

“In recent years, holding cash is so completely out of favor that it has become the ultimate contrarian investment.” —Seth Klarman

“There is nothing so disturbing to one’s well-being and judgment as to see a friend get rich.”
—Charles Kindleberger

“It’s as if people used the invention of seatbelts as an opportunity to take up drunk driving. Psychologists call this ‘risk compensation.’ The entire point of the CDS was to create a margin of safety that would let banks take more risks. As with safety belts and dangerous drivers, innocent bystanders were among the casualties.” —Tim Harford

“... With notably rare exceptions, Germany remained largely at peace with its neighbors during the 20th century ... With notably rare exceptions, Alan Greenspan has been right about everything ... With notably rare exceptions, Russian roulette is a fun, safe game for all the family to play.”
—Comments on Crooked Timber blog

2013

ANNUAL REPORT

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MARTIN CAPITAL MANAGEMENT, LLC

2013 ANNUAL REPORT

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Total Account Composite Performance

In 2013, the annual return on MCM's total account composite¹ was 9.8% after fees. Since we began documenting performance history at the end of 1999, coinciding with the peak of the greatest bull market in financial assets in history, our compounded annual performance has been 5.3% compared with the S&P 500 Index's 3.6%.

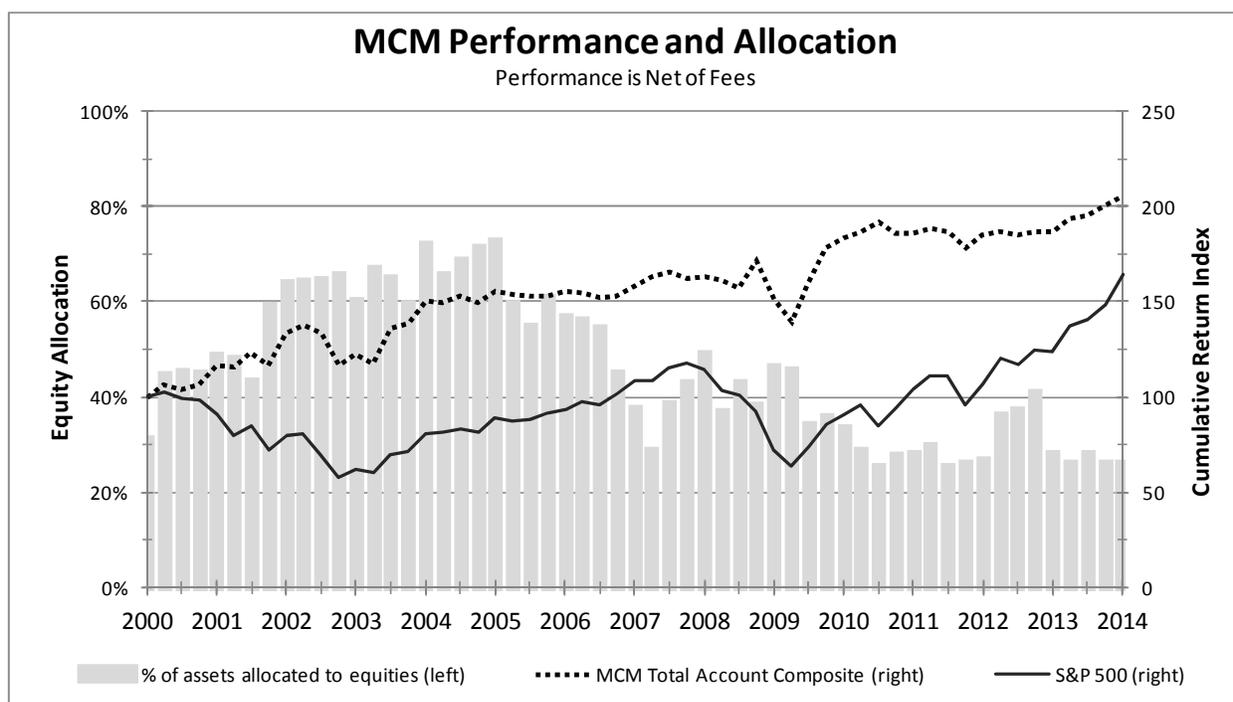
Year	Annualized Growth Rate			Relative Performance (1)-(2)	MCM vs S&P 500: Compounded Outperformance **
	MCM Equities *	MCM Total Account * (1)	S&P 500 (2)		
2000	30.4%	16.3%	-9.1%	25.4%	27.9%
2001	22.5%	14.8%	-11.9%	26.7%	66.7%
2002	-14.2%	-8.0%	-22.1%	14.1%	96.9%
2003	33.4%	22.3%	28.7%	-6.4%	87.2%
2004	4.3%	3.5%	10.9%	-7.4%	74.7%
2005	-0.3%	-0.3%	4.9%	-5.2%	66.1%
2006	4.8%	2.0%	15.8%	-13.8%	46.3%
2007	1.5%	2.9%	5.5%	-2.6%	42.7%
2008	-20.2%	-7.0%	-37.0%	30.0%	110.7%
2009	57.6%	20.9%	26.5%	-5.6%	101.4%
2010	18.1%	1.3%	15.1%	-13.7%	77.4%
2011	-2.4%	-0.3%	2.1%	-2.4%	73.3%
2012	15.9%	1.0%	16.0%	-15.0%	50.8%
2013	46.7%	9.8%	32.4%	-22.6%	25.1%

* Net of fees

** Invested dollar with MCM relative to invested dollar in the S&P 500 since 12/31/99

*Disclosures: The MCM Total Account composite includes consolidated portfolios greater than \$1 million where MCM has been given full investment authority. The strategy seeks long-term growth through a combination of capital appreciation and income. The reported return includes interest and dividends but does not factor in taxes. Returns are net of fees. The S&P 500 is a market value weighted index consisting of 500 stocks chosen for market size, liquidity and industry group representation. The reported return is inclusive of dividends but exclusive of taxes and management fees. **PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.***

S&P 500 Index and MCM Asset Allocation/Performance



Letter to MCM Clients

Performance Commentary

To the Clients of Martin Capital Management:

The crux of our investment strategy over the last several years has been to serve as prudent stewards of your portfolios of marketable securities. We've tiptoed through a field of dreams under which we believe a few random landmines await the unwary. At great peril to career and business but little to your capital, we've invested to try to minimize wealth-threatening risks while most managers are attempting to maximize return. Proactive and precautionary investing, however, has come at a price in the short term.

Our equities rose 46% in 2013 compared with 32% for the S&P 500 Index. The MCM total account composite gain of 9.8% reveals the opportunity cost of forgoing equity investments for lack of an adequate margin of safety. That left us holding an average of 73.4% of the portfolio invested predominantly in short-term U.S. Treasury securities, which yielded 0.2%. The net cost of hedges was 0.7% of total assets.

We continue to view our choices as fairly straightforward: We can either accept the present as the best there is (or will be) as others have done, or we can prepare for the yet-unseen opportunities of tomorrow with the optionality that only liquidity provides. We can't serve two masters—the present and the future—simultaneously.

Taking a slightly broader historical snapshot that includes the last five years, we share a dubious distinction with Berkshire Hathaway. Since Warren Buffett took the reins in 1965, Berkshire has never experienced a five-year period during which the increase in its book value was less than the S&P 500 Index, including dividends—that is, until 2013. Estimates are that the

company's book value at year end will have grown approximately 85% since 2008, whereas the S&P 500 returned 128%, including dividends. In the S&P's five-year romp, Berkshire's book value per share underperformed in all but one year, 2011, when the debt crisis in Europe unsettled markets. Buffett deadpanned as only he can, "We do better when the wind is in our face."

Anticipating that Berkshire might not keep its five-year relative performance record intact, Buffett did not equivocate in last year's chairman's letter: "The one thing of which you can be certain: [We] will not change yardsticks." Buffett—and we at MCM—provide the comparison as a way for investors to evaluate our performance against a low-cost S&P 500 Index fund. Looking forward, he said, "Charlie and I believe the gain in Berkshire's intrinsic value (for which book value is a *significantly understated* proxy) [italics are Buffett's] will over time likely surpass the S&P returns by a small margin."

If we have any advantage over Berkshire, it's that we have the maneuverability of a speedboat compared with the Berkshire battleship. And if we are even reasonably successful in emulating the best of what he believes—and we believe—Buffett has found in the persons of Todd Combs and Ted Weschler, the heirs apparent as managers of Berkshire's \$100 billion (and growing) portfolio of marketable securities, we would be disappointed if we didn't outperform the S&P by a noticeable margin over the next market cycle. Aside from having the right people and the right incentives in place, it is critical for us to use our greater flexibility and optionality in managing risk and seizing opportunity if the capital markets only replicate in the future what they've done in the past—that is, that they *fluctuate*, sometimes to extremes.

The 'Unavoidables': Death, Taxes ... and Succession

Admitting to the two certainties in life, death and taxes, Buffett (83) and Munger (90) have been both dutiful and forthcoming about plans to replace the irreplaceable. As for microscopic MCM, finding a successor for its youngish, 71-year-old founder is much simpler, but it has not proved to be easy.

In last year's report, I wrote, "My overarching goal is to partner with an organization whose long-term, risk-adjusted investment record is as solid as (or ideally better than) our own. Of equal importance, it must be an organization whose forward-looking assessment of risks and returns is dependable enough that its long-term record will remain intact for years to come."

Focused efforts in 2013 to find such a partner have yet to bear fruit, even with the help of several extraordinarily capable friends in high places in our industry. Although I had opportunities to meet a number of outstanding professionals and firms, there were none whose actions spoke as loudly as their words in avoiding serious risks that could diminish the luster of prior successes. The time was not ill-spent, however, for much introspection resulted. In order to strengthen ourselves internally, effective January 1 we implemented the first phase of a meritocracy-based investment management model that is patterned after Berkshire's. Several key people at Berkshire provided both direction and encouragement, and I am deeply in their debt.

A Prussian general once astutely observed, "No plan survives first contact with the enemy." (Or perhaps, with reality.) Like most businesses, we've implemented plans before that seemed to be well-conceived but didn't survive the reality check. Ultimately, however, what matters is how quickly and effectively we adapt. Getting it right remains more important to us than getting it first.

In 2013, as the markets rose farther and farther out of reach, there was ample time for thinking about stewardship, about the management of wealth over generations. Since MCM will eventually manage my estate, most of which will be committed to Marsha's and my private foundation, this report is dedicated to building an organization around the enduring precepts laid out in the three-paragraph block quote below from Warren Buffett. Theoretically, a private

foundation has perpetual life, and thus it mirrors my attitude toward the stewardship of *your* wealth. If well-managed, wealth will serve the intentions of its creators for generations to come. Because our circumstances, aspirations, and concerns are at least directionally similar, I expect what I'm thinking is what you're thinking: What kind of person should you and I be looking for to oversee our marketable securities portfolios in good times and bad?

