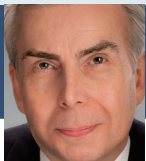


Integrity in Investing: Seeing and Believing in Investment Planning



Paul Byron Hill, MBA MSFS MFP
Certified Financial Planner™ ©2014



PROFESSIONAL
FINANCIAL

Consultative Wealth Management

"I don't try to be clever at all. The idea that I could see what no one else can is an illusion."

– Daniel H. Kahneman, Nobel Laureate behavioral economist

This is part of a series exploring integrity for informed investment management decisions

Key takeaways:

- Most investors don't see what is really happening when distracted by investment performance.
- Investors make uninformed decisions due to their overconfidence in their belief in what they see.
- Investors' inability to see clearly leads to costly mistakes due to uninformed decision-making.
- Use of higher research standards for investment policy reduces risk of uninformed decisions

Is seeing believing or is believing seeing? Even an audience attentively observing actions right before their eyes can be easily deceived, as the card tricks of a professional magician at our September Symposium demonstrated many times. A clever magician's sleight of hand with card tricks is delightful illusion. But some deceptions are dangerous.

A once-classified C.I.A. manual of trickery, *The Art of Deception*, written by magician John Mulholland at a particularly hot point of the Cold War era,¹ reprinted from a lone surviving copy, was at a spy exhibit I visited. One memorable deception inserts a poison pill into the beverage of an enemy target who sits directly opposite at a small table—the trick's magic depends on adroit execution and exploitation of a simple human weakness.



Often the "magic" of illusions is based on how people "see." Magicians know that human beings can focus on only one action

at a time. Further, bright objects are especially attention-getting and distracting. Back in the 1950s casual cigarette smoking was a popular pastime. So at the cafe table after beverages were served, as the target relaxed, our spy would casually offer the target a cigarette in the course of conversation. Then, politely offering to light the target's cigarette at the right opportunity, he would ignite a match. Bending over the table with the flame to light the cigarette served to focus the target, and the pill would "invisibly" drop into the cup! The target could not "see" a practiced sleight of hand right in front of him while fixated on the brightness.

How does this illusion apply to investors? In the investing world, performance numbers—the bigger, the better—is the bright light, shamelessly hyped by financial media in articles glamorizing funds and managers and countless glossy advertisements in between. Millions

1. H. Keith Melton and Robert Wallace, *The Official C.I.A. Manual of Trickery and Deception* (Harper-Collins) 2009.



of investors, attracted like moths to a candle brightly burning in the night, likewise become fixated on high-performing stocks, ETFs, mutual funds or hedge funds to meet investing goals or avoid saving more. Dreary details about the pill of risk, when disclosed, use almost unreadable small print.

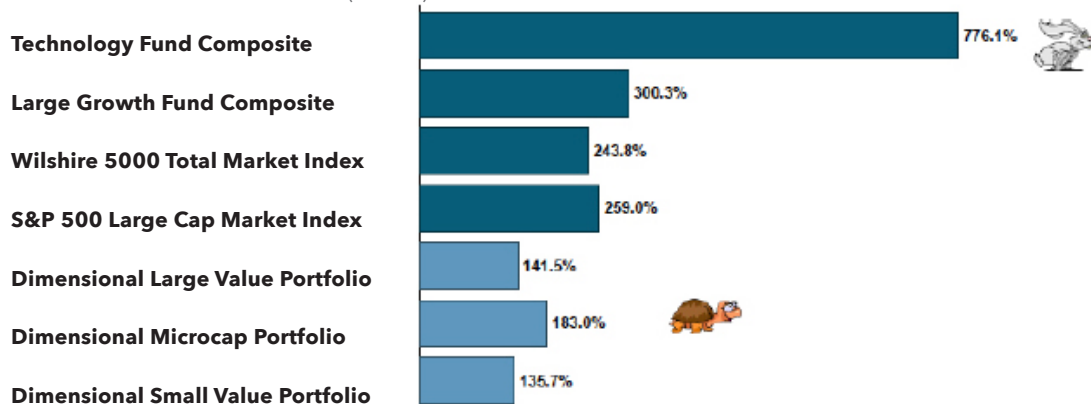
How Investors Believe What They See

The illusion needed for effective magical performance is all about seeing what you really want to believe. Only yesterday yet another tedious email eluded my spam filter with a webinar invitation: “Beyond Alpha: Avoiding the Downside, Participating in the Upside.” Yes, that’s what I want, you may say to yourself! The email promo continued: “Tactically allocating a portfolio to asset classes with the best expected risk-return . . . [through] a dynamic, fundamentals-based regression model that produces a six-month expected return forecast for major asset classes . . . , *an approach that has fared well this year.*” [*italics mine*] Wow, here’s the next winner, you think to yourself.

