ON PRUDENT INVESTING AND OPTIMAL PORTFOLIOS

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An introduction to Portfolio Theory, the Uniform Prudent Investor Act, and Exchange Traded Funds, written for clients of financial advisors.

INTRODUCTION

The Uniform Prudent Investor Act regulates the investment responsibilities of trustees. This act is centrally concerned with the investment responsibilities arising under the private gratuitous trust, which is the common vehicle for conditioned wealth transfer within the family. Nevertheless, the prudent investor rule also bears on charitable and pension trusts, among others.

–Uniform Prudent Investor Act, 1994

This paper is written in the hope that clients of financial advisors may benefit from an introduction to the Uniform Prudent Investor Act, with the ultimate intent of helping them become better investors. Since its creation in 1994—by The National Conference of Commissioners on Uniform State Laws—the Act has been adopted in 43 states and approved by both the American Bar Association and the American Bankers Association.[1] Drawing upon current best practices for fiduciaries in the institutional pension arena, it sets a standard for how private trust assets should be invested. Since the Uniform Prudent Investor Act describes a process for controlling risk—and a great many individual investors are concerned with risk—we'd like to propose that the Act could serve as an excellent blueprint for all investors to follow (not just those with trust accounts).

A growing number of individual investors are becoming fiduciaries for the first time as they set up private trusts for estate planning purposes. In fact, with all the estate planning work being done under the banner of "Private Wealth Management," one could reasonably intuit that the average high-net-worth investor of today either a) has a trust, or b) will soon have a trust.

Many of those same individuals are also involved with foundations, and the Uniform Prudent Investor Act applies to foundations and endowments as well.

Rather than cover the Act in its entirety here, we intend to focus on some of its core elements (such as Modern Portfolio Theory). Modern Portfolio Theory may or may not be very different from how readers have invested in the past, but certainly many wish they had controlled risk better during the stock market "bubble" that predated the severe bear market period of 2000–2003. Following the dramatic downturn in several—but not all—sectors of the US stock market, an increased number of advisors (and investors) now recognize the need for better risk controls in portfolio management.

What's different? Potentially a lot is different. Through the late 1990's, investment success was often linked with the ability to pick "hot stocks." However, the concept of chasing trends (e.g., technology) and/or using some form of market timing was severely tested in the bear market that followed. Many stocks lost 50%—or more—of their value. Today, the paradigm of picking stocks has evolved; more advisors than ever before are adding value through the kinds of asset allocation strategies described in the Uniform Prudent Investor Act. Although not a new idea for many advisors, best practices today are now associated with having a process for controlling risk through proper portfolio diversification, not through finding the next hot stock.

But financial risk is more complicated than just stock market risk alone. Inflation threatens the future purchasing power of any investment portfolio and, as such, is another very real risk that should be addressed in portfolio construction. Life expectancies are increasing in the US—a good problem to have! Today's 62 year-old male is expected to live to a median age of 85, while females have a median life expectancy of 88.[2] Accordingly, there is arguably more purchasing power risk to a long-term investment portfolio than ever before. At the

same time, many of the best and brightest in academic finance are forecasting lower rates of return from the investment markets going forward. In such an environment, employing a process for maximizing return for a given level of risk seems prudent indeed.

We would like to reinforce that the two main subjects of this paper—Modern Portfolio Theory (MPT) and the Uniform Prudent Investor Act (UPIA)—are covered in only an introductory fashion. Readers who wish to learn more about these subjects should plan for a thorough discussion of them with their advisors. We would also disclose that the exchange traded fund, our third main topic, was pioneered by our employer, Barclays Global Investors, under the brand name iShares.

HISTORY OF MODERN PORTFOLIO THEORY & THE UNIFORM PRUDENT INVESTOR ACT

Over the quarter century from the late 1960's the investment practices of fiduciaries experienced significant change. The Uniform Prudent Investor Act (UPIA) undertakes to update trust investment law in recognition of the alterations that have occurred in investment practice. These changes have occurred under the influence of a large and broadly accepted body of empirical and theoretical knowledge about the behavior of the capital markets, often described as "Modern Portfolio Theory."

–Uniform Prudent Investor Act, Prefatory Note

In 1952, Dr. Harry Markowitz published an article entitled "Portfolio Selection" in the *Journal of Finance*, which later established him as the "father" of Modern Portfolio Theory. In 1990, Dr. Markowitz (along with William Sharpe and Merton Miller) was awarded a Nobel Prize in recognition of his work demonstrating that the blending and balancing of low-correlating asset classes reduces portfolio risk. Using mathematical tools such as standard deviation and correlation coefficients, Dr. Markowitz quantified "diversification benefits" and measured their effect on risk reduction and return.

