Seeking an Alternative

Understanding and Allocating to Alternative Investments



April 2017



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Summary

In this paper we look at some of the forces that may be inclining individual investors to incorporate "alternative" investments in their portfolio, and then offer some general allocation suggestions on how they may do so.

We think there are several compelling reasons why investors are considering "alts." While the century is young we've already had two severe market declines, and two long, painful recoveries. The result is a world with lower growth, a good deal of uncertainty, and the feeling that traditional investment options alone may not suffice.

We believe some investors are seeking alternative investments to find yield, some for higher returns, or protection from rising rates, or a haven against market volatility—or any combination of the above. Unfortunately there's no standard approach or "style box" to guide investors on how to reach their goals with alternative investments. We offer up a framework to address this gap.

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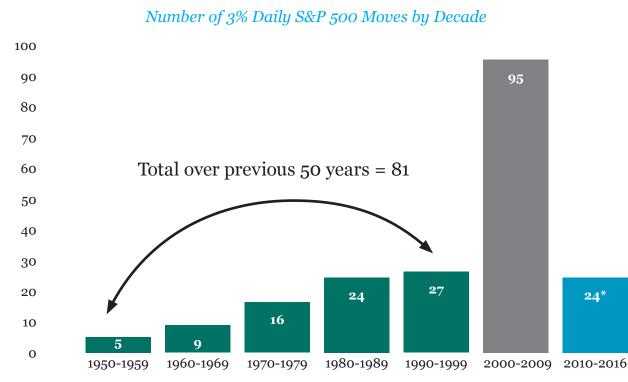
Volatility Has Increased Dramatically

Let's look at some of the realities of investing today which are driving investors to consider "alts."

First, volatility has changed—and has changed us. Over the last decade, we've had far more frequent occurrences of extreme (or "fat tail") moves in the equity markets, which have deeply scarred most investors.

Technically speaking, a fat-tail event is three standard deviations ("three sigma") away from the mean and has only a 0.1% probability of happening—that is, statistically it should occur only once in every 1,000 periods under analysis. But in reality these "low probability" events occur far more frequently, as they did during the 2008 credit crisis (Display 1). The display shows that, for US equities, the number of days when markets moved 3% or more reached a peak of 95 in the last decade (the tall grey bar), versus 81 episodes in the previous 50 years all together. More important, we're still living with the emotional repercussions from that experience.

In the last 5 years, with the flood of central bank accommodation across developed markets acting as a kind of shock absorber, volatility has tapered off. But the real damage has been done: Investor PTSD will manifest itself for some time in the form of higher sensitivity to market volatility.



Display 1: Extreme Volatility Leaves Deep Scars

*3% daily moves since 2010. Extrapolates to 32 for full decade Source: Standard & Poor's, Morningstar Direct through 12/31/16

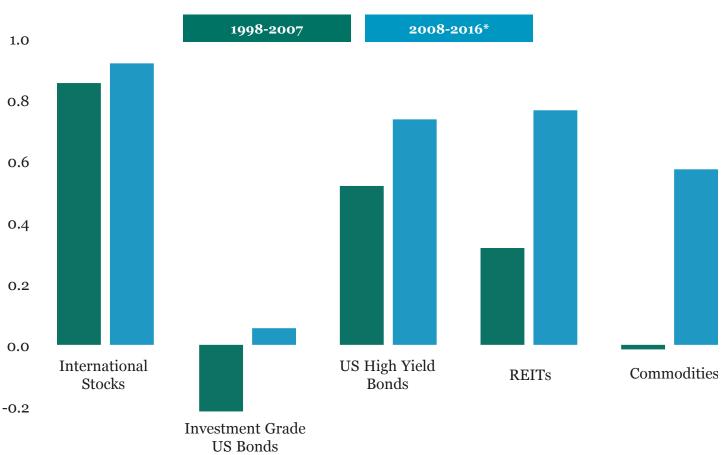
True Diversification is Harder to Come By

Another post-crisis reality is the rise in correlations across many asset classes and the resulting difficulty investors may face in truly diversifying their portfolios.

In the decade prior to the financial crisis, investors were able to diversify their equity portfolio by allocating, for example, to non-US Stocks, High Yield Bonds, REITs or Commodities—most with correlations below 0.5 relative to the S&P 500 (as shown in the green bars in Display 2). But since the crisis, correlations across these assets have risen (the blue bars). The data suggest that today only investment grade fixed income remains a compelling diversifier to equities.