Investing magic seeks to achieve return without risk. Indeed, academic and industry researchers continually data mine in search of undiscovered sources of returns for publication or profit.² Using gigantic computer databases, new correlations between variables such as political events or behaviors of specific markets are readily identified. But is the effect related to the return persistent across different time periods? Is it pervasive across several markets? Can it be captured cost-effectively? And even if those tests are met, does it make sense for investing outcomes? A new generation of investors with limited memory of past events read the glossy advertisements and articles about winning managers or funds (who advertises failures?). Through many repetitions of a simple seductive message—investing is an easy way to riches—investors gradually believe the media messages they see. A typical fantasy of advertised “total returns” uses calculations that assume an investor invested *all* his/her money from the beginning of a cycle, never adding or deducting anything. Fixated upon those brightly illuminated returns someone else got, many investors drink deeply from the cup of risk, and make costly mistakes seen only with the benefit of hindsight.

Exhibit 1: HARE & TORTOISE US ASSET CLASS RETURNS IN “NEW ERA” ECONOMY

January 1995 – March 2000
Cumulative Returns (USD %)



Source: Mutual fund universe statistical data (including any Dimensional fund returns) and non-Dimensional money managers' fund data provided by Morningstar, Inc. Dimensional Index data is compiled by Dimensional Fund Advisors LLC from Center for Research in Stock Prices (University of Chicago) and Compustat databases.

Adapted from an earlier concept by TAM Asset Management. All indices and funds are for U. S. equities only.

Past performance is not a guarantee of future results, and there is always a risk that an investor may lose money regardless how long they may be invested. Indices are not available for direct investment, therefore their performance does not reflect the expenses associated with the management of an actual portfolio. Performance does not represent the impact that economic and market factors may have had on client or advisor decision-making if money was actually managed during that period.

2. Or both. Remember Wharton professor Jeremy Siegel and his “Noisy Market Hypothesis” in 2006 leading to the “advent of fundamental indexation?” WisdomTree funds he devised are still around, but proved no advance over Fama-French factors.



A history of “good” past performance for others doesn’t necessarily mean good future outcomes for you; likewise, what seems like an experience of relatively poor returns may not mean poor future outcomes with an informed strategy and a planned process. These are important lessons from the past for each generation of newer investors to relearn and for older investors to remember in volatile markets after three years of almost record relative stability.

Exhibit 1 shows, with egregious data mining, the astonishing brightness of “New Era” growth market returns through much of the 1990s. Millions became investors back in those of a “New Economy” technology revolution. Broadly diversified investors in the US stock market beginning in 1995 could have earned returns of 300 percent or more; investors who concentrated in technology and internet shares doubled those returns. A few day traders using what were innovative internet brokerage platforms become millionaires—and developed a legion of imitators.

The illusion behind *Exhibit 1* is its pretension that “New Era” investors had *all* their money invested from the beginning. That implication is deceptive. Most missed the earliest gain, investing only after learning about rich gains from high-growth tech stocks long after the boom had begun. Few prescient investors speculated all their money back in 1995. Each new generation

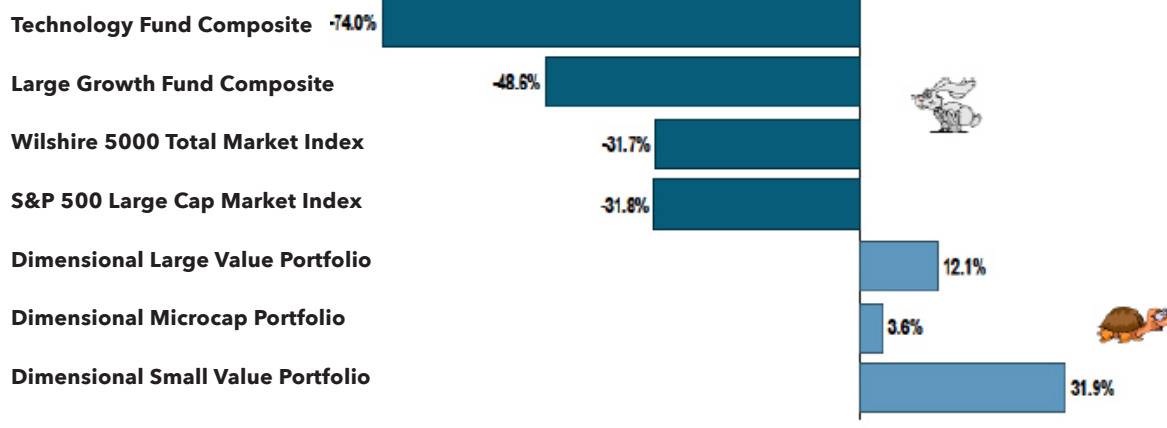
of investors, absent a painful memory of mistakes, develops an illusory belief—aided and abetted by a pandering financial media and friends bragging about their winnings—that the stock market is a magical money making machine if you have special knowledge of traders, trading or techniques.

Exhibit 2 shows a “Bad Era” of investing that cyclically followed the New Era. A scared tech hare has turned around and is running fast in the wrong direction. Investors scrambled for a chair after the music stopped playing. Speculators cashed out as the market kept declining to wait out the crisis and wait for a “safer time” to invest. From mid-2000 through 2003 US large company, growth and tech stocks plunged 30 percent to 70 percent. For leveraged and concentrated investors, losses often were far greater.

