OppenheimerFunds®
The Right Way
to Invest

Designing and Managing **Objective-Driven Portfolios**

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Executive Summary

- We replace the confusing and ever-expanding array of asset classes with multi-asset portfolios built to address key investment objectives: income, growth, diversification and real return.
- We build robust portfolios by analyzing a number of economic drivers, risk factors and return measures.
- We manage these portfolios over time in response to changing market conditions using a variety of macroeconomic, valuation and risk metrics.
- We plan for the unexpected by identifying potential vulnerabilities and reshaping the risk/return profile of the portfolio.

Investors are likely to find themselves in unfamiliar territory for the remainder of the decade. We are now at the end of a 30-year secular decline in interest rates. That decline drove tremendous long-term returns in the bond market, but now, with rates near zero, it is mathematically impossible for those returns to be sustained into the future. Falling interest rates and the opening of the global capital markets also drove a long period of strong equity performance. Without these two winds at our back, we are likely to see bond returns that look similar to starting yields and lower-than-average returns in the equity markets going forward.

We believe investors will also find it harder to diversify their portfolios. In the early 1990s, investors were able to reduce risk and improve returns in their U.S. portfolios by diversifying into global equities and a variety of new asset classes. But now that the capital markets have become globally integrated, diversification is more difficult to achieve.

Many investors have concluded that the traditional approach to portfolio construction—creating portfolios by assembling funds diversified by geography, capitalization and investment style—is not as effective as it once was. They are looking for new ways to diversify their portfolio, control risk and manage it through time.

The Promise of Objective-Driven Multi-Asset Portfolios

OppenheimerFunds has developed a new way of thinking about multi-asset portfolios that's centered around client needs and objectives. Our approach replaces the confusing and ever-expanding array of asset classes with multi-asset portfolios built to address typical investment objectives that investors need: growth, income, diversification and real return.

Every client goal ultimately requires a different mix of these portfolio building blocks. A retirement portfolio for a 45-year-old will require assets that can potentially deliver a particular combination of growth, diversification and real return. A retirement portfolio for a 70-year-old will require some of these three objectives but will likely contain more assets that are designed to deliver income.

Each of the portfolio building blocks will be managed by seeking to deliver its unique objective in the most efficient way possible. **Exhibit 1** ▼

- **Growth** will contain a variety of assets that are designed to deliver growth, along with a sophisticated hedging strategy to manage the downside risk of those assets.
- **Income** will contain a diversified mix of fixed income, equity and alternative assets designed to deliver a stable income stream.
- **Diversification** will contain a basket of alternative assets and strategies that have a low sensitivity to stocks and bonds.
- **Real return** will contain a basket of different types of inflation-sensitive assets.

We construct these portfolios by analyzing the underlying drivers of risk and return within each asset class, and assembling different combinations of assets that have the historical and expected characteristics to best meet the objectives of the portfolios. We then use a number of techniques to manage these portfolios over time in response to changing economic and market conditions. Finally, we actively manage the risk exposure to prepare for the unexpected.

