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Integrity in Investing: The Gap of Theory in Practice

Paul Byron Hill, Certified Financial Planner President, Professional Financial Strategies, Inc. ©2014

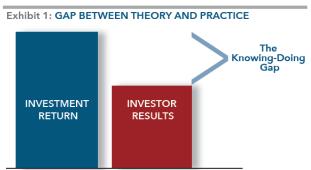
""In theory there is no difference between theory and practice. In practice, there is."—attributed to Yogi Berra

This is part a series exploring integrity for successful wealth management by informed investors.

Yogi Berra, the famous baseball philosopher, once quipped with characteristic malapropism, "If you don't know where you're going, you'll probably end up somewhere else." When we drive to somewhere we've never been, it's a good idea to bring along a road map. And go we must in this life: it's a one-way trip. That what professional financial planning truly is—a dynamic road map that can reliably guide you from point A to point B in your journey: potentially to a lifetime of financial security, success and peace of mind.

You need a road map for investing as well. Most who think about, say, retirement goals have only a foggy notion of what they need to accomplish, and even less of an idea how to achieve it. Starting out in life, few have learned much about saving and investing, much less about planning for getting from point A to B. And even those with some financial literacy are often stymied by the complexities and technicalities of planning and investing. Or they simply lack information. Developing a plan is difficult, so people tend to collect a few ideas from the media, internet or friends—and when those ideas don't work out, people either speculate in stocks or real estate, or just quit and go back to the status quo.

Financial security or simply achieving financial independence is a worthwhile goal. However, **financial planning goals must be taken seriously**. The rational approach is to learn about yourself, your alternatives, and what you want to accomplish, and then devise a sensible way to get from point A to B—a plan that you adjust regularly. And if that approach proves too time-consuming or complicated, then a rational investor, recognizing his limitations, would seek the guidance of a qualified professional advisor, such as a Certified Financial PlannerTM practitioner. But such ideal rationality in making informed decisions is rare.



Level of Investing Integrity

A frequently debunked assumption of the modern investing theory model is that "investors are rational." Of course, *no one* is completely rational. We need look no further back than the recent financial crisis in 2008-9 to see how irrational literally millions of investors can be! That crisis was a rare event unique in the lifetime of most investors, professional and otherwise—although not unique in history. Events seemed not only out of control, but entirely out of the investor's control in those unusually stressful conditions. Panic ensued briefly as prices in both stock and bond markets plunged. Many investors

suffered huge financial losses as they cashed out of hedge funds or "alternative" investments that neither they nor those who sold those popular products to them understood. Familiar stocks, bonds and mutual funds that were priced daily in the papers or the internet were sold at losses as fearful investors sought safety in government bonds. Investor losses frequently were compounded by a loss of jobs for those in over-leveraged companies. Losses worsened due to forced sales of over-leveraged real estate often leaving no equity. Then holding tightly to the remaining depleted wealth, many investors went to the sidelines awaiting a time of more "clarity," and while they were waiting (and some still are), missed out on one of the greatest market rallies in American history.

Investors too often are emotionally caught up in the daily news when making decisions, and become irrational. Second-guessing may be due to a pressing need for income by retirees or widows. Sometimes irrationality is simply uncontrollable impulse to "do something" in a crisis just to relieve current anxiety. Changing to new investments so you can chase their strong past results to avoid losses from the old, just as they may chase winning in good times when CDs and bond pay very little, is very tempting. However, Rule #1 for any investor is: Don't make mistakes.

THE GAP BETWEEN THEORY AND PRACTICE

In theory, investors know they should buy low and sell high. But in practice most often do the very opposite. People behave irrationally, but we prefer the concept "knowing-doing" gap. Wealth is eventually transferred from those without rational financial planning, without a rational investment theory, and without a rational portfolio structure, to those investors who do. Wealth is transferred from the renters of risk to the owners of risk.

Actually, "crisis" is an appropriate word for the average person's financial condition for most of human history. There have been far more fearful crises than the recent economic turmoil Americans endured. World War I saw centuries-old nations and economies destroyed, and death and misery for tens of millions of people. For all of recorded history and still today, most people face the grim prospect of survival daily—death from famine, pestilence, violence or war. Even many people in the US don't have stock portfolios or bank accounts to fall back on. Most Africans, Indians or Chinese have no government "safety net." Each day is a struggle—in the words of Thomas Hobbes: "nasty, brutish and short." Yet for most Americans classified as "poor", their life has choices unimaginable even to the rich even just 200 years ago. Crisis like poverty is relative, and a matter of perspective. But how we decide to respond to change is a choice.