In striking contrast to jumpy growth asset classes returns is the tortoise-like performance of US Large Value, US Small Cap and US Small Value asset class portfolios. In *Exhibit 1* cumulative value and size asset class returns of 135 percent to 180 percent substantially exceeded target asset returns investors had expected when they planned in 1995. But few investors were informed enough to have an investment policy that defined a successful outcome. Undisciplined investors without an informed investment policy simply follow popular opinion. They tend to adopt relative benchmarks: High performance of growth

Exhibit 2: HARE & TORTOISE US ASSET CLASS RETURNS IN “BAD ERA” CORRECTION

April 2000 - June 2003
Cumulative Returns (USD %)



Source: See Exhibit 1.



and tech asset classes during the New Era economy made lesser results by value and size asset classes seem to underperform. For readers of the financial media, those returns came too slowly. But as *Exhibit 2* shows, growth and tech investment held no special magic. Those high early returns concealed enormous hidden risks. Economics teaches that, in some way, risk and return are related. Investors chased an illusion of high returns. While the value and size equities suffered from market volatility, gains and results for the period cumulatively positive. A tortoise approach to long-term planning proved a smarter decision.

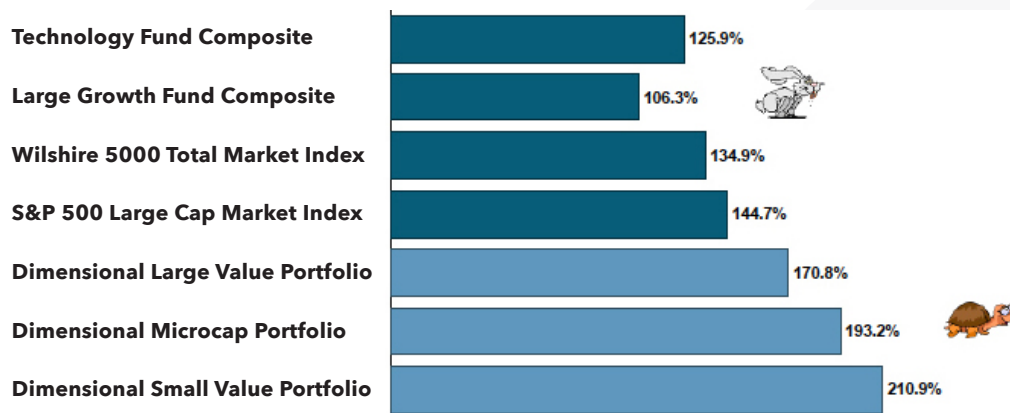
But that's not the end of our hare and tortoise story. *Exhibit 3* exposes the illusion of racing for fast riches. We see instead how a slower, but disciplined approach to building wealth can avoid costly mistakes. Most of the sudden wealth from speculating in concentrated growth and tech stock strategies vanished—leaving no rabbit to pull out of any magician's hat. Only the earliest investors prospered, but for those who did, it more likely due to luck than predictive abilities. For example, a Harvard study found that from years 1995 through 2002 equity funds sold by brokerage firms earned a paltry 2.9 percent annualized asset-weighted return.³ By contrast, the most successful investors had an asset allocation discipline employing size and value dimensions of the capital markets for equity strategies. Investors systematically

dollar-cost-averaging new money throughout the boom and bust eras did well, like clients of Professional Financial who followed disciplined planning strategies. The great illusion and fatal conceit of get-rich-quick schemes is the pretense of knowledge by self-appointed experts.

Successful families must make smart decisions about money today and tomorrow. Wealth management involves wealth preservation, enhancement, transfer and protection. To achieve their important goals, successful families need confidence that outcomes can be planned reliably. In the current era of historically low interest rates, traditionally safe solutions such as bank CDs are not viable solutions for many. Instead, “alternative” investments, such as “structured notes,” are devised by big financial institutions to satisfy investors’ desire for high(er) returns. But beneath no (apparent) risk, it’s simply hype. This is no magic. Some clients using a “dimensional” multifactor approach have wondered if the former strong performance during the hare and tortoise period was illusory. Value and size asset class portfolios once again for an extended period have been relatively weaker compare to growth asset allocations. Why should investors be confident in the future outcome of dimensional multifactor strategies?

Exhibit 3: HARE & TORTOISE US ASSET CLASS RETURNS FOR “COMPLETE ERA” CYCLE

January 1995 – June 2003
Cumulative Returns (USD %)



Source: See Exhibit 1.

3. Daniel B. Bergstresser, John M. R. Chalmers and Peter Tufano, “Assessing the Costs and Benefits of Brokers in the Mutual Fund Industry” (January 2006). Available at SSRN: <http://ssrn.com/abstract=616981>



Documenting Dimensional Differences

We believe that the best way to capture market returns is by planning a strategy beginning with a portfolio holding the universe of investible stocks weighted by global market capitalization. By structuring portfolios around multiple dimensions of risk exposure identified by financial science, we may add expected returns over basic market returns. Different weightings of multifactor risk exposures drive variations of potential returns. Portfolio structures using transparent asset allocations in accounts clients' control, rather than relying on tactical shifts from forecasts of securities, markets or the economy associated with conventional portfolio management, allow us to plan client wealth-related strategies confidently using simple and elegant dimensional solutions.

