

Challenging the Conventional Wisdom of Portfolio Construction

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Investors should not design portfolios to survive markets on average, but rather to survive every day and, most importantly, the worst days.

Background

Benjamin Graham said that “The essence of portfolio management is the management of risks, not the management of returns.” We agree.

At the core of Gresham’s Risk Conscious® investment approach is the idea that investors must bear risk to achieve long-term financial goals, but we must bear these risks intelligently. Risk consciousness does not mean risk avoidance, but rather ensuring that we are adequately rewarded for the risks we take. A robust portfolio construction framework provides the basis for evaluating risk/reward trade-offs in investor portfolios.

The last few years have highlighted the importance of proper portfolio construction. In 2008, many investors felt that portfolio construction and diversification failed to protect their portfolio from severe losses. In our view, it was not portfolio construction that failed, but rather conventional wisdom and common practices that misled investors into believing their portfolios contained far less risk than was actually present. Unfortunately for many investors, this was a very expensive lesson.

Key Concepts

- The most important goal of portfolio construction is to design a portfolio that will allow investors to remain invested through the most adverse market conditions. Many investors build portfolios with risk levels designed to create comfort “on average” rather than understanding the importance of surviving the most severe market events.
- Sound portfolio construction involves three decisions which drive the majority of investment returns: strategic asset allocation, tactical adjustments and security selection. Unfortunately, academic studies mislead investors and consultants into believing that strategic asset allocation is the sole source of value-add in the portfolio construction process.
- Price risk is one of the most often overlooked and most important elements of risk in capital markets. Most quantitative models rely on some simple measure of risk, such as standard deviation, that does not incorporate a view toward valuation.
- Measuring the performance of a truly diversified portfolio can be challenging. By definition, the portfolio will not perform like equity markets or any other single asset class. Personalized strategy benchmarks that accurately represent an investor’s long-term strategic asset allocation targets provide the best measure of the relative performance of an investor’s portfolio.

Portfolio Construction Basics

Tommy Armour, one of the greatest golfers of his era, once said that “the way to win is by making fewer bad shots.” Charley Ellis translated this concept for investors in his book, *Winning the Loser’s Game*, by stating that investing is a loser’s game in which the winner is often the investor who makes the fewest errors. Putting this concept into practice requires that successful investors adhere to well-defined principles, which guide thoughtful portfolio construction and limit the “bad shots” in a portfolio.

Three decisions drive the majority of investment returns: strategic asset allocation, tactical adjustments and security selection. Investors describe these decisions by different names and combine these elements in different ways, but most frame-works are quite similar. There is no single correct approach to making decisions at each level, but a wide range of philosophies that depend on an investor’s view of their ability to capture opportunities and generate performance from each decision.

Asset allocation refers to the process of diversifying a portfolio by deciding the proportion of portfolio assets to place in a particular asset class, such as stocks, bonds and commodities. Asset allocation can be divided into two distinct decisions: strategic allocations, which represent

long-term targets that are infrequently revisited, and tactical adjustments, which represent the active or passive decisions to let allocations move away from these long-term targets. Most importantly, the asset allocation process should result in targets that allow investors to maintain a steady, long-term investment program and a greater probability of achieving their financial goals.

While academic research provides a range of elegant theories and approaches to asset allocation, personal preferences and individual circumstances should be the largest determinants of these decisions, including return objectives, tolerance for portfolio declines and time horizon. Beyond correctly incorporating personal preferences, portfolios must also fully incorporate all non-financial assets and liabilities to create a holistic view of a diversified portfolio.

If asset allocation is a personalized exercise, where should investors begin?

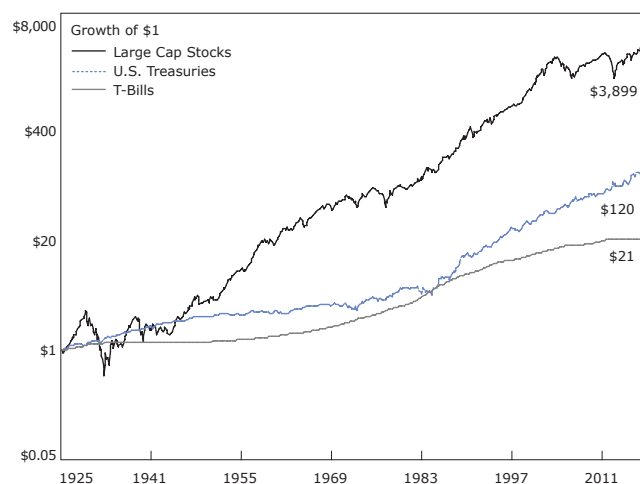
While a wide range of asset allocation outcomes are possible for investors with different preferences and circumstances, there are a few principles that should guide all investors. To the extent that long-term growth is an objective, which is the case for all investors save those with short investment horizons or large liabilities to hedge, a strong equity orientation is critical to success. Finance theory suggests equity investors should earn higher rates of return than owners of less risky assets.