To build a portfolio, the user of Modern Portfolio Theory asks, "For a given level of return, how can I reduce my portfolio's risk" or "For a given level of risk, how can I increase my portfolio's return?" MPT answers many questions about the relationship between risk and return in the financial markets, including why it is that adding stocks to a portfolio of bonds can actually reduce risk. This is a revolutionary concept for many investors, especially those who assume the opposite—that adding stocks increases risk. In fact, MPT changes many long-held preconceptions about risk, and this change is quite evident in the text of the UPIA.

Large pension plans—entities with considerable fiduciary responsibility—were among the first to adopt Modern Portfolio Theory. Eventually MPT became so well accepted among institutional investors that, in time, the Uniform Prudent Investor Act came to rely on it as well. The story of the UPIA as it relates to Modern Portfolio Theory is worth telling, briefly, because managing risk is (and should be) as important to individuals as it is to large investors. As stated already, the UPIA sets forth standards by which fiduciary prudence is measured with regard to the management of trust assets. The UPIA assumes that investors desire the highest possible return for a given level of risk, and that the trade-off between risk and return is the central consideration when managing the portfolio. Further, the UPIA states that prudence is displayed when one considers individual investments as they relate to the risk/return profile of the entire portfolio. This is the essence of MPT.

This may seem like common sense. But prior to the adoption of the UPIA, prudence was measured on the basis of an investment in isolation. In practice, this typically meant that assets were placed in the least risky asset class—high quality bonds. However, market history shows that there were years when bonds were riskier than stocks. The advent of MPT introduced a new and vital question into the investment selection process: How does this investment relate to my entire portfolio? MPT places investment process ahead of the importance of selecting individual investments, and the UPIA does as well (as evidenced in the following excerpt from the Act):

Investments that were at one time thought too risky, such as equities, or more recently, futures, are now used in fiduciary portfolios. By contrast, the investment that was at one time thought ideal for trusts, the long-term bond, has been discovered to import a level of risk and volatility—in this case, inflation risk—that had not been anticipated.

–Uniform Prudent Investor Act

We now have the backdrop in place for a discussion of just what MPT is.

WHAT IS MODERN PORTFOLIO THEORY?

A simple way to think about Modern Portfolio Theory is as a framework for developing an asset allocation plan, one that combines mathematical tools with the art of developing forward-looking returns for asset classes. MPT is actually a portfolio process, and as we've already mentioned, process is the spirit of the UPIA. No longer is prudent investing measured by the return of the portfolio. Instead, the UPIA focuses on the process used to generate the return. For those not proficient in MPT, seeking out a professional investment advisor who is can be a wise decision. The Act allows for this kind of delegation, as evidenced in the following passage:

The much criticized former rule of trust law forbidding the trustee to delegate investment and management functions has now been reversed. Delegation is now permitted, subject to safeguards.

–Uniform Prudent Investor Act

THE PROCESS OF PORTFOLIO DIVERSIFICATION

However common and sensible, the suggestion of "don't put all your eggs in one basket" leaves room for interpretation when it comes to investment practices. Does it mean that diversification increases as the number of investments increases? Today, most financial professionals would answer "no." For example, when financial advisors review their clients' portfolios, they don't simply tally the number of investments in a client's account and declare diversification. More stocks—or more funds—does not necessarily equate to eggs in different baskets.

Suppose a portfolio is heavily weighted in the financial sector basket. Buying more stocks from the financial sector—even those of different companies—will probably not add much more diversification benefit. In this scenario, while there may be attractive reasons for pursuing an additional financial stock, diversification is not likely to be one of them. That's because news and events will occur that affect the financial sector as a whole (such as increases in interest rates). If and when the financial sector basket drops, the majority of the eggs are likely to suffer. The same could hold true for mutual funds and money managers: if their styles overlap, the same market and economic forces will affect them at the same time. The sheer number of mutual funds does not add diversification in and of itself.

CORRELATION IS KEY

Modern Portfolio Theory assumes that the benefits of diversification derive not from the number of investments one has, but from the way the investments behave in relation to one another. This is why investments—stocks, bonds, and/or funds—need to be classified according to their unique attributes. In fact, stocks and bonds have such unique attributes that they sometimes move oppositely to each other during the same economic events. And within the world's equity markets, domestic stocks behave differently than international stocks, large-cap stocks differently than small-cap stocks, growth stocks differently than value stocks. Each one of these asset classes (and/or sub-asset classes) may react differently to a change in interest rates, the price of oil, or news from Europe.