Please note the emphasis on person rather than institution, unless the institution carries the cultural DNA of a highly principled leader.² Ayn Rand left no doubt that "...man's mind is the root of all the goods produced and of all the wealth that has ever existed on earth."³ In times like the present, Rand's warnings of "looters and parasites" seem particularly apropos. As for the parasites, they are crawling out of identity-challenged institutions everywhere, like the legion of cookie-cutter mortgage bankers stamped out in the early 2000s with P. T. Barnum's famous dictum watermarked on their diplomas. The old admonition is as relevant as it is disregarded during today's desperate gamble for return: "Don't confuse brains with a bull market."⁴

Beyond the proactive steps taken above, I am searching for a younger person who will succeed me as MCM's chief investment officer when the need arises. Picking the right person(s) will not be easy. All investment choices involve trade-offs, cryptically conveyed in the old country & western song title, "You Can't Have Your Kate and Edith 'Too."

By avoiding traumatic market declines that frequently fan the fires of fear and other wealth-destroying emotions, the upside is often truncated, and opportunities, some very real and others illusory, are forgone. Amidst all the noise and clamor, wealth inexorably migrates toward those who are its worthy masters—and irrevocably away from those who are intellectually or temperamentally no match for their money. With those thoughts in mind, our want ad for a successor (and yours in evaluating the stewards of your wealth) reads, in part, as Warren Buffett observed in 2007:

Essential Traits of a Successor

It's not hard, of course, to find smart people, among them individuals who have impressive investment records. But there is far more to successful long-term investing than brains and performance that has recently been good.

Over time, markets will do extraordinary, even bizarre, things. A single, big mistake could wipe out a long string of successes. We therefore need someone genetically programmed to recognize and avoid serious risks, *including those never before encountered*. Certain perils that lurk in investment strategies cannot be spotted by use of the models commonly employed today by financial institutions.

Temperament is also important. Independent thinking, emotional stability, and a keen understanding of both human and institutional behavior [are] vital to long-term investment success. I've seen a lot of very smart people who have lacked these virtues.⁵

Finally, this person would also be my likely successor as majority owner of MCM. While many duties can be delegated, there is one that cannot: maintaining the culture of honesty and integrity that includes unconditionally subordinating the needs of the firm's owners and employees to those of our clients. We are in a service profession and serving ourselves must be a byproduct of first selflessly serving our clients. The priorities cannot be reversed.

What follows are three thumbnail sketches of my interpretation of what Buffett meant.

* * *

It Takes More Than Intelligence and a Good Track Record ...

You never know who's swimming naked ... until the tide goes out. And the discovery can come as quite a shock to both the observer and the observed. Legg Mason investment manager Bill Miller, notably, got caught skinny-dipping during the financial crisis. In the "horse race" of relative-return investing, Miller's name became synonymous with Secretariat on his way to the Triple Crown. Well-liked and highly regarded, Miller gained fame and fortune by accomplishing the remarkable feat of beating the return of the S&P 500 Index for 15 consecutive years, from the start of 1991 through 2005. Once the string was broken, he may have become desperate in attempting to get back on the bandwagon. In 2008, however, the tide ebbed and exposed a portfolio dominated by companies in the financial sector. Bill Miller's legacy now is the stuff of nightmares for stewards of wealth.

Compound interest is a harsh taskmaster. Because of its simple but frequently misunderstood mathematics, a single significant loss with all the chips on the table can wipe out years of successes. Interestingly, compounding is much kinder and gentler if one sits out a hand or two, but that's not what gamblers do—most conspicuously those with the hot hand.

The Hard Truth About 'Soft' Traits

Temperament, as I think Buffett would define it, is a catchall word. No doubt it's rooted in how he sees the world and how he makes decisions. Buffett seems to have an uncanny knack for avoiding those activities that interfere with rational decision making and embracing those that do. My two favorite biographies of Buffett (with very different perspectives)—the first written by Roger Lowenstein and the second by Alice Schroeder⁶—go some distance in allowing the actions of the world's greatest investor to define his temperament. A third effort comes from author Carol Loomis, who had the advantage of a close and long-standing relationship with Buffett. Her book, *Tap Dancing to Work: Warren Buffett on Practically Everything, 1966-2012*, is as near as we're likely to get to an autobiographical assessment of what temperament really means to the Oracle of Omaha. As a synthesis, words or phrases that come to mind would include equanimity, imperturbability, focus, logic, and uncompromising rationality.

Emotional stability, from one who has read much of what has been written about and by Warren Buffett, starts with the capacity to compartmentalize. Schroeder reveals a side of Buffett rarely evident in his activities as a businessman and investor. He is fallible as a person, she observes—no different in his humanity from the rest of us mere mortals. In a book written several years ago, Jason Zweig⁷ goes so far as to characterize Buffett as a borderline sociopath, one who is "inversely emotional"—a person who actually feels better the lower prices fall and worse the higher they rise. Zweig's psychological interpretation is the basis for the famous Buffett aphorism, "I'm fearful when others are greedy, and greedy when others are fearful."

From my personal experience, such contrarianism is an acquired taste. Once you are habituated, the world looks quite different, and you look like an alien to the world! In the depth of Buffett's understanding of human and institutional behavior, it is clear that he is a student of the "immutable proclivities of man,"⁸ and the collective bipolar capacity to muscle markets and individual stocks to extremes, far from what they are actually worth. By keeping his head when most of those around him are losing theirs, Buffett has demonstrated time and again the capacity to acquire assets for far less than their actual worth. When assessing the so-called "soft" traits, one would be well-advised to study those characteristics common to great players of bridge, one of Buffett's favorite pastimes.

The importance of fierce independence becomes evident as one encounters the truth about the folly of forecasts, about those who make them and then have the audacity to take actions based on them. When one is armed with such knowledge, the capacity to make up one's own mind—to

have the courage of one's convictions, to stay the course, to eschew the crowd, and to find other lower-risk ways of advancing the portfolio ball—moves quickly to the forefront of desired character traits.

A Preview: Recognizing and Avoiding Serious Risks

The final and most challenging task is finding someone “genetically programmed to recognize and avoid serious risks, *including those never before encountered.*” When Buffett wrote that passage in the spring of 2007 it was, with the benefit of hindsight, prophetic: The markets (mostly the securitized debt markets, but with the equity markets not far behind) were doing “extraordinary, even bizarre, things,” and the perils that lurked in the widely embraced investment strategies were not spotted by the (risk) “models commonly employed today by financial institutions.”⁹

At the Berkshire Hathaway annual meeting in May 2007, I put the question to Warren and Charlie about whether the job requirement of recognizing serious risks was also a warning in disguise.¹⁰ Beyond his oblique answer, I have reason to believe that both of them thought serious risks existed—but deemed them not to be so clear and present a danger as to require significant portfolio actions. During the Q&A session in May 2009, Carol Loomis queried Buffett on the performance of the four unidentified managers-in-waiting during the crisis. Warren responded that none had outperformed the S&P. While nothing much has been said since, those managers disappeared, and Todd Combs and Ted Weschler arrived on the scene in 2010 and 2011, respectively. Both men appear to have what Buffett is looking for in terms of genetic programming, as well as the humility to avoid falling victim to whatever left Bill Miller sans swimsuit in 2008.

Fast-forward to January 2014. There appear to be serious risks extant, including some with which investors have little or no familiarity. Despite the Three Stooges slapstick antics of the Washington protagonists, the *ad hoc* rescue of the financial system was a political and, most likely, economic necessity.¹¹ The liquidity crisis was addressed forthrightly, but beneath it lay a more intransigent solvency problem, one more effectively addressed in bankruptcy courts than by the central bank, which had neither mandate nor authority. By long overplaying its hand once the liquidity emergency subsided, the Fed extended the moral-hazard shield, and Congress did the same by enacting the proportionately benign Dodd-Frank legislation, thereby protecting bankers and other miscreants from facing the full consequences of their actions.

As second-generation Gordon Gecko clones feigned repentance on Wall Street, old vices quickly returned. The Fed and Congress may have unintentionally fomented a risk culture similar to that of the late 1920s, with asset prices skyrocketing while the economy advanced haltingly. Three noteworthy risks have thus emerged:

- The first, and most contentious, is the overvaluation of risk assets.
- The second, the systemic fragility of the financial intermediation mechanism, is the least understood because of its opaque complexity.
- The third, advances in technology that have outstripped humanity's capacity to manage them safely (e.g., computer coding upon which our businesses, our utilities, and indeed our culture rely—but has been proven susceptible to amateur hacking and/or professional or government cyber-attack), increases the likelihood of catastrophic failures not directly related to the capital markets but from the fallout and shockwaves that could reach them.

These thumbnail sketches of the personal character traits Buffett considers imperative not only serve as a useful guide for succession planning at MCM, they also open up a much broader discussion of issues critical to successful long-term investment strategy. That discussion follows.

Behavioral Economics and the Prerequisite of Fierce Independence

Market Prices Are More Volatile Than Intrinsic Values

Buffett's insistence that his successor understand human and institutional behavior will likely challenge some deeply held convictions. In the dogma of modern finance, the title of this section is received with the same antipathy as when Galileo had the gall to argue that the earth revolved around the sun, not vice versa. In the 17th century, however, authorities dealt with such apostasy more directly. The Roman Catholic inquisition found Galileo "vehemently suspect of heresy" and sentenced him to house arrest for the remainder of his life. The matter of whether investors are essentially rational or not remains unsettled. The Nobel Prize committee recently added to the confusion, reaching a split decision in awarding its coveted prize in economics for 2013. A founding proponent of efficient markets, University of Chicago's Eugene Fama, and Yale's Robert Shiller, a pioneer in behavioral economics at the other extreme, shared the scrambled eggs.

The difference in thought between these two men is anything but insignificant, nor is it purely academic. What hangs in the balance in terms of consequences might make it appear that Galileo got off easy. To contest the efficient-markets crowd's thesis that investors are not completely rational beings is to imply that markets are not the omniscient, intimidating monoliths to which so many pay homage—the *efficient* melting pot of all generally earnest and enlightened opinions, with the good canceling out the bad and the truth percolating through to an explicit, minute-by-minute value for the sacrosanct Dow or S&P 500 "index." It's heretical to think that investors are instead prone to fits of varying degrees of euphoria and depression, with such emotional forces causing much greater fluctuations in asset prices than would be warranted by the "fundamentals" (expected growth and stability of earnings, dividends, shareholders' equity, and so on).

Fama and Shiller both delivered their Nobel acceptance lectures on December 8 in Stockholm. Fama went first, which allowed Shiller,¹² the heretic, to go on the offensive with his very first slide: "Speculative Asset Prices." According to Fama, bubbles, the inference of the slide, can't exist because everything that can be known about a security is already embedded in its price, the expression of the rational interplay between buyer and seller.

