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ASSET ALLOCATION STRATEGY | IN DEPTH

The Value of Diversification

Why should investors consider broad global diversification today?

DEEPER ANALYSIS OF INVESTMENT TRENDS AND TOPICS

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Key Insights

» *Following one of the largest market downturns in history that occurred in 2008-2009, the S&P 500 Index (U.S. large-cap equities) has outperformed nearly every other asset-class index during the recovery. This has caused some investors to question the benefits of diversification.*

» *We believe that diversification has the potential to improve portfolio performance and help mitigate market downturns.*

» *In our opinion, asset allocation is the best way to capture the upside potential of the full investment spectrum through the ups and downs of market cycles.**

Why should investors diversify their portfolios?

In the late 1990s, few investors were interested in investments outside of U.S. large-cap stocks. Some wanted to narrow their portfolios to hold only growth or even technology stocks exclusively. At the time, diversifying into other sectors and asset classes seemed like it would be a drag on performance. In general, investors did not want "to settle" for the lower returns they expected from other asset classes, like bonds and international stocks. Sound familiar? In recent years, a similar scenario has developed in the global markets, and some investors prefer to hold only U.S.-based stocks. Is that a good idea over a longer time horizon? In this report, we explore the long-term returns of various asset classes and examine their volatility along the way.

**Asset allocation and diversification do not guarantee investment returns or eliminate risk of loss.*

Building the case for diversifying

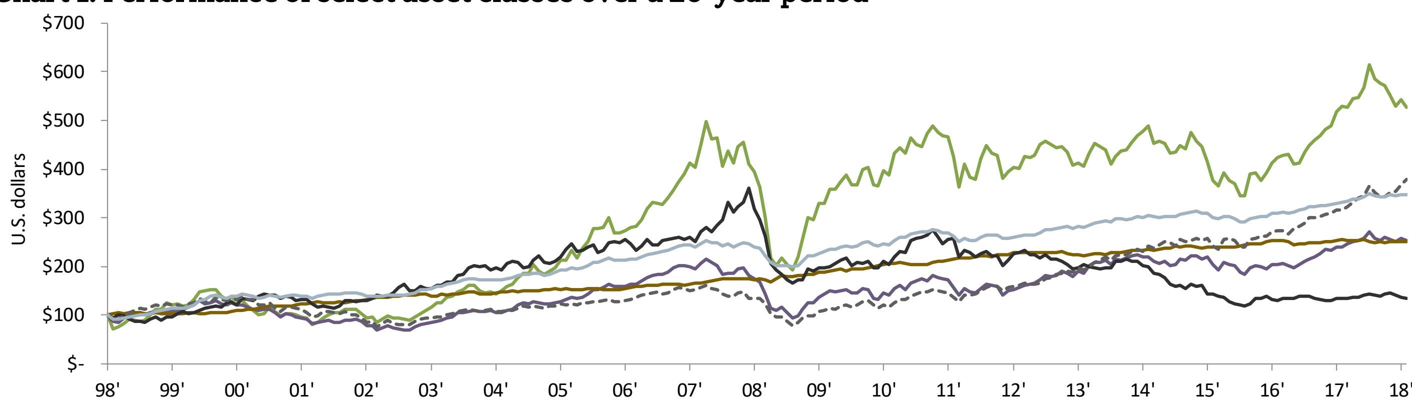
What many successful investors understood in the late 1990s and what many acknowledge today is that reducing downside risk through diversification can help to produce strong results (with lower volatility) over time—as markets cycle through the emotions of fear and greed. After one of the largest market downturns in history (that occurred in 2008-2009), the S&P 500 Index has outperformed nearly every other asset class during the recovery. This has caused some investors to question the benefits of diversification. We created Chart 1 to help illustrate why we believe a diversified portfolio is appropriate for most investors. It shows the growth of $100 following investment in a variety of asset types over a 20-year period (which captures two full market cycles).

Looking at Chart 1, which path would you have chosen for your portfolio over the past 20 years? The most lucrative choice over this period is represented by the green line, but it was also the most volatile. Many investors would not have been able to withstand the 60% drop the green line reflects in 2007 and 2008 (when it fell from a value of nearly $500 to just below $200, before rebounding). The choice some investors may have made is the smooth brown line. Others may have chosen the silver line, which has exhibited a modest level of volatility and performed better than the brown line.

Now consider one more line—the dark blue line in Chart 2. Given this new choice—not quite as smooth as the silver line, but still relatively stable and the second-most lucrative over the 20-year period—many investors would probably select the dark blue path.