Table 1 (page 4) illustrates the potential for dispersion of returns among different asset classes over the same time period—in this case, the bear market period from 2000–2003. During this time, many investors were unfortunately overweighted in technology and other growth stocks, and underdiversified in areas such as value stocks, fixed income and real estate securities. While this 3-year period is not meant to be perfectly

TABLE 1

Index	Lehman 20+ Treasury Bond	S&P 500	Russell 2000 Value Smallcap	Russell 2000 Growth Smallcap	Dow Jones U.S. Real Estate	Dow Jones U.S. Technology	Russell Midcap Value
Cumulative return 3/31/00–3/31/03[3]	+36.30%	–40.93%	+13.41%	–56.81%	+42.39%	–76.56%	+4.66%

predictive of future return disparity, it serves as an excellent historical example of how returns from different asset classes can vary widely, as shown in Table 1.

HOW ALIKE ARE YOUR INVESTMENTS?

How one answers this question is the critical issue to address. In effect, Modern Portfolio Theory takes the opposite approach to a concentrated portfolio. In lieu of putting all your eggs in one basket, advisors with a strong understanding of MPT work to identify asset classes that have distinctly different correlations.

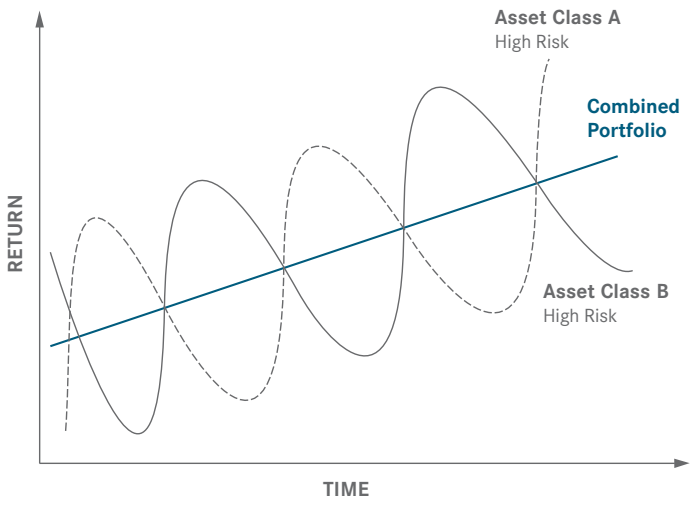
MPT recognizes that the addition of a low-correlating asset to a portfolio reduces the risk of the total portfolio. Portfolios with a combination of low-correlating assets are typically better protected than portfolios with only one or two asset classes. So, a well-diversified portfolio will not just contain numerous investments, but will hold investments that behave differently from one another. The overall portfolio's risk is thus "smoothed" over time.

Correlation is the numerical expression that explains this behavioral relationship between asset classes. Two asset classes that have a correlation of 1.00 have behaved and reacted exactly alike; a correlation of -1.00 indicates that the two have behaved oppositely. Typically, most investments fall somewhere in between. Any two investments with less than a 100% correlation are known to have performed differently at different times. For practitioners of Modern Portfolio Theory, correlation is key. Financial professionals use this information in order to combine complementary, low-correlating asset classes—one zigs while the other zags—to smooth out the risk of the portfolio as a whole.

Try envisioning the smoothing effect via the oversimplified metaphor of taking a shower. You'll agree that hot and cold water each have different characteristics, and as such we experience them differently. If you were to contemplate showering with just the cold water turned on, you might decide you were risking a very unpleasant experience. The same would certainly be true for showering with just the hot water turned on (and perhaps even more risky). However, by turning both valves at once, adding both hot and cold to the mix, the blended experience becomes quite comfortable. So too with asset classes—they each bring their own individual characteristics to a portfolio, and their return patterns are often quite different from one another. Blending them together can become a more comfortable experience for investors than they can have with any single asset class alone (i.e., either stocks or bonds). This diversification effect is illustrated in Chart A, which overstates reality but serves as a visual example to make the point of how the process of diversifying across asset classes is designed to control risk.

CHART A

Hypothetical illustration of the "smoothing" effect of asset class diversification (extreme oversimplification)



DEMONSTRATING THE BENEFITS OF DIVERSIFICATION: ANALYZING THE CLIENT'S CURRENT PORTFOLIO

Financial advisors have the means to show that not putting all your eggs in one basket isn't just another impractical saying. They have tools that enable them to analyze the historical risk and return characteristics of current portfolios. Once an analysis is complete, they can then create a more diversified portfolio—one that adds low-correlating asset classes to the mix—in order to demonstrate the benefits of diversification.

