Prudent Investor Advisors, LLC
Investment Philosophy

The Problem

Nobel Laureate, Harry Markowitz, the father of Modern Portfolio Theory, identifies the problem faced by all investors: decisions about portfolio selections are made under uncertainty. This uncertainty becomes obvious when an investor, after surveying a long list of investments available for inclusion in the investor's portfolio, realizes that it really has no way of knowing today which investments - going forward - will turn out to be superior performers and which ones will turn out to be inferior performers.

The root cause of the uncertainty involved in making portfolio selections is the constantly changing volatility in the prices of investments. For example, a stock worth $25.00 today was worth $22.75 yesterday (or five minutes ago) but can be worth $21.25 (or $31.25) tomorrow. The reason why the prices of investments are constantly changing, of course, is that they're subject to the impact of unpredictable future events - otherwise known as "news." This makes changes in the prices of investments random and therefore unpredictable.

Many investors – including stockbrokerage firms, trust companies and other investment advisors – don't acknowledge this fundamental problem. Instead of attempting to reduce this uncertainty, they focus on increasing return. Such investors believe that the best way to maximize return is with an investment approach called "active investing" by which they attempt to "beat the market." This approach takes a number of different forms.

One form of active investing - known as "track record investing" - focuses on the past. This involves attempts to assess which superior performing investments from the past will continue to be superior in the future in order to invest only in them. (It's useful to remember that superior investment performance can be identified as superior only *after* it has occurred.)

Other forms of active investing - known as "stock picking" and "market timing" - focus on the future. The goal of "stock picking" is to identify and profit from mismatches between the current market prices of individual stocks and what are thought to be their "true" underlying values. The goal of market timing is to shift money in and out of different investments in order to profit from short-term cyclical events in financial markets. They involve attempts to predict the future price movements of stocks and bonds.

All such forms of active investing lead to the widespread idea that to be successful, an investor must be able to "see" into the future or find a "skillful" money manager who can.

Many "skillful" money managers are identified as skillful simply because they have superior track records. Since the Securities and Exchanges Commission (SEC) ("Past performance is no indication of future results"), academic studies and principles of modern prudent investing all show that track record investing has little (or no) value, efforts to identify money managers who are skillful on the basis of track records also have little (or no) value. Sometimes it's possible to identify a "skillful" money manager on a statistical basis. In order to do

this, though, the manager must have an investment tenure that's relatively long. But even when a money manager is found to be skillful statistically, there's no guarantee that it will continue to be skillful in the future.

In fact, attempts to find investment "winners" based on past performance or forecasts of the future often result in poorly diversified portfolios saddled with high costs and taxes. These portfolios, such as those heavily invested in high technology stocks (or whatever sector of the market that may be currently "hot"), generally aren't regarded as prudent portfolios. Therefore, finding investment winners by looking at the past or attempting to forecast the future, isn't the key to successful investing.

The Solution

The real key to successful investing involves disciplined application of three major themes found in modern prudent fiduciary investing: (1) broad diversification, (2) low costs and (3) low taxes (for taxable investors). These factors, upon which the Uniform Prudent Investor Act, The Restatement 3rd of Trusts (Prudent Investor Rule) and the Employee Retirement Income Security Act place such great emphasis, allow investors the chance to reduce portfolio risk and enhance long term wealth effectively and efficiently.

Broad Diversification to Reduce Risk and Increase Return

Risk, as noted, is the uncertainty that the future returns of any given investment are unknowable today. Many investors are therefore left wondering if their portfolio will generate enough money to fund a desired standard of living. The uncertainty they experience arises from the "volatility" in a portfolio's market value over time. Reducing this volatility reduces total portfolio risk.

Efficient diversification, achieved by using the tools of Modern Portfolio Theory (the preferred method of diversifying risk according to modern prudent fiduciary investing), is fundamental to reducing total portfolio volatility. The following example illustrates the importance of reducing volatility (or risk):

Assume that Investor A invests $100 and gets a 50% return. $100 turns into $150. In the next year, the investor loses 50% of the $150. $150 turns into $75. The investor therefore loses $25 of the original $100. Then assume that Investor B invests $100 and gets a 10% return. $100 turns into $110. In the next year, the investor loses 10% of the $110. $110 turns into $99. The investor therefore loses $1 of the original $100. Investor A has a percentage loss that is five times greater than Investor B (-50% vs. -10%). Yet Investor A has an actual dollar loss that is 25 times greater than Investor B (-$25 vs. -$1). Reducing portfolio volatility (or risk) – i.e., reducing the size of fluctuations in portfolio values – is a more effective and efficient way of enhancing portfolio wealth than track record investing, stock picking or market timing.

