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TEA LEAVES, OUIJA BOARDS & TAROT CARDS

"We can evade reality, but we cannot evade the consequences of evading reality."
—Ayn Rand

CONTRARY TO POPULAR "WISDOM", investing isn't about P/E ratios, or technical patterns, or momentum plays, or "5 star ratings," or the latest conflict in the Middle East. Investing is about probabilities and statistics. It's about *maximizing the probability of meeting the goals you have set for* ***the only life you have to live*** on this planet.[1] It's about avoiding the (many) risks that have negative expected payoffs, and exposing yourself only to those risks that have positive expected payoffs – and then, only to the extent that taking those risks buys you something of value (like achieving your most important lifestyle goals).

Successful investing is about attaining your goals with as little risk as possible and then, *once you've arrived at your financial destination*, decreasing your risk even further, if possible, to protect what you have. Especially for affluent investors, successful investing is not about maximizing the chances of getting richer, it's about *minimizing the chances of becoming poorer*. It is a sad paradox that those who can afford to take the most risk (the affluent) and who are often advised to do so, are also the ones who most often should take the *least* risk.

In investment management, *there IS a right answer. There IS a best way to invest. There IS a proven methodology, based on Nobel Laureate research, which can vastly improve your odds of investment success*. It is not based on complex trading rules, or shrewd market timing calls, or alternative investment techniques, or any of the other fantasies that Wall Street loves to sell and profit from. It does, however, require discipline, patience, and a willingness to learn a bit of graduate-level finance. But the payoff can be enormous. Most who take the time to learn will significantly increase the probability of achieving their financial lifestyle goals, significantly decrease the level of risk in their portfolio, and, ultimately, get more out of this grand experiment called life.

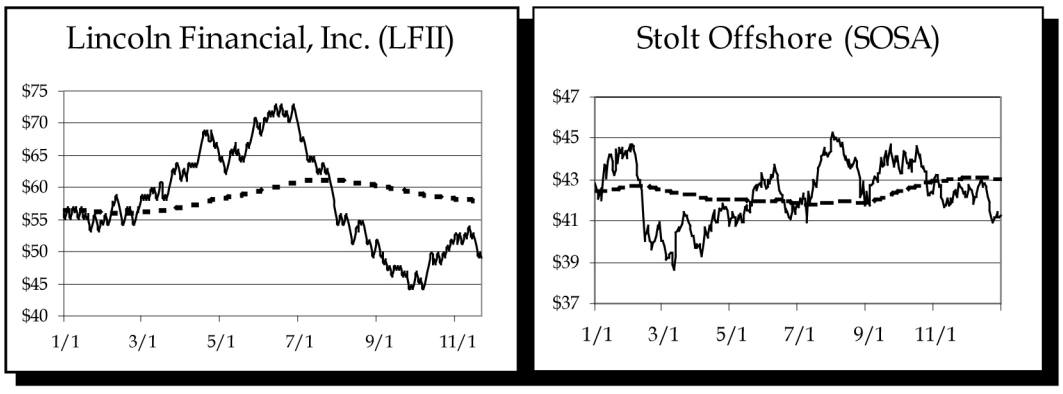
As Mulder told us over and over again in *The X Files*, "The truth is out there." It's just not always easy to find.

Randomness Doesn't Look Random

Most investors believe that the markets are predictable in an actionable way. They believe that short-term historical trends and/or detailed analysis can help them predict future stock price movements. They believe that the right mix of intelligence, data, algorithms, and prescience can result in market-beating performance. They believe that somewhere in the hallowed halls of Wall Street sits a "Seer" who can accurately predict stock prices with consistency. And Wall Street, of course, fuels those beliefs. It *has* to. Without its "Seers," Wall Street would have no justification for the tens of billions of dollars in commissions and management fees it charges its customers every year.

As we'll see, however, the evidence is quite clear: *the Seers do not exist*. Yes, there are some incredibly bright people working on Wall Street. And, yes, they know far more about the stock market than you or I ever will. But that is precisely the problem: There are so many talented individuals chasing so few market-beating opportunities that randomness, not talent or "wisdom," ultimately plays the deciding role at almost every level of the investment game – from setting tomorrow's stock prices to determining next year's stock-picking guru.

Of course, markets and stocks do *appear* to move in predictable cycles. But appearances can be deceiving. For example, let's take a look at a couple of stock price charts. We've all seen these charts before – they're widely used by the majority of technical investors and are readily available at most on-line investment sites:



Many technical analysts would see several buy and sell signals in these charts. They have names like "Ascending Tops," "Rising Wedges," and "Head and Shoulders". They are supposed to signal actionable patterns and trends. And, in our examples, the trends are clear. Lincoln is clearly headed downward, having

peaked in the middle of the year. If you're a contrarian investor, this could be a buy signal. Stolt, on the other hand, is clearly trading in a "channel", with no apparent trend line to act upon. But there appears to be quite a bit of volatility. Perhaps some short-term trades are in order.