Shiller argued conversely, paraphrasing the great British economist John Maynard Keynes in the same way as author Mark Buchanan by saying,

markets resembled nothing so much as a beauty contest in which participants aim to choose not the most beautiful entrant, but the one they think most others will choose as the most beautiful. Everyone, ultimately, must guess what others will guess about what others will guess.¹³

Thus, Shiller implied, the market devolves into a high-stakes game of outwitting others.

Adding another behavioral dimension to the debate, Jeremy Grantham, the idiosyncratic head of \$150 billion asset management firm GMO, attempted to quantify the relative volatility of market prices and did so by forthrightly reflecting on an institutional imperative within our own profession. In the firm's Q2 2012 letter,¹⁴ Grantham argues that the conduct of institutions, which control 70% of assets, is driven primarily by attempts to minimize career risk—that is, the threat of losing one's job. Going back to the well and paraphrasing Keynes, perhaps a little loosely, Grantham concludes: "You must therefore never, ever be wrong on your own."

Accordingly, the great majority of investors keep close tabs on their fellows, not straying far from the fold. The result is herding and, if agitated, occasional stampeding, which periodically

drives prices far above or below “fair” value. Grantham contends that a combination of growth in GDP and “fair value” for the stock market is remarkably stable, with the annual change within 1% of its long-term trend. By stunning contrast, he notes that the market’s price—reflecting the emotional swings of the fickle institutional herd—is within 19% of its long-term trend (two-thirds of the time)! That is to say, *stock prices are 19 times more volatile than the underlying fundamentals would warrant most of the time*. Grantham, citing Shiller’s data, makes a rather compelling case that herd behavior has almost nothing to do with rational price discovery.

In what I might term the Madoff effect, it is in our nature to want to believe. With all our presumed intelligence and powers of discrimination, we can rationalize almost anything to keep our life tied together into a coherent narrative. The adaptive mechanism, cognitive dissonance, makes mincemeat out of logic and facts. The reality that Madoff’s Ponzi scheme was destined to implode was never in doubt, but the timing was. Ultimately the short-term becomes the long-term, and we all profess shock and disbelief. The oft-repeated palliative, “This time is different,” which inevitably runs aground on the shoals of reality, has nonetheless been a constant throughout history because we really want to *believe* that this time *is* different.

Hyman Minsky (1919–96), to whom I often refer with unabashed admiration, was an economist who was ahead of the times. He saw the fatal flaw of equilibrium theory undergirding the rational expectations revolution long before it became obvious, conspicuously in the late 1990s and perhaps more subtly today. As it relates to market prices diverging from fundamentals, he observed that certain individuals are naturally more speculatively inclined than others. While some people or firms tend to think and act more cautiously, trying to scrutinize fundamentals and investing for the long term, others are more speculative and jump more aggressively onto what they believe to be profitable trends.

Moreover, market economies are self-propelling and self-referring systems strongly driven by perceptions and expectations that result in explosive, amplifying “feedbacks” that financier George Soros once coined “reflexivity.” In this state of mind, people judge the values of things not in absolute terms but in comparison with other things, or in relative terms. Caught up in the crowd, individuals’ biases tend to coalesce—and markets, as examples of crowds, are likely to exhibit this commonality. But there’s another factor that should actually make the reliability of crowds and markets much worse. Whether in fashion, language, or investment choices, people tend to copy one another. According to Mark Buchanan,

As some recent experiments have shown, this can make committees, crowds—and especially markets—very unwise indeed. ... The experimental results show clearly that social influence destroys the wisdom of crowds in several ways. ... Social influence creates a truly unpleasant combination of stupidity and increased confidence.¹⁵

Flashing back to the beauty-contest analogy, I begin with a microcosm. During the August 2007 “quant meltdown,” with which few readers are likely familiar, Cliff Asness, the mathematical whiz at AQR, wrote about how the beauty-contest strategy worked brilliantly until it became too popular—or, in the industry’s vernacular, “too crowded,” with disaster ensuing shortly thereafter. Successful strategies sow the seeds of their own demise. No strategy can emerge as the winner, because if it were perceived as such, and everyone started using it, eventually those in the minority will overwhelm the majority, apparent stability will give way to acute instability, and the majority will eventually collapse of its own weight. Once everyone’s aboard, to whom will the first seller, who gets a whiff of smoke in the theater of the absurd, sell?

As I began writing this annual letter, the “strategy” that seemed to be driving many portfolio decisions in the ever-levitating markets—from the largest institutions to the smallest retail

investors—was predicated on the belief that prices will continue to rise because of the tailwind of seemingly perpetual easy money. Its beguiling beauty is in its simplicity, like the Madoff mania.¹⁶

Dovish Janet Yellen is only fanning the flames. Moreover, as one who admits to focusing only on reported earnings, she has publicly removed any doubt that she's worried that the market is overvalued. No one, of course, knows when the illusion of stability gives way to its opposite. When the trade becomes crowded and a tipping point is reached, many physicists (but seemingly few economists) have a pretty good idea of what happens next.

The Folly of Forecasting

In his just-released second book, former Fed Chairman Alan Greenspan—"The Maestro"—makes a statement so prophetically and manifestly preposterous for a man of his station that I had to read it multiple times: "*Even repeated forecasting failure will not deter the unachievable pursuit of prescience, because our nature demands it.*"¹⁷ So much for Einstein's definition of insanity and Margaret Heffernan's condemnation of "willful blindness."¹⁸ Greenspan, whose vanity attenuates the greatness of a man endowed with many gifts, may more justly deserve the title of poster child than maestro. He exhibits the hubris and fatal conceit that stems from having assumed more power than any man is truly capable of harnessing. With the caveats encompassed in this paragraph, however, I do consider the book a worthy read.

Whatever the reason (perhaps it's our "nature," as Greenspan suggests), the temptation to look to a leader to fix our problems *and* foresee the future runs deep. Humankind's willingness to turn down the one-way street of government solutions or, of particular interest to us, central bank solutions to problems of their own creation is not something Thomas Jefferson would have encouraged. Of course, a leader doesn't have to solve every problem or anticipate every eventuality alone. Good leaders surround themselves with expert advisers, seeking out the smartest specialists with the deepest insights into the problems of the day. As Greenspan and Ben Bernanke bore witness—and no doubt Janet Yellen will in her time—even deep expertise is not enough to solve today's complex problems.¹⁹ Not one to sugarcoat, Nassim Taleb lays his cards on the table face up:

Theory should stay independent from practice and vice versa—and we should not extract academic economists from their campuses and put them in positions of decision making. Economics is not a science and should not be there to advise policy.²⁰

Empirical psychologist Daniel Kahneman²¹ attempts to explain the foibles of forecasting in his highly regarded book, *Thinking, Fast and Slow*. Chapter 6 is aptly titled "It's Not the Experts' Fault—The World Is Difficult." His main point is not simply that people who attempt to predict the future make many errors; that should be obvious to even the casual observer.²² It is that errors of prediction are inevitable because the world is unpredictable. A second equally critical lesson, evident from his self-critical research, is that highly subjective confidence, which Greenspan exuded, is not to be trusted as an indicator of accuracy.

In reflecting on the repeated failure of a forecasting experiment that he performed while in the Israeli army, Kahneman was circumspect.

What happened was remarkable. The global evidence of our previous failure should have shaken our confidence in our judgments of the candidates, but it did not. It should also have caused us to moderate our predictions, but it did not. We knew as a general fact that our predictions were little better than random guesses, but we continued to feel and act as if each of our specific predictions was valid.²³

Interestingly, Greenspan quotes Kahneman on seven occasions in *The Map and the Territory: Risk, Human Nature, and the Future of Forecasting*, the most paradoxical of which was: “We also tend to exaggerate our ability to forecast the future, which fosters optimistic overconfidence. In terms of its consequences for decisions, the optimistic bias may well be the most significant of the cognitive biases.”²⁴

The Federal Reserve System, born in acrimony 100 years ago, is, in terms of potential domestic economic and social consequences, one of the most potentially disruptive ongoing case studies of forecasting failures in recent history. Former Fed Chairman Ben Bernanke came into office with the prelude of having taken a supporting role in numerous forecasting miscues and subsequent misguided actions during Alan Greenspan’s long tenure as chairman from 1987 to 2006. These errors are unintentionally revealed in Greenspan’s book and redressed as a series of late-life epiphanies. Nonetheless, his appointed successor did not realize at the time of his elevation from obscurity that his inheritance was to preside over the greatest financial debacle since the Great Depression.

Given the tone, texture, and directionality of his post-appointment speeches, along with the main thrust of his doctoral studies years earlier, Bernanke’s blindness to the oncoming crisis should have been proof positive that “it takes more than deep expertise to solve today’s complex problems.” And yet it wasn’t. The accolades are rolling in for Ben Bernanke just like they did eight years ago this month for Alan Greenspan. Within two years, the financial crisis made a mockery of Greenspan and his forecasts. The true test of a monetary policy regime’s efficacy is not how it begins ... but how it ends. What will be Mr. Bernanke’s epitaph?

Policymakers have unwittingly failed to distinguish a temporary reduction in risk taking from a permanent one. The need for structural change renders the effect from the stimulus temporary at best; when the stimulus ends, the structural problems remain, and once again the economy ratchets back risk taking to compensate.

Meanwhile, government intervention distorts the allocation of resources and slows the transition to sustainable solutions. The stimulus exhausts precious resources, scares off *productive* risk taking, leaves structural problems unresolved, and accumulates a mountain of debt in its wake. If taxpayers four years ago failed to realize that the stimulus would ring up such a huge price tag without producing permanent results, they soon will. The most insidious mistakes are the ones you don’t even realize you’re making. They are things you do on purpose—but with unintended consequences because your mental model of the world is wrong.²⁵

* * *

Long before the unintended consequences appear, the *intended* consequences are not even happening according to plan. If the Fed’s stated dual goal of full employment and price stability is to be believed, there seems to be a long and increasingly tenuous lag between actions and results. Since the recession ended in June 2009, 95% of the gains in income from the Fed’s largess accrued to the wealthiest 1% of Americans, the largest gulf since the Roaring ’20s. The top 1% earned more than 19% of household income last year, the biggest share since 1928, and the wealthiest 10% captured a record 48.2% of annual household income.

Many investors (MCM clients among them) realized gains on financial assets before the top capital gains rate jumped from 15% to 20% in 2013. Those gains are included in income. The president’s recent State of the Union address focused on income inequality, a populist euphemism for income redistribution. He’ll be facing the “blood out of a turnip” conundrum. According to the IRS, the top 2% of earners—those who just had their marginal tax rates raised from 35% to 39.6%—already pay 50% of all income taxes.