Fortunately, capital markets provide decades of empirical evidence to support this conclusion as shown in **Chart 1**. At a very basic level, higher returns should accrue to equities, as they represent the riskier residual interests in a corporation after satisfying all other claims, such as bank loans and debt securities. Investors should be adequately rewarded for accepting this risk.

Do equities still offer adequate rewards?

While equities should outperform less risky assets over the long run, sometimes the long run is much longer than expected. The recent past is a good example of such

Chart 1. Equities have significantly and persistently outperformed fixed income investments.



Source: Ibbotson Associates

a period. Over the last 12 years, world equity markets have returned something close to 0%. This period began at the height of the technology bubble, when equity valuations were extremely high, and includes two periods of significant equity market declines. Relatedly, for the first time in history, the 30-year return on stocks has fallen below the return on bonds. Of course, over the last thirty years, interest rates have declined from 14% to 2%, creating massive and likely unrepeatable appreciation for bond investors. However, despite the disappointing returns of the recent past, we believe that equities, when purchased at reasonable valuations, will continue to outperform other lower risk investments if investment horizons are sufficiently long.

If equities are expected to outperform, why should I diversify my portfolio?

In some ways this seems like a simple question that few investors even ask, as diversified portfolios have become the default approach to investing. However, there is a sound basis for this approach. Forecasting future returns is very difficult and involves a high degree of uncertainty. John Kenneth Galbraith famously said “We have two classes of forecasters: Those who don’t know—and those who don’t know that they don’t know.” While it’s frightening to admit that you don’t know something, we should be more frightened when investors are absolutely certain they know what’s going on. It sometimes seems to us that market forecasts were invented to make weathermen feel good about themselves.

Investors who don’t recognize an uncertain future, create concentrated portfolios with very specific bets. These concentrated allocations will suffer significant declines during an impossible-to-predict market crisis, causing many to liquidate assets near market lows. Conversely, rational investors accept that, despite best efforts to accurately forecast returns, uncertainty is high during even the most benign periods, reinforcing the need to build a diversified portfolio.

Generations of economics students were taught that there was no such thing as a free lunch, until a University of Chicago graduate student named Harry Markowitz

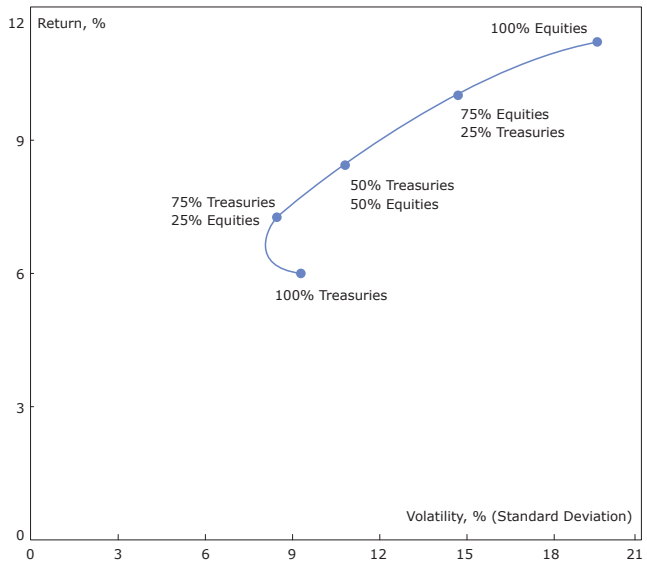
published a study in 1952 in which he correctly identified diversification as the only free lunch in economics. In other words, diversification allows investors to take less risk without sacrificing returns.

Chart 2 shows the volatility reducing benefits of effective diversification. The two end points of the curve represent two portfolios, one consisting of 100% equities and the other consisting of 100% bonds. The returns, volatility and correlation are based on long-term historical averages. Because these two asset classes tend to have low correlations (i.e., the price of stocks and high quality bonds tend to move in different directions), the net effect of combining these assets in a portfolio produces less volatility for a given level of return as shown by the bend in the line between these two end points. This is known as a Markowitz efficient frontier and illustrates the “free lunch” in capital markets.

Does diversification have limitations?

Diversification is not a cure-all for portfolio declines. Many university endowments, viewed as among the most sophisticated investors in the world and with portfolios widely regarded as well-diversified, lost 25% or more for their fiscal year ending in 2009. Many less sophisticated

Chart 2. Portfolio diversification significantly improves investors’ risk/reward balance.



Source: Ibbotson Associates, Gresham Partners, LLC.

investors suffered far greater losses during this period. Endowments and other long-term institutional investors have some ability to tolerate these large, unexpected drawdowns. For other investors, particularly individual investors who have an emotional attachment to their personal financial security, losses of this magnitude caused them to sell risky assets at distressed prices near the bottom of the market.

In the end, the most important goal of portfolio construction and asset allocation is to design a portfolio that will allow investors to stay the course through even the most adverse market events.