Let's take a look at a hypothetical portfolio, one that was familiar to many investors in the 90s. It combines an actual large-cap growth fund with a technology sector fund. Chart B shows that over a ten-year period ending June 2004, this two fund portfolio had an average annual return of 9.97% and a standard deviation of 25.23%. Standard deviation is used to measure variability of return, or the extent to which prices fluctuate up and down. As a frame of reference, the portfolio is compared to the Russell 3000, which is a diversified benchmark index that attempts to represent the risk and return of 98% of the US equity market. For this same time period, the Russell 3000 returned 10.28% with a standard deviation of 16.30%. These numbers are illustrated graphically, with the "B" representing the Russell 3000, and "I" the combined hypothetical mix between the actual large-cap growth fund and a technology fund. The chart clearly illustrates that the returns are about the same, but that the benchmark "B" had less risk than the two mutual fund portfolio (notice its position to the left of the "I" in Chart B):

CHART B

6/94–6/04

Portfolio & Benchmark Summary - Without Rebalancing

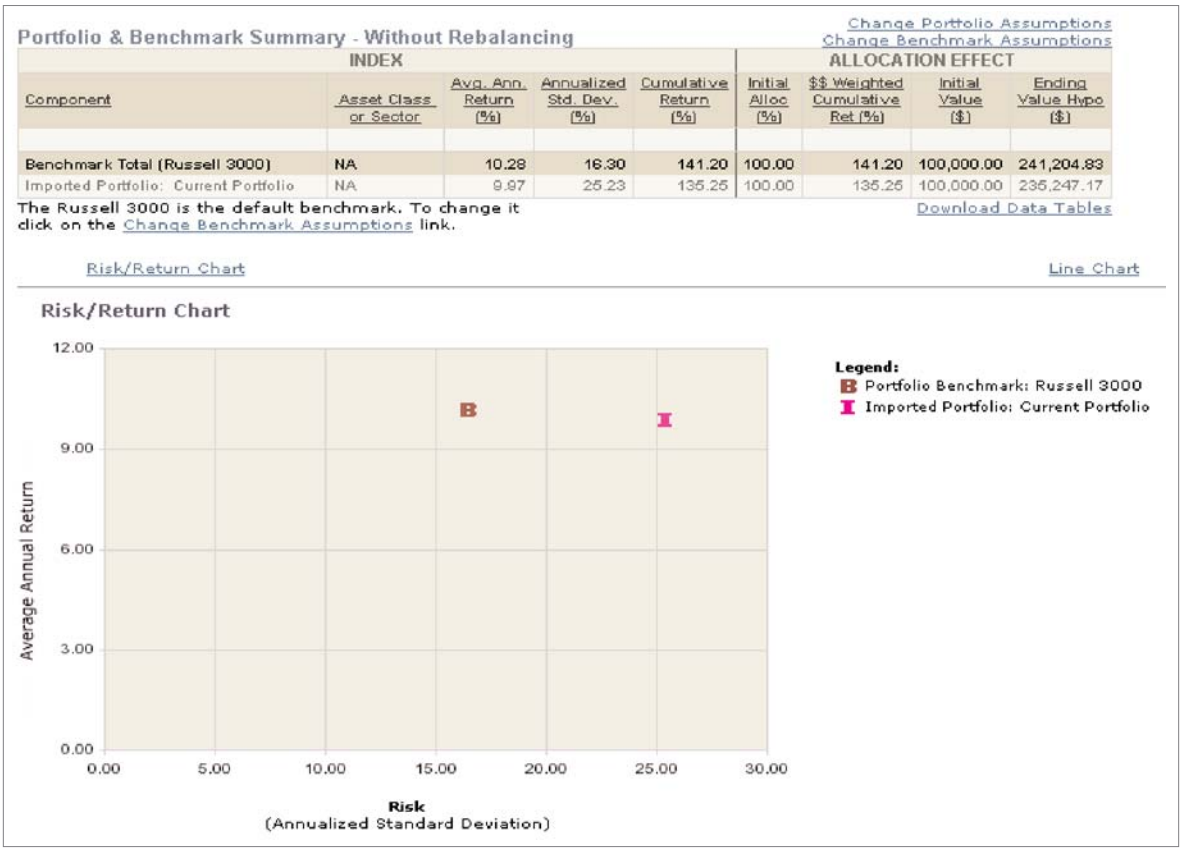
Change Portfolio Assumptions
Change Benchmark Assumptions

Component	Asset Class or Sector	INDEX Avg. Ann. Return (%)	INDEX Annualized Std. Dev. (%)	INDEX Cumulative Return (%)	ALLOCATION EFFECT Initial Alloc (%)	ALLOCATION EFFECT $$ Weighted Cumulative Ret (%)	ALLOCATION EFFECT Initial Value ($)	ALLOCATION EFFECT Ending Value Hypo ($)
Benchmark Total (Russell 3000)	NA	10.28	16.30	141.20	100.00	141.20	100,000.00	241,204.83
Imported Portfolio: Current Portfolio	NA	9.97	25.23	135.25	100.00	135.25	100,000.00	235,247.17

The Russell 3000 is the default benchmark. To change it click on the Change Benchmark Assumptions link.