The Fundamental Building Blocks of Risk and Return

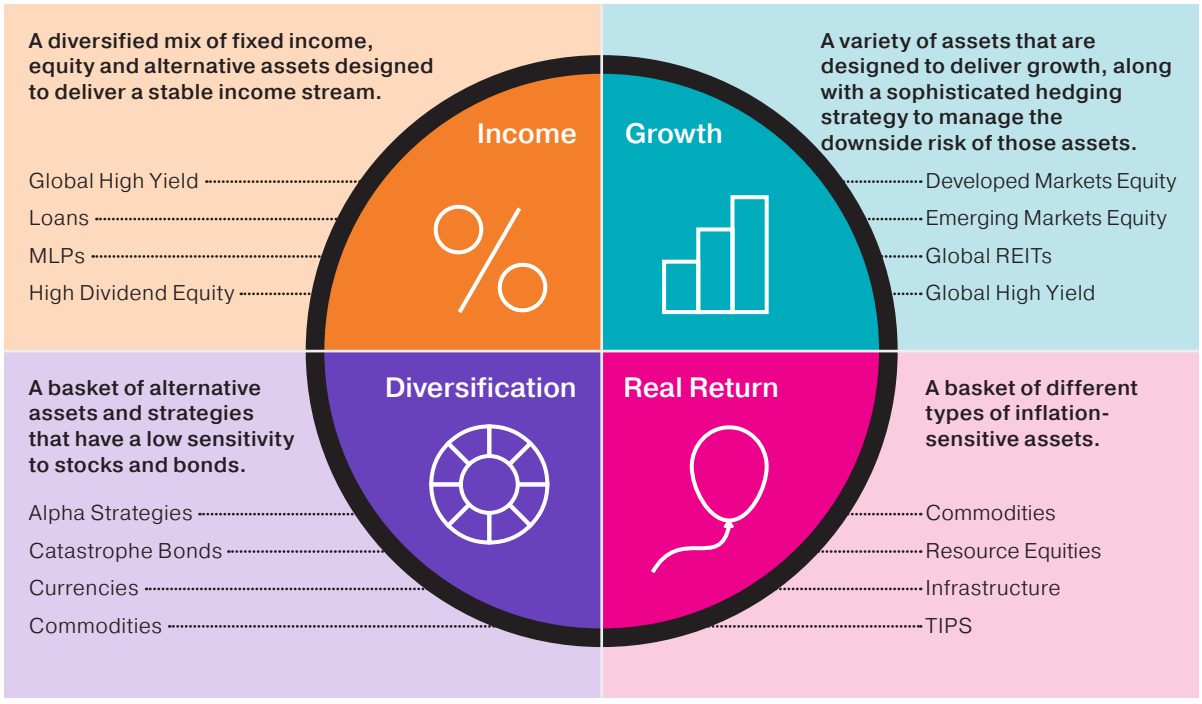
Instead of looking at portfolios simply in terms of asset classes, we go a level deeper—to the fundamental building blocks of risk and return that permeate all assets. We start by dissecting asset class returns into their underlying components, which are often referred to as risk premia. We have identified more than 20 different types of risk premia in a variety of traditional and alternative forms.

Looking at portfolio risk in this way is akin to analyzing chemical compounds to discover their underlying elements. We can't really understand the properties of steel until we recognize it as an alloy of iron and carbon. Similarly, we can't understand the risk and return properties of a particular asset class until we fully understand its sensitivity to key risk premia, such as equity and duration.

We believe that using a risk premia framework confers several advantages on the investment process. First, by stripping out common elements, it allows us to make more direct comparisons between asset classes, such as

Exhibit 1

Key Client Objectives



Source: OppenheimerFunds. As of December 16, 2014.

Acronym definitions: MLPs are Master Limited Partnerships; Global REITs are Global Real Estate Investment Trusts; TIPS are Treasury Inflation-Protected Securities.

whether the incremental risk of small-cap stocks versus large caps is well-compensated by their relative valuation and growth potential. Second, it gives us a unified framework to analyze both traditional risk premia—such as equity, duration and credit—as well as alternative risk premia—such as value, carry and momentum strategies. Third, it enables us to better understand assets classes that embed multiple risk premia.

To illustrate how we apply this analysis, let's analyze one asset class in particular—high yield bonds. Investors purchase high yield bonds in the hopes of getting higher returns for taking on additional credit risk, and typically think of them as part of their overall fixed income allocation. But this is only part of the story. As bonds, they are indeed subject to interest rate risk, but they also contain equity risk, which becomes particularly apparent during periods of high equity volatility.

The reason for this is simple: Equity provides a cushion between high yield debt and default. When equity valuations are high and stable, the sensitivity of high yield bonds to equity is moderate. In these periods, high yield debt tends to become more sensitive to changes in interest rates, in addition to idiosyncratic credit events. But when equities are volatile and their valuations fall, high yield debt becomes much more sensitive to movements in the equity market.