	Investor A			Investor B		
Year	**Beg. Value**	**Return**	**End Value**	**Beg. Value**	**Return**	**End Value**
1	**$100**	+50%	$150	**$100**	+10%	$110
2	$150	-50%	**$ 75**	$110	-10%	**$ 99**
	Avg. Return	**0%**	**Loss $25**	**Avg. Return**	**0%**	**Loss $1**

Low Costs and Taxes to Increase Return

In addition to broad diversification to reduce risk and increase return, prudent investing involves minimizing costs and taxes to increase return. The Prefatory Note to the Uniform Prudent Investor Act asserts, when investing trust assets, a trustee's "central consideration" is to determine the tradeoff between risk and return. The "main theme of modern investment practice is therefore sensitivity to the risk/return curve." The Uniform Prudent Investor Act suggests that the most prudent way for investors to reduce portfolio risk and enhance wealth is through "passive investing." This involves investing in broadly diversified, low cost and low tax asset

class mutual funds and index mutual funds that effectively and efficiently capture market level returns at market level risk.

This reasoning leads to the conclusion that reducing risk and minimizing costs and taxes promote prudent investing while track record investing and attempting to pick stocks or time markets tend to encourage speculative investing. The problem with speculative investing is that it requires constantly being right. Investors can't always be right - but they must be prudent.

NOTES

Uncertainty

Because uncertainty implies risk, ordinarily the best way of managing the problem described by Markowitz – and encountered by all investors – is to diversify portfolios broadly. That is, investors should diversify because they don't know what's going to happen to a particular stock (or a small group of stocks, or even an asset class) in the future. Perhaps the motto of a prudent investor should be: "I can't foretell the future - therefore I must diversify." In this way, diversification acts as a kind of antidote to uncertainty. Modern Portfolio Theory emphasizes defense (i.e., reducing risk which increases return) through diversification and low costs rather than offense (i.e., attempting to increase return) through stock picking and market timing.

Increasing Return

Many investors focus exclusively on return. This is true despite the fact that they have no control over past returns (i.e., track records) because they're past or future returns because they're unknowable. Nonetheless, the "investment information system" (comprised of the media, mutual fund families, stockbrokerage firms, mutual fund ratings guides, investment advisory services such as Value Line and others) devotes considerable attention to return. Indeed, this system derives vast sums of money by encouraging investors to believe that they can predict investment return and therefore beat the market. Hopes of finding the next hot stock tip, identifying the next winning mutual fund or crowning the next guru saturate this world that many investors live in and from which they get their information about investing. This system is enormously powerful in how it affects the emotions of investors (both amateur and professional) and how it impacts their investment decision-making. The interest in reducing risk, costs and taxes pales in comparison. Yet the Uniform Prudent Investor Act places great emphasis on these simple and straightforward virtues and the critical role they play in assessing prudent fiduciary conduct.

Track Record Investing

Track record investing occurs when an investor identifies some investment such as a Morningstar 5-star mutual fund and invests in it because the investor thinks that its outstanding track record over some past time period will continue into the future. Reporter's General Note on Restatement 3rd of Trusts (Prudent Investor Rule) Section 227 warns, however: "Evidence shows that there is little correlation between fund managers' earlier successes and their ability to produce above-market returns in subsequent periods." The SEC reiterates this warning about track record investing by requiring all mutual funds offered for sale to feature some version of the following disclaimer: "Past performance is no indication of future results." In addition, virtually every reputable study of mutual fund performance since the mid-1960s has confirmed that there's no reliable way to predict when - or which - or even if - winners from the past will win again in the future. In fact, a mutual fund (or any other investment) that has performed well over a certain period in the past is just as likely to perform poorly in the future. What's worse is that data often shows the perverse tendency for superior track records to be followed by inferior track records. What does this say about many in the investment advisory industry that market their products based on track records? It says that their marketing efforts are centered on a factor -

investment returns over which they have no control. It's difficult to find an activity in the investment industry that has less value.