There's just one problem. One of our examples is the chart of an actual stock, and *the other is the result of a completely random event:* 365 coin tosses. Heads resulted in an upward price movement, and tails resulted in a downward price movement. Can you tell which is which? Can you distinguish which chart is more (or less) random than the other?

Statisticians can't. Study after study has shown that stock prices move randomly. They are not predictable in any consistently profitable way – any more so than a coin toss. There is absolutely no serial correlation in a coin toss. In other words, you always have a 50/50 chance of throwing heads, regardless of how many times in a row heads have shown up. You may throw heads 100 times in a row, but that does not change the 50/50 odds of getting heads on your 101st throw. One hundred random heads in a row may look like a trend, but it's not. *Randomness doesn't look random*.

Just like a coin toss, stock prices can also *appear* to trend, but it turns out that there is very little exploitable serial correlation in stock price movements. In other words, and for the most part, a series of upward price movements ("upticks") is, for all intents and purposes, just as likely to be followed by a downward price movement ("downtick") as it is another uptick.[2]

As Dr. Burton G. Malkiel noted over 30 years ago in *A Random Walk Down Wall Street*:

> The past history of stock prices cannot be used to predict the future in any meaningful way. Technical strategies are usually amusing, often comforting, but of no real value. This is . . . the consistent conclusion of research done at universities such as Chicago, MIT, Yale, Princeton, and Stanford.[3]

Lincoln Financial is a fiction. Lincoln's stock chart is nothing more than a series of random events. There is absolutely no information in the Lincoln chart to tell us whether the next move is going to be an uptick (a head) or a downtick (a tail). The upward and downward "trends" that we think we see are the result of pure randomness. In other words, they do not exist. *Randomness doesn't look random* (as we'll see later, our brains are programmed to see trends where none exist).

Stolt Offshore, on the other hand, is a real company, but its stock chart is essentially indistinguishable from a coin toss because it is *also* nothing more than a series of random events (possibly very real events, but random nonetheless). Again, any trends that we see are non-existent. *Randomness doesn't look random*.

Take another look at the fictitious Lincoln Financial chart. One simple trading rule is to buy whenever the stock price crosses its moving average (the dotted line) on an uptick, and sell whenever the stock price crosses its moving average on a downtick. Had our Seer followed this rule, he would have bought Lincoln on an upward "trend" (at about $56) and then sold just before the stock plummeted downward. Had he bet everything he owned, he would have gotten extremely rich. He probably would have been interviewed by *Investor's Business Daily* or CNBC, and he might have made the cover of *Money* or *Fortune*. Had he been managing a mutual fund, he would have attracted hundreds of millions of dollars of new money. ***All for making a lucky guess about a random event!***

This may seem like a silly example, but it demonstrates how the markets work. Invariably, it's the randomness of the market that makes the "guru", not some rare skill or genius. The winning gurus just happen to be lucky enough to be in the right place at the right time. For example, a large cap growth fund manager can go for years and years without outperforming his benchmark index. Then, suddenly, the large cap growth stocks he owns will come into favor. The manager has done nothing different – he just happens to be in the right place at the right time. But the financial press will laud him for his prescience. His name will suddenly become commonplace and thousands of investors will rush to give him their money, despite the fact that his success was determined by chance.

In his outstanding book *Fooled by Randomness*, which has been dubbed "the book that rolled down Wall Street like a hand grenade," author, trader, and scientist Nassim Taleb writes:

> Can we judge the success of people by their raw performance and their personal wealth? Sometimes – but not always. We will see how, at any point in time, a large section of businessmen with outstanding track records will be *no better than randomly thrown darts* [emphasis added]. More curiously, and owing to a peculiar bias, cases will abound of the least skilled businessmen being the richest. However, they will fail to make an allowance for the role of luck in their performance.
>
> Lucky fools do not bear the slightest suspicion that they may be lucky fools – by definition, they do not know that they belong to such a category. They act as if they deserved the money. Their strings of successes will inject them with so much serotonin (or some similar

substance) that they will even fool themselves about their ability to outperform markets . . . .[4]

Taleb's observations are important for, as we'll see, randomness not only determines stock price movements; it also plays the deciding role in determining the winners and losers of the stock-picking game.