But that's cold comfort for most investors today: the role of bonds as the traditional anchor to windward for equities is shifting, as we now face the likely end of a 30-year bull market in bonds and the prospect of rising rates ahead.

Display 2: Higher Correlations Leave Nowhere to Hide?



Correlation of Key Asset Classes with the S&P 500 Index

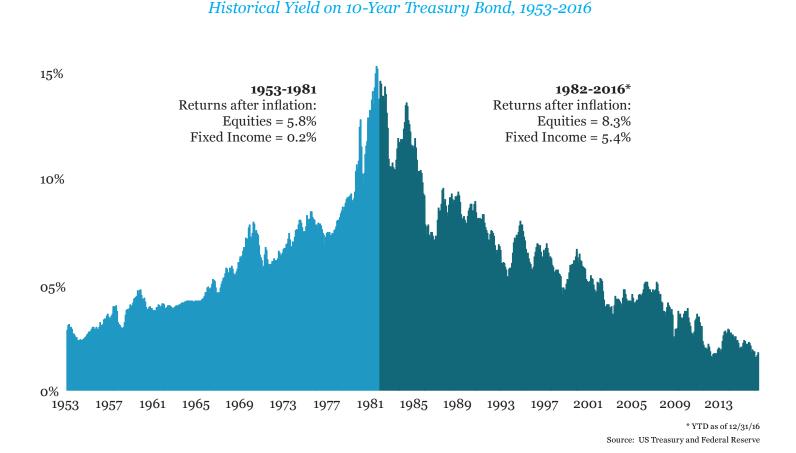
*YTD 12/31/16

Source: Morningstar Direct. For International Stocks we use MSCI ACWI ex-US; for Investment Grade US Bonds: Barclays US Agg Bond TR; for US High Yield Bonds: Credit Suisse HY; for REITS: Wilshire US REIT TR; for Commodities: S&P GSCI TR; Index Definitions provided at the end of this paper.

Bond Bull Market Unlikely to Continue

Investors have long understood fixed income's primary role as a diversifier to equities. But they have also grown to expect from their bond allocation a robust source of return for the portfolio as well—historically a rare combination (Display 3).

Display 3: A World Where Bonds Lose Money?



ed period boost in returns for their overall portfolio.

Over the last several years they've had to unlearn this second benefit, with rates near zero and investors starved for yield. Moreover, when rates finally do begin to rise, many of these investors may suffer through the first-ever extended period of losses in their bond holdings. As the longer history of the 10-Year Treasury yield

shows, bonds may not always be a support to total

return. And based on forecasts, if there is one

thing tomorrow's investors will need, it may be a

Performance Headwinds Ahead

Most analysts agree that equity returns in the U.S. may be constrained by slower growth in the economy going forward.

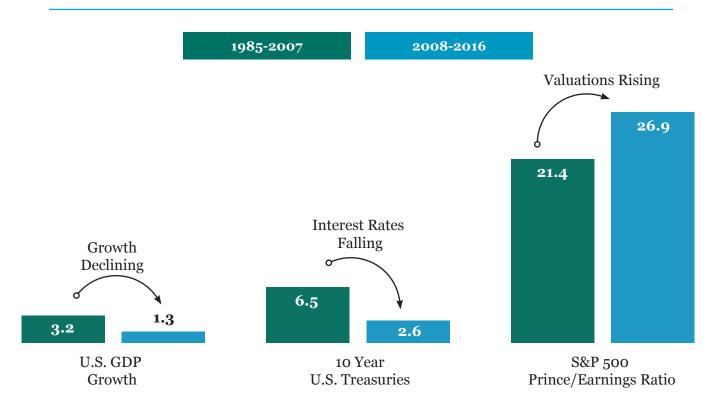
A common way to generate this type of forecast is to look at the equity risk premium based on three underlying components: a reasonable discount rate (Treasuries), overall economic growth (GDP), and the valuation dynamics (price-to-earnings ratio) of equities. (Display 4)

All three of those measures–low current yield, tepid economic growth, and relatively high equity valuations–suggest anemic returns for equity markets ahead. It's no surprise then that some analysts see lower returns over the next several years—with US equities projected to earn 3% and a combined 60/40 stock/bond portfolio returning 1.8% over the next 5 years.¹

This is far below the target annual return that most institutions aim for to cover their liabilities (generally between 7% and 8% per year), and could easily leave most individual investors wanting more as well.