Howard Marks of Oaktree Capital Management is fond of reminding his investors to “never forget the six foot tall man who drowned crossing the stream that was five feet deep on average.” His point is that investors should not design portfolios to survive markets on average, but rather they need to survive every day and, most importantly, the worst days.

It is important to be mindful of the path markets may take on their way to long-term averages. The most important goal of portfolio construction and asset allocation is to design a portfolio that will allow investors to stay the course through the most adverse market events. In many cases, this will require investors to allocate portions of their portfolio to asset classes with return and volatility characteristics below that of equities.

Is asset allocation the most important aspect of portfolio construction?

The 1986 Brinson, Hood, Beebower paper “Determinants of Portfolio Performance” concluded that more than 90 percent of the variability of portfolio performance is driven by strategic asset allocation policy¹. Other studies have concluded that asset allocation is responsible for an even higher percentage of the variability of portfolio results. So, should investors simply stop after determining their strategic allocation policy?

David Swensen, the Chief Investment Officer of Yale University’s endowment, describes these as “studies in investor behavior, not financial theory” as they were conducted on large institutional portfolios that all tend to invest in a similar fashion. Most institutional investors tend to adhere tightly to strategic allocation targets, eliminating the possibility of generating performance from tactical adjustments. These institutions also typically invest in excessively diversified portfolios that have little chance of performing materially different from benchmarks, eliminating the possibility of generating excess returns from manager selection decisions. For investors who choose this approach, it is not surprising that studies show strategic asset allocation is the primary driver of performance.

While strategic asset allocation is indeed a very important element of portfolio construction, these studies understate the potential for risk reduction or return enhancement from other elements of the portfolio construction process. Unfortunately, these studies have become so central to investment practitioners that they have been accepted as conventional wisdom and interpreted as sound finance theory.

Does tactical allocation improve performance?

Before we condemn institutional investors for their rigid adherence to strategic allocation targets, we should acknowledge that some of the largest investment mistakes come from investors attempting to time markets through tactical adjustments away from their long-term, strategic targets. Most studies show that institutional investors have generated little incremental return or risk reduction from these activities. Unfortunately, we believe the reality is far worse and that market timing decisions have produced considerable losses for many investors.

Human nature is our enemy when it comes to investing. Most investors, including professional investors, are tempted by the allure of hot performing assets. Unfortunately, these assets also present investors with a less

¹ Gary P. Brinson, L. Randolph Hood, Gilbert L. Beebower, “Determinants of Portfolio Performance”, *Financial Analysts Journal*, July-August 1986

compelling value proposition due to their recent price increases, which elevates the risk of the investment. We call this price risk.

Similarly, investors tend to be comfortable “letting good performers run” and not rebalancing, unintentionally overweighting assets which have recently produced the strongest performance. Many markets exhibit some mean-reverting tendencies so that periods of good performance are often followed by poor performance.

Why is price risk so important?

Price risk is one of the most overlooked and important elements of risk in capital markets. Most modern risk models attempt to reduce risk to a single number such as standard deviation, by quantifying the variability of past prices. Not only does this tell us little about the future, it also tells us nothing about the valuation of the asset. This can be quite dangerous, as the higher the price one pays for a given asset, the less likely it is to result in a favorable outcome.

Chart 3 shows the volatility of stocks over the last 10 years. During 2007, volatility was nearing all-time lows, indicating a period of “low risk” according to many financial models. We know what happened to stocks over the subsequent year. Conversely, in March of 2009, volatility was near all-time highs, but it would be hard

to argue that buying stocks at those very low valuations should be considered a higher risk investment than investing 18 months earlier. However, that is exactly what many financial models suggested.

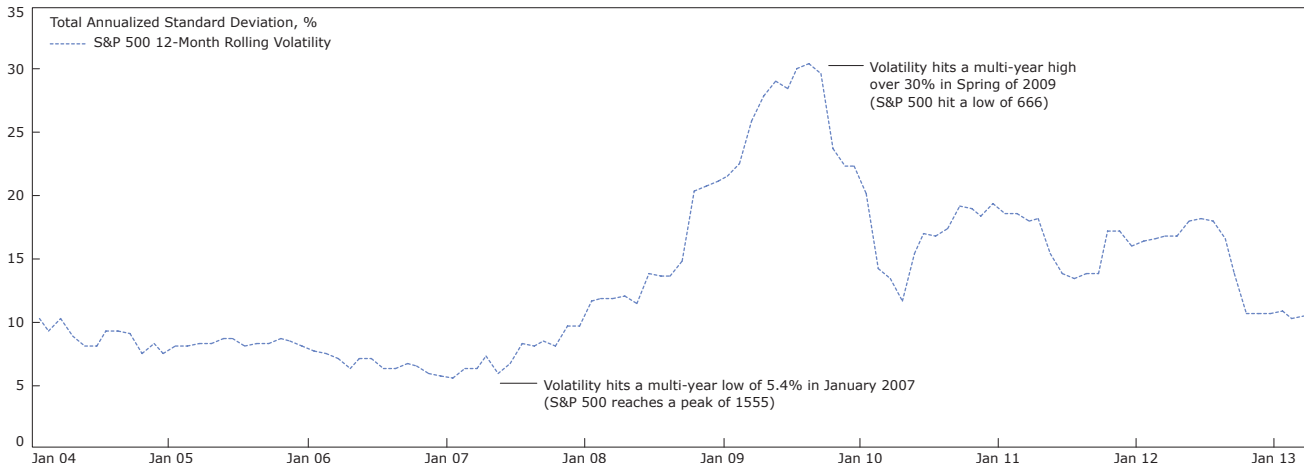
While strategic asset allocation is indeed a very important element of portfolio construction, these studies significantly understate the potential for risk reduction or return enhancement from other elements of the portfolio construction process, such as manager selection.

