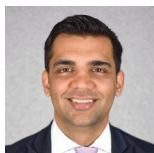


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Featured Strategy Investment Thesis

Changing the Investment Perspective: **A Case for Target Outcome Investing**

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BACKGROUND

STARTING WITH THE ENDPOINT: WHY DO PEOPLE INVEST?

Why do people invest? This is a question many financial professionals struggle with. A survey of investors on why they invest would probably include answers such as: “I want to retire at 65 and replace my paycheck when I do,” “I want to pay for my children’s college education,” or “We want to be able to meet our defined pension liabilities.” The common investment goal for investors is to achieve results or “outcomes” that enable them to service future financial obligations or achieve a terminal wealth goal to bequeath to heirs.

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But in all the noise of the markets and the relentless quest for returns, sometimes we lose sight of the fundamental reason for investing. In the last two decades, investors have become increasingly obsessed with benchmarks and relative performance, fueled in part by the rise of the 24/7 news cycle and the growth in available investment options. In doing so, investors have shifted their focus from their long-term goals—which they can control—to short-term market returns—which they can’t control.

To properly serve their clients, financial professionals need to provide the guidance and discipline to focus investors on the fundamental purpose for investing, and they need to better align investors’ portfolios with their intended purpose. Chasing short-term returns, from betting on the right stock just before it pops or beating the market because “I got the trend right” might be exhilarating, but this approach represents a distraction from the long-term goals of investing. Servicing future financial obligations or accumulating wealth for heirs is the fundamental reason for investing.

The importance of an outcome-based focus is underscored by the shift in the landscape for retirement savings and investment over the last 40 years.

SHIFTING SANDS

In 1974, Congress passed the Employee Retirement Income Security Act (ERISA), shifting the burden of planning for saving and investing for retirement from employing corporations to employed individuals. This development led to a boom in the demand for investment advice, with individual investors increasingly turning to professionals to guide them in selecting investments that could achieve their desired outcomes. In response, financial advisers have built their practices around multi-asset class investment programs, and asset management companies developed packaged products designed to fit well into such programs. More recently, some advisors have used technology to help, deploying automated advisory platforms that provide a multi-asset solution in the form of a diversified portfolio of exchange-traded funds or ETFs.

Financial advisers have built their practices around multi-asset class investment programs.

Multi-asset investment programs or solutions are based on the principles of modern portfolio theory, which advocates diversification across a variety of asset classes to reduce risk in portfolios. Investment choices are evaluated on expected returns and risk contributions over a broad set of investment horizons based on the expected correlation of these choices to one another. The conventional approach of investing 60% in stocks and 40% in bonds and cash has evolved to include commodities, real estate and alternative investments, but the objective of diversifying for a specific level of risk/return has not changed.