Some Definitions

Index Fund. An index fund is simply a mutual fund that mimics the performance of a particular "class", of stocks (such as large company growth stocks or small company value stocks). An S&P 500 index fund, for example, attempts to track the price movements of the S&P 500 index (note the difference between an index *fund* and an index – you can't directly invest in an index, but you can invest in an index *fund*). An index fund's purpose is to achieve the same returns as the index it follows, ideally at a very low cost to the investor. Index funds are often referred to as passive investments (see below). Index funds are available for virtually every meaningful market segment, both domestic and international. You can buy "total market" index funds, or you can buy index funds that are style-specific. "Style" refers to the fund's average capitalization (e.g., large cap) and relative price (e.g., value). "Style" is most often represented by what is known as a "style box":

	Value	Blend	Growth
Large	Large Cap Value	Large Cap Blend	Large Cap Growth
Mid	Mid Cap Value	Mid Cap Blend	Mid Cap Growth
Small	Small Cap Value	Small Cap Blend	Small Cap Growth
	Micro Cap		

Active vs. Passive. Active management is the pursuit of investment returns in excess of a specific market index, such as the S&P 500 index, by timing when to buy and sell particular stocks within the index. Passive management, on the other hand, simply seeks to *match* the return and risk characteristics of a particular index or market segment (e.g., small cap value). For example, an active investor might purchase a handful of what he believes to be the best large-cap growth stocks in an attempt to outperform the S&P 500 index. A passive investor would simply buy the entire S&P 500 index via an S&P 500 index fund.

Asset Class. An asset class is a distinct investment category. The most common asset classes include stocks (equities), bonds (fixed income), real estate, commodities and cash.

Benchmark. Generally, active managers are "benchmarked" against passive indexes. For example, the performance of an active investment manager who primarily invests in small

cap value stocks should be benchmarked against a small cap value index (such as the Russell 2000 Value Index).

Loser's Game. Charles Ellis was the first to recognize that active investing had become a loser's game. The winner of a loser's game is the person who makes the fewest mistakes. In a winner's game, you win because of a distinct sustainable competitive advantage. Investing has become a loser's game because there are no longer any distinct competitive advantages to capitalize upon: There are so many bright investment managers, chasing so few investment opportunities, that it is virtually impossible for any one of them to consistently outperform the others. And, indeed, few, if any, managers demonstrate such skill.[5]

What Wall Street Sells Doesn't Work

In his ground-breaking book *Winning the Loser's Game*, Charles Ellis writes:

> The problem with trying to beat the market is that professional investors are so talented, so numerous, and so dedicated to their work that as a group they make it very difficult for any one of their number to do significantly better than the others, particularly in the long run.[6]

He goes on to say:

> The beginning of wisdom for you is to understand that few – if any – major investment organizations will outperform the market averages over long periods of time and that it is very difficult to estimate which managers will outperform.
>
> The next step is to decide whether – even if it could be won – this loser's game would be worth playing.[7]

To understand the profound implications of Ellis's conclusions, you need to understand how the markets work. If you've been relying on Wall Street or, worse, the popular press for this understanding, you've probably been woefully misinformed. Wall Street and the popular press are in the business of selling things – and simplicity, hope and hype will always sell far better than statistics and economic reality.

So, at the risk of putting you to sleep, here is the *Reader's Digest*® version of what we really know about how markets work.

Risk (portfolio volatility) and Return are closely related; to earn higher returns, you need to take more risk. There are many types of risk, but only two that you really need to worry about right now:

Systematic risk is associated with events that impact entire economies, such as an unexpected increase in inflation, the tragedy of 9-11, or the recent covid pandemic. Systematic risk cannot be eliminated (i.e., it cannot be diversified away). All stocks are affected by systematic risk.

Non-systematic risk, on the other hand, is company-specific risk (e.g., the risk that a talented CEO gets hired away by another company, or that a profitable new drug turns out to be very dangerous and is pulled from the market, or that a union strike forces a company into bankruptcy). Non-systematic risk *can* be largely eliminated through diversification (which is why non-systematic risk is also known as diversifiable risk).

Here's the important part: in aggregate, investors get paid *only for exposing themselves to systematic risks*. They *do not* get paid for exposing themselves to non-systematic risks. Why? Because non-systematic risk can be eliminated through diversification and, in aggregate, ***the markets do not reward investors for taking risks that can be avoided.***

This statement is one of the most fundamental lessons of modern finance. It means that investing in broadly diversified portfolios is a positive sum game. You are paid for betting that economies will continue to grow and that, over time, a large number of companies will continue to grow their earnings and pay their dividends. And, for as far back as we can track the markets, this is exactly what has happened.

This also means that trying to improve upon broad market returns by taking bets on specific stock picks or short-term market movements (i.e., active portfolio management) is a *negative* sum game. Since there are two sides to every stock transaction (a buy and a sell), ½ of those who attempt to beat the market will win, and ½ will lose. However, because there are significant costs involved in the frequent trading required by active management, the net result is that active investors as a whole lose money relative to the market.