Almost every negative market event in history has been preceded by a period of inflated valuation due to overly hopeful investors ignoring the price they paid for assets. Examples include housing prices in the mid-2000s, technology stocks in the late 1990s and even tulip prices in 1600’s Holland. History is filled with examples of price bubbles that always end poorly.

Valuation, rather than momentum, should guide tactical allocation decisions.

Instead of chasing hot performance and overpriced investments, investors should be rebalancing their portfolio away from these risks. For example, if equity markets have performed well over a short period of time and thereby increased the percentage of assets allocated

Chart 3. Volatility is a commonly-accepted and misleading measurement of risk.



Source: Bloomberg, Gresham Partners, LLC.

to this area, prudent investors should consider trimming this investment and rebalance toward strategic targets.

Price risk is one of the most overlooked and important elements of risk in capital markets.

Disciplined investors can extend the rebalancing concept further by tactically allocating portfolio assets toward more attractive priced areas. If equity markets have significantly underperformed, presenting investors with a more attractive valuation proposition, overweighting this area can be an additional source of return under the proper conditions. Investors should approach the latter decision with caution and patience, as it may take a long time for the market to recognize and normalize undervalued areas.

Unfortunately, as noted previously, human nature produces precisely the opposite instincts. We naturally want to let winners run and eliminate the pain of losing investments. Having a well constructed portfolio with long-term target allocations can be a useful guide in these circumstances.

Can security selection or manager selection add value?

Most studies suggest that institutional investors add little value in security selection or manager selection. More specifically, most studies of active managers show that the majority of the managers measured fail to outperform a passive index after fees². While this is a damning statement, we believe this is once again a statement of investor behavior rather than finance theory.

Since the introduction of style-box (e.g., large-cap vs. small-cap, value vs. growth...) oriented investing, mutual fund and institutional investment managers have become wedded to relative performance. Surprisingly, recent studies have shown that the top ideas in institutional investment portfolios have actually outperformed the market over the last few decades³. So why do these

managers over-diversify their portfolios by filling them with other stocks that drag down their performance, but keep their portfolios closely tracking benchmarks?

Incentives are a powerful motivator. Unfortunately, most investment manager incentives are misaligned with investors' incentives. Most managers are more worried about career risk (i.e., the risk of getting fired for underperforming while doing something unconventional) and business risk (i.e., the risk of losing assets due to short-term underperformance relative to a benchmark) than they are about managing risk in absolute terms and investing in their highest conviction ideas. This tendency to avoid deviating from benchmarks has been strongly reinforced by consultants and other external constituents. The asset management industry today truly resembles the old John Maynard Keynes statement: "It is better for the reputation to fail conventionally, than to succeed unconventionally."

If investors only have access to traditional active managers, adopting a bias toward low-cost, and/or passive (index-based) investments would be a logical and sound approach. Fortunately, managers do exist who are focused on serving the best interest of their investors by thinking about risk in absolute, not benchmark-relative terms, and focusing on their highest conviction ideas. These managers tend to have a significant portion of their personal wealth invested in their own funds and are less concerned about raising assets, focusing instead on the performance of their own assets. In short, their incentives are better aligned with their investors. While manager selection is a subject unto itself, these types of managers form the core of Greshams' client portfolios and have driven our ability to reduce risk and enhance return over the 15+ year history of our firm.

² Jonathan Lewellen, 2011, "Institutional investors and the limits of arbitrage," *Journal of Financial Economics* 102, 62-80.

³ Randy Cohen, Christopher Polk, Bernhard Silli, 2009, "Best Ideas," available at Social Science Research Network: <http://ssrn.com/abstract=1364827>.

Asset Classes and Their Role in a Portfolio

Now that we understand strategic asset allocation is important (but not as important as many believe), how should we approach the portfolio construction process?

Define asset classes by economic outcomes, not conventional labels.

One of the important decisions in asset allocation is simply defining asset classes. Many traditional approaches rely on conventional labels, such as domestic equity, international equity or fixed income. We believe a far more useful way to define asset classes is to understand the strategic purpose of an asset and how it reacts to various economic environments.