By isolating risk premia we can better understand asset classes such as high yield that are sensitive to multiple risk premia. We can track how investments in high yield change the portfolio's sensitivity to interest rates, equities and liquidity. Then we can make informed decisions about whether an investor is better compensated to take on additional equity risk from high yield, or from direct investments in equities.

Extending the risk premia framework to alternative assets and strategies also opens new avenues for diversification. For example, value and momentum are two investment strategies that have worked over time across many asset classes, and many active managers incorporate them in their investment process. When we study value and momentum strategies, we find that they tend to diversify one another—that is, they tend to work at different points in time. As correlations across many traditional asset classes have increased, investing in alternative risk premia provides additional ways to enhance portfolio diversification.

Building Robust Portfolios

Once we have established risk premia as the basis of our investment analysis, we can move on to portfolio construction. For decades, portfolio construction techniques have been based on the mean-variance framework developed by Harry Markowitz in the 1950s. It is a very useful and powerful tool. It assumes that investors make rational decisions and that they expect a higher return for taking on additional risk. The framework boils everything down to two key numbers: expected return and volatility. But mean-variance is not sufficient on its own. Each asset class has a unique bundle of different investment properties, many of which are not adequately captured by simple risk and return statistics.

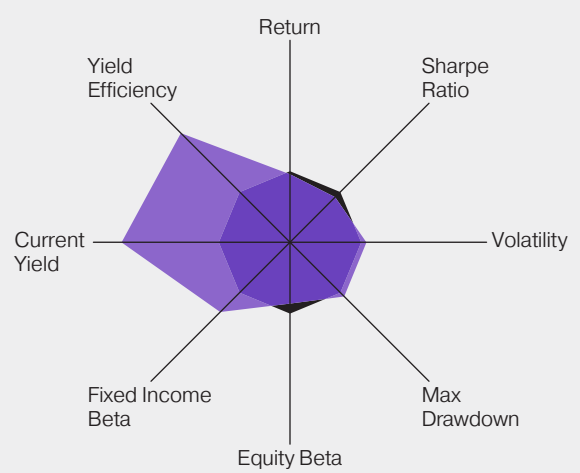
To construct robust, objective-driven portfolios we employ a multidimensional framework that incorporates a number of economic drivers, risk factors and return measures. Within this framework, we seek to understand how each risk premium responds to different economic conditions: Which are designed to provide protection when economic growth slows, or when inflation rises? Which premia are susceptible to significant drawdowns, especially drawdowns in excess of what one should expect given normal assumptions about volatility? Understanding these factors and incorporating them in the portfolio construction process will help us develop portfolios that can deliver on their objectives across a variety of economic and market conditions.

For example, let's examine how we created a portfolio for one particular investment objective—income. In constructing our solution, we considered a number of income generating assets: Investment-grade and high yield bonds, emerging market debt, senior loans and event-linked bonds. High dividend stocks and alternatives such as REITs and MLPs can also deliver income. We examined the level of income they could provide, the potential for that income to be augmented by capital appreciation, the vulnerability of income assets to excessive drawdowns, and "yield efficiency"—a measure of yield versus marginal contribution to portfolio risk.

The chart below illustrates the differences between a hypothetical traditional 60/40 portfolio, illustrated in black, and a global multi-asset income portfolio, in purple. The multi-asset portfolio offers the potential to deliver a higher level of current yield, yield efficiency and fixed income beta with a comparable Sharpe Ratio. **Exhibit 2** ▼

Exhibit 2

Multi-Asset Portfolios Have the Potential to Deliver Higher Yield and Yield Efficiency



