



“Economics is a discipline for quiet times. The profession, it turns out, ... has no grip on understanding how the abnormal grows out of the normal and what happens next, its practitioners like weather forecasters who don’t understand storms.”

—Will Hutton, journalist, *The Observer*, London

# Q2 2016

## QUARTERLY LETTER

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## Second Quarter 2016 in Review

The chart below portrays the market's (S&P 500's) reaction to both the signals and the noises during the second quarter. The daily high-low-close bar chart for the bellwether index is in white, as is the solid white curved horizontal line, which is the moving average for the index's closing value for the preceding 200 trading days. It helps to differentiate the longer-term trend from the shorter-term squiggles. Their values are found on the legend to the right. The purple line is the daily closing price of West Texas Intermediate (WTI) crude oil, the price of which is on the left legend.



Apparent to even the casual observer, the fluctuations in the price of oil have been closely correlated with the S&P index. Though sure to diminish in importance, as has been the case since quarter end, oscillations in the price of oil have been instrumental in calling the tune to which the market has danced for some time. Stock selection continues to play second fiddle.

We've added two data points to the chart to shed light on the puppeteer behind the market's curtain. The stair-stepping orange curve represents S&P trailing 12-month operating profit margins, and in green it's the trailing 12-month S&P earnings per share (see right legend). While oversimplifying to make the point, the near-record level of share repurchases<sup>1</sup> has dampened the effect of decreasing profit margins on the earnings-per-share calculation. This is visually apparent on the chart by the rate of decline of earnings per share, which is substantially less than the rate of decline of profit margins. The decline in profit margins, far from an energy sector-only problem, is frequently a harbinger of more difficult economic times ahead.



### Winning by Minimizing Unforced Errors

The timing was perfect: 1987. Thomas Wolfe's story of a Wall Street "Master of the Universe" whose comeuppance is grippingly depicted in *The Bonfire of the Vanities* or the swagger and arrogance of Gordon Gekko (Michael Douglas) in the movie *Wall Street* are appropriately stinging satire. Stripped of vainglory and intrigue, winning investment strategies are, quite simply, prosaic: In tennis parlance, they are more about minimizing unforced errors<sup>2</sup> than they are about hitting crowd-pleasing winners. Below are several of the more common and beguiling unforced errors. If we come to know them, just maybe we can avoid them. Friend and fellow investment manager Richard Oldfield's book's title, *Simple but Not Easy: An Autobiographical and Biased Book about Investing*, should leave little doubt in the reader's mind that the game won't be without faults, pardon the pun.

**"Prediction is very difficult, especially if it's about the future."**<sup>3</sup>

"Even repeated forecasting failure will not deter the unachievable pursuit of prescience, because our nature demands it." Thus wrote Alan Greenspan quixotically in 2013.<sup>4</sup> Appealing to our "inbred" nature, though certainly not our common sense, in May the Philadelphia Fed, which produces the oldest quarterly

<sup>1</sup> According to the *Wall Street Journal* "Buybacks Pump Stock Rally" (July 13, 2016), first-quarter repurchases of \$161.4 billion are on track to reduce the number of shares outstanding for the S&P 500 for the first time since 2011. Moreover, corporations are funding the ongoing acquisition binge more with cash than share issuance, reflecting the low cost of debt and the intent to avoid diluting shareholders as stock-financed acquisitions do. Parenthetically, as corporations are buying, most individual investors remain anxious, pulling \$52 billion from U.S.- stock mutual funds and exchange-traded funds in the first half of the year. If the timing of corporate share repurchases wasn't so abysmal, such information could be considered bullish.

<sup>2</sup> Loss of points from making contact with the ball on the wrong part of the racket, hitting the ball too early or late, or double-faulting serves.

<sup>3</sup> Neils Bohr, Nobel laureate in physics in 1922.