Economic growth and inflation are the most critical elements of the economic environment and have the strongest effect on capital markets. It should be noted that this framework is not unique to Gresham and many investors have adopted very similar concepts. By combining these factors, investors can define four discrete economic environments. **Chart 4** illustrates this concept with the various combinations of growth and inflation. For example, Quadrant I is a high growth and low inflation environment. This environment dominated the 1980s and 1990s, as the globalization of the workforce created strong disinflationary forces and technological innovations led a productivity boom that spurred economic growth. Quadrant II is a higher growth and higher inflation environment that typified several periods in the 1970s.

How do these economic environments relate to traditional asset classes?

During each of these environments, certain asset classes tend to perform better than others. For example, equities generally perform best during high growth periods, particularly those with declining inflation (Quadrant I). In contrast, government bonds tend to do well in declining inflation environments (Quadrant III), while corporate bonds will also benefit from the lower interest rate environment associated with lower inflation, but

will also do well in a period of higher growth that tends to benefit the financial strength of corporations (Quadrant I). **Chart 4** shows the four economic environments with the associated asset classes that should perform best in each environment.

Do all asset classes fall into one of these economic environment quadrants?

Most asset classes tend to perform better or worse in each of these various economic environments. However, a few other investments and sources of return fall outside of these quadrants and, more importantly, have the potential to provide positive returns under all economic environments. **Chart 5** shows the addition of absolute return strategies and active risk to the center of the Quadrant Chart. Certain absolute return strategies, which are a narrow subset of hedge fund strategies, have the ability to generate returns in each of these environments. In addition to the diversification benefits provided by their low correlation with other asset classes, the asset class also tends to have less variability in its performance and can be an effective tool for reducing overall portfolio volatility. One note of caution for taxable investors is that these strategies can be tax inefficient. If investors can shelter these returns in tax-exempt or tax-deferred accounts, it will make their inclusion in a portfolio more effective.

Chart 4. Certain investments tend to perform better in specific economic environments leading to important conclusions regarding diversification and portfolio construction.



Source: Wellington Management, Gavekal Research, Gresham Partners, LLC.

Another area worth mentioning is active risk, which is simply the risk a manager takes in attempting to generate above-market performance. While an equity portfolio will fluctuate with equity markets, the excess return is likely to be uncorrelated with any economic regime or asset class, providing both a performance benefit and a diversification benefit.

Relatedly, allocations to highly capable private equity managers can generate returns in excess of public markets. While public equity markets will have some influence on the performance of private equity as a whole, the additional performance from a private equity manager’s skill should be uncorrelated to public equity markets. One note of caution for all investors is that taking active risk in the pursuit of additional return requires the ability to identify and access managers who can generate real excess returns, which is far less common than most investors believe.

How can investors construct diversified portfolios across these different economic environments?

The most important lesson to take away from these charts is that investors need to construct portfolios that are diversified across these quadrants to protect against or benefit from various economic environments. As we noted previously, long-term investors will want

significant exposure to equities (Quadrant I) as a core growth driver, but they must then balance their portfolio with assets in other quadrants. For example, commodities (Quadrant II) tend to perform well in high inflation environments when many equities may not perform as well. Precious metals (Quadrant IV) tend to perform well in a low growth environment where stimulative fiscal and monetary policies may lead to currency debasement and/or inflation.

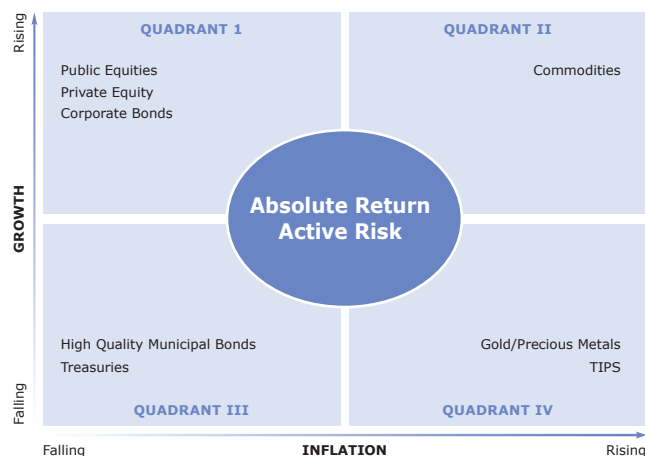
It is also important to note that investments which many investors believe to be diversifying actually reside in the same quadrant and will not reduce portfolio risk as expected. For example, corporate bonds reside in Quadrant I with equities. On the other hand, Treasury bonds or similar high-quality fixed income investments can be a strong diversifier, as they tend to perform well when economic growth and corporate profits are weaker. Incorporating the concept of diversification across various economic regimes can confirm (or call into question) quantitative assessments of correlation between asset classes.

How should investors determine portfolio allocations?

Investors can employ a variety of both quantitative and qualitative approaches to determine allocation targets for portfolios. Most long-term investors will build a portfolio around an equity core to provide the growth required to keep pace with inflation, taxes and spending needs. At a basic level, strategic allocation targets should be determined by the expected return, expected risk and correlations of the assets in various economic regimes, ensuring that the portfolio is diversified away from its core equity exposure that lies in Quadrant I.