Simply put, investment returns may be up against some strong headwinds over the near to medium term, and this could be another factor driving investors to look at "alternative" options.

Display 4: Economic Backdrop Suggests Anemic Future Returns



Source: Morningstar Direct. Index definitions are provided at the end of this paper.

⁽¹⁾ These are not returns by any Blackstone fund, but instead represent the returns of asset classes as estimated by Goldman Sachs (Investment Strategy Group: Outlook, January 2017). There can be no assurance that any alternative asset classes will achieve their objectives or avoid significant losses. There can be no assurance the forecasts will be achieved. These comparisons are provided for informational purposes only and should not be relied upon as a benchmark or target for any Blackstone fund. There is no assurance that an allocation to alternatives would provide higher real returns. Please consult your own third-party advisors before making any investment decisions based on this information.

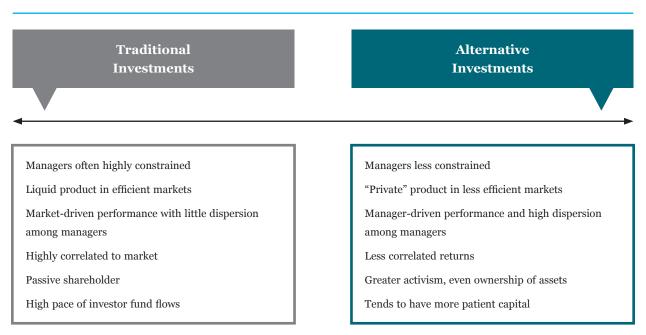
Alternatives as Complements to Traditional Strategies

But first a problem of definition: A common mistake investors make is to treat alternative investments as a homogeneous category. The reality is alternatives are not a single asset class. Alternatives include an array of assets, strategies, and structures and should not be construed as some monolithic investment or a single slice in the allocation pie.

That said, alternatives do share some characteristics that may position them as potential complements to traditional investments (Display 5). For example, traditional investments are typically very liquid, can be accessed easily and often at low cost: They provide passive shareholders with efficient exposure to "beta" or "the market." Alternatives offer different attributes. Instead of simply replicating the market, managers are less constrained, are often activist in their approach, and their performance tends to vary substantially. As a result, returns tend to be less correlated to the beta of traditional market investments and are more dependent on the individual manager's skill.

Alternative managers can also use additional tools, including leverage and shorting, and have the benefit of less liquid capital, which they can deploy at will and without having to be as concerned that investors will run for the exits before their investment theses play out.

Essentially, it's about some informational or trading advantage—a manager's particular edge —that gives these strategies their unique and attractive characteristics.



For Illustrative Purposes Only. There is no assurance that an allocation to alternatives would provide higher real returns. Please consult your own third-party advisors before making any investment decisions based on this information.

Display 5: The New Investor Barbell

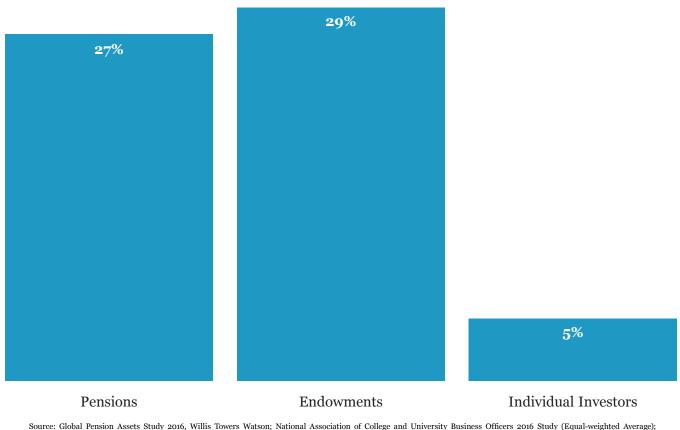
Shifting Allocations to Alternatives

Institutional investors in general, including pensions, endowments and sovereign wealth funds, have increasingly used alternatives to help achieve their target returns.

Endowments, for example, with their longer investment horizon and thus greater tolerance for illiquidity, have allocated aggressively to alternatives, with almost 30% of their portfolios on average now given over to hedge funds, private equity, and private real estate. Pensions are behind, but not by much, with 27% of their portfolios, on average, now allocated to alternatives (Display 6).