There's something more socially noxious going on below the surface, another consequence that ties into Ayn Rand's *Atlas Shrugged* reference to "looters," governments who take by force of law from the producers, in order to give to the non-producers. President Obama either has not studied Rand or dismisses this aspect of her philosophy out of hand. There are only losers in the redistribution lottery, an assertion supported by abundant anecdotal evidence. Modern-day state lotteries clearly exist to tax the millions for whom impossibly infinitesimal probability is a sufficient basis for hope and action. The spoils that remain after the states' rake and overhead costs are distributed to the "winners," those who have yet to discover that unearned money rarely buys anything but grief.²⁶ It doesn't stop there. Moral drift is seductive. *The Atlantic*, for example, recently reported that in 1974 only 3% of retiring members of Congress became lobbyists. Today, 50% of senators and 42% of representatives do.²⁷ Virtually every reader has an opinion on the subject, including how to fix the problem—assuming, of course, that it is a problem that can be fixed.²⁸

The prices of financial assets have been the prime beneficiary as the discount rate applied to estimated future cash flows was intentionally driven to record lows. Many consumers of this report may be among that 1% of wealthiest Americans mentioned above.²⁹ If there's any doubt as to why most of that money has not trickled down, particularly in the multiplier form of investment spending, it is that many in the 1% (including yours truly) think it's all an illusion. Contemplative members of the 1% are not so naïve as to accept the thesis of the financial alchemists, that permanent wealth has been created. As oft-quoted, brilliant, and clear-thinking Jim Grant observes,

The clear and present risk of the stock market is we're living ... in a hall of mirrors because the Fed's accommodative policy is distorting the calculations by which the market has been traditionally valued. ... The Fed can change how things look. It can't change the way things are.³⁰

The Hidden Motives Behind Profit Margins, Earnings, and Dividends

One of principal arguments in support of the current level of stock prices is that a new plateau in profit margins has been reached. The counterargument is that they will mean-revert.

Few doubt that several factors have contributed to the overall increase in profit margins. First, the cost of borrowing money to fund assets of both non-financial and financial companies has been declining for several decades, and even more sharply since 2008 because of the Fed's ongoing zero-bound, short-term interest rate policy and the series of QE programs. Second, since the stuttering recovery officially began in the summer of 2009, the cost of labor per unit of output has fallen, at least in part due to wage stagnation. Only under depression conditions can they be expected to become permanent.

Rather than inundating you at this point with confusing acronyms and indecipherable statistics, an appeal will be made to your common sense, particularly as it relates to what's behind the numbers: the incentives that often motivate behaviors. Economist Steven Levitt is well-known as the co-author of the best-seller, *Freakonomics*.³¹ Levitt's singular genius is not economics as you and I know it. Rather, he has distilled the dismal science to its most primal purpose, which he describes as: "Explaining how people get what they want." Read on with the following framework in mind:

- "Incentives are the cornerstone of modern life"
- "Conventional wisdom is often wrong"
- "Dramatic effects often have distant, even subtle, causes"
- "Experts use their informational advantage to serve their own agenda."³²

If we are uncertain about the veracity of “the numbers,” and getting them wrong might reduce our margin of safety, perhaps we’ll find clues by tracing them to their behavioral origins. Let’s begin by asking ourselves who are the nominal owners of most of the largest corporations in America—and then asking how those owners have changed over the years. In 1950, 92% of all U.S. stocks were in the hands of individual investors. Since then, there’s been a vast migration of ownership. Today, institutions control roughly 70% of U.S. stocks while individuals hold only 30%.³³ Contemporaneously, from 7% in the 1950s and 1960s, stock-related compensation as a percentage of the typical executive’s total compensation jumped to 47% during the 1990s. Through the middle of the last decade, it had risen further to 60%.³⁴ In these evolutionary developments, causation is the basis for correlation.

For simplicity’s sake, let’s assume that the 60% receiving stock-based compensation are affiliated with mostly mature, large, financial and non-financial corporations over which professional boards preside. They, in turn, hire professional managers (or did I reverse the order?). The way institutions view their ownership duties and responsibilities is at one end of a continuum, and at the other is the owner/operator of a smaller business. In terms of the actual operating business itself, the institution, one step removed, has no “skin in the game,” no personal risk—upside but no downside. The owner/operator is keener about risks because he owns the downside. Not only does he have skin in the game, his soul is in it too.

It doesn’t take a leap of logic or imagination to deduce the behaviors of most professional managers, given the incentives under which they operate, as well as the comparatively short timeframe during which they typically have to establish their worth.

So, with that prelude, let’s get directly to profit margins—profits divided by revenues. Profits are a residual; they are what’s left after all expenses have been deducted from revenues. This is where the plot thickens, and incentives begin to creep into the picture. Holding everything else constant, *ceteris paribus*, higher profit margins = higher profits = higher stock price = higher stock-based compensation.

It begins with revenues, units sold times price. For many non-commodity businesses with differentiated products, there can be the short-term choice of price gouging to maximize margins—at the risk of a declining market share and eventually declining margins over the longer term.

Below the revenue line, not all expenses are created equal under the financial accounting rules for SEC-registered companies—i.e., GAAP (generally accepted accounting principles). Another way for a professional manager to increase profit margins is to reduce expenses. Because not all expenses involve an expenditure of cash (e.g., depreciation, amortization, and the write-down of assets), and all expenditures don’t represent an equal amount of immediate expense (e.g., purchase of fixed assets, acquisitions, R&D spending), there’s wiggle room within the accounting standards because of the difference between cash and accrual accounting (and between financial and tax accounting). Thinking back to Steven Levitt’s first insight about “the cornerstone of modern life,” the professional manager’s stock-based compensation incentivizes him to maximize reported profits in order to “get what he wants” whereas, in the same vein, the owner/operator is usually most interested in minimizing taxable income because the tax bill is paid out of his pocket.

So let’s look at a couple of practical ways that professional managers can enhance (or at least not depress) profit margins in the short run. One obvious place is to reduce capital expenditures. Besides possible upfront expenses related to building and equipping a new manufacturing, wholesaling, or retail facility, non-cash depreciation and interest expense will likely reduce earnings long (often years) before the project carries its own weight as new fixed investment theoretically raises output and, with state-of-the-art production technology, potentially lowers manufacturing costs. The argument that consumer demand is currently weak holds little water for long-term

projects—unless the professional managers (or owner/operators for that matter) believe that demand will remain lethargic for an extended period of time. That’s a more troubling consideration, outside the realm of this discussion. In any event, since 2008 the proportion of cash flow invested in capital assets is the lowest on record.³⁵ Either way, it’s a no-win situation. It makes little difference whether the decision is more a function of incentives than a perceived lack of long-term investment opportunity.³⁶ Both lead to a place we don’t want to be.

Before we go deeper into this water, it’s important to know who the scorekeepers are. As noted, publicly traded companies report financial results under the oversight of GAAP, with the Financial Accounting Standards Board (FASB) making changes ostensibly to keep GAAP current. Though likely unfamiliar to some readers, the Bureau of Economic Analysis (BEA), which publishes the National Income and Products Accounts (NIPA) data, surveys both public and private businesses, a much larger universe. At this stage, it’s worth noting that it’s far more likely that the NIPA data will provide a better guide to the true profits being made by companies than anything published by the companies themselves. NIPA accountants don’t have the incentives that encourage those in the private sector to misstate earnings. No bonuses are paid by the BEA, which publishes the NIPA data, if GDP or profits rise.

For those who think as we do, that the devil is in the accounting details, today’s incrementally compromised standards date back to the great bull market. Again viewing the world through the incentives prism, the accounting profession did not hold its high ground as creative GAAP accounting gained a toehold in the 1980s and 1990s. So blatant were transgressions that I wrote extensively on the subject in four consecutive annual reports from 1998 to 2001 under the moniker, “Ledger d’maim.” Sections included “It’s a Numbers Game” and “Fully Deluded Earnings” and “Stealth Compensation.” Although Enron and WorldCom were headline malefactors, Citigroup, IBM, AT&T, Kellogg, and Walt Disney were singled out as examples of blue-chip companies that also pushed the limits of accounting propriety, yet without such disastrous results.³⁷

In 1988 Standard & Poor’s yielded to pressures from the companies and institutions that purchase its services and departed from its long-standing practice of reporting earnings in adherence with GAAP. Having had some practice, it was easier for them to cave in on ratings during the securitization boom. During the late 1980s’ LBO craze, S&P began to publish “operating earnings” (sometimes referred to as *pro forma* earnings), which, conveniently for the times, excluded “extraordinary” gains and losses from operating earnings. Since it’s rare that an extraordinary event is a gain, operating earnings are higher than they would otherwise be. Steven Levitt once again: “Experts use their informational advantage to serve their own agenda.”

Andrew Smithers translates Levitt into accounting English: “It would take an intelligent person who studied the data no more than half an hour at most to realize that using PE multiples based on either past or assumed prospective earnings per share is absurd.”³⁸ Anecdotally, the now-ubiquitous term “earnings guidance”—a euphemism for “short-termism,” managed earnings, and other signs of misaligned incentives—did not enter the investment vernacular until the 1990s. Today, nothing is measured in absolute terms but only in relationship to someone’s estimate. As Mae West prophetically said, “I was once Snow White, but I drifted ...”

With all that in mind, if cash flow for capital expenditures is at record lows, where is the difference being expended? As most readers know, share buybacks as a percentage of cash flow are near the highest levels ever. The 100 largest companies in the U.S. have spent \$1 trillion buying back stock since 2008. Keeping things simple: Shares retired, regardless of price, shrink the denominator in the earnings-per-share (EPS) calculation, causing earnings to rise. To be sure, share buybacks do not improve profit margins. Interest income on cash used is forgone and interest expenses incurred if the money is borrowed. The savings on the dollar amount of dividends paid on the smaller number of shares has no effect since that number falls below the profit line. Lest we

forget, and apparently most people have, some not insignificant portion of the shares purchased covers up the effect of otherwise dilutive stock option issuance.

I must admit that certain contemporary clichés leave me in disbelief. The phrase, “returning money to shareholders,” assumes buybacks and dividends are one and the same. Of course, from the professional manager’s narrow, use-of-cash perspective they are indistinguishable. But from the shareholders’ vantage point, they are quite different. Dividends are an equal-opportunity distribution. All shareholders participate in proportion to their ownership. It’s not so with buybacks. The price at which shares are repurchased to shrink the equity capital base matters greatly to non-selling shareholders. In the simplest terms, if the company pays more than intrinsic worth, it favors those who sell over those who don’t. For that matter, if a company purchases anything (a plant, equipment, another company) for much more than it’s worth, someone else’s gain is the shareholders’ loss.