More specifically, portfolio allocation decisions should take into account the risk/reward balance of each asset class, its current valuation and the outlook for these economic variables. For example, a Treasury bond’s yield of 2% implies inflation of roughly 0% or even the possibility of a deflationary environment over the next ten years. While this is certainly possible, it is not likely given the amount of stimulus in the economy and the long-standing tradition for governments to generate

Chart 5. Allocations to active risk and absolute return strategies can further diversify an investment portfolio.



Source: Wellington Management, Gavekal Research, Gresham Partners, LLC.

some level of inflation to increase tax revenues and reduce the value of outstanding debts. This does not mean that investors should eliminate all fixed income investments, but it does indicate that they should consider underweighting this asset class, as the rewards are likely to be inadequate for the risks inherent in this investment.

Common Problems in Portfolio Construction

The illusion of diversification.

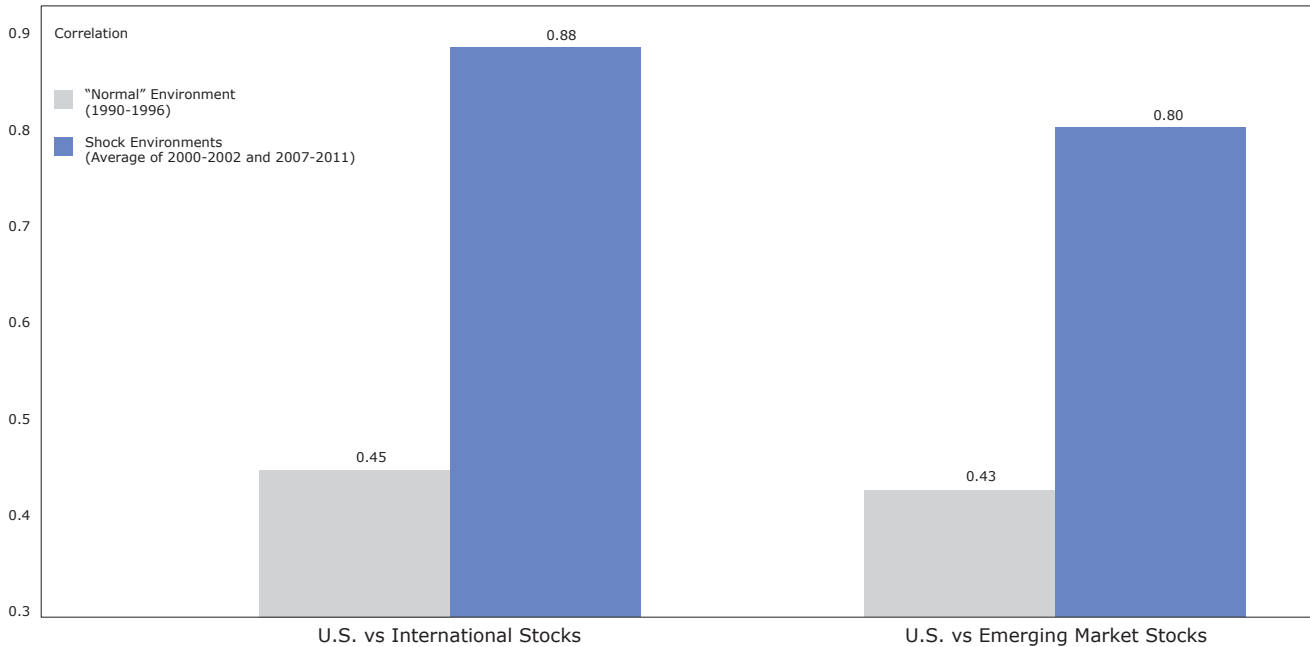
As we mentioned earlier, the starting point for many long-term investors is to allocate a preponderance of their assets to a range of equity investments. One common mistake is to assume that they have diversified their portfolio by investing in equity strategies with different labels such as domestic equity, international equity, and emerging market equity. Under normal market conditions, these assets provide the appearance of diversification, but in difficult markets, the illusion is shattered, as all of these assets decline together.

Chart 6 shows the high correlation of international and emerging market equity assets to the S&P 500 during adverse and normal market environments. Most investors who believe their equity portfolios are diversified will be quite startled by the magnitude of their losses during a crisis period and question why their “diversified” portfolio failed. When the benefits of diversification are needed most, they simply do not materialize for many traditional portfolios. We call this the illusion of diversification.

Why is it more difficult to construct diversified portfolios in today’s environment?

In addition to the convergence of correlations during difficult markets, we are also witnessing a structural increase in correlations, as capital markets become more interconnected. **Chart 7** shows the correlation between the S&P 500 and various investments over nearly 20 years. What is both clear and disturbing is the trend of increasing correlation. U.S., international and emerging markets equities have become so highly correlated that they provide little diversification benefit to investors. Similarly, the broad universe of hedge funds and commod-

Chart 6. Correlations between asset classes and strategies tend to rise during crisis periods, reducing the effectiveness of diversification when its benefits are needed most.