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OUTDATED TOOLS

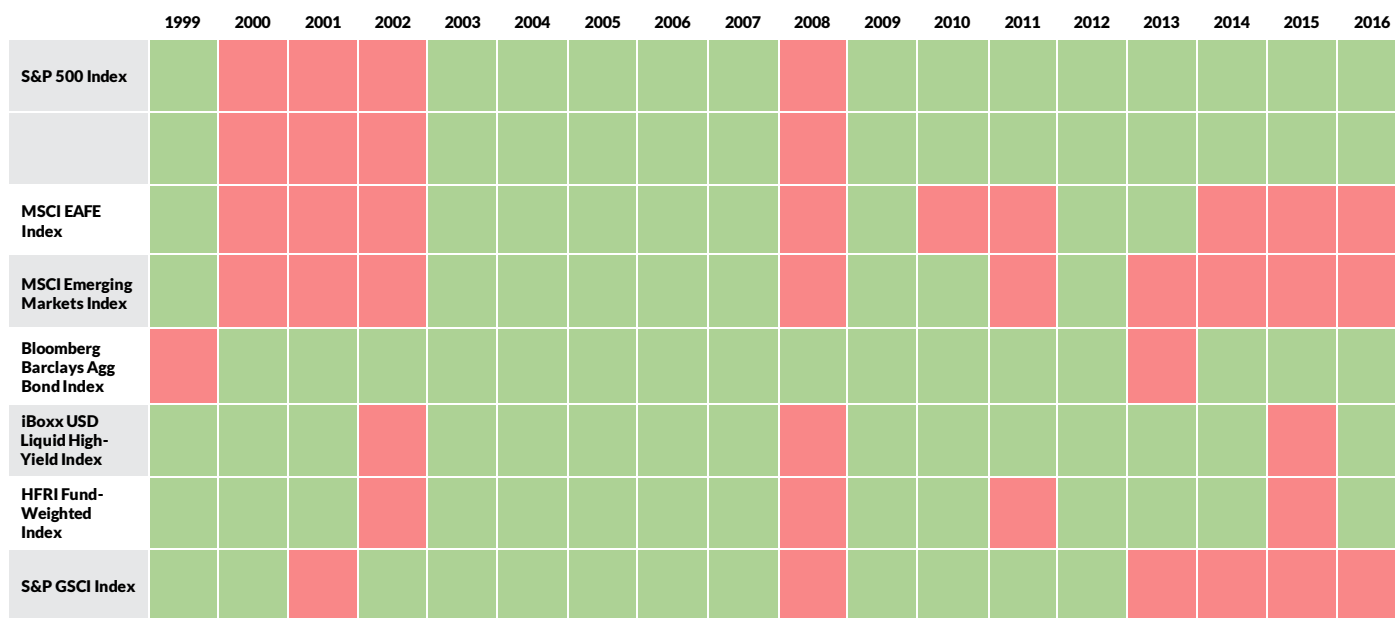
While ERISA changed the landscape for retirement planning, market turmoil over the last two decades, including two deep bear markets in a 10-year period, produced deficient returns and revealed the extent to which conventional strategies have failed to meet investors' needs. Several lessons were learned. We were reminded that equity returns can be low or negative even in the long term, and a fully invested 60%/40% allocation still carries high levels of downside risk in the short and intermediate term. Other lessons—such as, the risk-reducing power of diversification can break down at the worst possible times—were not as obvious.

The risk-reducing power of diversification can break down at the worst possible times.

The bear markets of the last two decades, encompassing the technology bubble and the financial crisis, exposed cracks in the foundations of modern finance. The principles of modern portfolio theory represented significant innovations when introduced in 1952, but despite many changes in investment choices and technology since the 1980s, they remain our primary approach today. Portfolios are built on the concept that investing in a diversified mix of low or non-correlated asset classes based on a target level of risk (defined as standard deviation of returns) will lead to stronger risk-adjusted returns.

Investment reality is quite different. For short and even intermediate horizons, we often observe very negative returns (fat-tailed return distributions) with a greater frequency than would be expected in a diversified portfolio. Correlations are the core focus of multi-asset portfolios and are assumed to be static, historically observed numbers. The extent to which asset classes move together is in fact dynamic and unstable, and the relationship can behave very differently from past observations. We only need to look at the returns across asset classes in 2002 and 2008 in Figure 1 for proof. Furthermore, generic multi-asset solutions ignore the reality that many investors desire specific returns to

FIGURE 1: ONE-YEAR RETURNS ACROSS ASSET CLASSES (1999 - 2016)



Source: Bloomberg

meet financial needs at specific horizon points and have specific levels of risk that they are willing to take.

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Investing is too often framed as achieving the best risk-adjusted return for a certain time horizon (e.g., three years). However, each investor has a time frame or set of time frames, concluding with a need for liquidity or a need to meet a financial goal, such as funding retirement cash flow needs, paying a child's college education or supplementing income in the intermediate term. Investors also vary in their willingness to take risk to achieve goals.

The conventional metrics we use to evaluate investments, such as annualized return and the volatility of returns, are not appropriate for assessing how

investment choices meet these Target Outcome goals. Investment decision-making needs to be upgraded to take better advantage of twenty-first century technology and tools. Investment approaches can be improved to shape return patterns based on investor preferences and financial needs at key points in their investment horizons.