The record of buybacks is abysmal: Since 2002 the percentage of cash flow dedicated to repurchases has been between 5% and 10% when markets were low and as much as 40% when they were high, made all the worse because the purchases lagged the markets by about a year and, adding insult to injury, then ramped up slowly. The S&P 500 had risen 75% following the 2009 lows before companies started buying again. For the 12-month period ended in Q3 2013, companies’ buybacks were 15% greater than the preceding 12 months, rising to \$445.3 billion. The high-water mark of \$589.1 billion was reached in 2007, just before prices fell 57% top to bottom. Over the long term and in the aggregate, the return that companies earn on investment in their own shares pales by comparison to investment in capital projects. Imagine the state of corporate America if that weren’t so! Of course, if the near-term incentive is to increase EPS ...

The financial media herald the aggressive buyback programs as a sign of management’s confidence in the future: “Conventional wisdom is often wrong.”³⁹ The near record-setting rate of repurchases is one of the more reliable danger signals. Companies, like other institutions, are not immune from the herd instinct.

Dividends are also in vogue, no doubt in part because dividend-paying stocks have generally outperformed non-dividend payers since 2002. The number of companies in the S&P 500 that pay dividends has risen from 350 in 2002 to 420. Even after backtracking by a third during 2008 and 2009, dividends per share have grown at about a 7% rate since 2002, 2 percentage points above their long-term trend. For the 12-month period ended in Q3 2013, aggregate dividend payments totaled \$339.3 billion, 40% above the 10-year average.⁴⁰

What is being overlooked is that when combined with share repurchases, 90% of cash flow is being expended for purposes that don’t increase the value of most companies over the longer term. We believe we’re aware of several of the few current and notable exceptions. Teledyne under the leadership of Henry Singleton provides the second-to-none historical model of uniquely adroit and highly accretive share repurchases.⁴¹

In general, however, the buyback binge appears to be destructive to shareholder value. By expending most of their cash flow on share buybacks and dividends, companies are fueling a self-fulfilling prophecy: They are the largest net buyer of common stocks and, at considerable cost to their own long-term growth, they are fomenting the alchemic illusion that companies are more valuable than they actually are, thus giving return-starved investors what they think they want. When the music stops, there won’t be enough chairs.

As noted, the non-financial economy has benefited from historically low-cost financing and from comparatively stagnant labor costs and generally higher output per unit of labor. But the hidden story behind record high profit margins is closely linked to the ever-larger “too big to fail” financial institutions. Based on our research⁴² using NIPA data, 30% of the increase in profits (and, by inference, margins) since 2000 can be attributed to the financial sector and the explosion of ill-

fated innovation and leverage. The contribution from the depths of the financial crisis has been much greater. Unlike GAAP or Federal Reserve Flow of Funds data, NIPA excludes write-offs and thus removes the sleight-of-hand temptations associated with FASB Rule 142. NIPA non-financial-sector margins have increased impressively but not remarkably, particularly after allowance has been made for lower interest rates and labor costs. Since so much of the case for a new plateau in profit margins rests on continued stability in the financial sector, that assumption is fragile indeed.⁴³

The “bonus culture” did not blossom unnoticed. In December 2011 the Federal Reserve Bank of New York published a paper on the way the change in management remuneration was likely to be seriously detrimental to the economy.⁴⁴ Much of the pundits’ focus has mistakenly been on overall profit margins, when it would have been more productively directed toward the socially misaligned incentives under which professionally managed corporations operate—and the degradation in accounting standards that naturally follows.

The Valuation Debate: Should Long-Term Investors Rely on Short-Term Earnings?

Once again, let’s invert as a way to make the argument. If falling asset prices are the surest way for those whose livelihood is directly or indirectly tied to financial assets will *not* make money, what must they do? Obviously, the incentives all along the gravy train are perfectly aligned to keep the buyers coming, and sellers reticent, so that asset prices keep rising and everyone gets rich. Putting the best earnings foot forward is a good place to start, particularly since GAAP earnings are the most malleable variable. Andrew Smithers, as noted earlier, was appropriately incredulous. He understood that reported earnings can be a sucker pitch. Asset prices have risen far above intrinsic worth on two notable occasions in the last 15 years, only to be followed by gut-wrenching bear markets. This is not a game without casualties. Those who buy rising prices and sell falling ones—and there are many who do—tend to end up the victims. During these bear markets, the promoters hibernate, repenting in Purgatory until the latter stages of the next bull market. For the long-term investor, there must be something better than this sad scenario ...

Two noteworthy books were published at the peak of the secular bull market in early 2000. Bob Shiller’s *Irrational Exuberance* and Andrew Smithers’ *Valuing Wall Street: Protecting Wealth in Turbulent Markets*. Both authors had the courage of their convictions, and they were both right—for the right reasons. Both had their reputations on the line. As is to be expected from naysayers during periods of glorious enrichment, neither book was well-received at the time, and yet both were invaluable to those of us who understood their warnings about an extraordinarily overvalued market. Shiller made a compelling case for what has become known as “behavioral economics” and his cyclically adjusted price-earnings ratio (CAPE) became a standard by which markets are valued from a longer-term perspective. Smithers’ book features Andrew Tobin’s Q (the ratio of the market value of equity to the replacement value of corporate net assets). Smithers also introduced the concept of “stockbroker economics,” the art of proving that assets are always cheap, however expensive they may actually be. Stockbrokers are paid to sell and are penalized for being wise. As always, there are wonderful exceptions.

The logic of Shiller and Tobin, echoing my own approach to valuation, is no less compelling today than it was in 2000 before the dot-com collapse, and again in 2007 leading up to the financial crisis. Both the Tobin Q and the CAPE are currently at levels roughly comparable to previous market peaks.⁴⁵ Furthermore, neither the Tobin Q nor the CAPE fell in 2009 to levels that approximated the market’s deepest historical lows.

There’s nothing in the paragraph above that says anything about when today’s lofty valuations will revert to the mean, or possibly well beyond the mean. Those possibilities are real, even though they appear a long way from current valuations. The *when* is utterly irrelevant despite it

being the primary excuse for not taking precautions – especially among those who should know better, but continue hanging around for the last dance. One need only know that when the clock strikes midnight, the golden carriages turn into pumpkins. Those observations aside, Tobin and Shiller data serve only as general guidelines for us at MCM. *When companies we favor reach what our analysis concludes are economically compelling prices, we will buy them. Period.*

But there's much more to this fable. Most importantly, mean reversion works both ways. When risk assets are once again compellingly cheap, we will be counting on mean reversion working in our favor instead of against us. Those who can't imagine that happening have read more fairytales than history books.

Are 'Fat Tails' Yesterday's Risk?

Can we take the capital markets, as presumed omniscient arbiters of value and barometers of doubt, at their resounding word? They are saying that catastrophic risks are no longer a threat to wealth and stability. The nearly unbroken upward trajectory of stock and junk bond indices since the spring of 2009 sends a loud and clear signal that whatever was broken has been fixed. That's the only logical conclusion if one takes the markets literally as promulgated by MPT (modern portfolio theory). There's widespread belief in the efficiency of markets. And that's why most people stop thinking at that point.

Economic "science," however, is not static. A new paradigm has emerged over the last 20 or so years that includes heretofore unrelated schools of thought, including behavioral economics and complexity theory. Within this multi-faceted framework, it's not what we know but what we *don't* know, or *choose not to know*, that can hurt us. That is, what we don't know or simply ignore can emerge as the source of major failures, catastrophes, and panics.

A dismal record of forecasting, as noted previously, suggests that even "experts" are not able to predict the course of history, and yet they act as if they can. Worse, they act as if they can change it. What is surprising is not the magnitude of forecasting errors, but the absence of awareness of it by the investing public. Surely no serious student of Fed forecasts and subsequent actions before and after the financial crisis can reach any other conclusion. The Fed's models have consistently attempted to be precisely predictive when all evidence suggests that they are at best descriptive.

At this point, it might be wise to invert—to rule out what we must avoid if we expect to be productive investors. This can be accomplished in one of two ways: (1) by avoiding exposure to the Swans described below or (2) by maximizing exposure to risk assets when prices are so low that Swan risks are effectively priced in. The stock market crash of 1987 and the financial crisis of 2008 were not "unknowable unknowables," the so-called Black Swans like the September 11, 2001, terrorist attacks in the U.S., the Indian Ocean tsunami of 2004, or the Fukushima Daiichi tsunami and nuclear disaster of March 2011. The events of 1987 and 2008 were *Gray* Swans. They were modelable extreme events but not with backward-looking models. Moreover, any models would be no better than the Fed's: not predictive, only descriptive. Given the fact that Swan events, whether black or gray, have huge consequences, one need not be more than generally right. As Charlie Munger says, "All I want to know is where I'm going to die so I'll never go there."

Two models, which I have studied but about which I claim no more than lay knowledge because of limited education in advanced mathematics and physics, appear even to me to have become dangerously obsolete. Nonetheless, they remain the *de facto* standard in a world proliferating with man-made complex systems: the bell curve (Gaussian frequency distribution) and Value at Risk (VaR).⁴⁶ Rick Bookstaber's brilliant and epiphanic book published in 2007 before the crisis, *A Demon of Our Own Design: Markets, Hedge Funds, and the Perils of Financial Innovation*, made no mention of either. On the other hand, Nassim Taleb, Jim Rickards, Mark Buchanan, Andy Haldane, and

others who dissected the crisis constructed carefully considered criticisms against these generally accepted but antiquated risk models.

Haldane, in a 2012 speech at Jackson Hole,⁴⁷ raised an eyebrow or two about model-based estimates of portfolio VaR, a commonly used technique for measuring risk and regulatory capital in a bank's trading book, including derivatives. Because a large firm would typically have several thousand risk factors in its VaR model, estimating the covariance matrix for all of the risk factors means estimating several million individual risk parameters. Beyond Haldane's inference about the dangerous maze of complexity, Rickards argues that VaR transports the intellectual baggage of efficient markets and normal distributions into a changed world of risk management, that risk accordingly is measured in net positions—long minus short—rather than, as he believes in times of crisis, gross positions—long *plus* short. As of Q3 2013, buried in its 225-page SEC 10-Q filing, JPMorgan Chase reported net credit default swap (CDS) exposure of \$24.9 billion (VaR) compared with its tangible shareholders' equity of roughly \$150 billion. Innocuous enough? If one zooms in, the numbers get larger. The small VaR is almost entirely the result of offsetting \$3 trillion of credit (CDS) protection sold to others against \$2.9 trillion purchased.

As a market-maker, JPM buys and sells CDS on predominantly corporate debt obligations for its customers. It also uses CDS to manage risk exposure on its own \$729 billion loan portfolio. Because there are countless domestic and foreign counterparties on one side or the other of these trades (see Haldane's comments above), JPM attempts to estimate the credit quality of these disparate counterparties through what is known as a credit valuation adjustment (CVA), another smallish number. JPMorgan's derivatives books are a case study in complex man-made systems and the absurdity of using VaR as a true measure of exposure *in extremis*. Using Rickards' assumption, the maximum exposure under a counterparty meltdown scenario would be \$5.9 trillion, 40 times its tangible shareholders' equity. Not much margin for error. All told, the bank has interest rate, credit, foreign-exchange, equity, and commodity contracts outstanding of \$73.9 trillion (notional value). Please remember this paragraph when you read William White's observations below and the "rice avalanche" farther yet.