Exhibit 4: DIMENSIONS POINT TO DIFFERENCES IN EXPECTED RETURNS

Academic research has identified these dimensions, which are well documented in markets around the world and across different time periods.



Diversification does not eliminate the risk of market loss.

1. Relative price as measured by the price-to-book ratio; value stocks are those with lower price-to-book ratios.
2. Profitability is a measure of current profitability, based on information from individual companies' income statements.

Theoretical and empirical research in finance over the past 60 years has significantly advanced our knowledge of financial markets. We now know that several variables are well-documented in the academic literature that can help us identify securities with higher expected returns in equity (stock) markets: *size*, *relative price* (value), and now *profitability* premiums, as well as *term* and *credit* premiums for the fixed income (bond) markets.

We consider a “dimension” to be a factor statistically “explaining” differences in return. A dimension is persistent and pervasive, and is consistent with an equilibrium view of investing. A dimension should be cost-effective to capture in well-diversified portfolios. These characteristics of a dimension compared to ordinary risk premiums of which hundreds of premiums have been found, give us confidence that we can expect return relations observed in the past to repeat sometime in the future. Moreover, portfolios designed with dimensional solutions must be robust—they should deliver reliable results over planning time horizons under a wide variety of market conditions.

A Higher Standard of Research

Researchers must exercise a great deal of caution when conducting, interpreting and applying empirical research. Over the past several decades, financial economists have uncovered many variables from regression analyses of ever-larger historical databases. These analyses appear to explain statistical differences in average returns for selectively identified asset classifications. As we mentioned, some of these findings come and go like fads, failing to hold up to strict scrutiny. Others prove to be resilient to extensive investigation and become seen as a dimension of returns.

What criteria should be applied to empirical research so we may have confidence in the published evidence? In academia, attention-catching results tend to get published. Fierce competition in a publish-or-perish environment can tempt researchers to overstate results. Results that support a hypothesis make it into academic papers (which might be revised after data analysis), while



results that may upset accepted thinking may be ignored or excluded.⁴ Considerable care needs to be taken in concluding predictive relationships truly exist between particular external indicators (variables) and aspects of market movements.

Potential hazards concluding there are predictive relationships where none likely exist were highlighted in a 2013 study by Robert Novy-Marx.⁵ Novy-Marx, a professor at the University of Rochester's Simon Business School, cleverly showed how using popular time series statistical analysis, anyone could draw credible-seeming links between segments of market performance and factors such as political leadership, the weather, sunspots, and even the alignment of the planets. "The market performs significantly better when Mars and Saturn are opposed," Novy-Marx writes. "Times when . . . their energies are polarized appear to be particularly propitious times to invest in the market." This is sheer nonsense, of course. While his math is complex, Novy-Marx's main point is that just because statistical relationships happen to appear in some regression studies do not mean they are reliable.

Put another way, statistical correlation does not necessarily mean causation. Just because your football team wins every time you wear your favorite red shirt to the game does not mean your wardrobe predicts the team's success. Dozens of theories about the predictability of market performance have been presented over the years. The "Super Bowl effect" and the "January effect" are two such examples. However, these effects did not pass the highest standards of research. Many correlations that rely on popular 95 percent statistical confidence levels for developing commercial investment products by financial service firms, are based on spurious data mining. Much of the time the number of independent observations is simply too small to draw strong inferences necessary to plan with confidence.

Identifying Dimensions of Expected Returns⁶

The conflicts of interest that impact even academic-quality research means that Dimensional Fund Advisors, Professional Financial's provider of multifactor investing solutions, must rigorously validate any research before theory is applied to practice for client strategies. Dimensional needs confidence that new research findings can be reliably applied to benefit clients' portfolios after taking into account established market premiums, market frictions, and market costs related to trading. As clients know, Dimensional holds empirical research to standards higher than academia, and far higher standards than any other financial services firm.

Asset pricing models used in financial economics, such as the Fama-French multifactor model, explain differences in average returns across portfolios and individual securities. Academic testing of any model produces anomalies, because no model can perfectly describe reality. But as the evidence is re-examined by researchers, one of three things occur: anomalies disappear, get explained away, or sink the asset pricing model that revealed them.

To be considered a dimension of expected return, a premium must be:

1. **Sensible**
2. **Persistent across time periods**
3. **Pervasive across markets**
4. **Robust to alternative specifications**
5. **Cost-effective to capture in well-diversified portfolios**

4. Sometimes groups with academic expertise becomes so inbred, that members only see what they want to see and ignore what may not correspond to accepted opinion. Consider opinions now about the place of fats in the human diet.