Download Data Tables

Risk/Return Chart | Line Chart



So while the performance was roughly comparable, a significant difference in risk can be seen between the two fund portfolio and the US equity market (25.23% standard deviation versus 16.30%). These standard deviation numbers indicate that two-thirds of the time, the investments varied 25.23% and 16.30% respectively on both sides of their 10-year annualized returns of 9.97% and 10.28%. Even performing rough addition and subtraction in your head, you can see why using standard deviation to view variability of return is a way to measure risk.

In a perfect world, all our individual investments would always fall in the very northwest corner of the graph—low risk and a lot of return. In the real world, no such perfection exists (at least not for very long). It is commonly held in academic finance that risk and return are related for individual investments in isolation. In other words, if you want a higher return you must bear more risk to get it. So the goal is to use correlation to obtain the best performance possible for a level of risk you're comfortable with, and to use asset class diversification as the means of achieving it.

ADDING DIVERSIFIERS

We've stated that diversification requires advisors to introduce low-correlating asset classes into the portfolio in order to smooth the portfolio's volatility. To find these "diversifiers," advisors conduct a correlation analysis to identify the best candidates. Once the appropriate asset classes have been chosen, the most important decision is then to determine what percentage of the total portfolio should be allocated to each. It is widely held in academic circles that the asset allocation mix will determine more than 90% of a portfolio's variability.[4]

Different combinations will produce very different results. For example, a five-asset class portfolio, with 20% allocated equally to each, will have different risk and return characteristics than the same asset classes weighted 25%, 15%, 15%, 20% and 25%. Given that foresight is required to optimally blend low-correlating asset classes to achieve future expected risk/return parameters, this is not a simple task to execute with perfection. Advisors may spend as much time on asset allocation decisions as they do in determining which particular stocks, funds or managers to employ. And as we will discuss later, a growing number of advisors are turning to exchange traded funds (ETFs) as pure ways to implement an asset allocation strategy, partly because ETFs are pure plays on the asset classes themselves.

To illustrate our point, Table 2 represents one of many such possible asset allocations that could be implemented with ETFs. Recall that our original portfolio blended one large-cap growth fund with a technology fund. In the attempt to diversify the risk, we will reduce the current portfolio from 100% to 25% and add four additional asset class indexes:

TABLE 2

Asset Class/ Sector	Representative Holdings	Portfolio Weight
Growth & Technology	Two mutual fund portfolio	25%
Large-Cap Value	Russell 1000 Value	25%
Small-Cap Value	Russell 2000 Value	10%
International	MSCI EAFE	10%
Real Estate	Dow Jones U.S. Real Estate	5%
Fixed Income	Lehman Aggregate	25%

Before moving on to the results, at this point it is worth pausing to consider something that is easy to gloss over. This entire process may present the reader with a different perspective on investing, and the decisions you make may be driven by different reasons. Too often, investors consider investments in isolation. How has this investment performed? Is that fund too risky? Will this bond do well? And as noted earlier, the consideration of investments in isolation was the legal standard for determining the fiduciary prudence for trusts. Here, we are beginning to view investments as they relate to an entire portfolio, not in isolation. For example, in isolation one might forgo an investment in an international fund as just too risky. However, we included it here because we expect that the international asset class—given its correlation—would react differently to economic variables than the other components, adding a diversification benefit to the total.