By comparison, individual investors continue to allocate substantially less of their portfolios to alternatives. Some believe that's about to change, with individual investors embarking on an allocation shift akin to the one institutions have made over the last 5-10 years. But for that to happen, investors and advisors need to overcome a key impediment: their awareness of and comfort with alternative investments.

Display 6: Average Allocation to Alternatives: Institutions vs. Individuals



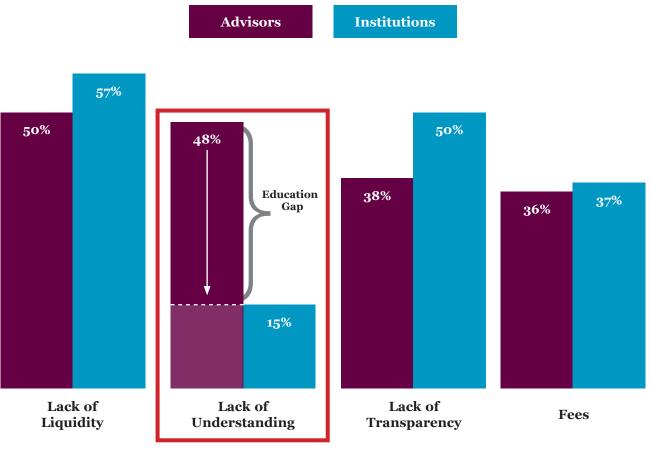
Source: Global Pension Assets Study 2016, Willis Towers Watson; National Association of College and University Business Officers 2016 Study (Equal-weighted Average); Money Management Institute, "Distribution of Alternative Investments through Wirehouses", 2016.

Education Can Close the Allocation Gap

For all the reasons one might hesitate to invest in alternatives (for example, lower liquidity or higher fees) individual investors and advisors don't differ much relative to institutions, according to a recent survey by Morningstar.

But in one category—education—there was a clear gap (Display 7). Individuals (and their advisors) are far more likely to hesitate putting money into an alternative investment due to lack of education or comfort in the investment approach. In part this is an industry failing. By labeling these offerings "alternatives" we make them seem more different than they actually are and may overcomplicate them in the process. This argues for the need to clarify (and simplify) how we think and talk about "alts."

Display 7: Advisors Need Greater Familiarity with "Alts"



Top Reasons to Hesitate Investments in Alternatives

Source: Morningstar Survey 2012.

Integrating Alternatives into the Traditional Portfolio

One way to describe the relationship between traditional and alternative investing is to consider the "barbelling" of investment value, with liquid "public market" exposure on one end and alternatives on the other (Display 8).

First, on the left side, traditional investment vehicles allow liquid, tax-efficient access to precise slices of market beta. With equities, investors can easily access US market exposure, large or small, and with a growth or value orientation. Similarly with fixed income and real assets, investors can cobble together precise exposures across the major "buckets" of the asset allocation. Each of these component allocations solves a particular investment problem or targets a particular goal.

On the other side, we think investors need to look beyond the "Alternative" monolith and consider aligning individual alternative strategies with their appropriate asset class categories.

For example, if an investor is looking to achieve a higher equity-like return target, he might consider growth-oriented private equity, typically known as Venture Capital, or valueoriented private equity, more associated with traditional PE or Leveraged Buyout funds. For a more liquid solution, there's long/short equity, which investors may employ as a more efficient substitute for some of their long-only equity allocation. Next, take a look at the traditional fixed income allocation, ranging from sovereign and investment grade bonds to high yield and emerging debt. In the face of current low yields and the potential vulnerabilities of their traditional fixed income portfolio, investors might look to incorporate strategies that have higher yield or that mitigate the portfolio's exposure to rising rates. They might consider event-driven credit hedge funds, with very low correlation to the rest of their portfolio, or the higher yielding opportunities offered by mezzanine and distressed debt, which also tend to do well in periods of rising rates and higher inflation.

Finally, there's the real asset category, including real estate and commodity-oriented investments. Again, for their alternative complements, investors might look to private real estate, private energy funds, or Commodity Trading Advisors (CTAs) for potentially diversified (and diversifying) real asset exposures.