5. Robert Novy-Marx, "Pseudo-Predictability in Conditional Asset Pricing Tests," NBER Working Paper 18063 (2012). "Explaining Anomaly Performance with Politics, the Weather, Global Warming, Sunspots, and the Stars" was a presentation at Dimensional Funds Advisors Global Conference in Austin, TX, September 2014.

6. Adapted from Marlena Lee, "From Premium to Dimension: Raising the Bar of Research," Papers Library, Dimensional Fund Advisors (June 2013). Momentum may be a premium, but is not treated as a dimension. Patient trading can capture it.



Data mining is a major concern when looking for patterns in returns. “Sensible” means connecting financial theory to market data in a logical manner. We have more confidence in a model when patterns are persistent across time and pervasive across markets. Replicating results across many different sample periods, regions, and variable specifications is further protection. The multifactor research of Eugene Fama and Kenneth French in 1991 was based on evidence of U.S. stocks from 1963 to 1990. The results were questioned, and required out-of-sample tests. First, data was collected from 1926 to 1962 and examined. Second, independent data on the performance of stocks in developed countries and emerging markets around the world were collected and examined. Factor sensitivities were statistically consistent with original patterns observed in U.S. stocks. Further, recent data that continues to be collected from the times of those studies confirms the original factor observations by Fama and French.⁷

In addition to requiring a premium to be sensible, persistent, pervasive and robust for consideration as a new dimension of expected return, as with the profitability dimension, there are significant premium trade-offs. Premium interactions must be considered: adding additional premiums diminishes the marginal benefits of each. A premium might appear large when studied in isolation, but the incremental impact on the model may be small due to interaction with other premiums. For example, size and relative price premiums are not simply summed to find the new premium for a small value portfolio. The parsimonious multifactor set currently used explains the vast majority of expected return differences. A newly introduced premium, such as profitability, must improve expected returns after accounting for established premium interactions and added trading costs of capturing that premium.

Exhibit 4 above summarizes the four equity dimensions that meet the strict criteria: overall *market* (beta), company size (small cap/large cap), *relative price* (high/low), and *direct profitability* (high/low). Two dimensions summarize fixed income: *term* (maturity) and *credit spread* (quality). The dimensions we use are supported by basic valuation theory—theory implies the existence of expected return dimensions for price variables based on size, relative price, and expected cash flows.⁸ These dimensions appear in different time periods and in markets all around the world. Finally, they can be captured in multifactor portfolios with reasonable levels of turnover in a cost-effective manner.

The Gap Between Illusion and Reality in Returns

The strong performance of U.S. large growth stocks since the 2008-2009 Great Recession ended has disillusioned some investors accustomed to an extended period of high size and value dimension returns. We believe this is normal variance. Unprecedented government intervention through quantitative easing programs and forcing artificially low rates upon investors has produced many unintended consequences.⁹ The impact on the market’s asset classes is among them. It appears that investors once again are falling victim to a traditional fanciful story line based on selectively projecting favorably performing growth asset classes into the distant future. It’s simply another bright illusion that forgets about business cycles. A fundamental knowledge of financial economics informs us that in competitive capital markets, riskier companies must pay higher costs for borrowing capital. This means (eventually) higher expected returns for riskier companies, including those asset classes incorporating dimensions of size and value.

7. Eugene F. Fama and Kenneth French, “Multi-factor Explanations of Asset Pricing Anomalies,” *Journal of Finance* 51 (March 1996) and “Multifactor Portfolio Efficiency and Multifactor Asset Pricing,” *Journal of Financial and Quantitative Analysis* (December 1996).

8 Eugene F. Fama and Kenneth R. French, “Profitability, Investment, and Average Returns,” *Journal of Financial Economics* 82, No. 3 (2006): 491-518.

9. Nobel laureate Friedrich A. Hayek famously wrote *The Fatal Conceit* (1988) “to demonstrate to men how little they really know about anything. This ignorance has backfired, as it always does, bringing with it what economists call ‘unintended consequences.’” For too many macroeconomic models, trust placed in them by users is based on “the pretense of knowledge.”



Exhibit 5: U.S. EQUITY & FIXED RETURNS FROM DIMENSIONAL INDEXES

1967-1979 Johnson thru Carter Years
Total Returns for Period (USD %)

	U.S. Large Growth	U.S. Large Market	U.S. Large Value	U.S. Small Growth	U.S. Small Market	U.S. Small Value	1-Yr U.S. Treasury Bill
Early Growth Period 1/1967-12/1972							
Annualized	14.5%	10.1%	11.3%	10.9%	12.1%	14.1%	6.3%
Total Return	125.3%	78.3%	90.0%	85.9%	98.4%	120.8%	44.5%
Later Value Period 1/1973-12/1979							
Annualized	-4.8%	3.2%	11.0%	9.3%	12.2%	17.7%	7.1%
Total Return	-29.0%	24.9%	107.3%	86.1%	123.4%	212.4%	62.1%
Total Market Cycle 1/1967-12/1979							
Annualized	3.7%	6.4%	11.1%	10.0%	12.1%	16.0%	6.8%
Total Return	59.9%	122.8%	293.9%	246.1%	343.0%	589.7%	134.2%
Std Deviation	19.1%	15.2%	16.5%	28.2%	23.7%	24.7%	1.6%

Source: Mutual fund universe statistical data (including any Dimensional fund returns) and non-Dimensional money managers' fund data provided by Morningstar, Inc. Dimensional Index data is compiled by Dimensional Fund Advisors LLC from Center for Research in Stock Prices (University of Chicago) and Compustat databases. Annualized returns, USD.