No matter how elegant the theory, no matter how rigorous the analysis, bad things happen, and they happen randomly. Crises may occur due to the inscrutability of human nature (fear and greed), the unpredictability of human endeavors (war and elections) or the randomness of exogenous forces (hurricanes and earthquakes). But worst of all, we have a devilish sense of over-confidence—the hubris of just how rational we really are. There also are our unconscious assumptions that irrationally project recent events long into the future—especially about how we may behave when unexpected changes occur—whether it be our health, our job, our spouse, our children. Investor irrationality is due to overconfidence: people presume they know more about themselves, others, events, and of course investing than they really do. When unexpected events suddenly intrude upon their lives, people can behave more irrationally than even they could have imagined. Just ask any parent who ever raised teenagers.¹



Informed investors—at least those with integrity—are those who decide to make responsible choices. We define integrity as not only a strict moral or ethical code: it is the state of being sound, whole and complete—or what financial economists call "rational." Just because most investors can behave irrationally most times, it does not mean that investors cannot learn to make rational choices if they are informed. Many investors *are* well educated. They have access to qualified legal, accounting and financial advice. Yet many have

lost fortunes over the last 15 years from ill-advised managed account solutions, alternative investments, or hedge funds, that were, to some degree, confidence games with no economic substance, as we shall show.

Many times those who made such investments had sensible investment strategies, and were doing reasonably well for their goals, but by misinterpreting information, cashed out only to end up much worse off. The media plays havoc with emotions thanks to endless 24/7 "news." Formerly "long-term" investors fixate on current short-term events that capture their attention or that simply become too distressing (particularly related to falling portfolio accounts). They react irrationally, perhaps thinking "It's different this time," tending to abandon their road map and previous planning, and follow instead the madness of crowds with often disastrous consequences.ⁱⁱ

QUESTIONING THE THEORY

For academics, rationality is simply a fiction—a deliberate simplification of reality—to permit developing mathematical models, to test their theory and evaluate its variables to establish a degree of statistical confidence. An economic model is no more a reality than the wooden clipper ship poised on my office shelf. In a pre-computer age, elaborate wooden models were used by marine architects to construct enormous vessels that later circumnavigated the world. My Clipper model, the Flying Cloud, was a masterpiece of one of the foremost shipbuilders. Clippers acquired a reputation for traveling faster than any other sailing ship, breaking records never surpassed by similar ships. But even back then, technical innovation designed from new models eventually led to steamers. And just as clippers supplanted slower ships, these elegant vessels passed into memory and museums.

Yet the science of capital markets—especially the efficient market hypothesis—continues to be questioned and challenged by the financial industry and others. While some consider the occurrence of the recent financial crisis—or any surprising financial event—a challenge not only to financial institutions, but to the credibility of prominent Nobel Prize winning financial economists and their notions of markets rationality, that verdict is too simplistic. Granted, some of those same financial economists aided and abetted a crisis or two. But economists have

been questioning and refining its theories for decades. The problem has been that academia moved on, but Washington and Wall Street have not. Contributing to the recent crisis, we believe, was Wall Street's misguided application of the complex models of financial engineering as they promoted and oversold highly innovative products. Overconfidence in applying these academic ideas, always looking for a competitive selling edge into a highly crowded marketplace, so-called "financial engineers" pushed their models far beyond the limits of academic research. These models were often applied too confidently, many times on a massive scale for short-term gain and not long-term relationships. Confusion resulting from structured product innovation—from simple interest rate options to intricate credit-default swaps to collateralized debt obligations—worsens a crisis for many investors.

Yet, few in the financial industry have sufficient integrity to question the warning signs of a crisis. The career risk and rejection of peers or clients is too great. Huge investor losses caused some to raise doubts about any models based on economics. The extent to which politicians and bankers trust economists and apply their theories depends much more on what economists term an agency problem: career risk. Fixated upon winning the next election or making sales quotas, rational solutions are frequently ignored or discarded. Easier solutions are chosen.

No economic model, including the enormously influential efficient market theory for which Professor Eugene Fama of the University of Chicago was awarded a Nobel Prize (supported by 50 years of meticulous empirical research forming philosophical basis of every market index fund sold today, including the Vanguard's S&P 500 Index Fund, the largest of its kind) is literally true. Problems occur when practitioners or investors misunderstand a model or its underlying assumptions and its limitations when applying that model. In a CNN/Money interview about "The best advice I ever got," Fama described how the subject of finance was not yet an economic discipline when he first studied economics under the father of the notion of market rationality, Milton Friedman, ⁱⁱⁱ back in 1960.

Fama recalled the old professor of his first statistics class who taught him both an attitude and a philosophy, not only about statistics, but about the very discipline of learning. With formal statistics, you merely test a theory or hypothesis. Fama learned from his professor that the true goal "should be not whether you can reject or accept the hypothesis, but what you can learn from the data. The one thing you can do is use the data to enhance your description of the world. That has been the guiding light of my research. You should use the data to [better] understand. . . . No model is ever strictly true. The real criterion should be: Do I know more . . . when I'm finished than when I started?" Let us apply Fama's advice as a rational way to address the serious problem of investor overconfidence that leads to irrationality, to make more informed decisions for achieving your goals and dreams.

THE MAP IS NOT THE TERRITORY

Knowing what you need to do is very different from actually doing it. Let's call this distinction in rationality the "knowing-doing gap." Where does the knowing-doing gap come from? Consider how our public schools educated us. For the most part, teachers put forward facts and concepts that we study and memorize. We repeat these facts and concepts back to teachers during tests. If we pass these tests—especially if we do well—we think that we really "know" the subject matter. That makes us feel confident about our abilities. The better the college we attend, the more advanced our post-graduate education or our career, and the more confident we become. Still, we must accumulate a substantial information base of "facts" in our minds to have an adequate knowledge base.