Seen this way, there's substantial variety under the hood of the singular category of "alternatives." But with this framework in mind, and using an approach familiar from their work with traditional investments, advisors may begin to build out a comprehensive and more precisely calibrated alternative allocation for their clients.

The Barbell of Investment Value

Display 8:

Alternatives as Complements to Traditional Allocations

Traditional, Public Markets		Alternative, Private Markets
▼		
Large, Mid, Small Growth/Value International, EM Equities	EQUITIES	Long/Short Equity Venture Capital/ Private Equity (LBO) Global PE Secondaries
Treasuries Investment Grade High Yield EM Debt	FIXED INCOME	Senior Loans/BDCs Event-Driven Credit Commercial RE Debt Mezzanine & Distressed Debt
Traded REITs Long Only Commodity	REAL ASSETS	Private Real Estate Managed Futures/CTAs Private Energy Investment

The Specific Benefits (and Risks) of Alternatives

If investors begin to look at alternatives using this simplified, goal-oriented approach, they may seek out targeted exposures to deliver on the specific benefits that alternatives offer (Display 9).

For example, if an investor is keen to achieve equity-like growth while maintaining spending power, and he can tolerate some illiquidity, he may consider Private Real Estate and Energy funds.

If he is looking to maintain his current allocation to equities but wants to diversify that exposure and reduce the risk of severe declines, then long/short equity hedge funds may be appropriate. In the Alternative Fixed Income category, an advisor looking to mitigate the risk of rising rates could seek to diversify the traditional bond allocation with exposures to event-driven credit or commercial real estate debt. And so on across the matrix below.

Of course, these benefits come with corresponding risks, some alluded to earlier, which can include illiquidity, lack of transparency, higher fees, tax inefficiencies, and other characteristics that some individual investors would prefer to avoid.

But by focusing on the specific objective they are trying to achieve, investors can make more informed and targeted allocations to what many generically label "Alternative Investments."

Display 9: The Benefits of Alternatives May Answer Specific Investor Objectives

STRATEGY	DIVERSIFICATION	POTENTIAL PREMIUM	POTENTIAL RISK REDUCTION	POTENTIAL YIELD	INTEREST RATE DIVERSIFICATION
Alternative Equities					
Long / Short Equity	X		X		
Private Equity		X			
Private Equity Secondaries		Х			
Alternative Fixed Income					
Event-Driven Credit	X		X		X
Mezzanine & Distressed Debt		X		X	
Commercial Real Estate Debt	X		X	X	X
Alternative Real Assets					
Private Real Estate	X			X	
Private Energy		Х			
Managed Futures/CTAs	X		X		X

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Alternative Impact

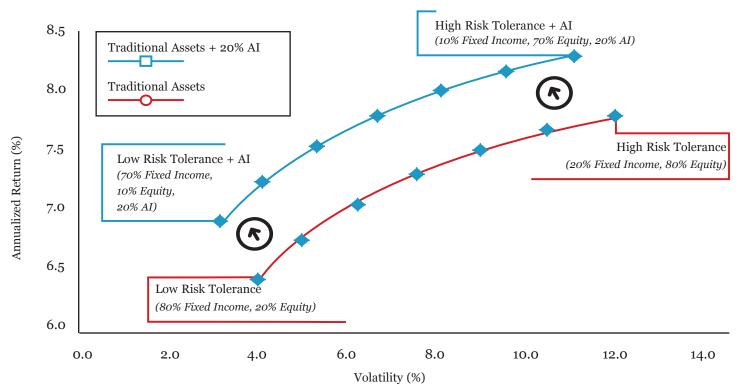
It may help to step back for a moment and see the broad impact of a comprehensive re-allocation to alternatives.

Display 10 below offers a generalized view of the benefits achieved by adding a diversified mix of alternatives to different traditional portfolios comprised of just equity and fixed income.

Starting from the bottom left, on the red line, we plot a "low risk" portfolio of 80% bonds and 20% stocks. On the upper right we illustrate the inverse of that portfolio, 80% stocks and 20% bonds—an example of an investor with higher risk tolerance. The blue line illustrates the same portfolio with a 20% allocation to alternatives, broken up equally across Private Equity, Distressed Debt, Real Estate and Hedge Funds. The result here, for both lower-and higher-risk investors, is a reduction in risk and increase in return for the portfolio.