■ "Traditional" 60/40 ■ Global Multi-Asset Income

Source: OppenheimerFunds, using 10 years of data as of September 2014 for returns, Sharpe Ratio, volatility, max drawdown, equity beta, fixed income beta, and yield efficiency. Current yield is using the last 12-month yield. Yield efficiency is defined as current yield divided by volatility. "Traditional" 60/40 is defined as follows: 60% S&P 500, 40% Barclays U.S. Agg. Global Multi-Asset Income is defined as follows: 5% Barclays U.S. Agg, 30% JPM Global High Yield, 10% Swiss Re Global Cat Bond, 10% FTSE EPRA NAREIT Global, 5% JPM GBI EM Global Diversified, 5% Alerian MLP, 15% S&P Preferred Stock, 15% CS Leveraged Loan, 5% Russell 1000 Value. **Past performance does not guarantee future results.**

Looking at portfolios and risk in this multi-dimensional way helps us design portfolios geared toward financial objectives. We can specify key measures for each objective, such as diversification versus traditional stocks and bonds, or a high level of long-term growth, or protection in inflationary environments, and get a comprehensive view of which combination of assets can best deliver these results versus these objectives.

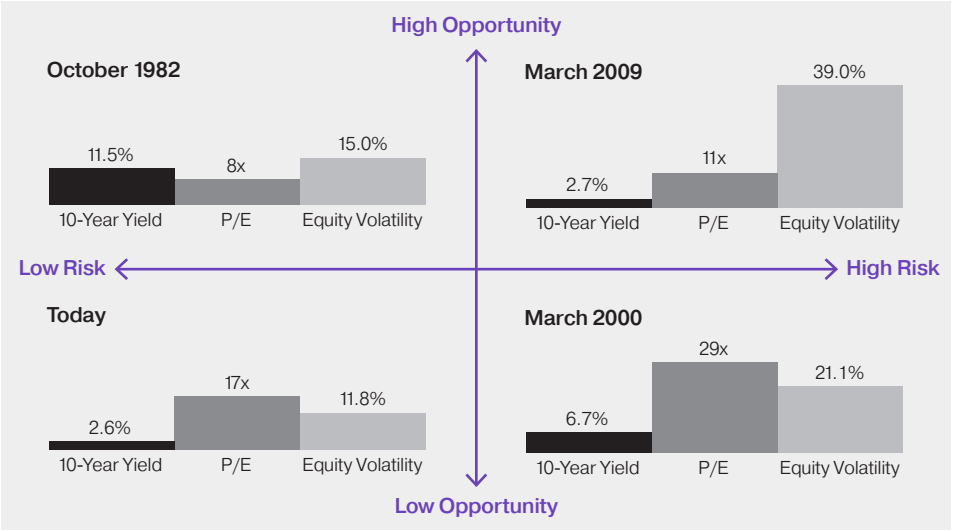
Adapting as Conditions Change

Once we've constructed portfolios geared toward delivering each investment objective, we face the challenge of managing them over time as market conditions change. We don't think its prudent to hold the same portfolio as economic conditions change because different conditions favor different strategies. While no one can time the market with any precision, we believe long-term results can be materially improved by changing allocations dynamically in response to market conditions. **Exhibit 3** ▼

This chart illustrates how vastly different market conditions have been over the last three decades. In 1982, yields were very high and stocks were cheap, setting up the subsequent bull market for financial assets. Of course, by 2000 stocks were very expensive and volatility was high, which culminated in the bursting of the tech bubble. Today, while few assets are notably cheap, central bank policies have encouraged risk taking. In our view, it doesn't make sense to hold the same portfolio across each of these different environments; portfolios should adapt to different conditions and opportunities to deliver better risk-adjusted outcomes to clients.

Exhibit 3

Portfolios Need to Adapt as Conditions and Opportunities Change



Source: Bloomberg, March 2014. Equity Volatility and P/E is measured by the S&P 500 Index. Volatility is calculated on a 52-week average basis. Indices are unmanaged and cannot be purchased directly by investors. Index performance is shown for illustrative purposes only and does not predict or depict the performance of any investment. **Past performance does not guarantee future results.**

So how should portfolio allocations change in response to these conditions? To manage portfolios over time, we look at three distinct drivers of return: the macroeconomic environment, the relative historical valuation of the market, and the volatility and correlation environment.