However, conceptual learning frequently gives you a poor sense of how to actually *do* things, especially things that are unrelated to the original knowledge base of expertise you acquired. For example, you might decide to take a course or read a few books on constructing a website or learning woodworking. But concept-oriented books and seminars can at best only expand and redirect our thinking into new directions. Very few can move directly from what they learned intellectually and apply it into practical action, and then immediately do it well. And wisdom itself is derived from mastery of a task, after first making a few mistakes, done well, and then done well over and over again, many times until practice is perfected. A medical doctor can read everything published in medical journals and textbooks about heart surgery, but no hospital would ever trust him or her to operate on an emergency heart patient alone without first having completed years of residencies and fellowships preceding that operation.

Home remodeling example. If you have ever been involved in building or remodeling a home, you will know from the experience that there can be a big difference between your conception of the project's outcome and what happens as it is actually built. Most people do a poor job of estimating the final cost and the time it will take to complete. We think conceptually, but we must act in the real world—the real world often doesn't match up with our preconceptions. We don't know what we don't know unless we have been tested and measured the limits of what we do know. For investors with real money at risk with only a limited knowledge of financial history, the market can provide very expensive lessons. As Alfred Korzybski famously said, "The map is not the territory."

The knowing-doing distinction holds for nearly everything involving decision making. For example, you may have an abstract notion of how to travel by car from coast-to-coast on a nationwide vacation. But the dream of a lifetime might end up quite differently. The car could be involved in an interstate accident due to a storm, leaving you hospitalized for days or weeks. Or after losing your iPhone in the ocean after the dog grabbed it for a swim, and forgetting to bring all those AAA maps you collected, you arrive late at night in Los Angeles without a sense of direction. You miss a major turn and then make wrong turns—and end up aimlessly roaming unfamiliar streets, never finding the hotel you reserved that night. All the while, your traveling companion second guesses every turn.

The same thing can hold true for investing when planning to achieve major financial challenges such as retirement. Even if you know precisely your goal from that internet calculator you found, and think you know exactly how to get there, things often work out differently than expected. Like a construction project forcing a detour in a strange city, things randomly go wrong, making the trip take longer or turn out differently. How many times have my flights been cancelled in the Chicago airport? If you accept this likelihood upfront, and create a margin of safety for minor adjustments in the plan (start a day early if you must go through Chicago, or better yet, use a different airline with a different hub if you know from experience what to expect), you are much more likely to hold steadfast to your plan and not only succeed, but provide enough flexibility to still enjoy the trip when the unexpected happens.

QUESTIONING THE PRACTICE

Going back to investing, many successful families are concerned with the challenges of going from point A to point B. Investing for advisory clients is a means to an end. Wisdom tells us that long-term returns are the only ones that matter as clients move from point A to point B. The problem is that short-term events distract, confuse and mislead clients away from achieving their true long-term goals due to irrationality at work. Investors cease to be rational when their attention is misdirected from their planning goals to whatever market noise is occurring at the time. *Investing is long-term; speculation is short-term.* Money from individual investors, directly or indirectly, floods into investment vehicles after good news of winning performance of an asset class or by a new celebrity manager—and pours out even faster on the bad news of poor performance by a manager, a mutual fund or the market itself.

Popular stock-market myths are repeated as truths by securities salesmen and promoted daily on the internet. Foolish confidence in financial advisors, who are hyped by the financial media, selling fairy tales of high returns with low risk, is what allows mutual funds or portfolio managers or hedge fund managers to gather great bundles of money. That isn't a harmless fantasy. Perhaps the most pernicious is that investment advice is all about accurately forecasting the future. That is, "This is a good time to invest in the stock market," or "Our economists are forecasting" Yet study after study shows that reliable prognosticators don't exist in media or in managers. Investors are well known to chase performance, buying whatever news reports making the highest returns. Popular forecasting of the past into the future, commonly using information of investment past returns, creates costly decisions. Perversely, by seeking gains but trying to avoid risk, most investors don't even get bank-like returns."



Average stock and bond investor performances are from the annual DALBAR, Inc. study, Quantitative Analysis of Investor Behavior (QAIB), March 2013. QAIB calculates investor returns as the changes in assets after sales, redemptions and exchanges. This method captures realized and un realized capital gains, dividends, interest, trading costs. Sales charges, fees, expenses, and any other costs. After calculating investor returns, two percentages are calculated: cumulative, investor return and annualized investor return. DALBAR methodology is sensitive to its choice of period, and ignores institutional causes of fund flows such as shifts. Whether or not buy-and-hold investing has ever been a successful strategy in the past does not guarantee it will be a successful in the future.