<sup>4</sup> Greenspan, Alan. *The Map and the Territory: Risk, Human Nature, and the Future of Forecasting* (Kindle Locations pp. 76–77). Penguin Group U.S.

survey of macroeconomic forecasts in the U.S., released its latest report. The projected median real GDP growth rate of 42 prominent and independent economists is to be 1.7% in 2016; 2.4% in 2017 and 2018; and 2.2% in 2019. According to the selfsame economists, the mean probability of negative GDP growth in each of the years is approximately 5%. Although GDP has trended downward for the last three quarters, with the final revision for Q1 2016 at 1.1%, the forecasters see subpar growth but no recession for the next three years. Steady as she goes? Before you bank on it, read on.

In back-checking the prognostications of this highly qualified and largely homogeneous group, it seems these folks struggle to identify tipping points. For example, on the eve of recession in February 2000 they actually raised their estimate of real GDP growth for the year from 3.1% to 3.8%. Seven years later, in the fourth quarter of 2007, at what turned out to be the end of the 73-month expansion and the beginning of the Great Recession, essentially the same prognosticators had revised their growth expectations down modestly for 2008, although they remained confident about the big picture, reducing the probability of negative growth from 5% to 3%. Going back farther in the archives confirms that the problem is congenital.

The proximate causes for the fallibility of these experts in detecting when expansions roll over into contractions have several dimensions. Some of them are personal, inextricably linked to career risk. Even economists have mortgages and families. As John Maynard Keynes pointed out, if one who opines about the future wishes to remain employed, one must never be wrong ... *by oneself*. Following that strain of logic, since data are ubiquitous in the digital age, professional herding and groupthink are all too common—and therefore the collective forecast’s mean, median, and mode tend to be more tightly clustered than ever before.

Most importantly, the backward looking, structurally naïve models that economists employ are incapable of incorporating the “unknown unknowns,” risks that we don’t know that we don’t know, contingencies that we haven’t even considered. Flash back to March 2000 and December 2007. Forecasters’ models were not—by design, could not be—robust enough to embrace an indeterminate variety and magnitude of unknown unknowns. To be sure, there was a handful of iconoclasts<sup>5</sup> who were able to connect disparate dots in 2006 and 2007, but their warnings fell on deaf ears. Invariably the case in the court of the amorphous market’s opinion, right is invariably trumped by might. And when we look forward from today, the reality (about which we must not delude ourselves) is that forecasters have been unable to predict recessions more than a few months in advance ... yet not for lack of trying.

Our policymakers are flying blind and if we—as risk-averse, absolute-return investors—fall into lockstep with our peers we are certain to join them as all-too-witting victims in a loser’s game. Harking back to career risk, the irony is that we can only win individually if in the long run our clients win collectively. Otherwise, when months become years, the outcome will be mutually assured misery. The quarter-to-quarter performance battle is not so easy. Winning the war rests in large measure with the patience and understanding of the clients we serve. In pursuit of our mutual gain, we must leave the false security of the herd and reject Keynes’ admonition, “It is better to fail conventionally than to succeed unconventionally.” In the simplest of truisms, if we think and act like everyone else, we cannot expect to be above average. We have no choice but to take the lonely road less traveled.

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<sup>5</sup> Included among them are Michael Burry (featured in the movie “The Big Short”), well-known hedge fund managers Seth Klarman and John Paulson, and (for those who like to read the obscure) the author of *A Decade of Delusions*.