In a sense, this is exactly what you'd expect in a highly competitive (and, therefore, efficient) market. If there are additional costs and expenses associated with active management, then the average active manager is going to lag the market by the additional money he spends on research, commissions, operating expenses and the many other activities associated with active investment management. And since those costs happen to average around 1.5% to 2.5% per year (before taxes), the average active manager is going to trail the market by a fairly large percentage.

The concept that investors do *not* get rewarded for non-systematic risk (i.e., risk that can be diversified away) was first demonstrated by William Sharpe in 1964, as an extension of a theory (Modern Portfolio Theory or MPT) first proposed by Harry Markowitz in 1952. In 1990, after decades of empirical validation, Sharpe and Markowitz were awarded the Nobel Prize in Economics for their work. Despite the fact that much of their work has been statistically validated, many investors – professionals and amateurs alike – still believe they can pick winning stocks or that they can accurately time when to get into and out of the market. The statistical and anecdotal evidence, however, suggests otherwise: the vast majority of active investors fail to out-perform the market.

As Ellis so succinctly opines:

> The key question . . . is this: how much better must the active manager be to *at least* recover the costs of active management? The answer is daunting. If we assume 80% portfolio turnover (implying that the fund manager holds a typical stock for 15 months, which is approximately average for the fund industry), and total trading costs (commission plus the "spread") of 1 percent to buy and 1 percent to sell (again, average rates), plus a fee for active management of 1.25% (slightly below average among US stock mutual funds), then the typical fund's operating costs are 2.85% per year.
>
> Recovering these costs is surprisingly difficult. For example, assuming an average annual return of 10% for stocks, then the average manager most overcome the drag of 2.85% in annual operating costs. If the fund manager is only to match the market's 10% return after all costs, then he or she must return 12.85% before his costs. In other words, *for you merely to do as well as the market, your fund manager must be able to outperform it by 28.5%!*[8]

Put another way, *in order to realize an additional 1% return versus market averages, active mutual fund investors must beat the market by almost 40% per year, year after year after year*. That is a hurdle that is virtually impossible to jump.

The Truth Hurts

Ellis, of course, is not the only person to demonstrate the futility of active management. There have been dozens of studies that have all reached the same conclusion – that active management is, for the vast majority of investors, a waste of time and money.

First, there's the commonsense analysis. In "The Arithmetic of Active Management," Nobel Prize winner William F. Sharpe demonstrates:

> If "active" and "passive" management styles are defined in reasonable ways, it *must* be the case that:
>
> (1) *before costs*, the return on the average actively managed dollar will *equal* the return on the average passively managed dollar, and
>
> (2) *after costs*, the return on the average actively managed dollar will be *less* than the return on the average passively managed dollar *by the amount of the additional costs incurred*.[9]

In other words, the aggregate returns of active management must lag the aggregate returns of passive management by the additional costs incurred by active managers.

But are Sharpe's assertions supported by statistical evidence? Absolutely. Study after study has demonstrated that active managers fail to do what they're paid to do – that is, consistently beat their benchmark index on an after-cost, after-tax, risk-adjusted basis.

In "Fund Returns and Trading Expenses," Chalmers, Edelen, and Kadlec (three university researchers) discovered "a strong *negative* relation between fund returns and trading expenses." They found that fund managers were unable to recover *any* of the costs of active management, and their paper concludes, ***"We reject the hypothesis that active fund management enhances performance."*** [Emphasis added.] [10]

In "Beating Index Funds Takes Rare Luck or Genius," Jeff Brown looked at the track records of over 1,400 large cap mutual funds in Morningstar's® database. For the 10 year period studied, he found that only 35 of the large cap blend funds beat or matched the S&P 500.[11] That's only 2.4%! Almost 98% of the pros failed to do their job (but, of course, they still got paid)!!

In his book *Stocks for the Long Run*, Jeremy Siegel looked at mutual fund returns from 1971 to 2001. He found that the average actively managed fund underperformed the S&P 500 index by about 1.6%. He also found that there were only 9 years in which the number of funds beating the market exceeded those that failed to do so, and that all but one of those years occurred during a period when small cap stocks outperformed large cap stocks. Finally, he noted that from 1982 to 2001, there were only three years in which the average actively

managed mutual fund beat the market. Interestingly, his study did not include the effect of sales and redemption fees, which would have made the results even worse.[12]

The SPIVA scorecard is the "de facto scorekeeper of the active vs. passive investing debate". In 2021, it released its first-ever 20-year analysis of index investing versus active investing. The survey demonstrated that "active managers of 96% of large-cap growth and large-cap growth funds, 94% of large-cap funds, 90% of all multi-cap funds, 88% of mid-cap and small-cap funds, and 86% of all domestic funds failed to outperform their benchmarks."[F] Is it any wonder that, as of 2023, passive (index) funds overtook active funds in terms of total assets under management for the first time, and now account for about 53% of the mutual fund market, a significant increase from just 21% in 2012?