The average investor, unfortunately, doesn't come close to earning market rates of return as their reward for the risk they take. *Exhibit* 2 is drawn from a well-known annual study of mutual fund investors. Over the past twenty years the typical equity fund investor earned only 52 percent of the what the US market offered just by buying and holding a position in something like the S&P 500 Index Fund; for fixed income it was much worse—just 16 percent of the aggregate bond market return, which could have been easily earned through a simple Vanguard bond index fund. Adding insult to injury, simply owning "risk-free" 1-month US Treasury Notes (about risk/return equivalents of bank CDs) would have returned 2.9% annualized for the same period.

Formal peer reviewed academic studies based on extensive research draw similar conclusions. A Harvard Business School study (the "BTC study") analyzed asset-weighted returns for 4000 mutual funds purchased or sold by individual investors or financial advisors from major brokerage firm data over seven years ending 2002. Their interesting conclusion: broker-sold mutual funds systematically underperformed investor-purchased "no-load" mutual funds, even ignoring fund sales commissions and "12b-1" marketing fees. Net of all fees except loads and redemptions costs, advisory-sold equity funds had only a 2.9 percent annualized asset-weighted return. By contrast, the average annual return of investor-purchased funds during the same period was higher at 6.6 percent! That is, investors working on their own did twice as well as brokers actively recommending their fund mixes. Returns for both, however, were still less than simply buying and holding index funds—just as Nobel laureate Bill Sharpe famously showed certainly must be the case simply based on higher arithmetic costs, several years before the BTC study. ix

RECOGNIZING THE KNOWING-DOING GAP IN EARLY PRACTICE

The University of Rochester's Simon Business School is considered one of the world's leading schools of finance. It is renowned for its strong quantitative research orientation using notions of capital market "efficiency" and "rational" participants seeking to maximize their wealth. By the time I completed my MBA in the late 1980s, Financial economics had grown from modest beginnings in the 1950s to a major field of economic study. Kenneth French, now professor at the Tuck Business School at Dartmouth, a close collaborator of Professor Fama of Chicago's Booth Business School, received his PhD at the UR. Professor Fama edits the Simon School's *Journal of Financial Economics*, directed toward asking "new questions or pose old questions in an innovative way to theories." I had seen an early version of Fama/French's 1993 landmark paper introducing the "Fama/French multifactor model" that since become a research standard in financial economics. Their analysis of the sources of investment returns reshaped earlier portfolio theory and greatly improved understanding of the factors that drive equity performance."

Back then, as then revolutionary economic theory and research emerged, business school professors in their pre-Simon days would sometimes take almost evangelical positions. "I can remember my professors yelling, 'The price is right!'" recalls Professor French, "It was like a bad game show." Orthodoxy had weakened by the time I arrived on the scene, but economic doctrine was loud and clear for lowly graduate students like myself. Xiii

Fast forward 15 years after graduation. For the past decade I had successfully designed and managed client portfolios working almost exclusively with Dimensional Fund Advisors, a firm that both Fama and French were closely associated. One day I noticed that a popular Simon professor was conducting annual talks at the local Financial Planning Association (FPA) chapter. His talks always focused on market forecasts. For a Simon professor to let advisors believe that forecasting was practical seemed somehow akin to a Catholic bishop condoning sin. Eventually I attended a talk and sat at the professor's table where he could see me. Seated right next to him was his *broker* and other advisors eagerly awaiting his pearls of wisdom. He recognized me, and became irritated. He remarked about my website, and knew about my Dimensional approach. He gave an entertaining talk that day, but no market predictions. In fact, the audience complained about the professor's failure to forecast for them. That turned out to be the last time my former professor ever spoke to our local FPA group on any topic.

It still surprises me looking back over 25 years, that no other Simon MBA that I know of works with a Dimensional-associated investment advisory or wealth management firm. After completing the requisite Simon finance and investment courses, and learning all the best investment theory, for MBAs choosing to go into the financial services industry, they headed off to Goldman Sachs or UBS and promptly forgot the implications and applications of whatever theoretical knowledge they learned in those years. The big money, of course, is inventing profitable products to sell for the benefit of their employers. What is profitable for Wall Street is not so for investors, as I saw over and over again in the field. Unlike CFP professionals who are expected to abide by a strict Code of Ethics, the cultural values of Wall Street firms extend to investors only within the letter of the law, which says nothing about making products profitable for investors. I rather think that like most financial salespeople with typical agency conflicts, that income maximizing choices were rationalized. Rather than take the easy path and compromise my integrity with values I could not accept or promote products I would not buy myself, I redefined an investing process, and over two decades reinvented an entire wealth management approach and a new type of firm to better help those who put their trust in me.

THE DILEMMA OF OVERCONFIDENCE

The scientific economic narrative for investing taught at Simon and similar business schools implies:

- A role for a positive relation between risk and expected return,
- But, there is little relation between past and future performance.
- Diversification is important because only systematic risk is rewarded.
- Keep costs—trading, market impact, legal and tax—low.

While too much can be read into financial models as we showed, more often too little is read into them. The "investor's narrative," as we recall Nobel laureate Professor Kahneman from elsewhere in this series ^{xiii}, is repeated and reinforced by the media and too often, well-meaning friends and smart colleagues is that:

- Hard work and talent leads to success ("beating the market")
- Hot securities (or managers or sectors) go up
- "Anyone can win at the investing game."