Source: Bloomberg, Morgan Stanley, Gresham Partners, LLC.

U.S. Stocks: S&P 500
 International Stocks: MSCI EAFE
 Emerging Market Stocks: MSCI Emerging Markets

ities, once strongly diversifying assets, have also become highly correlated and now provide investors with far less diversification. As a result, portfolio construction has become more challenging, requiring investors to be more cautious when building portfolios. Today, investors must look to other asset classes or even to specific managers and strategies for less correlated investments to achieve the same diversification benefit that was more readily available a number of years ago.

Measuring the Performance of a Well-Diversified Portfolio

How should a diversified portfolio perform?

By design, a well-diversified portfolio should not behave like any single asset class. For many investors, combining equity investments with diversifying assets, such as fixed income with its lower return and lower volatility expectations, is a fairly common approach. Such a portfolio and other similarly constructed portfolios will be less volatile than equity investments and should be expected to lag during strong markets, while performing better during weak markets. A disciplined investor adhering to a well-diversified portfolio approach can feel quite lonely during strong equity markets, testing even those with the strongest conviction. Conversely, these investors can enjoy relative comfort during adverse markets.

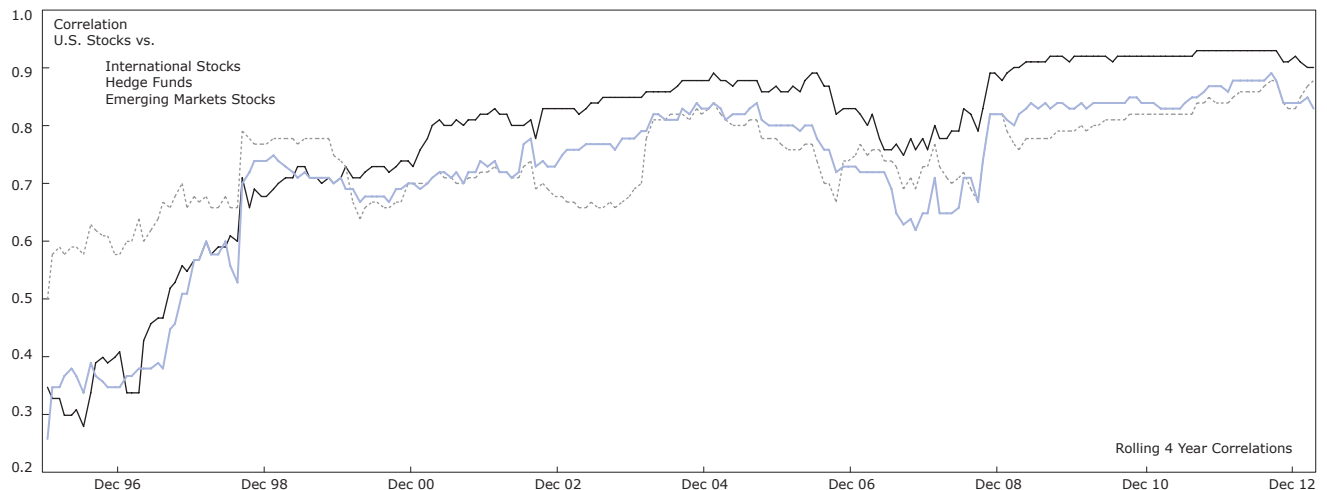
What is the appropriate performance benchmark for broadly diversified portfolios?

It is important that investors focus on the overall performance of their portfolio and set performance expectations consistent with the risk they are taking. Over a long period of time, investors should compare their portfolio returns to the returns of broad equity markets. Such a comparison allows them to measure the consequences of their portfolio construction decisions with respect to both risk and return, and to understand the impact of investing in lower-returning, diversifying assets. However, over shorter periods, investors should compare their portfolio to a customized strategy benchmark that represents a combination of the markets to which the portfolio is allocated. **Chart 8** provides an example of such a measurement approach.

When the benefits of diversification are needed most, it simply doesn't exist for many different traditional portfolios. We call this the illusion of diversification.

The hypothetical portfolio in the chart provides an example of the performance of a diversified portfolio, an appropriate strategy benchmark and world equity markets. In a bear market, a properly diversified

Chart 7. Correlations between asset classes and strategies tend to rise during crisis periods, reducing the effectiveness of diversification when its benefits are needed most



Source: Bloomberg, Morgan Stanley, Hedge Fund Research, Gresham Partners, LLC.

portfolio should outperform a declining equity market. However, the strategy benchmark's performance should perform similarly to the portfolio, as the portion of the portfolio allocated to various asset classes matches that of the investors' long-term strategic allocation targets. Conversely, when equity markets perform well, a diversified portfolio and its strategy benchmark will likely underperform equity markets.

In this hypothetical example, over the course of a full market cycle, the diversified portfolio performs as well as the equity market, but their paths are vastly different. Some investors might observe these portfolios end at roughly the same point, so we should be indifferent, but human nature disagrees. The temptation for an investor to sell assets and stop the losses when equity markets are down 30% is quite high. Remember that effective portfolio construction must help investors survive even the most adverse market conditions.