Report 1: Percentage of U.S. Equity Funds Underperforming Their Benchmarks

FUND CATEGORY	COMPARISON INDEX	1-YEAR (%)	3-YEAR (%)	5
All Domestic Funds	S&P Composite 1500	57.09	67.01	
All Large-Cap Funds	S&P 500	60.33	69.71	
All Mid-Cap Funds	S&P MidCap 400	50.68	53.49	
All Small-Cap Funds	S&P SmallCap 600	45.52	57.04	

One of the most common claims in favor of active management is that active managers tend to do better in bear markets (even though they lose to index funds in bull markets). Unfortunately for the proponents of active management, the statistics once again indicate otherwise.

Lipper Analytical Services studied six bear markets from August 1978 through October 1990. During these bear markets, the average loss for the average large cap growth fund was just over 17%. The average loss for the S&P 500, however, was about 15%. In other words, a simple index portfolio beat Wall Street's Seers by almost 2%. This huge differential is even more surprising when you consider that actively managed funds typically carry 5 to 10% of their funds in cash, which is a huge advantage during bear markets.[13]

At this point you're probably thinking to yourself: "All of these studies refer to the 'average' active manager. I don't use average managers. I only use the best." The problem with this line of thinking is that, while it's possible to identify who the best (luckiest?) managers *were,* it is virtually impossible to tell who the best (luckiest?) *future* managers are going to be.

In "On Persistence in Mutual Fund Performance," Mark Carhart found virtually no persistence in mutual fund performance (except for the worst performing mutual funds).[14] In other words, what the fine print says is true: historical (mutual fund) performance is not indicative of future results. Picking "5 Star Funds" or money managers with above-average track records is a useless exercise. In fact, as we'll see, relying on historical track records may be a worse than useless exercise sense doing so most often leads to a destructive pattern of buying high and selling low.

In 2020, James J. Choi and Kevin Zhao released a follow-up study that both confirmed Carhart's findings and determined that persistence was also lacking in the subsequent 25 years (1994 – 2018).[F]

In "Sucker's Bet," William Bernstein shows the results of a study that analyzed mutual fund performance for the period of January 1970 to June 1998. The study identified the top 30 mutual funds for sequential 5-year periods starting in 1970. It then followed the performance of these funds for each subsequent 5 year period through 1998. The study found that, *in every case*, the top funds for any 5 year period subsequently underperformed the market. [15]

These are just two of dozens of studies demonstrating that, despite its widespread use by individual investors and financial advisors alike, historical performance is essentially meaningless. Today's top quartile funds have no better than a 50/50 chance of remaining top quartile funds in the future. And over any reasonable time frame, top quartile funds will almost assuredly underperform the market averages. You might as well flip a coin to determine which manager to use.

Of course, few advisors are going to show you this data, because their "value proposition" is based on finding the best fund managers for your portfolio. So they spend a great deal of time doing "due diligence." They look at a manager's pedigree, the strength of his team, his historical performance, his fund's "information" and "upside-downside" ratios, and whether or not he's a market timer or style drifter. They furrow their eyebrows and talk about "r-squares" and "alphas" and "betas" (and other Greek mythologies). They subscribe to expensive manager-picking services with fancy names, and they take their duties quite seriously. But for all their work, all their sweat, all their *diligence*, not to mention all the money they charge you for their "insights," their efforts are largely useless.

So now the question becomes: why is it virtually impossible to determine who the "good" stock pickers are? The answer is that the winners win by chance rather than skill. That's not to say that some stock pickers aren't skilled. Some