Overconfidence, as defined by Professor Kahneman, is "neither the quantity not the quality of the evidence counts for much in subjective confidence. The confidence that individuals have in their beliefs depends mostly on the quality of the story they can tell about what they see, even if they see little." American culture so fixated on protecting self-esteem (so much so that often every child gets a trophy and everyone passes) is that most believe they are above average. No one tells them otherwise. That belief is pervasive, not only with professors and MBAs, but more often than not, with most who invest having little actual knowledge of investing theory, history or skills.

Many investors, including our Simon professor and most financial advisors, think that market signals—Fed pronouncements, company earnings releases, political remarks—are more valuable for decision-making than they really are. Professor Terrance Odean, an authority in the field known a behavioral economics, found that almost all securities market traders (excluding index-style managers) believe they are above average in their stock selection skills, often possessing over-sized egos to support that belief.** "Trading is Hazardous to Your Wealth," Odean and his colleague Brad Barber found in a related paper.** Yet for every investor (or every advisor) to be above average is mathematically impossible. Overconfidence may be an occupational hazard for traders with strong positive investing results, especially for any investor with strong positive results early in their investing career. The narrative becomes, "I succeeded, therefore I must be skilled" is a conclusion Gervais and Odean found in their paper "Learning to be Overconfident." Perversely, they showed because successful people over-attributed their success to skill and rejected the possibility of luck randomly improving their outcome, they were more likely to simply blame others or bad luck when actual poor results did not support the high opinions they had about themselves.

Overconfidence is not limited to ordinary investors and Wall Street traders. Economics professors are not immune. Yale economist Irving Fisher lost a fortune during the Great Depression by his over-confident belief when he famously asserted in 1929 that stocks had reached "a permanently high plateau." Griffin and Tversky (1992) found that economic "experts who have rich models of the system in question are more likely to exhibit overconfidence. . . "xix" Economists in major business schools today certainly have ability, and but become progressively over-confident with the success of their economic models. However study after study shows that the ability of economist to predict any number of important market indications, like the S&P 500, is consistently poor.

The problem is the potential enormous moral hazard of asymmetric risk: relatively little of an expert's money is actually at risk as more and more leverage is acquired. The issue, just as for Wall Street wire houses, is the classic agency problem: if the investors don't stick around with their money in the short-term, the long-term does not matter for the trader/advisor. The most famous example of professorial overconfidence was Long-Term Capital Management (LTCM), a massive hedge fund that blew up in 1998. Some of the finest minds on Wall Street and in academia (including Nobel Prize winners Professors Myron Scholes and Robert Merton) were behind it. **x*

LTCM followed a strategy that believed the market was underpricing illiquid assets and overpricing liquid ones, using billions of cheaply borrowed money with the highest leverage. The models of many structured products are indeed very good. Certainly the vast majority of derivative contracts and securitizations have performed exactly as their models predicted—at least most of the time. But certain assumptions of reality, and certain applications of the models are potentially toxic when outcomes don't follow Gaussian bell curves. For LTCM, a "black swan" rare event with Russian debt proved disastrous. Markets in the US and around the world declined sharply, causing massive investor losses due to liquidity issue from the impact of the implosion, forcing governmental intervention worldwide. Recalling the recent panic, Alan Greenspan admitted in his book he discovered "his model was wrong."

INVESTING LESSONS FROM EARLY IN MY CAREER

Perhaps why my future in the financial services industry differed from my Simon classmates was due to my early working life. I actually began my career in financial services shortly out of college selling insurance to families. After working in a couple supervisory management positions in the same field, I was tired of product-selling, commission-based advice. All too often the problem was that of a hammer in search of a nail—and rewards went all too often for those hitting the most thumbtacks. What I really wanted was not to focus on one aspect of a families' financial needs, but address their complete picture, and do it in a way that addressed the most important needs first in the most cost-effective way. It was to be a revolutionary new approach: selling advice as "financial planning."

I duly registered as an investment advisor. Looking back, I understand the importance of the warning on the RIA's disclosure brochure, "References herein to Advisor as a "registered investment adviser" or any reference to being "registered" does not imply a certain level of skill or training" is ignored at the potential client's risk. Fortunately for my clients, I was more cautious that most offering financial services. Having completed my study as a Certified Financial Planner and Chartered Financial Consultant before venturing out, I considered myself like a fiduciary. But my partner, who never acquired any additional formal education or advanced training, and depended on me for that expertise, focused on selling. Given that most of our compensation back then was from commissions (fee-only planners were virtually non-existent for another decade), we had disagreements. While I made a few mistakes back then, my practice was relatively small, and so their impact for the clients was small. And I stuck around to fix the problems whenever I could.

Still, even though I was sincere, did the best I could, and wanted to do the right thing, getting reliable investment results was difficult. My approach at the time—focusing on selling individual products as part of the planning and getting paid commissions, even with the ability to make independent recommendations—conflicted with helping clients make the right choices. Due to my desire to be a true professional and at the leading edge of an emerging profession (if only I had enough knowledge!), many nights of my insurance years were spend completing the Certified Financial Planner and a Chartered Financial Consultant programs. I was the first to have both. Of course my studies covered all the basics of investing including the new notions of Modern Portfolio Theory (as it was applied then). Yet, despite my previous experience in learning (including the University of Rochester with honors), it was mostly intellectual abstractions at first. I had little money to invest myself! Effectively applying that intellectual content to the real world with real people with real money was something my education did not cover.