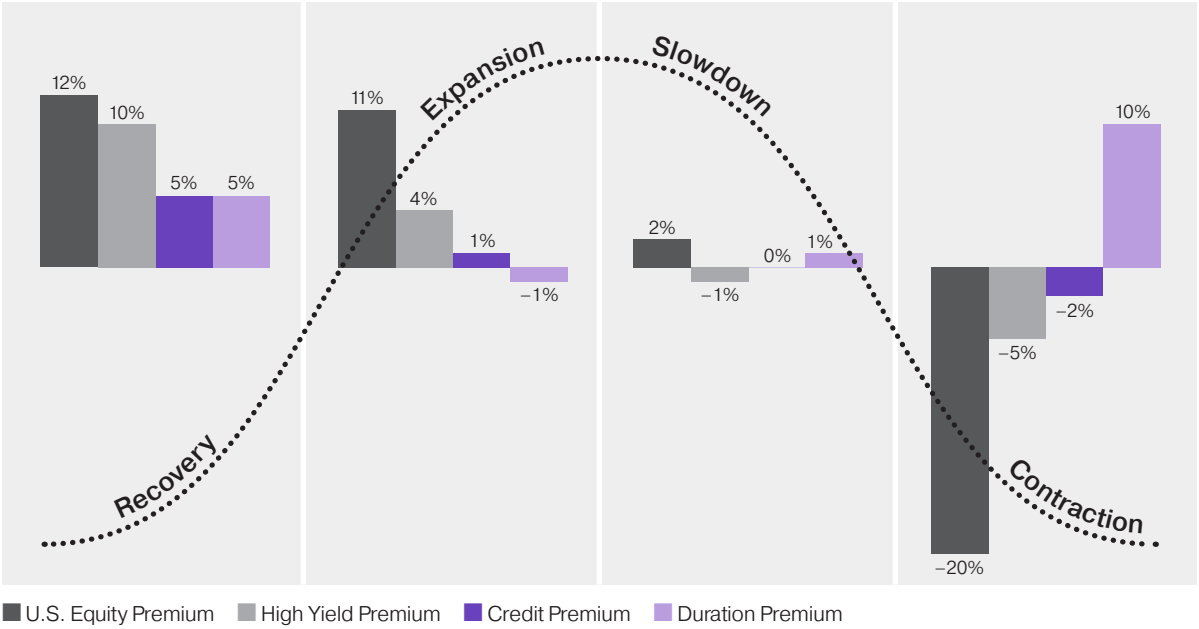
To understand how the macroeconomic environment influences asset returns and risks, we have divided the economic cycle into four macroeconomic phases or regimes:

- **Recovery:** growth is below trend but is accelerating
- **Expansion:** growth is above trend and accelerating
- **Slowdown:** growth is above trend but decelerating
- **Contraction:** growth is below trend and is decelerating

Economies inevitably move from recovery and expansion to slowdown and contraction, but it takes several months on average for an economy to pass through each phase. Our historical analysis shows that asset returns, on a total return as well as risk-adjusted return basis, vary in significant and intuitive ways across these regimes. For example, equities and credit tend to perform best in the recovery and expansion phases, while defensive assets such as government bonds have provided the best returns during contractions. Slowdowns produce mixed results, with less differentiation across asset types. **Exhibit 4** ▼

Exhibit 4

Different Asset Types Outperform in Different Phases of the Business Cycle



Source: OppenheimerFunds' proprietary research of the U.S. Business Cycle Leading Indicator. Annualized monthly returns of the defined risk premia from January 1970–December 2013. Risk premia are defined using the following indices and index subsets: U.S. Equity Premium = S&P 500 – Citigroup U.S. 7–10 Year Treasury. High Yield Premium = Citigroup High Yield Cash Pay BB Rated 7–10 Year – Citigroup USBIG Corp BBB Rated 7–10 Year. Credit Premium = Citigroup USBIG Corp BBB Rated – Citigroup U.S. 7–10 Year Treasury. Duration Premium = Citigroup U.S. 7–10 Year Treasury – Citigroup 90 day T-Bill.

