating the power of mixing personal observation and experimentation with math, theory, and logic. His unprecedented success caused others to follow his example and led to a subsequent explosion of scientific thought and progress.

As we trace thousands of years of scientific development, so slow at first, even when civilization was filled with the wealth and intellect of the ancient Greeks, the question that nags is “Why did it take so long for people to change their ways of thinking?”

<u>Lesson #1: Brilliance and success can be blinding</u>.

Aristotle and Plato believed that since they were able to conceptualize great truths about philosophy and the human condition and articulate them with words we still treasure today, their every thought must be magic. Their adherents generally believed this as well. Who would question a theory of gravity (one that seems laughable today) from the man who developed the first rules of formal logic?

Similarly, successful theories can quash promising, subsequent schools of thought. After Aristotle's death, the mantle passed to the Hellenistic age, where the development of geometry was so exciting that all science tried to follow in that manner, trampling the emergence of algebra, which would prove critical to scientific inquiry. Repeatedly, we see early triumphs in thought and expression stifling nascent and emerging ideas.

None of us at Eagle is close to Aristotle's level, and yet a clever ten-year-old today would scoff at most of what he wrote. Surely some of what <u>we</u> currently hold as self-evident will be laughed at by children in the future. As a reminder, we have posted in our office a compilation of "bad predictions by brilliant people" to temper our certainties. Over the next ten years, will interest rates return to historical levels? Will global oil and gas demand be higher? Will cloud infrastructure be a natural oligopoly? Will banks be allowed to pay out their surplus capital? We think so. But…

<u>Lesson #2: The power of mixing</u>.

Leaping developments occur when diverse people interact with each other. We romanticize the idea of a lone scholar, scribbling away and coming up with new innovations to challenge the world. But most progress came from bustling cities with traders and travelers who could argue and debate and cross-pollinate each other's ideas. Beginning with the Greek port cities, and then to Alexandria, Baghdad, and Damascus, the revolution later picked back up in Rome and London.

We recently read an interesting piece, nearly a hundred pages long, written last year by a smart value investor who calculated that the oil market was so certain to tighten imminently that he put his <u>entire</u> fund into energy stocks. It may be a coincidence, but he advertises himself as living in relative isolation, away from other investors. While it is helpful to insulate yourself from the mob mentality of Wall Street, it is also easy to become overconfident if you don't pressure test your ideas and expose them to thoughtful criticism. Progress depends on (civilized) conflict.

Even Warren Buffett, nestled in Omaha, spends hours on the phone with Charlie Munger and others, debating his ideas and inviting disagreement. We constantly meet with executives, industry experts and other investors to check our ideas and find new ones.

It is also valuable to mix different types of thinking. Buffett combined value theory and observed business strategy, which allowed him to move past the old methods that constrained value investors in the past. "I am a better investor because I am a businessman, and a better businessman because I am an investor," he said. Weinberg concludes in his book that successful scientific research "is more honestly reported as a tangle of deduction, induction and guesswork."

We also try to test our bottom-up theses against various macroeconomic scenarios, investment theory and larger themes. No simple story or model drives our investment decisions; the different types of thought inform each other.

For example, it is useful to know that companies selling below book value tend to outperform over time, but if you blindly follow this theory without kicking the tires on the book value itself, or thinking about how that book value can be utilized in a changing environment, then you may end up holding something worthless rather than cheap.

After the financial crisis, we shared the macro concerns about loose fiscal and monetary policy that drove smart investors into gold, but from the bottom up we couldn't figure out how to value that commodity, and most of the miners seemed to be bad businesses. We decided that other companies would hold and build value equally well, and in a wider range of outcomes.

The dynamic interplay of company and industry fundamentals is becoming more demanding and requires a more flexible view, less dependent on old models and rules of thumb. Our recent work indicates that the lifecycle of major public companies has been shortening, and that creative destruction may pose a much bigger risk for equity investments today than in the past – potentially far more than macro risks.

If you had asked most good investors twenty years ago to identify the key growth drivers for newspaper companies, they would have pointed to the general economy and ad demand. However, since 1995, U.S. GDP has quadrupled while the stock price of The New York Times has fallen 80%. The economy grew but the industry was disrupted. This story is becoming more common.

<u>Lesson #3: Societies – like people – don't advance under high stress</u>.

Between AD 300 and 1500, scientific progress was almost nonexistent. As civilizations were roiled by military raids and hundred-year wars, few individuals had the resources or protection to ponder controversial new thoughts.

It's not just about money; the biology of the brain makes rigorous, creative logic difficult when one is under existential threat. The Scientific Revolution could not begin until strong European states had emerged that could provide peace. And the initial bastions of thought were religious universities, protected by a relatively stable church that was capable of protecting and nurturing scientists through a lifetime of work. It's not quite the same as a wall against pillaging armies, but at Eagle, we try to ensure that our analysts are protected from the constant barrage of short-term pressures so that calm, creative thinking and long-term analysis are possible.

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