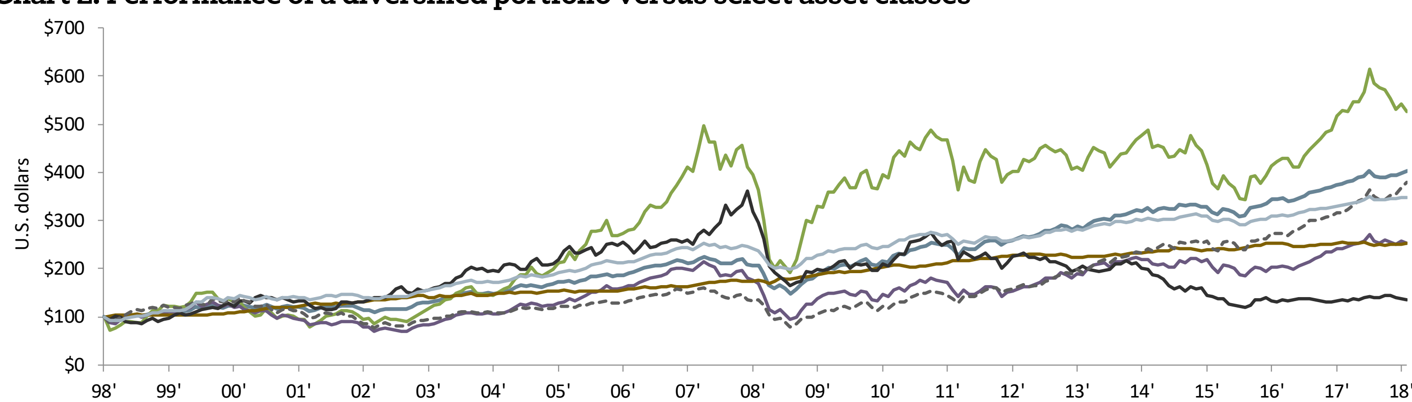
The returns shown in the Chart 1 and 2 examples are asset-class index returns. The new dark blue line is a combination of all the asset classes shown (and several others). In other words, the dark blue line represents performance of a diversified portfolio and shows how diversification worked in this scenario over a longer period of time (see Chart 3).

Chart 1. Performance of select asset classes over a 20-year period



Sources: Wells Fargo Investment Institute, Morningstar Direct, September 2018. Chart shows growth of a $100 investment (cumulative performance) from August 1998 to August 2018 in select asset classes identified in Chart 3.

Chart 2. Performance of a diversified portfolio versus select asset classes



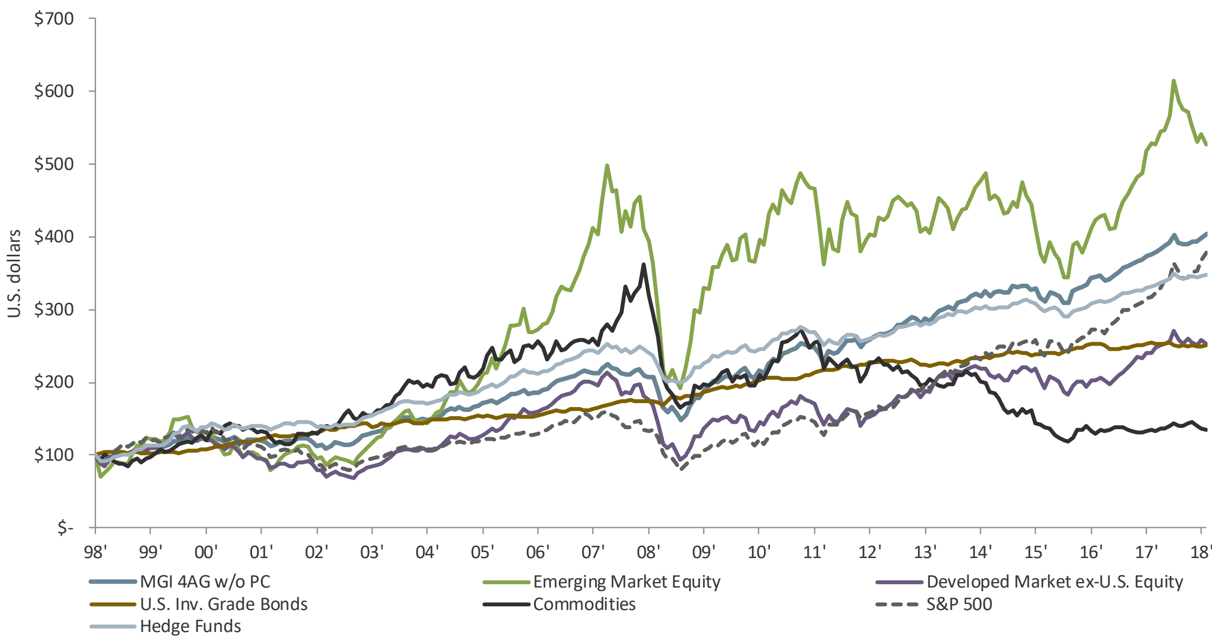
Sources: Wells Fargo Investment Institute, Morningstar Direct, September 2018. Chart shows hypothetical growth of a $100 investment over 20 years (cumulative performance) in select asset classes identified in Chart 3.