Total Portfolio Risk

Total portfolio risk, according to Modern Portfolio Theory, can be separated into two kinds of risk: uncompensated risk and compensated risk. "Uncompensated risk" (which comprises about 70% of total portfolio risk) is the possibility that economic (and non-economic) news may impact uniquely the market price of a particular stock. For example, the price of Ford Motor Co. stock may go down as a result of the departure of a key Ford executive. An investor that holds only Ford stock can protect its portfolio against this risk by also owning stock in companies that are unaffected by the departure of Ford executives - a risk that is unique to Ford Motor Co. only. Since an investor can eliminate virtually all uncompensated risk from a portfolio with proper diversification, financial markets do not reward an investor for taking this kind of risk. "Compensated risk" (which comprises about 30% of total portfolio risk) reflects the economic and non-economic news that impacts the market price of many (or all) stocks. Since the prices of individual stocks are affected, more or less, by the risk of a general rise (or fall) in the value of the stock market itself, compensated risk is unavoidable by an investor that invests in the stock market.

Modern Portfolio Theory

The Uniform Prudent Investor Act incorporates a fundamental tenet of Modern Portfolio Theory by ordinarily mandating broad diversification of portfolios. Diversification is fundamental to proper risk management. The duty to diversify is so central to modern concepts of prudence that it is incorporated into the Prudent Investor Rule. The goal of diversification is to minimize a portfolio's exposure to uncompensated risk so that the only risk remaining is compensated risk. A trustee's duty to diversify uncompensated risk ordinarily applies to investing both across the asset classes that comprise a portfolio and within each such asset class. (An "asset class" is made up of investments with common characteristics.) Diversification across multiple asset classes can be thought of as a "horizontal" reduction of uncompensated risk, while diversification within an asset class can be thought of as a "vertical" reduction of uncompensated risk.

Reducing the Size of Fluctuations in Portfolio Values

A mathematical concept known as "variance drain" holds that, as between two equivalently valued portfolios with the same average return, the one with the greater variance (i.e., volatility or fluctuations) will have a lower compound return. This suggests that efforts to maximize percentage return in each time period with the goal of maximizing the dollar value of a portfolio long term increases the possibility that there will be a shortfall in the portfolio's expected dollar value. Ironically, then, an investor may fail to meet its objectives not because it didn't seek maximum portfolio return, but because seeking maximum return (e.g., via stock picking or market timing) is often inconsistent with maximizing the probability that the portfolio will achieve sufficient dollar value.

Passive Investing

"Passive investing" includes investing in asset class mutual funds and index mutual funds. Both types of funds are the same in the sense that their managers do not (1) pick stocks for the purpose of trying to beat the market, (2) market time, (3) engage in track record investing or (4) attempt to forecast the future. The advantages of passive investing derive from the simple mathematical fact that every financial market, such as the stock market, in the United States is a "zero sum game." This is a game where some win and some lose relative to the return of a given market (or market segment).

The players who participate in the zero sum game of a financial market consist of three groups: (1) passive investors who earn the market return, (2) active investors who outperform it and (3) active investors who under-perform it. (It's important to note that the amount of the "zero sum" is not 0, but the return of a financial market, which also happens to be the average return of all those who invest in the market. For example, the zero sum of the U.S. stock market in 2002 as measured by the Wilshire 5000 index was a return of negative 20.85%.) The losing active investors who underperform a financial market can be characterized as "sacrificial lambs" for the winning active investors who outperform it.

Consider four investors in a particular financial market – three active investors and one passive investor. Further consider that the market return was 30% last year and that one of the active investors outperformed that return – by 20 percentage points – thereby earning a return of 50%. The other two active investors MUST have collectively underperformed the market return by 20 percentage points. The fourth investor (the passive investor) earned the market return (that is, the "zero sum") of 30%. A passive investor is never a sacrificial lamb that loses to winning active investors. Note that the returns in this example are before costs and taxes. After they are taken into account, though, the one winning active investor actually earned less than 50% and the two losing active investors lost more than 20%. The "dead weight" of costs and taxes reduces the superiority of the winner, just as it increases the shortfall of the losers. The same mathematical certainty demonstrated in this example holds true for yesterday, today and tomorrow, and applies to any financial market (or market segment) in the world - whether "efficient" or "inefficient." This mathematical certainty dictates three outcomes.