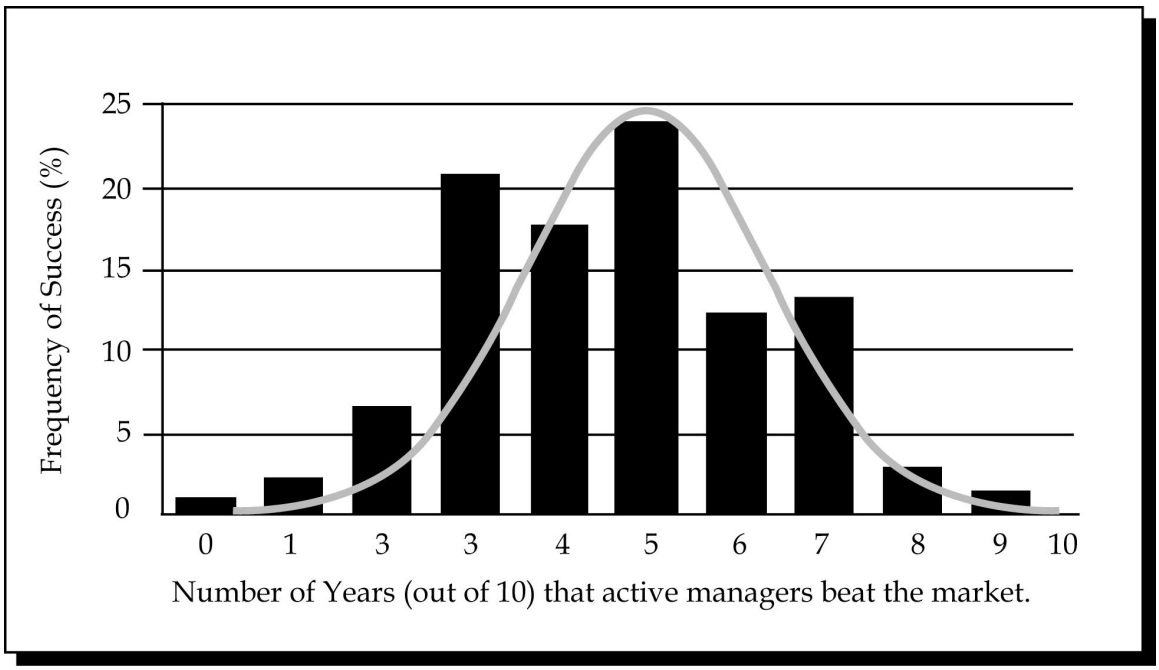
are incredibly skilled. But there are so many of them chasing such a limited set of investment choices that it's virtually impossible for any one of them to consistently beat the others. So, the winners for any given one, three or five year period are determined almost solely by chance. Remember this the next time you see that million-dollar television ad for the <pick a company> family of mutual funds touting its performance over the past one-, three- and five-year periods.

In "Why No One Can Tell Who's Winning," J. Michael Murphy performed an interesting experiment that demonstrated why it is nearly impossible to identify even exceptionally skilled investment managers. Using a computer, Murphy created 100 synthetic investment managers, each with a predetermined probability distribution of returns. Ten were programmed to be more likely than average to outperform the market, 10 were programmed to be less likely than average to outperform the market, and 80 were programmed to simply match the market average. He then simulated returns for a 10-year period.

What Murphy discovered was fascinating. For the 10-year period, the top 2 funds came from the group of 80 that was programmed to be average. In addition, four of the top 5 funds, and six of the top 9 funds were also from the "average" group. Let me repeat that – the top two managers were programmed to be "unskilled," to simply return the market average. Yet they got lucky enough to outperform *all* of the managers who were *programmed* to beat the market, and they did so ***over a 10-year period.***[16]

What this study shows is that even a 10-year track record of "success" is not enough time to determine whether a manager's performance is based on skill or luck. In fact, it takes two or three *decades* of data to statistically prove skill versus luck and there are very few active managers who have 20- or 30-year track records. The study also demonstrates another of Taleb's observations – that "a population composed entirely of bad managers will produce a small amount of great track records." [17]

Larry Swedroe, in his wonderful book "The Only Guide To A Winning Investment Strategy You'll Ever Need" shows the results of a study done by SEI Investments. SEI looked at the number of years out of 10 that active managers beat the S&P 500. They then compared their findings to a bell-shaped curve (a bell-shaped curve describes the frequency of occurrence of a random event). When SEI tabulated the data, the results spoke volumes: *the results of active managers almost exactly matched the distribution that you would expect from a random event, such as a coin toss.* [18]



If above-average stock-picking skill had been present, we would have expected to see the results skewed far to the right. If anything, however, the results were skewed to the left, which is exactly what we'd expect to see if a) winning managers are determined by chance, and b) there are additional costs involved in trying to beat the market. Just as Sharpe predicted, the SEI study suggests that active managers underperform the market averages by the amount of additional expenses they incur. And just as Taleb and Carhart demonstrated, the winning managers appear to be determined by chance.

Costs Matter . . . A Lot!!

So, what, exactly, is the best predictor of mutual fund performance? It turns out that it's Wall Street's best friend (and one of investors' worst enemies): expenses. In fact, fund expenses appear to be the *only* reliable indicator of future performance. If you think about it, this makes perfect sense. If, on average, mutual funds tend to underperform their passive benchmarks by the additional costs they incur to actively manage their portfolios, then the only differentiating factor that matters *has* to be expenses.

As Russel Kinnel, Morningstar's® Director of Fund Research, noted in an interview with Paul B. Farrell, "Expense ratios are the best predictors of performance – way better than historical returns." Kinnel went on say, "You'd be better off randomly picking a fund with expenses in the cheapest quartile and

past returns in the worst quartile than a fund with returns in the top quartile and expenses in the highest quartile."