For example, an early advisory relationship was with a widow who had a fairly substantial amount saved, or so it seemed to me at the time. My partner decided that a certain mutual fund market timing program was an ideal way to manage the money. He used the company's brochures to prove to me and his potential client the great benefits of this technique over the past twenty years. We could even select the mutual funds for the program. I expressed severe doubts based on what I learned from the CFP textbook. We were taught market timing should be avoided. But all I had was intellectual knowledge. I lacked a coherent economic philosophy and understanding. Since my partner was friends with the widow, his opinion prevailed. Two years later, markets had risen nearly forty percent. The client's account had earned almost nothing. Because of my partner's sincerity, the client forgave us, and continued working as a client. But her plan had been damaged. It was a wake-up call for me, and my first, but not my last, experience in those internship years with what behavioral economists now term "overconfidence."

THE DIFFERENCE BETWEEN INFORMATION AND KNOWLEDGE

I did my best to follow professional standards of care when designing and allocating investment portfolios back in those early days. We mostly used mutual funds, and further diversified by asset allocation. I was among the first to use "Morningstar" as well as other research services. Of course, market timing in any form was never done again, but investment outcomes from our mutual fund selections often disappointed. That was apparent to me because I did something still rarely done by financial advisors—I tracked client portfolios over time. Even when portfolios did reasonably well, certain clients raised questioned them based on what they read in new financial magazines that appeared, like Money. After insisting on making a change, as so often would happen, the new fund we exchanged into did worse than the old fund would have done by staying put! We actually had one doctor who became a highly reliable indicator for doing the very opposite for my other clients. Because the doctor watched the markets and his portfolio so closely, he invariable make the wrong decision. xxii Eventually he left, of course. And there were a few investments made for client related to real estate and real estate partnerships, so popular at the time, that I prefer to forget today. While I over-emphasize my mistakes, my personal integrity was challenged. If I couldn't really help my clients, I concluded that I should leave personal planning and look for a position in management, even if it meant moving out of Rochester which had become my home. It took about three years to recognize that simply having knowledge was not the same as knowing how to do the right actions with it: I had a true "knowing-doing" gap.

While I prefer people to believe there was straight path direct from my modest financial service industry beginnings to the elite wealth management firm we have today, there was no such thing. It was more like the old heat-seeking missiles used to shoot and destroy enemy aircraft: when launched it is directed toward its target, but the missile invariably drift away. The missile would miss it target, but corrects its path after sensing the lack of heat from jet engines. I may have learned what not to do for investing, but knowing what not to do along does not create confidence for a successful financial experience going from Point A to B. So intending to quit the advisory business altogether, and get an inside job where I at least could do no harm, I was lucky and got accepted at the Simon School. But what I learned in finance, statistics, investing, and management over the course of the next two years transformed my understanding not only of investing, but managing the entire client relationship to create successful outcomes.

While I continued my practice with a few remaining clients during those studies, for a while I maintained the conventional investing opinions. Belief perseverance, that is, difficulty in interpreting new evidence that contradicts settled opinions is a challenge for anyone. Being forced to attend classes daily, week after week, I began thinking outside of the traditional investing box. I thought about what I was taught and how it could apply to old practical problems I encountered—those my classmates never experienced. I went back to old files, and reviewed them to understand what went wrong. By graduation, I not only had my understanding of management theory and practice transformed, but technology had continued to change the world through cheaper and powerful computers. I decided to return to personal financial services, and after figuring out how to apply my Simon experience, reorganized my old practice and incorporated a new firm that over 20 years the wealth management firm became what it is today. My classmates never had the chance to make my mistakes. That was their loss, and my future client's gain. For me, I had learned what mattered. And that decision helped me bridge the "knowing-doing" gap.

Professor Fama still recalls his days back as a Chicago economics graduate student working toward his PhD. He worked several years for a stock advisory firm to supplement his meager stipend. Statistically astute, Fama got a job searching for past patterns of stock performance to select the best securities for the firm's portfolios. Fama excelled in finding many performance patterns. The problem was, as Fama laughingly explains, they never worked going forward. The problem of understanding why that occurred, and recognizing the ease of gathering large amounts of data for research in a field previously ignored—together with the availability of computers newly becoming available that would processing huge amounts of data easy for anyone able to learn programming—would direct his research for the next fifty years, finally leading to a crowning achievement of a Nobel Prize in economics.