## The Equilibrium Delusion: The Business Cycle Is Changing

Not only have business cycles stumped the forecasters and those who blindly follow them, but over time they have been undergoing subtle but significant changes, exhibiting a false sense of stability that could ensnare even the wary. For the record, there have been 33 business cycles since data were first officially recorded in 1854. Interestingly, the 11 recessions in the post-World War II era have been getting shorter and the expansions longer. Statistically, the duration of recessions since WW II has fallen to 11.1 months, compared with an average of 17.5 months dating back to the mid-19th century. Similarly, postwar expansions have lengthened to 68.5 months, compared with 56.4 months for the entire 162-year span. Even more relevant, the postwar data are further skewed by the lengthy expansions and short recessions since the early 1980s, as listed below:

<u>Expansion (trough to peak)</u>	<u>Recession preceding expansion</u>
November 1982 to July 1990 (92 months)	8 months
March 1991 to March 2000 (109 months)	8 months
November 2001 to December 2007 (74 months)	18 months
June 2009 (ongoing—86 months through mid-July 2016)	

Could this expansion of the good times and truncation of the bad reveal the progressive mastery of the presumed science of economics? If that intuitively appealing hypothesis were so, how does one explain the paradox of the Great Recession? How could it possibly have happened at the then pinnacle of all accumulated knowledge about economics and finance?

Perhaps the explanation is not enlightenment but entrapment in an ultimately destructive feedback loop. The cycle about which we write originated in the early 1980s when non-financial U.S. debt, after decades of holding steady around 130% of GDP, began growing much faster. After plateauing in the 1990s around 180%, it jumped to 250% by Q2 of 2009. In spite of (or perhaps because of) ultra-low interest rates, the economy has been unable to grow itself out of the debt overhang because too much of the spending that debt financed has been for low “economic multiplier” consumption. Spending that does not enhance productivity has included corporate and household malinvestment, socially (and politically) motivated wealth transfers, the trillions of dollars squandered in military operations halfway around the world following 9/11. When debt finally reached alarming levels, the thought of incurring yet more fixed financial obligations—particularly for public and private capital spending for which the payoff would not be seen for years—was simply not politically palatable as public sentiment understandably, but antithetical to economic growth, shifted to austerity.

Central banks, harboring fears of 1930s-style, debt-induced deflation, have for eight years and counting been pushing on the proverbial string. Instead of stimulating consumption and investment spending, they find their managed economies struggling to reach liftoff velocity, while dreaded consumer-price deflation lurks like a thief in the night. As more monetary stimulus is added, the economic problems only seem to get worse. Not just that, but the consequences of reckless borrowing and the detachment of equity prices from underlying values looms like the sword of Damocles. Thus the negative feedback loop.

All the while the narrative has emphasized stability, and the markets have blithely followed. In economic terms, those who take a bite of this apple, whether through ignorance or denial, may be about to commit a monumental unforced error.

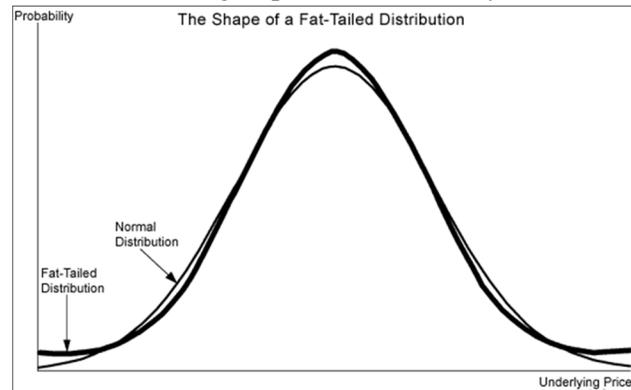
### **If You Don't Know the Difference Between Normal Distributions and Power Laws ...**

The plot thickens. Homilies like “What goes up must come down,” “Pride goeth before a fall,” and “From shirtsleeves to shirtsleeves in three generations” are all rooted in the concept of mean reversion within a

probability framework that has long been the standard by which variability has been observed, measured, and accepted—the universal “normal distribution.” Likewise, equilibrium thinking in economics and finance has persisted, if for no other reason than sheer intellectual momentum.

The Bell curve, which works splendidly for predicting the outcome of coin tosses and height and weight dispersions, is woefully ill-suited for explaining what might lie ahead. Under the laws of normal distributions, there are no men 12 feet tall.