Portfolio performance comparisons to a strategy benchmark help investors understand the effectiveness of their tactical allocations and manager selection decisions. Relatedly, strategy benchmark comparisons to equity markets help investors understand the impact of strategic asset allocation decisions in terms of both risk and return.

Chart 8. A well-diversified portfolio can "smooth the ride" for investors, providing a greater chance to remain invested during difficult market periods.

"Bull" Market		Return
Diversified Portfolio		25%
Strategy Benchmark*		30%
MSCI AC World Index		60%
"Bear" Market		Return
Diversified Portfolio		-11%
Strategy Benchmark*		-14%
MSCI AC World Index		-30%
Full Market Cycle (Bull and Bear Market)		Return
Diversified Portfolio		12%
Strategy Benchmark*		12%
MSCI AC World Index		12%

*Consists of 70% Equity, 30% Fixed Income

Source: Gresham Partners, LLC.

Can investors close the expected performance gap compared to a 100% public equity portfolio?

While diversification into lower returning assets will reduce the expected returns of the portfolio relative to an all equity portfolio, there are ways to narrow this performance gap at all three levels of the portfolio construction framework. At the strategic allocation level, to the extent investors have the ability to accept illiquidity (i.e., locking up investments for a multi-year period), private equity investments have the potential to generate returns above public market equities. At the tactical allocation level, decisions to rebalance implemented with a disciplined value orientation can generate higher performance. Finally, allocations to managers with highly aligned incentives and exceptional talent have the potential to generate above market performance. Investors should recognize the benefits of these decisions will require patience, as opportunities for tactical allocations are sporadic and excess returns from active management can accrue unevenly over periods of unpredictable duration.

Should investors also measure the performance of individual elements of a portfolio?

While overall portfolio performance should be the primary focus, it is important and, thankfully, somewhat easier to measure individual elements of a portfolio. For example, it is relatively simple to measure the performance of an active management strategy in domestic equities against the S&P 500. However, investors must remember that the performance of any single investment must be viewed in the context of the overall portfolio. Specifically, certain asset classes and strategies are included for risk reduction purposes, while others are included to protect against different economic regimes, such as high inflation that might severely harm the return of traditional equity investments. Each investment should be evaluated against an appropriate benchmark, the role it plays in the portfolio and in the broader context of the economic environment in which the performance was generated. A common mistake by investors is to sell

an investment based on what appears to be weak performance without considering its broader purpose and context.

A Note on Risk Taking

In the pursuit of bearing risk intelligently, investors must always maintain a healthy skepticism and avoid our natural tendencies toward hope and fear in the extreme. When the world is highly optimistic, one must be cautious, as the rewards for bearing risk are reduced. Conversely, when the world is pessimistic, one must look for opportunities, as the rewards for investing can be quite high. This balance is difficult to achieve and decisions can be uncomfortable, as your views may seem decidedly out of favor at those moments.

In the end, we believe it is far better to take too little risk and underperform in a period when risk is being rewarded than to take too much risk at the wrong time. The former leads to less positive returns, while the latter leads to large losses that may result in the permanent impairment of capital.

Pulling It All Together

The essence of portfolio construction is to combine personal circumstances and individual risk tolerance to build a diversified portfolio across a wide range of uncorrelated assets and strategies. The goal of a diversified portfolio is to allow each investor to withstand the most adverse market conditions and remain invested so as to avoid the permanent impairment of capital that undermines the achievement of long-term financial goals.

Several challenges and misperceptions hamper effective portfolio construction. Many models and techniques are overly reliant on quantitative models, which rely on optimistic estimates of correlations, thereby creating the illusion of diversification. Additionally, most portfolios are constructed using only strategic asset allocation as the primary portfolio construction tool. This approach significantly underestimates the ability for active management, through tactical allocation and manager selection, to further control risk and generate excess returns when the manager's incentives are properly aligned with investors' incentives.

About Gresham

Gresham Partners is an independent investment and wealth management firm that serves its clients as a multi-family office and an outsourced chief investment officer. Gresham has been serving select families, family offices, foundations and endowments since the firm was established in 1997. Today, we manage or advise on over \$6.5 billion for about 100 clients located nationally.

We are committed to providing superior investment performance by utilizing select, difficult-to-access managers that are located globally in a full range of asset classes and are not affiliated with Gresham. We make these managers available to our clients in a flexible format well suited to achieving a broad spectrum of investor goals. As a multi-family office, we integrate this investment approach with comprehensive wealth planning and management services to address the full range of each client's financial needs, often avoiding the need for them to maintain a family office.

Gresham is wholly owned by its senior professionals, client fees are its sole source of compensation, it avoids conflicts of interest that affect many other firms, and it serves its clients as a fiduciary, dedicated to serving their best interests.

Additional information about Gresham and its services can be found at www.greshampartners.com.