A NEW PERSPECTIVE

INTRODUCING TARGET OUTCOME INVESTMENTS™

Target Outcome Investments (TOIs) look to deliver a specific investment outcome at a specific point of time in the future with a specific level of risk. They employ investment strategies that maximize the probability of meeting the targeted outcome in order to increase the likelihood of desired investment returns. For example, an investor who needs liquidity in one year (to pay for college tuition or a down payment on a home) will want to make sure capital is protected while striving to earn a target return on this capital. In this case, a TOI™ strategy may involve buying protection to limit potential losses in the portfolio.

TOIs have three key defining features. They:

1. Target Specific Returns: In Target Outcome investing, return is defined as the degree of upside capture, or participation in the positive returns, of a reference asset. Most TOIs can articulate the participation in the upside from the asset and the maximum growth opportunity.

2. Target Specific Risks: Risk in Target Outcome investing is defined as loss of capital. While volatility or standard deviation of returns is a key theoretical measure that allows academic study of investments, the risk of losing money is really the true and absolute risk. Most TOIs can anticipate the participation in the downside from the asset and, therefore, the maximum loss potential.

3. Have a Specific Investment Time Horizon: Most TOIs look to specific points in time in the future at which they measure upside return and downside risk.

Target Outcome investing differs from multi-asset solutions in the means used to achieve desired outcomes. As previously discussed, multi-asset solutions rely on the levels of correlation of returns across different asset classes. TOIs, in contrast, rely on the contractual risk mitigation that is possible through a unique set of financial instruments: options.

OPTIONS: THE BUILDING BLOCKS OF TARGET OUTCOME INVESTMENTS

Options are contracts through which a seller gives a buyer the right, but not the obligation, to buy or sell a security or other financial asset (reference asset) at a predetermined price (strike price) on or before a specific date in the future (exercise date). The payment for options is dependent on the performance of the reference asset being above or below the strike price at the exercise date. Options trade in liquid exchange markets and are supported by the guarantee of an options clearing corporation. Options have similar features to insurance contracts, as they make a payment on a future date that is contingent on an event taking place. Insurance contracts bring a level of security or certainty, for which individuals are willing to pay a premium. Like insurance contracts that transfer event risk from the insurance buyer to the insurance seller, options are the capital

markets' solution for redistributing a range of returns from investors who are prepared to sell those returns ("insurance" sellers) to investors who wish to purchase them ("insurance" buyers).

Options have similar features to insurance contracts, as they make a payment on a future date that is contingent on an event taking place.

The contractual certainty available through options contracts makes it possible to build Target Outcome Investment solutions that have a level of predictability at a specific time horizon that cannot be obtained through more conventional investment approaches that rely on historical statistical relationships between assets.

RESHAPING RETURN DISTRIBUTIONS USING OPTIONS

A key component in a Target Outcome investing framework is the probability distribution of expected returns (return profile). This shows the frequency of returns in an interval (e.g., 0%-5%) and provides more complete information about the potential pattern of those returns beyond mean and standard deviation statistics. TOI strategies are about shifting return profiles across time and altering their shape to be more consistent with investor needs and preferences. Using options, Target Outcome Investments can modify the return profile of an asset class to reduce the chance of participating in the downside or to enhance participation in the upside. This approach can use asset classes as diverse as equities, commodities and bonds, and can be implemented on broad market index measures, such as the S&P 500 Index for U.S. large-capitalization stocks and the Bloomberg Barclays U.S. Aggregate Bond Index for U.S. bonds.

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In the multi-asset solution framework, the tools used to manage risk are simply to bring low correlated investments into the choice set and to adjust their weights. In Target Outcome investing, the possibility of buying and selling options expands the range of return profiles, allowing investors to structure portfolios with different likelihoods of participating in the upside and/or downside around their desired return level.