Nonlinear outcomes, those exponentially greater than the apparent precipitating causes, are a great threat to financial and economic stability. Having even a crude understanding of power laws, as they are known, particularly in the area of fat tails, is critically important for effective risk management, for appreciating the potential magnitude of rare market upheavals. Power-law statistics mean that extreme fat tails are not so rare, and they matter most—precisely due to their exponential impact (see chart at right). The modern financial system seems almost designed for systemic trouble because it continues to rely on VaR (value at risk), carrying the antiquated intellectual baggage of efficient markets and normal distributions into the world of risk management.



We return to stability’s nemesis: debt. Without historical precedent in this world of increasingly managed economies (and likely a product of it), the cathartic deleveraging that typically follows credit booms was never allowed to begin, let alone run its course.<sup>6</sup> Instead, much of the ongoing debt-financed spending has created bubbles of various sizes in equity, subprime debt, commercial real estate, collectibles, and other markets. The tendency toward acute disequilibrium, most recently manifested in 2008, will eventually burst the bubble of illusory stability. Moreover, these seemingly dissimilar markets are both tightly coupled and increasingly interdependent, made all the more vulnerable because of their mutual dependence on a financial system that itself is dangerously fragile.

As we have discussed in earlier writings, the man-made financial system has become alarmingly complex, and it is no doubt in a critical state. In such a delicate condition, the conventional use of the normal distribution to model variability and risk may not apply, as even the smallest of perturbations could be the cause of a disproportionately large market outcome. You may recall reading about the analogous delusional state of the mythical Thanksgiving turkey that was unaware that a year’s worth of fawning and fattening up was in preparation for a cataclysmic ending (at least from the turkey’s perspective) of which he was clueless until the moment of truth.<sup>7</sup>

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<sup>6</sup> Reinhart, Carmen M., & Rogoff, Kenneth. *This Time Is Different*. Princeton University Press. Rogoff and Reinhart’s research suggests that the marker for the end of the financial crisis would be a significant (often a complete) unwinding of the excess pre-crisis leverage. In the past, advanced countries have adopted heterodox strategies for dealing with high debt that has reached oppressive levels, including inflation, financial repression, and outright default.

<sup>7</sup> Martin, Frank. “How Not to Be a Thanksgiving Turkey.” *Martin Capital Management, LLC*. November 12, 2013. <https://www.mcmadvisors.com/wp-content/uploads/2016/07/How-Not-to-Be-a-Thanksgiving-Turkey.pdf>. (Please note, while Martin Capital Management, LLC is an affiliate of Hummingbird Partners, LLC, the two are separate entities.)

The compounding effect of overestimating the prescience of forecasters, misunderstanding the insidious root causes (and consequences) of ever-longer business cycles as though a positive development, the explosion in leverage that has resulted, and the irrelevant Bell curve as a risk-management tool could lead to a wealth-threatening combination of unforced errors. There's hope: Recognized ignorance is invariably preferable to deluded certainty.

In the meantime, lest we become sanguine about the likelihood of such events, power laws point to a regularity lying behind apparent randomness. In geophysics, we are all familiar with earthquake aftershocks but likely unaware of the seemingly insignificant tremors that often precede them. Like all major earthquakes, the 1929, 1987, and 2008 crashes were preceded by market rumblings. Although we have written on all three episodes, 2008 is particularly intriguing. Focusing our attention on the equity markets, on August 6, 2007, beneath the market's serene exterior, a tremor was felt by quant funds, including Cliff Asness' AQR, Goldman Sachs' Global Alpha (which it closed in September 2011 after mounting losses), and Peter Muller's PDT.

Quickly 2008 threatened to become a cataclysm, with "All the leverage, all the trillions in derivatives and hedge funds, the carry-trade cocktails and other quant esoterica were about to explode. Those close enough to the action could almost feel the fabric of the financial system turning apart."<sup>8</sup> The system didn't implode then, and more surprisingly, it survived the storied Bear Stearns meltdown on March 14, 2008, despite signs of impending disaster at Bear dating back to June 22, 2007, when two of its subprime mortgage funds failed. As one who studied the prospectuses, I was incredulous that Bear Stearns was able to keep the wolves from the door for another nine months. Perhaps most amazing of all was the surreal tranquility that existed for six months between Bear Stearns and the fall of Lehman.