Today's reality is that man-made complex systems are proliferating on the heels of remarkable innovations in technology. It's a mixed blessing. The modern world may be increasing in technological knowledge, but, paradoxically, it's making things a lot more unpredictable. Technological "leverage" works much the same as financial leverage; it amplifies outcomes, often exponentially, both good and bad. Old ways of thinking are not keeping up with new ways of doing.

The following is a bit technical and can be skipped for those not so inclined. Normal distributions so underestimate the frequency of rare but extreme events that they are disdainfully ignored as if they have only minor impact. Conversely, power-law distributions, which are ubiquitous in describing the behavior of events in nature (earthquakes, for example), mean that extremes aren't so rare and, in fact, they matter most. This phenomenon is often described as a "fat tail," a reference to the way the distribution graph looks, with fatter or higher probabilities for these extreme events than the standard bell curve would indicate. In their cumulative effect, these rare but extreme events have disproportionate consequences. Power laws and fat tails are immensely important for proper risk management, for assessing (at least with some accuracy) the likelihood of rare market upheavals.

Going a little deeper, in tightly coupled, interdependent complex systems, feedback loops produce monstrous estimation errors (and thus unpredictability) because of a phenomenon physicists call "convexity," a disproportionate, nonlinear response stemming from a variation in input—particularly in the event of large disturbances. Former Israeli central banker and a most likable fellow, Stanley Fischer, was just appointed to be Janet Yellen's vice chairman at the Fed. Fischer, so I've read, thinks, on the one hand, that feedback loops can be modeled and yet, on the

other, he didn't see the financial crisis coming. Fischer is no threat to Paul Krugman's claim that he (Krugman) is the sole, one-armed economist.

Although there are a number of complex systems whose failure could be chaotic if not catastrophic—ponder Leon Panetta's farewell warning about the risks of a cyber Pearl Harbor—our focus remains on the financial sector, which, because of temporary patches applied during the heat of the crisis, remains in a critical state precisely because the underlying structural problems have never been seriously addressed.

As one who should know, Alan Greenspan writes that systemic risk in the United States is almost exclusively generated by the risks posed by financial institutions and financial markets—the concern especially being that defaults of those institutions could fracture the financial system and, with it, the real economy. Conversely, the systemic risks posed by non-financial companies are far less daunting. The default of an individual non-financial corporation will affect its creditors, suppliers, and some of its customers, but rarely does it have an impact much beyond that. Non-financial corporate defaults do not have the broad contagious effect that is associated with the default of a financial institution. Moreover, non-financial businesses hold a much higher ratio of equity to assets than do financial institutions, typically one third to one half of the value of assets, compared with only 5% to 15% for highly liquid financial firms.⁴⁸

Flashing back to the years leading up to the financial crisis, a period of what might be called “Bloomberg banking,” lending largely was transacted anonymously in cyberspace. Face-to-face, across-the-desk scrutiny was reduced to an anachronism in the world of FICO scores and other quantifications of what were once qualitative judgments. That enabled the slicing and dicing of vast amorphous mortgage pools into globally traded securities with pick-your-risk tranches, as well as more exotic weapons of mass financial destruction like synthetic CDOs (collateralized debt obligations) and CDSs, originally designed to mitigate risk. These Humpty Dumpty-like innovations, together with comparatively plain-vanilla extremes of financial leverage accelerated by mechanical and ratchet-like feedback loops, brought the financial system to its knees.

Five years later, the Lehman Chapter 11 bankruptcy is gradually winding down. It boggles the mind to imagine the next iteration of technology-induced blowups. Have you ever wondered about the market carnage that would have resulted had the Flash Crash of May 6, 2010, occurred at the close of the markets?⁴⁹ Man-made complex systems lack the robustness and the safeguards that natural evolutionary systems developed by trial and error over the ages. Thus, the presence of Swans is increasing. Target, NSA, and the three-year-old Arab Spring are tip-of-the-iceberg examples of ongoing vulnerability.

William White, the Canadian-born economist with the BIS (Bank for International Settlements) in Geneva, is a man about whom I've written extensively. *Prescient* is the word that comes to mind whenever I think about Bill.⁵⁰ In a November 2013 white paper, he turned on its ear the traditional and still dominant bottom-up regulatory approach of focusing on the safety and soundness of individual financial institutions (e.g., the touted “stress tests”). In response to recurring financial crises over recent decades, he is among those advocating a top-down approach to prudential regulation, focusing on “systemic stability.”

White points out that the financial system is a complex adaptive system, with many interdependencies among agents who are constantly responding to the activities of other agents. Such systems, while generally highly efficient, can sometimes break down catastrophically because of:

- (1) the inevitability of crises, with magnitude and frequency being linked by a power law, (2) the impossibility of forecasting, (3) the absence of any relationship between the trigger for a

systemic breakdown and its size, and (4) the inevitability of unforeseen consequences of all policy actions.⁵¹

Disequilibrium thinking—gradually displacing the equilibrium model foundational to the efficient market hypothesis as factual evidence mounts—is now beginning to transform our understanding of topics ranging from the stability (or instability) of banking networks to the role of derivatives in markets and the benefits (and costs) of high-frequency computer trading. Banking networks, for example, pose a far greater risk to the financial system than problems on (or off) the balance sheet of any one institution. Banks and other financial firms have grown increasingly interlinked in the past few decades, especially through the proliferation of derivatives instruments. Yes, Mark Buchanan and Bill White read each other’s work.

Equilibrium models have always relied on simple and rich (if misguided) metaphors—like the pendulum, which I have used to explain regression to the mean in physical terms. Some complex systems, like the financial system leading up to the crisis, tend toward disequilibrium because, unlike a pendulum, there are powerful forces beyond mere gravity acting upon it. As Hyman Minsky reasoned years earlier in his Financial Innovation/Financial Instability Hypothesis, the financial system was headed for a “Minsky moment,” a time of unpredictable but undeniable acute disequilibrium.

One might think of a “rice avalanche” as a disequilibrium metaphor. As grains of rice are added to a pile they interlock with other grains and the pile (think markets) grows, forming a memory by repetition of a crude, steady state of stability where the grains dislodged will more or less match the number of those added. Like natural phenomena of snow avalanches or earthquakes—or, as we’re discovering with markets, the cause of the biggest and smallest events is the same. What really matters is not the snowflake but the snow. What really matters is not a grain of rice but the state of the mountain of rice. This is a philosophical experiment, as it illuminates something profoundly wrong with our intuition that large accidents “must” have correspondingly large causes. The outcomes of the horrific Western forest fires in recent years would’ve been the same regardless of whether they were triggered with a carelessly discarded cigarette butt or a powerful lightning bolt.

One of the surest ways of reducing the risk of systemic failure is to increase the number and geographic dispersion of the piles of rice, such that the collapse of one has no effect on the others—i.e., removing or ameliorating the risk factors common to complex man-made systems. These include:

- Reducing scale⁵²
- Acknowledging unpredictability
- Minimizing interdependence and interconnectedness, which manifest themselves in mechanical and often exponential feedback loops
- Getting rid of integral parts of the system if nobody understands them
- Removing from key decision-making positions those who have incentives without equal disincentives

The three largest banks in the U.S.—JPMorgan Chase, Bank of America, and Citigroup—control a record 40% of total bank assets, up from 20% in 2000 and, worse yet, firewalls, back-up systems, and redundancies have not been built in since the financial crisis. Dodd-Frank was designed to be the fix ... but does anyone really think that if JPMorgan Chase fails it will fail alone?

In September, Bill White left the subject of banking to survey the broader scene in an interview with U.K. newspaper, *The Sunday Telegraph*:

This looks to me like 2007 all over again, but even worse. All the previous imbalances are still there. Total public and private debt levels are 30% higher as a share of GDP in the advanced economies than they were then, and we have added a whole new problem with bubbles in emerging markets that are ending in boom-bust cycles.⁵³

The end of the article, taking an even wider scope, became more of a lament than a news story:

The world has become addicted to easy money, with rates falling ever lower with each cycle and each crisis. There is little ammunition left if the system buckles again. “I don’t know what they will do: Abenomics for the world I suppose, but this is the last refuge of the scoundrel,” (William White) said.⁵⁴

Decision Making Without Forecasts and the Role of Optionality

As Nassim Taleb proposes, disavowing forecasts is the beginning of coping—from an enlightened perspective—with an unpredictable future. As is apparent, forecasting is not neutral, and it is not without consequences for risk takers who rely on mostly erroneous prognostications. Reiterating for emphasis, the problem lies first in the fallibility of trying to outsmart the inscrutably complex future, second in the unwillingness of forecasters to fess up to a history of wide-of-the-mark predictions before launching without remorse into the next mistake, and finally, in our yearning as humans for some explanation of the future irrespective of the explanation’s reliability. Taleb, primarily in his book *Antifragile: Things That Gain from Disorder*, recommends a radical approach to avoiding the fallout from forecasting errors.⁵⁵

Let’s start with his appellation “antifragile.” Although a ubiquitous property of every system in nature that has survived, the idea that things gain from disorder is not widely understood in man-made systems like financial economics. Robust may be the antonym of fragile, just like positive and negative are opposites, but antifragile, being neither, is not typically a conscious part of our decision making. By understanding the difference between fragility and antifragility, we can build a guide to decision making in financial markets that does not depend on forecasts. Every natural organism or system that still exists has survived without ever relying on forecasts. Nature is full of adaptive, non-predictive systems. If nature doesn’t need forecasting, why do we?

The future is filled with uncertainty, unpredictability, randomness, opacity, and incomplete understanding. If anyone envisions the future with more clarity than that, please lend me your crystal ball.

It is far easier to figure out if something is fragile than to predict the occurrence of an event that will harm it. Fragility can be measured, but uncertainty cannot. Consider two investors. One is fully invested, perhaps even leveraged, whereas the second has plenty of “cash in the bank.” The first, with no redundancies or backup systems, is at the whim of the unexpected. That investor is fragile. The second need not know, or even worry about, which among many unpredictable future events may cause potential harm.

It is critical to understand the difference in approach to the above scenario. *The mainstream response to risk management is the near universal portfolio construct, the medium-risk approach of diversifying over a broad universe of “uncorrelated” assets.*

An antifragile portfolio is focused on minimizing the downside, rather than increasing the upside, and reducing the exposure to random, catastrophic risks. The concept of path dependence, the inability to reverse damage once things begin to fail, is unfamiliar to most of us. Look at JPMorgan’s recent travails. In a demonstration of static thinking, the banking giant’s powers-that-be believe that generating profits is their principal mission, with survival and risk control secondary considerations. As I’m sure is obvious, that applies to most investors in the markets today. It

appears they (JPMorgan Chase and investors in general) have missed the “strong logical precedence of survival over success.” In Buffett’s uncompromising logic, “To win, first you must not lose.”