Exhibit 3: LEVELS OF THE KNOWING-DOING GAP FOR INVESTORS

Level	Type of Gap	Investor Status	Gap Analysis
4	Complete: No Gap	Investor is on his or her way to financial success and peace of mind.	All levels of the knowing-doing gap are successfully overcome to achieve important goals through planning.
3	Confidence: Knowing- doing gap	Investor starts doing what needs to be done but gets disappointed or quits along the way.	This is the know-doing gap proper; it is overcome by a process to coordinate consistent action with planning goals.
2	Commitment: Decision gap	Investor knows what needs to be done but doesn't begin doing it.	There is a lack of motivation or commitment to act, or concern with costs for planning action.
1	Clarity: Knowledge gap	Investor wants to change but doesn't know how to go forward or has outdated or inaccurate information.	There is indecision about goals, a lack of knowledge of what works, and lack of skills or resources to do what matters.
0	Complacent: No gap concerns	Investor is satisfied with status quo.	With no clear important goals, there is no concern with any planning gaps.

LEVELS OF THE KNOWING-DOING GAP

Before we discuss how the wealth management process overcomes the investor's knowing-doing gap, it's important to understand several levels that constitute the entire gap. Understanding these levels helps clients recognizes the gap between information and knowledge, and the gap between knowledge and wise decisions in planning. **xiv*

Investors at *Level 0* are complacent, satisfied with the way things are. Not knowing or caring much about defining their goals, either personally or for investing, they are content to keep on doing things much the same as they have always been done. As a result, they don't contemplate changes or taking new actions until such time something disturbs the status quo, such as a major investment loss, significant job change, or a new family situation. If you have read this far, while this Level does not apply to you, it likely applies to many people you know and care about.

At *Level 1*, investors have clarity, and know that more is possible and are concerned with where they are today. They sense something is wrong with their planning due to spending, saving or investing issues, and may want to change. They realize their present advisor (which may be themselves) cannot be able to help them move to the next level. Perhaps their present advisor lacks the skills or resources to help them achieve those goals. But they lack knowing how to select the right advisor, or how to prioritize what is to be done, and may not even be clear about their goals.

At *Level 2*, investors finally know what needs to be done but have not committed themselves to making plans and doing the necessary actions. This may be due to a lack of motivation or spousal disagreements or a general unwillingness to commit to a long-term plan of action due to costs. Often, investors at this level let urgent matters of daily life distract from making a commitment to make important changes. It's critical that these investors step over this gap and committing themselves to setting goals, making plans and acting in accordance with those plans.

At *Level 3*, investors are fully committed to planning and purposely acting to achieve their important goals. Still, because many things can go wrong, and unexpected events happen (say a job loss or divorce), many can get stuck or even give up on their goals. This is the knowing-doing gap proper and can be overcome with an integral approach to both knowing and doing described in our following paper. Disciplined investors with the right support may overcome the knowing-doing gap to reach *Level 4* and achieve the goals and lifestyle they have always dreamed of.

SOME PRACTICAL ADVICE WITHOUT THE THEORY

For more than 30 years it's been our mission to help people make smart decisions about money, and help them avoid common mistakes and costly detours, so affluent families can accomplish their goals for those they care about—and potentially achieve life-long dreams. So here are brief lessons, culled from over 30 years of professional practice:

Lesson One: Those who plan well generally prosper more than those who don't. Successful people plan for financial goals in writing. While written financial plans may have no magic, people with plans in writing are committed: they know where they are, where they want to go, and what they must do to get to a new place.

Lesson Two: Wealth comes from decisions people make, not the chances they take. Successful people don't wait for luck—they make their own luck through cultivating habits and discipline others who are unsuccessful, never do. They save by always paying themselves first. They deliberately live below their means. They don't choose a lifestyle that enslaves them with large fixed expenses if their personal circumstances unexpectedly change.

Lesson Three: After a certain point, happiness in later life is not a direct function of how much money you have. Once basic retirement and legacy goals are met, happiness depends much more on attitudes and behavior than on the numbers found in brokerage statements and financial reports. Don't wait for "real life" to start: working less during your working years to travel and visit places or people you always dreamed about, but working a few years longer instead, even part-time, may be better plan for some, allowing a margin of safety if your health changes.

Lesson Four: Retirement is enjoyed only by those who are still with us. Take care of your health. Avoid stress and hazardous activities. That may even include a job you hate. See your doctor regularly and follow his advice. Stay active, physically and mentally. If you want to retire rich, you need to live long enough to see the money grow, and then retire and be healthy enough to enjoy it. And working at what you love may be the best retirement for some.

Lesson Five: Happiness in later life is shaped by the quality of the people in your life. In the end, circumstances beyond our control may take away our dignity or even our money, but if we have family, friends and colleagues with whom we share joy, sorrow and love, we are truly blessed. The very best investment you can make is in the lives of others, and especially those around you. Everyone has something valuable to give: money, volunteer work, a

helping hand or for some, simply the gift of listening. When you give generously, two things happen: your life will be richer, and you make the world a better place, for yourself, for those around you, and for those who come after us.

ⁱ Occasionally, thinking back, except for the grace of God, I wonder how I ever survived.

The literature is replete with good books. The reader may begin with Robert Menshchel, *Markets, Mobs & Mayhem: A Modern Look at the Madness of Crowds* (John Wiley & Sons, 2002). The classic, of course, is Charles MacKay, *Popular Delusions and the Madness of Crowds* (1841). Importantly, the counterbalance is James Surowiecki, *The Wisdom of Crowds* (Doubleday, 2004) which underlies academic notions of economic rationality and efficient market theory that we discuss in these papers.