Even today, as the S&P is about to broach the highs reached in May 2015, there are rumblings. After a quiescent four years following the 18% 10-day 2011 selloff ostensibly related to the U.S. sovereign debt downgrade and the flare-up of EU debt problems, the tremors began anew. On August 24, 2015, the Dow opened down 1,000 points, culminating a dramatic, five-day, 12% selloff. Greece had defaulted on IMF loans on June 30, and the Shanghai Composite had shed 38% of its value between June 12 and August 24. At that time, investors also were jittery about the Fed's impending ratcheting up of rates. Soon thereafter, slumping energy prices were the alleged culprit. From November 2015 highs, the market slid nearly 15% in a 20-day January/February 2016 double-bottomed selloff that marked the worst start to a market year ever. On June 24 the unnerving two-day 5% Brexit swoon ended abruptly as Pavlovian central banks responded on cue. (As of this writing, the S&P and Dow have made new all-time highs. Please read on ...)

### **Turning Away from the Laws of Economics to the Predictability of Human Nature**

In the heartwarming classic, *Silas Marner: The Weaver of Raveloe* (1861), novelist George Eliot (Mary Ann Evans), like so many other literary giants—Niccolò Machiavelli, Ralph Waldo Emerson, and Ayn Rand come immediately to mind—suffused profound insights about human nature into seemingly benign fictional narratives. Marner, at this point in the storyline, is a wrongly maligned, ostracized, and thus reclusive and miserly weaver subsisting on his love for his modest horde of gold during England's Industrial Revolution. He is lulled into complacency regarding the safety of his temporal treasure by the seemingly endless tedium and uneventfulness of his daily existence. That is, until the night he discovers to his profound shock and horror that his gold has been stolen.

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<sup>8</sup> Patterson, Scott. *The Quants: How a New Breed of Math Whizzes Conquered Wall Street and Nearly Destroyed It* (p. 210). The Crown Publishing Group.

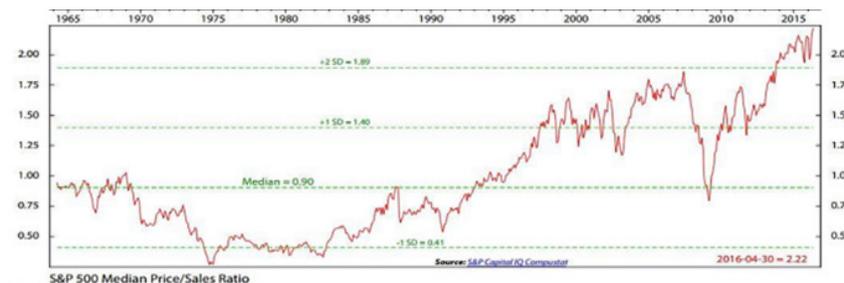
Fast-forwarding to today, perhaps a similar complacency has led to a progressive suspension of disbelief about risks to our figurative gold, brought on by the near record-setting and seemingly endless economic expansion and concurrent bull market? It might be helpful to reflect on the elegant logic behind Eliot's explanation of Marner's susceptibility.

The sense of security more frequently springs from habit than from conviction, and for this reason it often subsists after such a change in the conditions as might have been expected to suggest alarm. The lapse of time during which a given event has not happened is, in this logic of habit, constantly alleged as a reason why the event should never happen, even when the lapse of time is precisely the added condition which makes the event imminent.