Of course, for these observations to be useful on a forward-looking basis we need timely indicators of which regime we are in. To that end, we use a set of leading indicators composed of contemporaneous economic and market data. The chart below shows what the OECD leading economic indicators have told us about the business cycle in Europe. Each dot represents one month, and that slow pace allows us to use these indicators as one input in the way we manage portfolios through time. **Exhibit 5** ▼ These determinations of economic phases can help us estimate what future returns might look like and where we should invest.

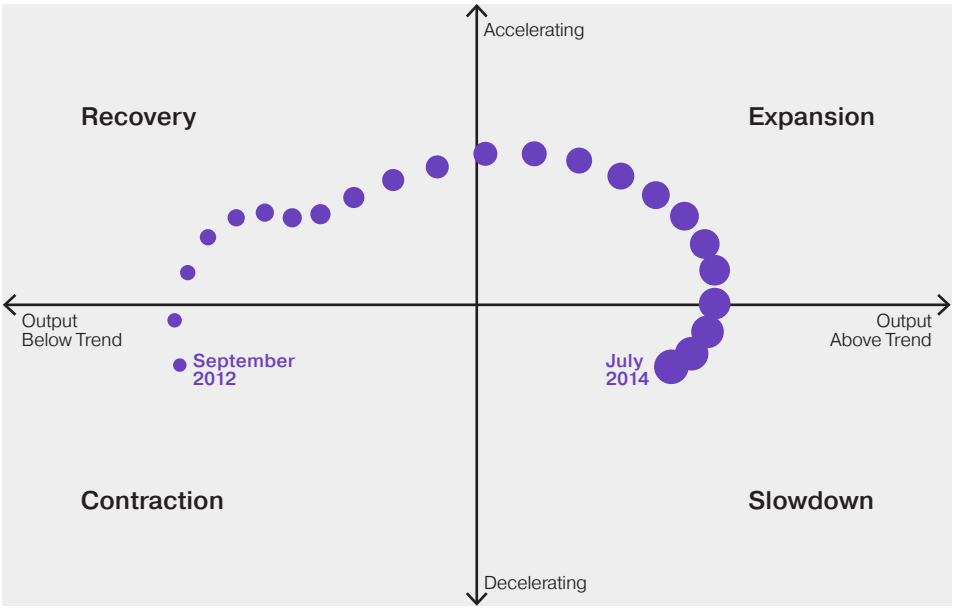
The second perspective that we bring into our investment process is an assessment of the risk environment. Over the near-term, our risk assessment incorporates quantitative measures of volatility and correlation across assets. Volatility is often more persistent—and hence more predictable—than returns. As a result, measures of trailing volatility can tell us something about volatility going forward, providing insight into how we should adjust the portfolio given the risk environment.

We also carefully monitor the development of the credit cycle, where the buildup of excessive leverage can lead to devastating consequences for financial markets, as we all experienced in 2008. The exact timing of such events is unknowable, but we believe the recognition of growing vulnerabilities is an important part of developing a comprehensive view of market risk.

The final perspective we incorporate in our dynamic asset allocation process is valuation. Here we examine current measures of valuation across risk premia versus their historical ranges to identify potential over and under valuations. One important caveat we recognize is that valuation by itself is a poor guide to near-term performance; on its own, valuation is more useful as a guide to multi-year returns. However, our analysis finds that valuation is an important complement to our macro- and risk-environment views. Identifying assets that are rich or cheap given the current macro and risk environments further enhances our ability to adapt to changing market conditions and opportunities.

Exhibit 5

The Euro Area's Move Through the Business Cycle Leads Us to Expect Slowdown



Source: OECD and Bloomberg, data from September 2012 to July 2014.