Past performance is not a guarantee of future results, and there is always a risk that an investor may lose money regardless how long they may be invested. Indices are not available for direct investment, therefore their performance does not reflect the expenses associated with the management of an actual portfolio. Performance does not represent the impact that economic and market factors may have had on client or advisor decision-making if money was actually managed during that period.

Exhibit 5 considers two very economically turbulent periods in America with political and social change during 1967 through 1979.¹⁰ President Lyndon Johnson gave us a Great Society and a hot war during a long Cold War period. Inflation followed. His successor Richard Nixon ended the Vietnam War, but ending the gold standard and imposing price controls caused a major recession. Jerry Ford replaced a disgraced Nixon, and then Jimmy Carter gave us stagflation—slow economy, high unemployment and higher inflation. In the “Early Growth Period” from 1967 to 1972, US large growth stocks grew 125 percent compared with 90 percent for value stocks; small value stocks increased 121 percent. No index or dimensional mutual funds were available during most of that time.

The “Later Value Period” of 1973 to 1979 begins with the worst recession since the Great Depression, followed

by gas shortages, high unemployment, high inflation and more Cold War. Yet the large value index ignores the bad economy and out-performs the growth index by 136 percent over seven years; small value asset class is 126 percent higher than small growth asset classes. The total business cycle return outcome is that large value asset classes out-perform large growth asset classes by 234 percent, even with a six-year lead! Small asset class differences were even greater. The important lesson here is not only the folly of projecting six prior years of strong growth return far into the future, but that in theory disciplined investors—dimensional portfolios were not available then—could enjoy an asset allocation approach that may provide a reliable outcome even during prolonged poor economic growth. Indeed, the U.S. stock market itself did not provide a total return in excess of risk-free U.S. Treasury bills!

10. For attendees of a recent annual company event, this index information is derived from data found in Matrix Book 2014 published by Dimensional Fund Advisors. Readers are invited to create their own Matrix Book return series studies.



Exhibit 6: U.S. EQUITY & FIXED RETURNS FROM DIMENSIONAL INDEXES

1994-2005 Clinton and Bush Years
Total Returns for Period (USD %)

	U.S. Large Growth	U.S. Large Market	U.S. Large Value	U.S. Small Growth	U.S. Small Market	U.S. Small Value	1-Yr U.S. Treasury Bill
Early Growth Period 1/1994-12/1999							
Annualized	32.1%	23.6%	19.6%	15.3%	16.4%	16.2%	5.3%
Total Return	430.4%	255.8%	192.6%	134.9%	148.3%	145.7%	36.2%
Later Value Period 1/2000-12/2005							
Annualized	-15.7%	-1.1%	7.5%	-6.1%	8.8%	20.2%	3.7%
Total Return	-64.2%	-6.6%	54.1%	-31.5%	66.3%	201.9%	24.6%
Total Market Cycle 1/1994-12/2005							
Annualized	5.5%	10.5%	13.4%	4.0%	12.5%	18.2%	4.5%
Total Return	90.2%	232.3%	351.0%	60.9%	312.8%	641.7%	69.8%
Std Deviation	10.4%	12.2%	14.5%	7.6%	14.3%	20.2%	4.5%

Source: See Exhibit 5.

Exhibit 6 is our out-of-sample study for a period nearly two decades later, during the Clinton and Bush years from 1994 to 2005. Exhibits 1 through 3 earlier were part of this period. Both index and dimensional funds were available during this time. The 1990s “New Economy” from tech and internet innovations was a period of strong economic growth. The U.S. large growth index increased an astonishing 430 percent, or more than *twice the value index* during that time. Investors once again projected another era of investing for return without risk. In a troubled “Later Value” Period marked by recession, crisis, and war, the large value index out-performs large growth by 118 percent—and the large market index has no positive return, although for the period it out-performs T-bills. For the 12-year study, large value outperforms large growth by 261 percent small value betters small growth by 581 percent!

The key learning observation is that economic boom or bust may not negatively impact long-term planning strategy for all portfolio allocations—but certainly those with growth stock allocations. Securities prices incorporate investor expectations about riskiness of *future* earnings and growth. Prices are the market’s aggregate view of future expected cash flows divided by an implied

discount rate. The discount rate is a risk premium that investors demand to hold risky assets. When market prices fall, it can be due to lower expected cash flows, a higher discount rate, or their combination. While we can’t know how these influences will mix, *we do know that if lower prices are wholly due to lower expected cash flows, then expected returns are unaffected.* Alternatively, if lower prices are due to pessimistic investors applying a higher discount rate due to higher market risk aversion caused by poor economic or political conditions, *we can conclude that expected returns for the risky assets are higher.* Crisis for some can be opportunity for others.