CHART C

Portfolio & Benchmark Summary - Without Rebalancing

Change Benchmark Assumptions

Component	INDEX Asset Class or Sector	Avg. Ann. Return (%)	Annualized Std. Dev. (%)	Cumulative Return (%)	ALLOCATION EFFECT Initial Alloc (%)	$$ Weighted Cumulative Ret (%)	Initial Value ($)	Ending Value Hypo ($)
Current Portfolio								
Current Portfolio	NA	9.97	25.23	135.25	25.00	33.81	25,000.00	58,811.79
Russell 1000 Value	Large Cap	11.81	15.10	173.00	25.00	43.25	25,000.00	68,250.66
Russell 2000 Value	Small Cap	13.83	15.70	220.95	10.00	22.09	10,000.00	32,094.54
MSCI EAFE	International	4.33	15.33	46.39	10.00	4.64	10,000.00	14,638.76
Dow Jones U.S. Real Estate	Real Estate	11.84	14.01	173.66	5.00	8.68	5,000.00	13,683.09
Lehman Brothers US Aggregate	Fixed Income	6.83	3.75	81.20	25.00	20.30	25,000.00	45,300.42
Current Portfolio Totals (wtd avgs)	**NA**	**9.84**	**13.64**	**132.78**	**100.00**	**132.78**	**100,000.00**	**232,779.25**
Benchmark Total (Russell 3000)	**NA**	**10.28**	**16.30**	**141.20**	**100.00**	**141.20**	**100,000.00**	**241,204.83**
Imported Portfolio Totals: Current Portfolio	NA	9.97	25.23	135.25	100.00	135.25	100,000.00	235,247.17

The Russell 3000 is the default benchmark. To change it click on the Change Benchmark Assumptions link.

Download Data Tables

Risk/Return Chart — Line

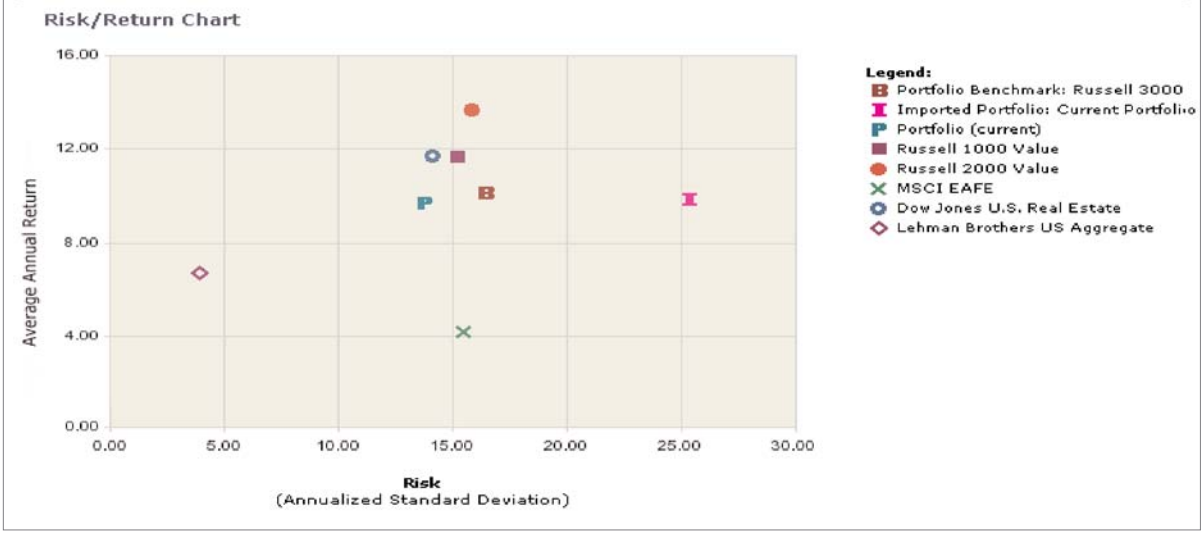


Chart C shows the risk and return characteristics of each of the components we've added to the mix (old and new). The original two fund portfolio is still "I", and the rest of the asset classes are noted with their own individual icons in the graph. The letter "P" signifies our new, more diversified portfolio.

Notice that the returns among the new portfolio "P", the Russell 3000 Index benchmark "B" and the old portfolio "I" are once again roughly the same. However, consider the reduction in risk. By adding the low-correlating asset classes, we have created a portfolio that is more diversified. Over the 10-year period we examined, it was nearly 50% less risky than the original two fund portfolio (from 25.23% standard deviation to 13.64%), and nearly 20% less risky than the general US equity market from June 1994 to June 2004 (16.30% to 13.64% standard deviation). The correlation between asset classes is the key to achieving an expected reduction in risk such as this. It brings the portfolio onto an "efficient frontier," in MPT language, where optimal allocations are defined as having the highest expected return for a given level of expected risk. The asset allocation model used here is not designed to represent an optimal portfolio, but merely serves as an example of the benefits of diversification. Financial advisors have the resources to optimize portfolios for their clients, and readers will hopefully be better prepared to discuss this process with them after reading this paper.