Active Risk Management

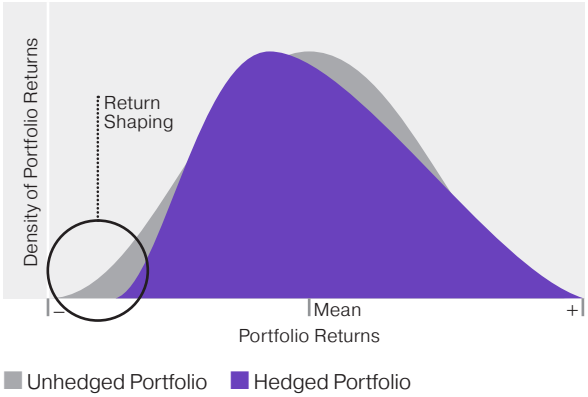
Finally, we recognize that it is impossible to predict the future. Financial markets regularly deliver surprises, unanticipated events and reactions that can create near-term havoc, as well as near-term opportunities. To prepare for the unexpected, we seek to actively manage risk in our objective portfolios. We use an array of stress tests and scenario analyses to identify potential vulnerabilities, and then use "return-shaping" strategies to manage those risks.

This "return shaping" can take on different forms, depending on the objective of the portfolio. The simplest way to manage the downside risk in a portfolio of growth assets would be to buy put options on a particular index. But the cost of this potential protection from equity losses is not cheap, and can hurt a portfolio's long-term returns. To lessen the cost, we look for cheaper opportunities to gain similar potential protection by using a number of derivative instruments associated with equities, interest rates, credit, currencies and commodities. For example, to hedge exposure to the S&P 500 Index, we might purchase puts on an index of South Korean equities or another equity index whose performance is correlated with the S&P. In many cases, this put option protection can be purchased more cheaply because investors underestimate the likelihood of a market shock spreading across equity markets. This type of "proxy hedging" inevitably involves taking on the risk that the hedge won't perform as expected. But correlations between different markets often spike when markets are under stress, providing a degree of protection.

Although no amount of return-shaping strategies can definitively insulate a portfolio against loss, they are a useful way to potentially manage shorter term risks and aim to prevent sudden, sharp drawdowns. The chart at right indicates how these strategies can change the return distribution of a sample portfolio. **Exhibit 6** ▶

Exhibit 6

Return-Shaping Strategies Aim to Reduce "Crash Risk"
Hypothetical return distribution: hedged portfolio vs. unhedged portfolio



Conclusion

We believe we have developed a robust approach to designing, building and managing investment portfolios. Our multi-dimensional approach to portfolio design allows us to build portfolios to meet specific client objectives. To meet these objectives as market conditions and opportunities change, we use a set of analytic tools that give us insight from macro, risk and valuation perspectives, and then actively manage risk to further the likelihood of success.

We believe that multi-asset investing is entering a period of change and innovation. Traditional approaches driven by style-box diversification and risk tolerance categories are giving way to objective-driven portfolios that better align with a goals-based approach to client needs. Objective-driven portfolios provide advisors with the key building blocks they need to build tailored solutions for their clients.

Glossary

Alpha is a measure of performance on a risk-adjusted basis. Alpha takes the volatility (price risk) of a mutual fund and compares its risk-adjusted performance to a benchmark index. The excess return of the fund relative to the return of the benchmark index is a fund's alpha.

Alpha strategies attempt to deliver returns that have little sensitivity to traditional market movements in stocks and bonds.

Call option is an option contract giving the owner the right, but not the obligation, to buy a specified amount of an underlying security at a specified price within a specified time. This is the opposite of a put option, which gives the holder the right to sell shares.

Correlation expresses the strength of the relationship between two data series.

Drawdown is a peak-to-trough decline of an investment during a specified period of time.

Duration is a measure of interest rate risk, or the sensitivity of the price of a fixed income investment to a change in interest rates.

Equity beta is a measure of an equity fund's sensitivity to market movements. The beta of a market is 1.00 by definition.

Mean variance is the process of weighing risk (or variance) against expected return. By looking at the expected return and variance of an asset, investors attempt to make more efficient investment choices—seeking the lowest variance for a given expected return, or seeking the highest expected return for a given variance level. Mean variance is a component of modern portfolio theory, which assumes investors make rational decisions, and that for increased risk they expect a higher return.