Think back to worldwide market panic during the financial crisis by March 2009. U.S. equity asset classes had severely declined 40 percent to 60 percent. Many investors, fearful of extreme economic uncertainty, sold out of stocks and sought safety in government bond positions or cash. Due to intense risk aversion at the time, investors demanded higher equity risk premiums to hold onto existing positions or to add to equity allocations. As 2009 progressed, popular preferences about the economic situation and risk changed. Formerly depressed prices of risky equity assets rose substantially—U.S. asset classes from March 2009 to



September 2014 rebounded by 210 percent to as much as 350 percent—but only for those who remained invested in their equity positions all that time.

The Certainty Principle

Investors always face the risk that historical premiums seen in the past may not reappear in the future, or at least may not reappear for several years. That includes the higher expected returns from size and value dimensions that investors and clients of Professional Financial favorably experienced in the past. This is why investors must plan well-diversified asset allocation strategies with broad market exposure using an investment policy due to the possibility, however modest, that asset class premiums targeted through dimensional portfolio structures are not realized for extended periods of time, perhaps due to extreme domestic or international political or social turmoil.

A frequent complaint from investors who want flexibility or who won't maintain discipline—especially due to cashing out after big tech bust or financial crisis losses—is that “uncertainty” is what keeps them from making commitments. “I’ll stay in cash until the future becomes clearer,” they say. So will there ever be complete clarity?

Alternatively, some who remained invested and even continued to add money, enjoying large gains after a series of strong rallies over the past five years, now nervously eye media commentary about possible pullbacks due to economic turmoil here and abroad and say, “Maybe now I should begin selling and moving money to the sidelines.”

While the temptation for emotion-driven swings in stock and bond allocations based on pessimistic market and media commentary is understandable, forecasting usually is a mistake. By March 2009 equity markets around the world had declined more deeply than most had imagined. The Associated Press published an article discussing five signs the stock market had bottomed out and followed that up with five different signs that it hadn't.¹¹ The AP article's case for market recovery was convincing: trading volumes suddenly improved, the

Exhibit 7: MARKET PERFORMANCE: FINANCIAL CRISIS AND POST-CRISIS

Returns (USD %)

	11/2007- 2/2009	3/2009- 6/2014	11/2007- 6/2014	11/2007- 6/2014
	Cumulative	Cumulative	Cumulative	Average
US Large Cap Growth Index	-41.3%	201.0%	76.8%	8.2%
US Large Cap Index	-49.6%	199.0%	50.9%	6.4%
US Large Cap Value Index	-62.4%	266.2%	37.8%	6.1%
US Small Cap Index	-53.7%	285.1%	78.2%	9.5%
US Small Cap Value Index	-57.9%	352.8%	90.9%	11.0%
5-Year U.S. Treasury Notes	15.6%	20.2%	39.0%	4.2%
1-Month U.S. Treasury Bills	2.2%	0.3%	2.6%	0.3%

Source: Mutual fund universe statistical data and non-Dimensional money managers' fund data provided by Morningstar, Inc. Dimensional Index data compiled by Dimensional from Center for Research in Stock Prices (University of Chicago) and Compustat databases.

Past performance is not a guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect expenses associated with management of actual portfolios.

decline in the U.S. economy appeared to be slowing, banks were returning to profitability, commodity prices had bounced, and many retail investors had capitulated and gone to cash. But the same article made a strong case for continued declines: toxic assets still weighed on banks' balance sheets, economic signals were patchy, short-covering was driving rallies, the Madoff scandal had damaged investor confidence, and fear among investors was deep and widespread.

Of course, with benefit of hindsight we know that mid-March 2009 marked the bottom of the Great Recession's bear market. Over the intervening five years since, major equity indices have rebounded to all-time or multi-year highs. Exhibit 7 shows the cumulative performance of major indices during the bear market during November 2007 to February 2009, and then the cumulative performance of the subsequent recovery period. Substantial gains of 199 percent to 353 percent occurred in different US equity asset classes from the bottom. And while average returns from November 2007 to June 2014 may not seem impressive, emotional

11. “Five Signs the Stock Market Has Bottomed Out and Five Signs It Hasn't,” Associated Press, March 15, 2009.



pain was less for those who stayed invested—and even happiness for those who chose to rebalance equity positions or even add to their equity allocation during the crisis. Cumulative return for any equity class was better than risk-free U.S. T-bills or just holding cash.

But just as *Exhibits 5 and 6* showed us extended periods of market volatility and uncertainty, we have seen continued uncertainty during the past five years with slow economic recovery. In 2011, Europe was gripped by a sovereign debt crisis. Across the Atlantic, Washington has been hit by periodic brinksmanship over the US debt ceiling. In Asia, China has grappled with the transition from export-led to domestic-driven growth.