The classic explanation for thinking people is Milton Freedman, Capitalism and Freedom (University of Chicago Press, 1962)

Indeed, as educational standards in the US have progressively declined over the last four decades, and now that children get an award for just about anything, least their "feelings" or "self-esteem" be injured in some manner, many coming out of the public school system feel pretty good when they know, essentially, nothing of value at all. For instance, half of all children going to college need remedial education, partly contributing to extending the average college attendance duration from four years fifty years ago to five or six years today.

v Russell Kinnel, "Mind the Gap," *Morningstar Advisor*, July 2005 and Don Phillips "Mutual Funds are Bought, Not Sold" (http://advisor.morningstar.com/articles/article.asp?docid=4142 and http://www.icief.org/pdf/idc_phillips_lunch08.pdf.)

vii Daniel B. Bergstresser, John M. R. Chambers and Peter Tufano, "Assessing the Costs and Benefits of Brokers in the Mutual Fund Industry" (October 2007), HBS Finance Working Paper. Available at SSRN: http://ssrn.com/abstract=616981 viii Of course, for taxable investors the net would be less. Perversely, the after-tax return for many taxable mutual fund investors would be higher due to the benefit of realizing tax losses regularly.

viii Daniel B. Bergstresser, Ibid.

ix William F. Sharpe, "The Arithmetic of Active Management," Financial Analysts' Journal (Vol. 47, No. 1, January 1991).

Eugene F. Fama and Kenneth R. French, "Common risk factors in the returns on stocks and bonds," *Journal of Financial Economics* (Vol 33, 1993). They found that differences in stock returns are best explained by company size and price characteristics, and explained more than 96% of the performance of diversified stock portfolio. More recently, "momentum" and "profitability" factors have been added to the model. Their model has emerged as the standard for academic research. These professors have had close associations and advised Dimensional Fund Advisors since its founding over 30 years ago.

^{xi} Justin Fox, "Is the Market Rational," *Fortune* (December 2, 2002). I also own a highly prized copy of Eugene Fama's Foundations in Finance, now out-of-print in pristine condition coveted by a certain Chicago PhD at Dimensional.

il n 1978 Michael Jensen, a prominent Harvard economist who briefly taught at the University of Rochester Business School, boldly declared that "there is no other proposition in economics which has more solid empirical evidence supporting it than the efficient-markets hypothesis." Quote taken from "Efficiency and beyond," *The Economist* (July 16, 2009), pp. 68-69. By 1992 Eugene Fama himself, the father of EMT, showed the limitations of his own theory in his most downloaded SSRN paper.

xiii Paul Byron Hill, *Planning Perspectives* 1st Quarter 2014, www.professionalfinancial.com

xiv Daniel Kahneman, *Thinking, Fast and Slow* (Farrar, Straus and Giroux, 2011). Professor Kahneman is a Nobel laureate.

^{xv} Terrance Odean, "Volume, Volatility, Price, and Profit When All Traders Are Above Average," *Journal of Finance* LIII, No. 6 (1998)

xvi Brad Barber and Terrance Odean, "Trading Is Hazardous to Your Wealth," Journal of Finance LV, No. 2 (2000)

xvii Simon Gervais and Terrance Odean, "Learning to be Overconfident," Review of Financial Studies 14, No. 1 (2001)

^{xviii} Benjamin Graham, Columbia professor and author of the first book on securities analysis, also lost a fortune when the markets collapsed in 1929. However, he develop a theory of investing that worked so well, that he had recovered all his money by the end of the 1930s. His most famous student? Warren Buffet, one of America's richest men today, who claims that his single course with 1930s with most important investing knowledge he ever learned and applied to make his fortune.

XIX Delta Colfficient of America Target (The Weights and the Delta view to the Goldfield of the Section 2.4).

Dale Griffin and Amos Tversky, "The Weighing of Evidence and the Determinants of Confidence," *Cognitive Psychology* 24, 411-435 (1992).

^{xx} To his credit, Scholes discovered the problem of applying theory to practice, discovering that those who practiced his models did not really understand them. The professor now advocates financial dangers ignored or underestimated by practitioners, such as the risk that liquid markets can dry up far faster than most models assume. In times of market stress, assets that normally are uncorrelated can suddenly become highly correlated. Many models mistakenly assume that the volatility of asset prices and the correlations between prices are constant—but offsetting allocations do not always work.

^{xxi} Gaussian is a reference to so-called "normal" distribution of possible outcomes. As it turns out, newer research has shown how often that simplifying assumption is simply untrue. Fama has long noted that market data shows un-normal "fat" tails.

Looking back, I have had over a dozen such clients. Unfortunately, by the time I learned they were such reliable predictors of future markets outcomes, and could apply that to adjusting rebalances, they always left!

xxiii Hard as it may be for some to believe, a handful of those people or their children still are clients of my firm today.

xxiv The Greeks had words for that distinction not found in English: episteme ("science") and techne ("craft").