P/E (Price-to-Earnings Ratio) is a valuation ratio of a company's current share price compared to its per-share earnings.

Proxy hedge involves using an investment that is strongly correlated to another investment to hedge a particular risk. Proxy hedging is done when an investor does not wish to use a direct hedge.

Put option is an option contract giving the owner the right, but not the obligation, to sell a specified amount of an underlying security at a specified price within a specified time. This is the opposite of a call option, which gives the holder the right to buy shares.

Return shaping is a strategy designed to reduce the risk of adverse price movements in an asset. Normally, return shaping involves taking offsetting positions in related securities to hedge potential future risks.

Risk premia are the types of compensation an investor may receive for taking on a particular risk. Risk premia are defined as excess returns above a stated benchmark. For example, the U.S. Equity Premium is the U.S. Equity Market Return less the U.S. 7-10 Year Treasury Return.

Sharpe Ratio is a risk-adjusted measure that expresses reward per unit of risk. The higher the Sharpe Ratio, the better. The numerator is the difference between the portfolio's annualized return and the annualized return of a risk-free instrument. The denominator is the portfolio's annualized standard deviation.

Volatility is a measure of the variance in the price of a financial instrument.

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Mark serves as head of the Global Multi-Asset Group and leads the Firm's efforts in designing and implementing multi-asset products and solutions.

For more information on objective-driven investing, visit **oppenheimerfunds.com** or call **800 225 5677.**

The **Alerian MLP Index** is a composite of the 50 most prominent energy Master Limited Partnerships that provides investors with an unbiased, comprehensive benchmark for this emerging asset class. The **Citigroup High Yield Index** is a U.S.-dollar-denominated index which measures the performance of high yield debt issued by corporations domiciled in the U.S. or Canada. The Citigroup U.S. Treasury Bill Index measures the return equivalents of yield averages that are not marked to market. Returns for these indices are calculated on a monthly basis only. The **Citigroup U.S. Broad Investment-Grade Bond Index** tracks the performance of U.S.-dollar-denominated bonds issued in the U.S. investment-grade bond market. The index includes U.S. Treasury, government-sponsored, collateralized, and corporate debt providing a reliable representation of the U.S. investment-grade bond market. The **Credit Suisse Leveraged Loan Index** tracks the performance of U.S.-dollar-denominated senior floating rate bank loans. The **FTSE EPRA/NAREIT Global Real Estate Index** is a stock market index managed by the European Public Real Estate Association and the National Association of Real Estate Investment Trusts and maintained by the Financial Times Index Group (FTSE). It is composed of property company constituents that trade on several global exchanges and designed to represent general trends in eligible listed real estate stocks worldwide. The **JPMorgan Emerging Markets Bond Index Global Diversified** is a composite index representing an unleveraged investment in emerging market bonds that is broadly based across the spectrum of emerging market bonds and includes reinvestment of income (to represent real assets). The **JPMorgan Global High Yield Index** is designed to mirror the investable universe of the U.S. dollar global high yield corporate debt market, including domestic and international issues. The **Russell 1000 Value Index** represents an index of the 1,000 largest U.S. companies, with lower price-to-book ratios and lower forecasted growth values. The index is unmanaged; includes only U.S. companies; is market-value weighted; and includes reinvestment of dividends. The **S&P 500 Index** is a broad-based measure of domestic stock performance. The **Barclays U.S. Aggregate Bond Index** is an index of U.S. Government and corporate bonds. The **Swiss Re Global Cat Bond Total Return Index** is a basket of natural catastrophe bonds tracked by Swiss Re Capital Markets; is calculated on a weekly basis; is market-value weighted; and includes reinvestment of income. The **S&P U.S. Preferred Stock Index** is designed to measure the performance of the U.S. preferred stock market. Preferred stocks are a class of capital stock that pay dividends at a specified rate and has a preference over common stock in the payment of dividends and the liquidation of assets.

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