### **Do Most Investors Know What Really Matters Most ... The Mother of All Unforced Errors?**

Despite the curious combination of the futility and yet popularity of forecasting as one of the several sources of unforced errors written about above, ignorance of the paramount importance of the price at which an asset is purchased or sold relative to an educated approximation of its intrinsic worth is what really matters most. Admittedly, the price/value relationship is increasingly overlooked as investment time horizons shrink and rates of turnover reach for the sky.<sup>9</sup> Let's face it, it's well-nigh useless in today's markets where stocks serve as little more than poker chips for betting on the next change in oil prices or Federal Reserve policy.

Among the several metrics used to judge the relationship between price and value, the ratio of the total market cap of U.S. equities to GDP is perhaps the broadest and most easily understood. Since the S&P 500 is our benchmark—and represents over 75% of the total market value of U.S. equities—we will use it as a closer-to-home proxy. By using price-to-sales rather than price-to-earnings (operating, pretax, or net), no weight is given to profit-margin expansion or contraction; financial engineering, such as stock repurchases; or, most controversially, the post-2008 swoon in market interest rates and their effect on the rate at which estimated future cash flows are discounted.



Source: S&P Capital IQ Compustat

As for the exclusions, margins have been mean-reverting throughout recorded financial history, and we have heard no compelling arguments to suggest otherwise in the future. We view the surge in financial engineering more as an ominous symptom of troubled times than any new or novel breakthrough in financial thinking. Finally, we'll get the most pushback for not factoring record low interest rates into the equation. We believe they are in no small measure a byproduct of a very weak and uncertain economic outlook that legitimately raises questions about both quality and quantity of future cash flows.

<sup>9</sup> Bogle, John C. *The Clash of the Cultures: Investment vs. Speculation*. John Wiley and Sons. "When I entered this business in 1951, right out of college, annual turnover of U.S. stocks was about 15 percent. Over the next 15 years, turnover averaged about 35 percent. By the late 1990s, it had gradually increased to the 100 percent range, and hit 150 percent in 2005. In 2008 stock turnover soared to a remarkable level of 280%, declining modestly to 250% in 2011."

No matter what reputable valuation metric one chooses—whether Tobin’s Q, the ratio of the total market of U.S. equities to corporate net worth, or Bob Shiller’s CAPE (cyclically adjusted price-earnings ratio), the message is the same. In the aggregate, the S&P 500 is very expensive and, as we will willingly acknowledge, can remain so for an uncomfortably long time.

But we can also unequivocally state that following every other secular bull market since 1900 when the market was as expensive as today’s, *real compounded annual returns, including dividends*, sank to 3% or less by the time the subsequent market trough was reached. Although rarely mentioned by other long-view investors, it is the psychological trauma that is the undoing of most investors during agonizingly long bear markets—for which the six months between September 15, 2008, and March 19, 2009, hardly qualify—when prices seem inexorably to recede with no end in sight, in a pattern of one step forward, two steps back. Hope soon fades to despair, and during vicious selling episodes it morphs to fear. Finally, it all ends in capitulation for many.

This is a sad story—the mother of all unforced errors—except for the investor who refuses to overpay or overstay. In this refusal to overpay, we value cash as more than an asset that currently yields zero. In fact, it is those very low interest rates and the low expected returns from equities that make the opportunity cost of holding cash incredibly low. Cash effectively becomes a valuable call option on any asset with no expiration date and no strike price. Embracing the aphorism, “One man’s trash is another man’s treasure,” the value investor’s unwavering exercise of patience and rationality engenders a temperament of imperturbability—often the trait that makes the difference. To be sure, there are pricing anomalies even in rich markets. They’re just harder to find.

Someday investors can once again do well picking stocks by simply throwing darts at the *Wall Street Journal*. Someday index funds will make more sense for the passive, buy-and-hold investor than they do today. Ironically, but most assuredly, when that figurative “day” of despondency and disillusionment comes, the unseasoned investor’s temperament will be anything but imperturbable. Low unforced error investing is “simple but not easy...”

Very truly yours,

Frank K. Martin, CFA

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