Following path-dependent reasoning to its logical application, one is hard-pressed to separate halting growth in the economy from risks of relapse into recession—or financial returns averaging 18% over the last five years from risks of terminal losses. If the risk of a portfolio strategy is a catastrophic meltdown, potential returns are totally inconsequential. Taleb tells the story of the manager of a university endowment fund who boasted 20% returns or so but who clearly did not realize that those returns were the result of assuming undisclosed or unknown fragilities. Along came 2008, and those returns were wiped out and the university endangered.

In what we believe to be a high-risk investment environment, our antifragile portfolio construct is bimodal by design. Although it is anything but conventional, its logic has an intuitive appeal. It’s the same construct we employed prior to the financial crisis. Rather than a central mode—the typical portfolio construct mentioned above—it has two distinct modes. It was only after reading the second edition of *Black Swan* in early 2008 that I learned Taleb advocates the strategy and gave it a name: barbell. The bulk of a barbell portfolio is invested in short-term U.S. Treasury securities, and that portion is deemed antifragile. How it gains from disorder will be addressed momentarily. On the other extreme, one makes small commitments with potentially large asymmetrical payoffs, should “tail events” (which you think possible but unpredictable) occur. Thus, antifragility involves extreme risk aversion on one side and extreme risk acceptance on the other.

The advantages over the medium-risk standard portfolio construct are several: First, risk of ruin is nearly eliminated. Someone with 100% in so-called medium risk securities is exposed to a risk of ruin from miscalculation of risks. Recall the universal portfolio construct above and the attempt to populate it with “uncorrelated” assets (depending on the external stimulus, some go up when others go down). Unfortunately, in financial crises correlations approach 1. Statistically, that means that in a panic almost everything collapses in value, except for high-quality liquidity. Whether a portfolio is 60/40 with equities or debt being the larger, the comfort of medium risk may be an illusion in the face of extreme economic, valuation, credit, or duration risk—or more likely, a combination of several of these.

As promised, an explanation of non-predictive decision making would not be complete without returning to the antifragile properties of the liquid or “safe” side of the barbell. These assets are not merely robust; when exposed to random shocks, they actually gain strength through optionality. He who possesses optionality has the “right but not the obligation” to purchase or sell an asset, whereas the counterparty, the seller, has the “obligation but not the right.” Optionality, while more expensive in a zero-interest-rate environment, still comes at a comparatively small price for the privilege, with limited loss and large possible outcome. The option is the agent of antifragility. Optionality thrives on volatility. Optionality gives you freedom, the freedom to choose among future alternatives not yet made apparent. Your only downside is if you pay too much for the option, the “cost to carry,” over time.

Clustering in the presumably safe middle ground does meet an important human need to belong and perhaps avoid individual accountability by submitting to the anonymity of the crowd. It’s as much a mistake to confuse fence straddling with safety and risk minimization as it was to buy an index fund in October 2007. Diversification became “di-worse-ification,” putting one squarely in the path of the steamroller of market risk. If safety is enduring a 57% top-to-bottom decline in the S&P 500 from October 7, 2007, through March 9, 2009, perhaps “safety” is not the right word!

Analogously, in the broader social context, real growth in society may not come from increasing the ranks in the middle, but from increasing the number of people in the “tails.” As Taleb states,

It takes a very small number of risk takers crazy enough to have an idea of their own, those endowed with that very rare ability called imagination, that rare quality called courage, to make things happen.⁵⁶

Men like Steve Jobs, Warren Buffett, Seth Klarman ... and Nassim Nicholas Taleb come immediately to mind.

Such a radical departure from the popular buy-and-hold strategy is necessary only when the longer-term (e.g., 7–10 years is often used) expected returns from financial assets are near zero, as they are in our judgment today. Prices are at levels from which downside surprises are far more likely than upside ones. Overlaid on those risks is an environment characterized above as one of “fat tails.” In the financial markets, two negatives, overvaluation and the fat tails, don’t multiply to become a positive. Rather, they add up to a double negative. Should both negatives occur, exacerbated by feedback loops, this report will have served its purpose. It will be falling prices that reveal true investment brilliance, not rising prices as we have today.

A Foreordained Conclusion

None of us can escape the reality that we live in the here and now, where an up-close perspective constricts our worldview. But how might an economic philosopher/historian view these years since the great speculative bubble⁵⁷ epidemic *began* in the 1990s? Written with the benefit of seeing a broader span of time, the philosopher may observe that the first, most extraordinary, and most likely unrepeatable phase ended with the technology and dot-com stock bust beginning in 2000. On its heels, surely he would observe, came the real estate bubble that reached its unprecedented apogee in 2006, enabled and empowered by the financial-innovation bubble that self-destructed in crisis in 2007 and 2008. Certainly he would not overlook the more broadly based manias in common stocks, the first of which began to form in the middle of the first decade of the new millennium. He may further conclude that the second (current) bubble was born out of a desperate central bank’s commitment in the fall of 2010 to enter into an unparalleled monetary policy regime. This bubble, he might further observe, was more expansive because the blunt tool of zero-bound interest rates and quantitative easing left no safe harbors. Thus, the inevitable aftermath will likely be seen by the economic philosopher as a foreordained conclusion. With the benefit of hindsight, the writer would not measure these bubbles against the anomalous 1990s, but against the standards of market history.

The unchecked financial sector and the embedded and unaccountable bonus culture are manifestations of the institutionalization and depersonalization of swaths of corporate America. Among them are interlopers who lay unearned claim to be seated among the *legitimate* top one-tenth of 1% of earners (i.e., the creators of wealth). Those pretenders are symptomatic of something amiss, something unsustainable. They are the canaries in the coal mine.

Starting the narrative from today, the philosopher would not yet have written the other half the story. Bubbles built upon bubbles do not persist indefinitely. Ultimately, they run out of speculative energy. And before they ever bubble up again, their instigators and enablers experience, of necessity, an extended period of speculative detoxification and regret. It will take time for them to forget the pain. During that extended period, investment, as it was once known, will return as gold wrapped in sackcloth.

The MCM performance and allocation table on page 1 reflects our attempt—throughout the boom-and-bust years described by our allegorical economic philosopher of the future—to always remain grounded in reality, to avoid being caught up in the greed or fear of the moment, to steadfastly adhere to our investment principles by managing risk during the ongoing bubble

epidemic. Although it has been a long wait, liquidity will be exchanged for metaphorical gold on the most favorable of terms. “A foreordained conclusion,” the philosopher will write of that day as well.

Final Thoughts ...

Whether writing about our relationships with you, our clients, or musing about succession and the team that will serve you now and in the future, trust appears to be the essential building block. Can each of us at MCM answer the following questions in the affirmative?

- Integrity: Are our thoughts, words, and actions congruent? Do we honor our commitments, and are we willing to stand up for our values and beliefs in the face of resistance?
- Competence: Do we currently possess—and are we grooming—successors who will meet our high standards in the future? Do they have the requisite academic accomplishments, leadership, and training? More importantly, are they committed to the principles for which MCM has always stood?
- Consistent communications: Do we all convey the same principled message in everything we write or say over time?
- Genuine concern: Is our concern for our clients so deep and abiding that we will risk losing the relationship if we take actions that are unpopular but, in our view as fiduciaries, necessary?
- Results: Does our past performance make us worthy of your trust? Are our processes likely to produce competitive results in the future?

Pure luck is democratic and does not discriminate on the basis of original skills. Chance, on the other hand, seems to favor the prepared. As golf great Gary Player once said, “The more I practice, the luckier I get.” Tenacity and hard work, thus, are necessary but not causal. We believe there will be times, like the present, when we will be tested. But we also believe that temperament will trump IQ every time. Finally, in our profession, knowledge is cumulative and empowers those who are lifelong learners.

We view our decision making in the present from the perspective of how rational and intelligent it will look five years hence. We like what we see, and we consider ourselves immeasurably blessed to have exceptional clients and prospective clients who share our vision.

Finally, I’m pleased to acknowledge the help on this report received from Gary Sieber as editor, Clint Leman as researcher and collaborator, and Kristen Smith-Myers as publisher. I’m also grateful for constructive comments, as the report was being written, from Jeff Robbins of our new Milwaukee satellite office, effective March 1; Peter Wong and Cecilia Hung from Hong Kong; and CopyProof’s Dan Shenk whose work redefines the word meticulous.

Very truly yours,
Frank K Martin, CFA

Endnotes

¹ Disclosure: The MCM Equities Composite shows the performance of the equity investments in all discretionary fee paying accounts managed by MCM. Historical returns include accounts that may no longer be under our management. The MCM Total Account Composite shows the performance of all assets held in fully discretionary fee-paying accounts of clients who have given us authority to invest 100% of the account in equities and are managed per our model portfolio. Because we began presenting the Total Account Composite in 2008, it contains only accounts that were actively managed on December 31, 2008, plus accounts that have since been added. MCM believes that because the fully discretionary accounts are, and historically have been, so similarly managed in terms of types and proportions of securities, survivor bias—if any—is not material. Both MCM composites are net of all management fees and include the reinvestment of all income but do not reflect the effect of taxes. The composites are compared with the S&P 500, an unmanaged market capitalization weighted index of 500 common stocks chosen for market size, liquidity, and industry group representation to represent U.S.’s equity performance. S&P 500 returns do not include consideration for fees or taxes. Due to client nuances—including equity allocation constraints, start date, and cash-flow differentials (derivatives, constraints, tax issues, etc.)—an individual’s account performance may differ materially from the composite. Past performance is no guarantee of future results.

² Compare iconic leaders like Warren Buffett at Berkshire, Seth Klarman at Baupost, or Howard Marks at Oaktree, for example, with the much more ethically ambiguous and amorphous heads of large financial institutions like Northern Trust or Citigroup, whose names and values are unknown to most of us. There’s no question about where Buffett’s and Klarman’s loyalties lie and, by inference, the companies that embody their values. No disrespect intended, but we cannot speak with such conviction and confidence about the others.

³ Ayn Rand, *Atlas Shrugged*, 1957, p. 410.

⁴ Humphrey Neill, “Neill Letters of Contrary Opinion.”

⁵ Berkshire Hathaway 2006 annual report, chairman’s letter published in March 2007.

⁶ Roger Lowenstein, *Buffett: The Making of an American Capitalist*, 1995, and Alice Schroeder, *The Snowball: Warren Buffett in the Business of Life*, 2008.

⁷ Jason Zweig, *Your Money and Your Brain: How the New Science of Neuroeconomics Can Help Make You Rich*, 2007, also referenced in Welling@Weeden interview, “Mind Games,” May 11, 2007.