Surrounding all these events, market participants worldwide shared a broad range of opinions about what might happen and how possible scenarios might impact financial markets, and particularly impact their portfolios. The fact is, even professional managers with traditional active approaches with the best resources available struggle to consistently add value through analysis of macroeconomic events, or identifying mispriced securities. Surveys and studies of active fund-versus-index fund returns keep showing this. One advisory group tracked 68 “experts” with 6,582 market forecasts, and found that the average prediction had less accuracy than a coin flip!¹² History suggests that those looking for “certainty” before investing may have a very long wait. Indeed, that wait may not be worth it—if markets apply discount rates due to risk aversion, then by the time it is safe, there is no expected return.

Professional Financial takes very seriously its commitment to wealth management clients. We plan investment policy strategies targeting multiple dimensions of expected returns. We use high standards for empirical findings to provide us confidence that the asset allocation solutions we employ for asset allocation will positively enhance client outcomes. Still, we recognize that the strategies and solutions we select, however reliable the research and their construction, will not always work as we planned. But we are not disillusioned by short-term outcomes just because growth asset classes

performed better than size and value during the past five years. As our disclosures blandly state, “Past performance is not a guarantee of future results.” Nonetheless, we believe our strategies and solutions are sound for long-term planning and add value through wealth enhancement and wealth protection. Clients should be confident that positive planning outcomes don’t depend on only duplicating past performance.

Believing Can Be Seeing

For wealth management clients concerned about achieving their goals, making costly mistakes is not an option. The conundrum of traditional money management is that, due to conjectures and prognostications, illusion and reality get confused. Active managers claim to add value through tactical shifts of securities where thousands of others simultaneously make the same efforts. Selecting a money manager who can do what he claims presents an impossible challenge for the investor: First, the investor must be capable of identifying skillful managers *in advance with confidence*, and second, you must hope that a truly skillful manager doesn’t raise their fees to capture for themselves the value of their talent. Decade of research imply that any belief that you can do what others cannot is an illusion.

The greatest confidence for your success in achieving reliable outcomes is most likely planning structured diversified portfolios around dimensions of expected returns according to your needs, values and dreams. Since patterns of equity changes are unpredictable, clients should establish and maintain a portfolio structure targeted for consistent and continuous risk exposure to dimensional premiums based on their written investment policy strategy.

Our wealth management strategies are elegant and simple. Our philosophy of investing is grounded in an equilibrium view of markets. We accept the market price as a fair reflection of the collective opinions of millions of market participants. Financial markets are forward looking. They incorporate information into prices more quickly and efficiently than prognosticators can collect data, analyze it, and publicize it—economic data seldom

12. Rick Ferri, “Gurus Achieve An Astounding 47.4% Accuracy!” *Forbes* (January 23, 2014). CXO Advisory Group study.



Magician James Warren at the "September Symposium."

translates into decision-making leading to consistent out-performance. Market inefficiencies do occur, but they disappear due to intense market competition.

Rather than choose to endlessly speculate on forecasting stocks, markets or the economy, we apply strategies grounded in financial science that work with the market. Wealth management develops an individualized planning process for a client to routinely follow. Investment planning has a discipline defined by the asset allocation of the portfolio structure. Shares are sold to rebalance after a market run up an asset class; when equity shares fall in relation to the fixed income allocations, bonds are sold to buy more equity shares then selling at lower prices. *Systematically equities tend to be*

bought lower and sold higher. Dramatic market declines which occur periodically are not a crisis—they represent an important and often rare opportunity to add value to a portfolio based on client discipline.

Conclusion

"Seeing is believing" is a phrase used countless times in essays, novels and films since its first recorded use back in 1639. Literally it implies a personal visually informed witness of "physical evidence as convincing proof." Recalling a doubting St. Thomas's remark to those who claimed to see something outside anyone's previous experience, a literal interpretation led to a sophistry implying that only what has been personally seen can be accepted as fact. As many trial attorneys will attest, five witnesses to the same auto accident can "see" five different events. No one "saw" what really happened. Each time I watch Hercule Poirot or Miss Marple solve yet another Agatha Christie murder mystery, I realize once again how easily what I believe I see with my own eyes can deceive me.

Choosing to ignore the bright light of market or economic events upon your portfolio will help you avoid ill-informed decisions. It's an illusory conceit that you or anyone selling financial advice knows the future with confidence, much less with any certainty. But planning with a wealth management process using Dimensional solutions, you play from a deck with more than one ace up your sleeve.



Pictures from Professional Financial's 2014 client event, "September Symposium" may be found at [Walter Colley Images \(http://waltercolleyimages.smugmug.com/Professional-Financial/\)](http://waltercolleyimages.smugmug.com/Professional-Financial/).

Special guest, Professor Robert Novy-Mark of the Simon Business School, University of Rochester ►

If you are a successful professional, physician or retiree, contact us about our complimentary "Second Opinion Service." Our ebook, Selecting the Right Advisor, is available free upon request.

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