THE ADVISOR-DRIVEN PROCESS

Building optimally diversified portfolios is one of the most important roles an advisor plays, but it's just one of the many steps involved in the client-advisor relationship. Others include assessing each client's financial goals and tolerance for risk, rebalancing portfolios when asset classes become over or underweighted, and adjusting risk as client situations change.

Advisors who adhere to MPT work with their clients to design portfolios through a multistep process, one that often includes the following:

1. Diagnosing a client's individual tolerance for total portfolio volatility (i.e., risk), and determining long-term goals
2. Identifying low-correlating asset classes that will be used in constructing a diversified portfolio
3. Setting the asset allocation (determining the initial optimal allocation to each asset class in order to maximize expected return for a given level of risk)
4. Setting long-term ranges for each of the asset class weights to "float" within, enabling allocations to be modified over time in an attempt to capture better performance
5. Establishing rebalancing parameters, including frequency and methodology
6. Selecting implementation vehicles for each of the asset classes
7. Monitoring the portfolio on a regular frequency, and communicating the results to clients

SELECTING INVESTMENTS FOR THE PORTFOLIO

In terms of implementing an asset allocation, your advisor may have an investment philosophy that includes stocks, bonds, mutual funds and/or exchange traded funds (ETFs). ETFs such as iShares Funds are investment vehicles designed to facilitate an advisor's asset allocation strategy. iShares Funds are like index mutual funds since they seek to track a specific benchmark index. Unlike index mutual funds, iShares trade like stocks in that they are bought and sold throughout the trading day on an exchange. In addition to selecting which iShares Funds to use in the portfolio optimization process, advisors also provide clients with education on how these innovative, low-cost vehicles work—including why they are extremely tax efficient. Cost and taxes are also covered under the UPIA as important considerations for prudent investing.

A WORD ABOUT COSTS

It is important for trustees to make careful cost comparisons, particularly among similar products of a specific type.

–Uniform Prudent Investor Act

Mutual funds and ETFs both have internal fees—called expense ratios—that pay for the management, operations and the marketing of the funds. As a point of comparison, the expense ratios of iShares ETFs are often just a fraction of comparable actively managed mutual funds. Index funds are generally known for their low expenses, and iShares Funds bring the economies of scale of Barclays Global Investors' large institutional index business to bear for the benefit of individual investors through these innovative products.

In addition to expense ratio fees, mutual funds and ETFs also have transaction costs that are borne by the shareholders. When the managers add and subtract securities, there is the bid/ask spread to deal with, and they also incur some form of execution charge or commission on top of the bid/ask spread. The annual transaction costs of mutual funds are not easily understood since they are not yet fully disclosed. This may change in the future; in the meantime, it is important for investors to understand what drives transaction costs—and what the implications are.

Portfolio turnover is the rate at which a fund manager changes the portfolio. Some investment techniques and styles result in more portfolio turnover than others, meaning the rate at which the managers add and subtract securities is higher. It is intuitive that, on average, the higher the turnover rates, the higher the transaction costs borne by shareholders.

It is usually acknowledged that index mutual funds and ETFs have much lower turnover rates than actively managed funds in comparable asset classes. When transaction costs are added to fund management fees, it becomes clear why it's so very difficult for active mutual funds to beat their index fund counterparts. This is evident in studies that show the high percentages of active mutual funds that underperform their index benchmarks over time.

As the UPIA states, it's considered prudent to consider costs of similar portfolio implementation vehicles carefully. Investors should be aware of both expense ratios and transaction costs, as suggested in the following excerpt from *The Wall Street Journal*: "The commissions funds pay to buy or sell securities are an important but often overlooked cost absorbed by investors. Commission costs are deducted directly from fund assets, reducing returns to investors. The amounts aren't included in a fund's annual expense ratio but can rival or even exceed those fees if a fund trades heavily."[5]

TAX EFFICIENCY

Under the present recognition rules of the federal income tax, taxable investors, including trust beneficiaries, are in general best served by an investment strategy that minimizes the taxation incident to portfolio turnover.

–Uniform Prudent Investor Act

Stocks and bonds have two basic components of tax liability: the capital gain or loss based on the purchase and sale price, and the dividend or interest income. Mutual funds and ETFs share these two tax liability components, but differ as to their distributions.

Mutual funds distribute capital gains incurred by the fund equally among shareholders. Thus, even though you haven't done any buying or selling, you may yet receive a capital gain distribution because other shareholders have sold their shares. Or, the fund manager may have decided to sell stocks within the fund, which can also create a taxable distribution to all shareholders.

iShares Funds mitigate this tax liability in two ways: 1) iShares are bought and sold on an exchange, so investors who sell their shares do not generate capital gains distributions for their fellow shareholders to bear; 2) since iShares Funds track indexes with low turnover, the ETFs themselves have low turnover and therefore are at much lower risk of having capital gains distributions.