FIGURE 2: AT A GLANCE: MULTI-ASSET PORTFOLIOS VS. TARGET OUTCOME INVESTMENTS

	MULTI-ASSET PORTFOLIOS	TARGET OUTCOME INVESTMENTS
OBJECTIVE	Market driven	Investor driven
RETURN FOCUS	Expected return	Target return or income
INVESTMENT STRATEGY	Multiple asset classes with low correlation to one another	Utilize options that capture a range of returns
RISK TOLERANCE	Defined by standard deviation	Defined by downside risk
INVESTMENT TIME HORIZON	Uncertain/ongoing	Specific

EXAMPLES OF TARGET OUTCOME INVESTMENT APPROACHES

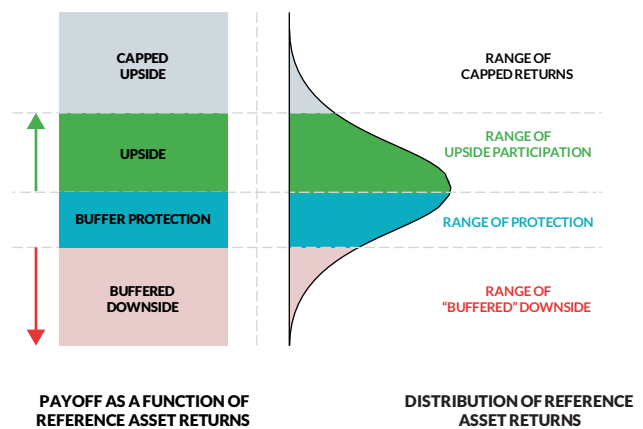
To understand how Target Outcome investing works in practice, we examine investment strategies for three different types of investors.

Buffer Protect Strategy for Capital Stability Investors: Seeks to protect against a range of downside losses for a benchmark, such as the S&P 500, while still participating in potential upside growth to a cap for a specific period.

Enhanced Growth Strategy for Aspirational Investors: Seeks to provide enhanced upside by investing in structured strategies that deliver a multiple of a benchmark’s returns (e.g., 2x the S&P 500’s annual returns) up to a return cap for a specific period.

Range-Bound Strategy for Income Investors: Seeks to generate consistent periodic distributions while preserving capital over the long term by collecting option premium “income” in exchange for taking the risk of returns falling outside a predefined range for a given period.

FIGURE 3: CAPITAL STABILITY INVESTOR



Example 1: Buffer Protect Strategy for the Capital Stability Investor: Reshaping Equity Index Return Patterns to Outperform in Falling Markets

The buffer protect strategy allows equity investors to experience less downside participation in a benchmark’s returns by setting a return range or “buffer” of downside protection over a period of time, such as one year. The cost of the buffered protection can be financed by capping upside returns.

The buffer protect strategy will appeal to investors who do not wish to participate in the most probable downside losses over a period of one year and desire to capture as much of the most probable upside gains that the strategy will afford them.

Figure 3 demonstrates how this strategy reshapes the return distribution patterns. In this example, the first 10% of losses in S&P 500 returns is “buffered” so the investor does not suffer any loss. In exchange for this buffer, the upside is capped at 10% and the investor will forego gains if the S&P 500’s returns are above that.

Example 2: Enhanced Growth Strategy for Aspirational Investors: Enhancing Upside Index Returns to Outperform in Range-Based Rising Markets

The enhanced growth strategy allows equity investors seeking growth to get a multiple of a benchmark’s