But it's one thing to build the allocation into an efficient frontier chart and quite another to actually incorporate these investments in a client's portfolio, especially given the illiquid or episodic nature of private market funds.

Display 10: Alternatives May Help Improve the Efficient Frontier



Alternative Impact (4/1/96-6/30/16)

Note: Graph illustrates a 20 year investing period from 4/1/96 through 6/30/16. There can be no assurance that an allocation to alternatives would provide higher real returns. Please consult your own third-party advisor before making any investment decisions based on this information. Past performance is not necessarily indicative of future results and there can be no assurance that any index or fund will achieve comparable results or avoid substantial losses. The performance information presented above is that of the identified market indices and funds and may not be available for investment to any prospective investor. The stated indices are for informational purposes only and not available for investment.

(1) Source: Morningstar. Traditional Assets comprised of Equity (S&P 500) and Fixed Income (Barclays Aggregate). Blackstone used these indices as a proxy for traditional assets given these indices are typically used by the market. 20% Alternative Investments comprised of: 5% Private Equity (Cambridge Associates PE); 5% Distressed (HFRI ED Distressed Restructuring); 5% Real Estate (NCREIF Fund Open End Diversified Core Equity) and 5% HFRI Fund Weighted Composite. This mix was used to capture alternative investments broadly across the major alternative assets classes: Private Equity, Private Real Estate, Distressed Debt and diversified hedge funds.

Delivering a Strategic Alternatives Exposure

There is no simple remedy to achieving a comprehensive, diversified allocation to alternative investments—one that considers investors' distinct liquidity, return goals and varied time horizons. But we've developed a framework that may help.

We return to the asset class breakdown discussed earlier—identifying the alternative "complements" to traditional asset classes. We then go on to break the alternative strategies into more liquid, continuously offered solutions and less liquid, episodic funds (Display 11). Those funds available in more liquid structures tend to include quasi-public hedge fund services, in areas like long/short equity, event-driven credit, and liquid real estate debt. Less liquid, private market funds focused on buyouts, private real estate, or distressed debt may take more time to achieve the desired allocation, due to the timing of their fund-raising and an uncertain pace of investment.

In this way, by allocating across the major alternative asset categories in both liquid and less liquid vehicles, advisors and investors may establish and maintain a comprehensive and strategic exposure to alternatives to complement their traditional allocation.

Display 11: Building a Comprehensive Alternative Allocation

Equity		Fixed I	Fixed Income		Real Assets					
Private Equity Secondaries	Long/Short Equity Hedge Fund	Private Mezzanine Debt Distressed Debt Private Fund Direct Origination Private Real Estate	Senior Loan Funds & BDCs Credit Hedge Fund Liquid Real Estate Debt		Private/ Opportunistic Real Estate Private Equity/Energy	Managed Futures Hedge Fund CTA Managers				
Episodic/ Illiquid	Continuous/ Liquid	Episodic/ Illiquid	Continuous/ Liquid		Episodic/ Illiquid	Continuous/ Liquid				
			•		•					
	ADVISOR									
		Clie	Client							

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Glossary, Index Definitions, Notes and Disclaimers



Glossary

Alpha: Alpha is a measure of the return due to active management, rather than market exposure, or beta. It is often used to refer to the value added by a manager's skill.

Alternative Investments: Investment categories other than traditional securities or long-only stock and bond portfolios; they include hedge funds, venture capital, private equity, and real estate. Alternative investments often employ strategies typically unavailable to long-only managers, such as the use of derivatives, the ability to short, and the ability to hold illiquid assets.

Beta: Beta is a measure of the sensitivity of a security or portfolio to broad market movements. The beta of the market index is 1.0. A security with a beta of greater than 1.0 tends to rise or fall more than the market; a security with a beta of less than 1.0 tends to rise or fall less than the market. The term "beta" can also indicate the portion of portfolio returns that result from market exposure, rather than from manager strategies or skill (alpha).

Correlation: A measure of how the returns of two or more assets perform in relation to one another. Assets with a correlation of 1.0 move in lock step. Those with a correlation of 0 have a random relationship to each other.

Hedge Fund: A private investment portfolio that uses nontraditional techniques (such as short sales and leverage) to preserve and/or gain capital. Hedge funds are generally considered part of the alternative investments asset class. In many jurisdictions, they are more loosely regulated than longonly portfolios and are restricted to larger or more sophisticated investors.