1. Before costs and taxes, passively managed money will always outperform 50% of all actively managed money invested in any given financial market.

2. After costs and taxes, passively managed money will always outperform more than 50% of all actively managed money.

3. This percentage increases with time as the net performances of most (even superior) active mutual funds regress to less than the market return due to (a) the inevitable erosion of their good performances by bad performances, (b) the relatively high costs and taxes they generate and (c) the negative compounding these costs and taxes generate against accumulating wealth.

Modern prudent investment principles suggest that passive investing is the "default" standard for investing and managing trust assets. The evidence in support of this is compelling for a number of reasons.

First, the zero sum nature of financial markets means that all passively managed money invested in a particular market will earn the market return. In contrast, 50% of all actively managed money in a market (whether invested in mutual funds, separate accounts or other investment vehicles) will always earn a return less than the market return. This simple mathematical fact is sobering enough. What makes it even more sobering is that these active investment vehicles unpredictably take turns underperforming. This compounds the uncertainty facing the actively investing trustee (or its agent) when selecting investment products.

Second, the costs and taxes associated with passive funds are lower than those associated with many active investing programs. When costs and taxes are taken into account, significantly more than 50% of actively managed money underperforms in a market.

Third, passive funds are broadly diversified so they are relatively low risk. Actively managed portfolios, in contrast, aren't as well diversified because they're comprised of investments that differ from the market portfolio. By definition, this makes such portfolios relatively higher risk.

Fourth, passive funds don't experience "style drift." A passive fund ordinarily reflects the risk/return components of an asset class or index quite accurately. Style drift, in contrast, is present in many active funds. This can lead to a number of problems for the trustee holding active funds in its portfolios. For example, style drift can make monitoring difficult and may cause an active fund to underperform its benchmark. A trustee might react to that by replacing the underperforming fund with another fund, thereby generating unnecessary costs as a result. In addition, style drift may lead to imprecise portfolio asset allocations. An important presumption on which a portfolio's asset allocation is based is that the products used in the investment strategy to implement the asset allocation will be reflective of the asset classes comprising the allocation. Because of style drift, however, many active funds don't accurately reflect their asset class "label."

Fifth, passive funds aren't subject to "manager risk" like active investment products. This is the risk incurred when a money manager is hired based on "superior past performance" (i.e., a track record) and it's discovered later that the manager's performance was due to luck, not skill. Even when the performance results from skill, the risk continues because it's not known whether the skill can be repeated.

It is often asserted that passive investing is a mediocre way of investing because it earns "only" the market return. However, the theory of financial economics suggests, as empirical findings confirm, that passive investing actually results in long term performance that is in reality superior to most active investing programs. This is achieved, ironically, without even needing to beat the market.

It is important to understand that passive investing is no panacea for escaping investment risk. Even properly diversified portfolios of passive funds won't protect investors from experiencing declines in their portfolio values during broad downturns in stock and bond markets. Although passive investing is the best way to rid a portfolio of as much uncompensated risk as possible, it can't eliminate the risk of losing money. Portfolios of passive funds are very efficient in reducing risk, but they are not risk-free.

Asset Class Mutual Funds

The manager of an "asset class mutual fund" seeks to capture the long-term performance of the underlying asset class associated with the fund by holding securities with comparable risk/return characteristics according to an identifiable factor such as market size.

Index Mutual Funds

The manager of an "index mutual fund" seeks to capture the long-term performance of the target index tracked by the fund. This is achieved by holding in the fund all (or a sample) of the investments that are represented in the index in the same proportional amounts. An index is representative of an asset class. Usually index funds track the performances of widely recognized indexes such as the S&P 500. Because a passive fund (i.e., an asset class fund or index fund) holds all (or a representative sample) of the investments that comprise a discrete asset class, it maximally reduces uncompensated risk within that asset class. No active fund can minimize uncompensated risk as well as a passive fund invested in the same asset class - whatever the number or combination of stocks held by the active fund. The uncompensated risk of a portfolio can therefore be virtually eliminated with passive investing.

Prudent Investor Advisors, LLC
791 Eighth Street, Suite S
Arcata, CA 95521
www.prudentllc.com