Farrell goes on to report:

> In fact, the expense ratio is not only the best predictor of performance, as Kinnel says; it is the "only" statistically reliable predictor, according to a study by the Boston-based Financial Research Corporation (FRC).
>
> FRC tested 11 popular criteria investors use in picking funds: Morningstar ratings, past performance, turnover ratios, asset size, expense ratios, manager tenure and net sales, plus four risk/volatility measures – standard deviation, alpha, beta and the Sharpe Ratio.
>
> FRC's research showed that the expense ratio was the only reliable predictor. Funds with low operating costs "deliver above-average future performance across nearly all time periods." Conversely, all other criteria were statistically unreliable predictors – including Morningstar's popular star ratings and the highly touted Sharpe Ratio that calculates risk-reward variables for investments.[19]

Note that "above-average performance" does *not* mean market-beating performance – only that the fund did better than its more expensive peers.

Expense management is particularly important in low-return environments. When markets average an 18% annual return, as they did during the bull market of the 1990s, expenses can be easily (albeit unwisely) ignored. In a low-return environment, however, expense management is critical. And, unfortunately, the consensus outlook for the next decade or so is that we are in a single-digit-return environment (see sidebar).

John C. Bogle, founder and former Chairman of the Vanguard Group, has written extensively about the importance of expense management to investment success. For example, in "The Arithmetic of Mutual Fund Investing is More Important than Ever," Bogle opines:

> When we examine the record of the past two decades, the relentless rules of humble arithmetic have clearly proven dangerous to the wealth of most families who have entrusted the responsibility for overseeing their hard-earned assets to mutual funds. That humble arithmetic – gross return, minus cost, equals net return – has destroyed their wealth in almost precisely the measure that our CMH ("Costs Matter Hypothesis") suggests. Investors have learned, and learned the hard way, that in

> mutual funds it's not that "you get what you pay for." It's that, almost tautologically, "you get what you don't pay for."
>
> Let's look at the record. Over the past 20 years, a simple, low-cost, no-load stock market index fund delivered an annual return of 12.8 percent – just a hair short of the 13.0 percent return of the market itself. During the same period the average equity mutual fund delivered a return of just 10.0 percent, less than 80 percent of the market's annual return. It is no accident that this shortfall of 2.8 percentage points per year arose largely from those estimated annual costs of about 3.0 percent presented moments ago.

Bogle goes on to demonstrate that, after taxes, the gap between active and passive management increased from 2.8% to 4.1% per year and that over the 20 year time period studied, "the index fund actually increased your capital by 190 percent!" [21]

Amazing, isn't it, that investors continue to pay mutual fund and separate account managers billions of dollars each and every year to earn them far, far less than they could earn by simply investing in a low-cost index fund? Estimates, by the way, are that the top 20 fund families collected almost $24 Billion (that's BILLION with a capital 'B') in fund fees in 2004. This is the annual cost of the loser's game. It is money that comes *directly* from investors' pocketbooks and it buys them nothing of value. It is, quite simply, wasted money. It serves only to line the pockets of Wall Street and its agents. It is the single biggest scandal in corporate America, and it is perfectly legal.

In summary, then, the evidence is overwhelmingly against active management: common sense (mathematics) says it shouldn't work and empirical evidence demonstrates that it doesn't work. In fact, the evidence against active management is so strong that in 1990 the American Law Institute rewrote the Prudent Investor Rule. The Prudent Investor Rule governs the activities of fiduciary investment managers. In re-writing the law, the Institute noted the following:

> Economic evidence shows that, from a typical investment perspective, the major capital markets of this country are highly efficient, in the sense that available information is rapidly digested and reflected in the market prices of securities. As a result, fiduciaries and other investors are confronted with potent evidence that ***the application of expertise, investigation and diligence in efforts to "beat the market" in these publicly traded securities ordinarily promises little or no payoff, or even a negative payoff, after taking account of research and transaction costs.*** Empirical research

> supporting the theory of efficient markets reveals that in such markets skilled professionals have rarely been able to identify under-priced securities with any regularity. In fact, evidence shows that there is little correlation between fund managers' earlier successes and their ability to produce above-market returns in subsequent periods. [Emphasis added.] [22]

Market Timing – Another Pawn in the Loser's Game

Market timing is moving monies to different asset classes (say, from stocks to cash) based on short-term market forecasts. For example, a market timer who is bearish on stocks would move all of his money to bonds and/or cash. A market timer who is bullish would put all of his money back into the stock market. Conceptually, market timing is a great strategy: you get out of the markets before they go down and you get back in just before they head back up.