FIGURE 4: GROWTH INVESTOR

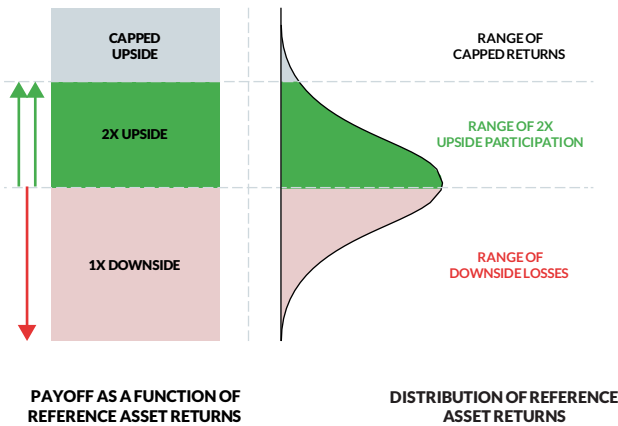
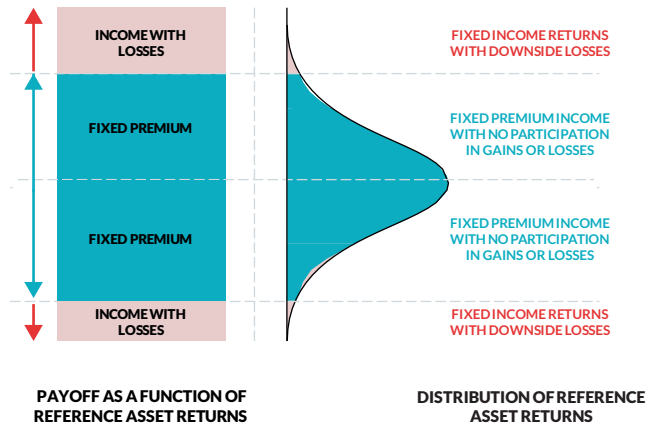


FIGURE 5: INCOME INVESTOR



upside returns (e.g., 2x the S&P 500's positive returns) up to a cap. Downside returns are the same as would be experienced in a conventional investment, as seen in Figure 4. The effect is to magnify the prospective returns falling in the moderately positive portion of the return distribution, and thus increase expected return and upside capture relative to downside risk.

The enhanced growth strategy will appeal to investors who wish to enhance the participation in the most probable upside gains that the strategy will afford them at the expense of not participating in the less probable outsized gains.

Figure 4 shows how the distribution of returns is reshaped by the enhanced growth strategy. For example, the upside cap is 15%, and positive returns are doubled up until the cap is reached. So, if the S&P 500 goes up 5%, returns are doubled to 10%. Whereas if the S&P 500 goes up 8%, returns are enhanced but only up to the 15% cap.

Example 3: Range-Bound Strategy for the Income Investor: Enhanced Distributions From Short-Term Range-Bound Markets

The range-bound strategy targets a predefined level of income, setting a certain percentage (e.g., 5%) over a benchmark interest rate, by risking capital losses if the returns of a reference index such as the S&P 500 were

to go outside the bounds of a predefined range over a period, such as one month.

The range-bound strategy will appeal to the investor who targets a level of monthly income and is willing to take just the amount of risk necessary to optimize the probability of achieving the income target.

Figure 5 shows how the distribution of returns is reshaped by the range-bound strategy, and in this example, the investor collects premium income when the returns of a reference index (S&P 500 Index) are inside the range. When returns are outside of the range (represented by the red portions of the tails), the strategy suffers a loss.

BENEFITS OF TARGET OUTCOME INVESTMENTS

The case for a Target Outcome approach to investing is not a blanket criticism of diversification, nor is it necessarily at odds with the multi-asset approach. Diversification remains a powerful investment solution for a broad set of investors, but it has its limitations. Target Outcome investing seeks to improve upon several aspects of multi-asset solutions, and an allocation to Target Outcome Investments could help tilt a diversified portfolio toward a better alignment to investor financial goals. The benefits of Target Outcome Investments are as follows:

1. Better Mapping to Investors' Needs

Outcome-focused investing is particularly relevant for the growing number of investors who now manage their own retirement assets, as well as those for whom investing is a key part of their life cycle financial plan. Since investors must take more responsibility for their investments, it's a natural conclusion that they must be sure those investments are aligned with their financial goals. These are generally articulated as liquidity needs at specific points of time in the future and with specific targeted returns and specific allowances for downside losses.

Outcomes are defined by investors' needs and financial goals, not by the market.

Outcomes are defined by investors' needs and financial goals, not by the market. Target Outcome Investment strategies are constructed around an investor's desired return or risk level but can respond to market opportunities when they occur.