Readers may have heard of tax sensitive mutual funds—sometimes called tax-managed funds—which employ portfolio strategies that attempt to minimize capital gains distributions. However, currently most of the tax-managed mutual funds in existence are available for just a few asset classes. Before the creation of iShares Funds, it was very difficult to implement a fully diversified asset allocation strategy in a tax efficient way. Given the breadth of the iShares family, a portfolio that is both highly diversified and fully tax efficient is now possible.

THE ONGOING CLIENT–ADVISOR RELATIONSHIP

Managing embraces monitoring, that is, the trustee's continuing responsibility for oversight of the suitability of investments already made as well as the trustee's decisions respecting new investments.

–Uniform Prudent Investor Act

Once your portfolio is in place, an advisor can continually monitor the performance of your investments and make adjustments to keep it on track to meet your objectives.

One of the key services an advisor provides is a disciplined process for rebalancing the portfolio as markets change. Depending on your advisor's investment approach, rebalancing might be frequent and tactical—based on market opportunities—or based on a time period such as quarterly, semi-annual or annual. It may also include ranges in which the portfolio is allowed to drift before being rebalanced. In any case, while there can be no guarantee that rebalancing increases return, it is widely held in academic finance that rebalancing is a means of controlling risk in the portfolio.

Additionally, if your investment objectives change, your advisor can adjust your portfolio to ensure it continues to meet your goals and risk tolerance.

SUMMARY

Both Modern Portfolio Theory and the Uniform Prudent Investor Act have shifted investment focus from the performance of individual investments to the performance of the entire portfolio. The process of implementing MPT serves as a road-map to guide the advisor-client relationship. Since there are no certain estimates for expected returns from the different asset classes going forward, MPT is as much art as science. An article published in the *Journal of Wealth Management* put it this way: "Though Modern Portfolio Theory represents the best thinking we have on the way capital markets behave and are likely to behave in the future, one must remember that MPT is far from perfect. It is therefore essential that we employ MPT concepts in our financial advisory work. But there will be frequent instances when it doesn't work well for reasons that are well understood (irrational investors, chaotic societies, flawed structural assumptions) and for reasons that aren't (crash of 1987)."[6] Because computers are good at examining the past but not smart enough to be relied upon for future estimates, it often takes the steady hand of an educated advisor for an investor to successfully navigate the MPT path. Advisors who are knowledgeable about MPT must determine how to diversify the investments across the asset class spectrum to create an optimal portfolio and, when implementing, carefully consider the tax and cost implications that can erode the portfolio's returns.

In closing, here is some additional language from the UPIA that provides a summary:

UPIA makes five fundamental alterations in the former criteria for prudent investing. All are to be found in the restatement of Trusts 3d: Prudent Investor Rule.

1. *The standard of prudence is applied to any investment as part of the total portfolio, rather than to individual investments.*

2. *The tradeoff in all investing between risk and return is identified as the fiduciary's central consideration.*

3. *All categoric restrictions on types of investments have been abrogated; the trustee can invest in any thing that plays an appropriate role in achieving risk/return objectives of the trust and that meets the other requirements of prudent investing.*

4. *The long familiar requirement that fiduciaries diversify their investments has been integrated into the definition of prudent investing.*

5. *The much criticized former rule of trust law forbidding the trustee to delegate investment and management functions has now been reversed. Delegation is now permitted, subject to safeguards.*

–Uniform Prudent Investor Act

GLOSSARY OF FREQUENTLY USED TERMS

UPIA: Uniform Prudent Investor Act

MPT: Modern Portfolio Theory

ETF: Exchange Traded Fund

iShares: A brand of exchange traded funds advised by Barclays Global Fund Advisors

NOTES

1 The National Conference of Commissioners on Uniform State Laws, March 2005.

2 Source: Dr. Richard Marston, University of Pennsylvania, Consulting Group University Lecture, Fall 2004.

3 Source: Barclays Global Investors and CBS MarketWatch in conjunction with S&P Comstock.

4 Source: Brinson, Hood and Beebower. "Determinants of Portfolio Performance." *Financial Analysts Journal,* July–August 1986.

5 Ian McDonald. "Mutual Funds Are Cutting Commissions—At What Cost?" *The Wall Street Journal,* February 25, 2005.

6 Greg Curtis. "Modern Portfolio Theory and Quantum Mechanics." *Journal of Wealth Management,* Fall 2002, p. 6.

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