Unfortunately, in the real world, market timing doesn't work. In fact, it is *impossible* to consistently time the market. Why? While there are numerous technical reasons, the most fundamental reason is that, as we've seen, markets move randomly and no one is prescient.

That we are lousy fortune tellers has been confirmed by virtually every reasonable study of market timing ever performed. In fact, the only people who seem to support timing are – surprise! – those who market the technique. Yet, if market timing worked, why would those who use it bother to tell anyone? Why not just use the technique to make themselves very, very rich? Why would they need to sell newsletters? (Of course, the same argument can be made for anyone who sells their self-proclaimed ability to outsmart the market through *any* active technique.)

Successful timers have to make two correct guesses: when to get out of the market *and* when to get back in. A couple of tables from Harold Evensky's outstanding book, *Wealth Management*, are instructive. The first shows the impact of missing the best 10, 20, and 30 days in a 5 year market cycle:

	Annualized Return
1989 – 1994	S&P500
All 1275 Trading Days	10.3% (simple buy and hold)
Missed the Best 10 Days	4.3%
Missed the Best 20 Days	0.1%
Missed the Best 30 Days	-3.3%

Being out of the market for just the 10 best days would have cost you almost 60% of your returns. Missing the 20 best days would have cost you all of your return.

The second table shows the amount of clairvoyance required to successfully time the markets:

1901 – 1988	Annualized Return
Buy and Hold Stock Return	9.4%
Perfect forecasting of all Bull and Bear markets	15.8%
Correct forecasting 50% of the time	6.6%
Correct forecasting 71% of the time	9.4%

For market timing to match the returns provided by a simple buy-and-hold indexing strategy, our timer's predictions would need to be correct more than 70% of the time. This level of success would require very powerful tea leaves and Ouija boards. If, on the other hand, our timer performs as randomly as stock pickers do (i.e., if his timing calls are correct about half of the time), he will earn almost 1/3 less than a "dumb" buy-and-hold strategy. [23]

Of course, the proponents of market timing correctly point out that one's returns would be massively enhanced if one could *avoid* the 10, 20, or 30 *worst* days in the market. No kidding?! If we could avoid the worst days in the stock market, there wouldn't be any risk involved in investing. If, in fact, we could accurately and consistently divine when the next market downturn was going to occur, the single biggest risk of investing in the stock market would be completely eliminated. Trust me on this one: It ain't gonna happen!

Since we know that markets only reward investors for taking (systematic) risk, if investing in the market became significantly less risky, the expected return for investing would have to decline commensurately. Remember: risk and return are essentially linear. The closer investing gets to being risk-less, the closer its expected return will get to the risk-free rate of Treasury bills. In investing, there is no such thing as a free lunch!

What Matters Most

In the absence of insider information, beating the market requires consistently accurate clairvoyance – some combination of tea leaves, Ouija boards, and/or Tarot cards that will give the trader knowledge of stock market movements

before they happen. Every active manager has his own particular brand of forecasting voodoo. Some rely on charts, some rely on ratios, and some try to forecast cash flows two or three decades into the future. Regardless of the method, the intent is to get a glimpse of the future (it is not important that we know how the crystal ball "works", only that one is being used).

But even the most powerful Wall Street Wizards cannot evade two facts: 1) crystal balls are invariably cloudy, so future market movements will always be uncertain, and 2) adding another variable to the investing process, like trying to outperform the market through active management, *must* add additional risk because active investors cannot know *when* they will outperform the market (or, as is more likely the case, when and by how much they will *underperform* the market).[24]

So, the question becomes: is the additional uncertainty (risk) that *must* accompany active management worth it? If the objective of investing is to achieve our most important financial goals with as much confidence – and as little risk – as possible, then the answer is a resounding "NO!" Not because most active managers underperform their benchmarks (they do). Not because those who do beat the market appear to do so by chance (they do). Not because no one can predict with consistent certainty who tomorrow's winners are going to be (they can't). Not because active management is so expensive (it is). The answer is "NO!" because active management adds a completely unnecessary (and unknowable) level of uncertainty to the investment process.

It is difficult enough to model the markets from a passive perspective. The nature of the markets is highly complex and, even though we have decades of statistical data to support our best estimates, the future will always remain uncertain. That is the nature of risk. But we *can* estimate, with some degree of statistical confidence, a reasonable *expectation* for *long-term* future market returns. We *cannot*, however, reliably model the probable future returns of active managers. As soon as active management is thrown into the mix, we lose any confidence we may have had – statistically and emotionally – of understanding the probability distribution of future market returns. More importantly, we also lose any chance we had of understanding the likelihood of achieving **what matters most**: *our most important financial goals and our ability to live the only life we have to its fullest*.