⁸ Niccolò Machiavelli (1469–1527), *The Prince*, Chapter XV.

⁹ Warren Buffett, chairman’s letter in Berkshire Hathaway 2006 annual report.

¹⁰ Frank K. Martin, *A Decade of Delusions*, 2011, p. 340 (Kindle location 6663).

¹¹ David Stockman, *New York Times*, March 30, 2013, op-ed piece, “State-Wrecked: The Corruption of Capitalism in America,” offers a stinging counterpoint to interventionism, the vitriolic timbre of which deafened readers to an otherwise relatively rational thesis. Also, David Stockman, *The Great Deformation: The Corruption of Capitalism in America*, 2013.

¹² Reading many books on anything that might be loosely tied or even tangential to the financial markets and the economy is one way I try to figure things out and remain a leader rather than a follower. It seems that the more I read the more intuitive I become in selecting books that are so forward thinking that they have high present value. After several chapters, I resonated with the immediate utility of Bob Shiller’s doubleheader on behavioral economics: *Irrational Exuberance*, 2000, and its second edition by the same name, 2005. The prescient first edition was published at the peak of the dot.com craze, and the second edition provided the missing link to the real estate bubble, of which most single-discipline analysts were unaware. My introduction to what has become an ongoing fascination with the mathematics and physics of complexity theory in 2007

was from *A Demon of Our Own Design: Markets, Hedge Funds, and the Perils of Financial Innovation*, by Rick Bookstaber, with whom I subsequently became acquainted.

¹³ Mark Buchanan, *Forecast: What Physics, Meteorology, and the Natural Sciences Can Teach Us About Economics*, 2013, p. 105.

¹⁴ Jeremy Grantham, “My Sister’s Pension Assets and Agency Problems (The Tension between Protecting Your Job or Your Clients’ Money),” Q2 2012 letter to GMO clients.

¹⁵ Mark Buchanan, op.cit., pp. 50–52 (Kindle location 960).

¹⁶ The global markets’ initial reaction to Bernanke’s farewell salute in the form of a second tapering announcement may provide some measure of the addiction. Janet Yellen says she doesn’t care about managing the capital markets. We may soon find out.

¹⁷ Alan Greenspan, *The Map and the Territory: Risk, Human Nature, and the Future of Forecasting*, 2013, p. 3 (Kindle location 75).

¹⁸ Margaret Heffernan, *Willful Blindness*, 2011. “The world is full of Cassandras, individuals whose fate it is to see what others can’t see, who are not blind but compelled to shout their awkward, provocative truths. That’s why, after any industrial or organizational failure, individuals inevitably surface who saw the crisis coming, warned about it, and were mocked or ignored.” p. 201 (Kindle location 4118).

¹⁹ Tim Harford, *Adapt: Why Success Always Starts with Failure*, 2011, p. 6.

²⁰ Nassim Nicholas Taleb, *Antifragile: Things That Gain from Disorder*, 2012, p. 211.

²¹ Daniel Kahneman, *Thinking, Fast and Slow*, 2011, p. 220.

²² Philip Tetlock, a sociologist, performed multi-decade testing on the veracity of forecasts. His results, referred to by Kahneman, Harford, and other authors I’ve quoted, are nothing short of shocking. Although there is not space in this report to give Dr. Tetlock his due, readers are encouraged to peruse his findings.

²³ Ibid., p. 211

²⁴ Alan Greenspan, *The Map and the Territory: Risk, Human Nature, and the Future of Forecasting*, 2013, p. 32.

²⁵ Tim Harford, op cit., 2012, p. 208.

²⁶ Americans spent \$65.5 billion on lottery tickets in 2012, of which approximately 25% ended up in the state coffers, representing about 3% of state revenues. Along with inflation, lotteries are among the more subtle of regressive tax schemes. As for economic impact, one might speculate about the multiplier effect from the spending of the 60% of residents who play the lottery at least once a year. Instead of making transfer payments to the handful of winners and the state, might everyone be better off if he or she simply bought something instead?

²⁷ Mark Leibovich, *This Town: Two Parties and a Funeral—Plus Plenty of Valet Parking!—in America’s Gilded Capital*, 2013, p. 330.

²⁸ The ranks of the top 0.1% (about 115,000 households) are well-populated by people like the CEOs of S&P 500 companies, who averaged \$9 million in total compensation in 2011, much of which, as noted elsewhere, was from stock options. A significant portion of the rest comes from the financial services industry. Whether it adds value or simply diverts wealth into its own pockets seems to be a legitimate question. One woman who retired from investment banking in her early 30s with an \$8 million nest egg said she and her peers don’t talk about the incredible damage the few caused for the many. She cynically confessed that all were hoping to exit the system as soon as they were rich enough. She obviously didn’t read Rand.

²⁹ What those parameters are differs depending on the source. More than enough information can be found on the web.

³⁰ CNBC interview with Jim Grant, December 17, 2013.

³¹ Steven D. Levitt and Stephen J. Dubner, *Freakonomics: A Rogue Economist Explores the Hidden Side of Everything*, Revised Edition, 2010.

³² Ibid., pp. 16–17.

³³ Jack Bogle, *The Clash of the Cultures: Investment vs. Speculation*, 2012, p. 10.

³⁴ Andrew Smithers, *The Road to Recovery: How and Why Economic Policy Must Change*, 2013, p. 73.

³⁵ Ibid., p. 18.

³⁶ With austerity the government mandate, with consumers likely to save more discretionary income, and with many corporations engaged in financial engineering instead of capital spending, Keynes, were he alive, would certainly ask, “Who will do the spending?”

³⁷ Martin, op. cit., pp. 20–42.

³⁸ Smithers, op. cit., p. 187. The alternative to accepting the industry practice of focusing on current earnings, in whatever form they are presented, is addressed later in the 2013 MCM Annual Report in the section on Shiller’s CAPE and Tobin’s Q.

³⁹ Levitt, op. cit., p. 16.

⁴⁰ http://www.factset.com/websitefiles/PDFs/dividend/dividend_12.16.13

⁴¹ William Thorndike, *The Outsiders: Eight Unconventional CEOs and Their Radically Rational Blueprint for Success*, 2012, pp. 46–48.

⁴² Andrew Smithers’ book cited above, as well as Steven Levitt’s, provided the impetus for us to take this road less traveled. Mixing and matching data from GAAP, NIPA, and the Federal Reserve constituted no mean feat and, if we erred in the fine points while being generally right directionally, which we humbly admit is quite possible, we will post an erratum to our website.

⁴³ Robin Greenwood and David Scharfstein, “The Growth of Finance,” *Journal of Economic Perspectives*, Spring 2013.

⁴⁴ John B. Donaldson, Natalia Gershun, and Marc Giannoni, “Some Unpleasant General Equilibrium Implications of Executive Incentive Compensation Contracts,” Federal Reserve Bank of New York Staff Report No. 531. (December 2011): http://www.newyorkfed.org/research/staff_reports/sr531.pdf. Andrew Smithers coined the term “the bonus culture.”

⁴⁵ The long-term average Tobin Q ratio is 68% of replacement value and the average Shiller PE is 16.5 times the 10-year moving average of real earnings. Currently the Tobin Q is 57% above its long-term average, roughly comparable to the peaks in 1929, 1937, and 1969 and 2007 but well below the record it hit in 2000 at 140% of its long-term average. The ratio fell at least 50% below its long-term average at the bear market bottoms in 1932, 1954, and 1982, but only 18% below in 2009. While Shiller’s methodology is quite different, the results are similar as two routes to the same truth should be. The current Shiller PE is 25.4. That is 54% above its long-term average, nearing the level reached at the 2007 market peak. It’s actually above the levels of 1937 and 1966. Like the Tobin Q, the Shiller PE set a valuation record in 2000, reaching 168% of its long-term average, which is 16.5. Many historical secular bear market lows have seen the Shiller PE drop to 50% of that average (in other words, a PE of approximately 8 or lower). The Shiller PE (like the Tobin Q as described above) did not fall to those depths in 2009, declining only to 29% below its long-term average.

⁴⁶ The subject of risk models and complexity is addressed more fully in a May 2012 MCM white paper, “I Cannot Leave the Truth Unknown”:

http://www.mcmadvisors.com/downloads/i_cannot_leave_the_truth_unknown.pdf

⁴⁷ Andrew G. Haldane, “The Dog and the Frisbee,” speech to the Federal Reserve Bank symposium at Jackson Hole, Wyoming, August 2012.

⁴⁸ Greenspan, op. cit., pp. 41–42 (Kindle location 563–564).

⁴⁹ Mark Buchanan, op. cit., p. 172 (Kindle location 3092). Buchanan cites the “true nightmare scenario” work of computer scientists David Cliff and Linda Northrop that was prepared for the U.K. government.

Buchanan’s book also provides a full discussion of the Flash Crash and the impact of positive feedback loops.

⁵⁰ Papers of interest by William White include “Borders of Macprudential Policy,” March 2013; “Ultra Easy Monetary Policy and the Law of Unintended Consequences,” August 2012; and “Whither Monetary and Financial Stability? The Implications of Evolving Policy Regimes,” Jackson Hole speech to the Federal Reserve, August 2003.

⁵¹ William White, “The Prudential Regulation of Financial Institutions: Why Regulatory Responses to the Crisis Might Not Prove Sufficient,” October 2013, p. 3 (see footnote 5 in White’s commentary).

⁵² Scale is one of the principal arguments lobbyists use to justify the continued existence of their larger institutional clients. As physicists argue, at least in theory scale leads to greater efficiency, but at the cost of greater instability.

⁵³ *The Sunday Telegraph*, “BIS Veteran Says Global Credit Excess Worse Than Pre-Lehman,” by Ambrose Evans-Pritchard, September 15, 2013, quoting economist William White:

<http://www.telegraph.co.uk/finance/10310598/BIS-veteran-says-global-credit-excess-worse-than-pre-Lehman.html>

⁵⁴ Ibid.

⁵⁵ Most writers do not need a warning label, but Taleb does. Being quite familiar with all four of his most recent books, I am aware of the negative reactions he provokes. Many readers are offended by his affected, seemingly *faux* erudite prose and his penchant for castigating, by name, those whom he believes should refrain from speaking or writing on subjects on which he claims they are sadly misinformed. Rather than going to great lengths to avoid burning bridges, perhaps he torches them so that he can always retreat intellectually. Those off-putting asides notwithstanding, for me his books are ... invaluable.

⁵⁶ Taleb, *op. cit.*, p. 180.

⁵⁷ Rather than define bubbles in terms of what causes them to form, I prefer to define them by their expected effect—i.e., a real 7- to 10-year forward return of less than low single digits. Although not exhibiting signs of a typical excitable or euphoric high-volume “bubble,” the current and desperate “we’ve-got-nowhere-else-to-turn” episode will likely meet a similar fate.