2. Greater Certainty of Outcomes

Diversification is not the free lunch that investors have come to believe and expect. A cornerstone of the efficacy of diversification is the belief in correlations of less than 1.0 across asset classes, mostly informed from historical observations. However, capital markets are dynamic, and asset price behavior is known to meaningfully depart from historical tendencies. Diversification is known to break down at times when it is needed most: when markets are distressed and correlations increase sharply among a diverse set of asset classes.

Capital markets are dynamic, and asset price behavior is known to meaningfully depart from historical tendencies.

Target Outcome Investment strategies are designed to deliver outcomes at a specific point in the future, aligned with the investor's horizon, with higher probability than investments that are optimized for a varying set of holding periods. This is because TOIs are built using

options, which, unlike other financial instruments, provide a contractual level of certainty to their payoffs.

3. Real Measures of Risk

Deploying multi-asset solutions typically involves using risk measures, such as volatility or standard deviation of daily or monthly returns. This is a theoretical measure of risk that is not aligned with the real risk that investors face when they need to liquidate an investment to meet a financial obligation.

In Target Outcome investing, risk is expressed as magnitude of loss (negative return) or downside return participation, rather than volatility of returns, underperformance to a benchmark, or some other statistical measure. Loss of capital impedes investors from reaching their objectives. This is the truest measure of risk for most investors.

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4. Unique Flexibility in Asset Management

As discussed previously, Target Outcome Investments focus on specific risk and return at a specific time horizon when liquidity is desired. Unlike multi-asset investment products that appeal to a broader set of investors and hence are optimized on risk and return measures for varied horizons, TOI strategies are optimized for only a specific horizon. This gives asset managers the ability to select securities with return and risk characteristics that are most suitable to the strategy's horizon, with less focus on the risk/return characteristics for other periods.

CONCLUSION

The role of an asset manager is to help investors, or asset owners, understand the investment options available to them to achieve their objectives, and to design a solution that has a high likelihood of meeting those objectives. Asset owners usually have a responsibility

to meet a future financial obligation, a critical financial need or a long-term wealth goal, whether it is retirement income or college tuition for private investors or meeting defined withdrawal liabilities for institutional investors. That is their objective.

Outcomes should be defined by investors' needs and objectives, not by what the market happens to deliver against a changing economic backdrop. Investment strategies need to consider what the market is doing in concert with the investor's objectives, to allow the investor to capture the opportunity the market represents.

This calls for a shift from the prevalent thinking that focuses on risk/return features over standard time

frames toward outcome-driven thinking based on investors' financial needs and goals and the associated investment horizons. We believe the future of asset management is to incorporate outcome-driven investing, focused on delivering a specific outcome at a specific point in time in the future for a certain amount of risk.

Target Outcome investing offers a novel and unique perspective to investing. It is not at odds with multi-asset investing, nor should it be considered an either/or proposition. Diversification still plays a critical role in investors' portfolios. However, incorporating Target Outcome investing strategies optimizes portfolios for higher certainty, not for cost and returns, giving investors more control over portfolio outcomes.

DISCLAIMER

The information and views expressed in this document may be subject to change and should not be considered a recommendation to purchase or sell any particular security. Equity and options markets are volatile, and there can be no assurance that investors will earn a profit.

The strategies discussed in this document are sophisticated investments and involve the use of options. It should be noted that options strategies are constantly being developed, and that some of the risks of new options products and strategies do not become apparent until there has been significant experience in trading and using them. Accordingly, you should be aware that there is a risk in newness, particularly if the new option or strategy is complicated or complex, that cannot always be identified or described.

You should also be aware that not all options strategies will be suitable for your investment purposes, and that certain strategies may expose you to significant potential losses. As with any investment strategy, there is the risk of loss of some or all of your investment. Any performance return discussed herein is for reference only and has not been achieved through actual trading.

For more information and to better understand the features and risks of the strategies discussed herein, you should always contact your investment professional.

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