Illiquid Alternatives: Alternative investments that invest in illiquid assets and offer limited liquidity to investors. Many illiquid alternatives require investors to make capital commitments over several years that cannot be redeemed in the short term. Illiquid alternatives can include venture capital, private equity, and direct real estate.

Private Equity: A type of investment that seeks return by acquiring companies and restructuring them, with the goal of improving or restoring profitability. The companies are sold at the conclusion of their restructuring. Private equity investments are illiquid and, by definition, are not publicly traded.

Standard Deviation: Standard deviation is applied to the annual rate of return of an investment to measure the investment's volatility. Standard deviation is also known as historical volatility and is used by investors as a gauge for the amount of expected volatility.

Venture Capital: A type of investment that seeks return by providing seed or early-stage financing to privately held, fledgling businesses thought to have strong growth prospects due to a new technology, product, or business model.

Index Definitions

MSCI ACWI ex-US: The MSCI ACWI ex USA Index captures large and mid cap representation across 22 of 23 Developed Markets (DM) countries (excluding the US) and 23 Emerging Markets (EM) countries. With 1,838 constituents, the index covers approximately 85% of the global equity opportunity set outside the US.

Barclays US Agg Bond TR: The Barclays U.S. Aggregate Bond Index is an index of U.S. dollar denominated, investmentgrade U.S. corporate government and mortgage-backed securities.

Credit Suisse HY: The CSFB High Yield Index is designed to mirror the investible universe of the U.S. dollar denominated high yield debt market.

Wilshire US REIT TR: Measures U.S. publicly traded real estate investment trusts and is a subset of the Wilshire US Real Estate Securities Index.

S&P GSCI TR: The S&P GSCI® Total Return Index is a composite index of commodity sector returns representing unleveraged, long-only investment in commodity futures across 24 commodities.

Cambridge Associates Private Equity Index: The Cambridge Associates LLC U.S. Private Equity Index® is an end-to-end calculation based on data compiled from 1,199 U.S. private equity funds (buyout, growth equity, private equity energy and mezzanine funds), including fully liquidated partnerships, formed between 1986 and 2014.

HFRI Fund Weighted Composite Index: is a global, equalweighted index of over 2,000 single-manager funds that report to HFR Database. Constituent funds report monthly net of all fees performance in U.S. dollars and have a minimum of \$50 million under management or a twelve (12) month track record of active performance. The HFRI Fund Weighted Composite Index does not include Funds of Hedge Funds.

NCREIF Fund Open End Diversified Core Equity: The NFI-ODCE Index is a capitalization-weighted, gross of fees, time-weighted return index with an inception date of January 1, 1978. Published reports may also contain equal-weighted and net of fees information. Open-end Funds are generally defined as infinite-life vehicles consisting of multiple investors who have

the ability to enter or exit the fund on a periodic basis, subject to contribution and/or redemption requests, thereby providing a degree of potential investment liquidity. The term Diversified Core Equity style typically reflects lower risk investment strategies utilizing low leverage and generally represented by equity ownership positions in stable U.S. operating properties.

HFRX ED Distressed Restructuring Index: Distressed Restructuring Strategies employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near-term proceedings. Managers are typically actively involved with the management of these companies, frequently involved on creditors' committees in negotiating the exchange of securities for alternative obligations, either swaps of debt, equity, or hybrid securities. Managers employ fundamental credit processes focused on valuation and asset coverage of securities of distressed firms; in most cases portfolio exposures are concentrated in instruments which are publicly traded, in some cases actively and in others under reduced liquidity but in general for which a reasonable public market exists. In contrast to Special Situations, Distressed Strategies employ primarily debt (greater than 60%) but also may maintain related equity exposure.

The S&P 500 index was created in 1957, although it has been extrapolated backwards to several decades earlier for performance comparison purposes. This index provides a broad snapshot of the overall U.S. equity market; in fact, over 70% of all U.S. equity is tracked by the S&P 500. The index selects its companies based upon their market size,liquidity, and sector.

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Certain of these risks may include:

- Loss of all or a substantial portion of the investment due to leverage, short-selling, or other speculative practices;
- Lack of liquidity in that there may be no secondary market for a fund;
- Volatility of returns;
- · Restrictions on transferring interests in a fund;
- Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized;
- Absence of information regarding valuations and pricing;
- Complex tax structures and delays in tax reporting;
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