But what about that smooth brown line—why not just choose that path, since the returns were so consistent? The answer is in the future expectations we have for the brown line. It represents a U.S. investment-grade taxable bond portfolio, and we believe that U.S. bond indices are likely to experience lower market returns in the years to come as we expect interest rates to continue rising and bond prices to fall. So, for most investors, we believe enhanced diversification is advisable.

What about the silver line? It is above the bond portfolio and, at times over the years, it has exceeded the Wells Fargo Investment Institute Moderate Growth and Income (diversified) model portfolio. Furthermore, when we look at a chart showing volatility, as represented by standard deviation, the silver line (which represents hedge fund strategies) has been a very steady component of a diversified portfolio.

Indeed, hedge fund strategies (in addition to bonds) can potentially provide some stability to an overall portfolio. Yet, we do not believe that they should be a stand-alone investment due to the unique risks—beyond volatility—that hedge fund strategies can exhibit. Similarly, using only a *single* asset class (or even asset group) greatly increases the risk that investors will not reach their longer-term financial goals. Instead, we believe that the key to reaching long-term investment goals is employing the different characteristics of multiple asset classes through varying market cycles.

Chart 3. Performance of a hypothetical, diversified portfolio versus select asset classes



Sources: Wells Fargo Investment Institute, Morningstar Direct, September 2018. Listing of the year represents start of the year.

MGI 4AG No PC = Wells Fargo Investment Institute Moderate Growth and Income Portfolio without Private Capital.

Commodities are represented by Bloomberg Commodity Index; **Emerging Market Equity** by MSCI Emerging Markets USD Index; **Large Cap** by S&P 500 Index; **Developed Market Equity** by MSCI EAFE GR USD Index; **Hedge Funds** by HFRI Fund Weighted Index; **Investment Grade U.S. Bonds** by Bloomberg Barclays U.S. Aggregate Bond Index.

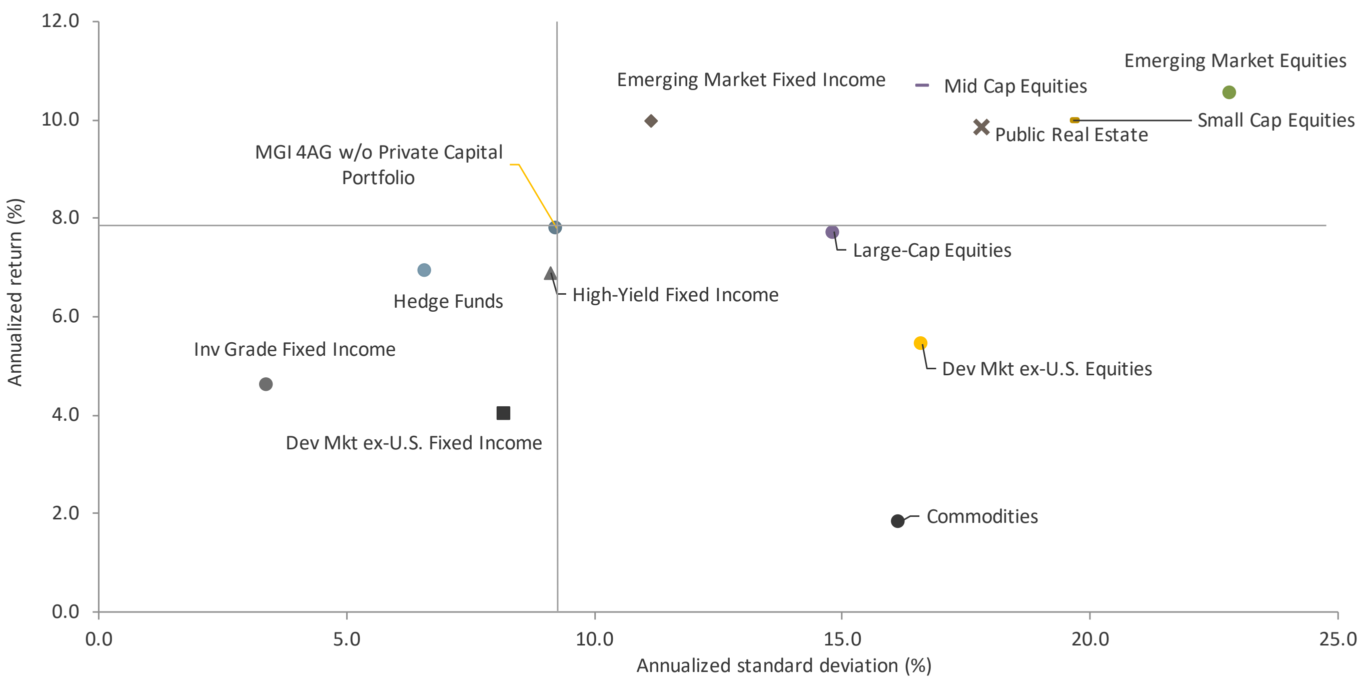
Moderate Growth & Income Four Asset Group Portfolio w/o Private Capital = 3% Bloomberg Barclays U.S. Treasury Bill 1-3 Months; 11% Bloomberg Barclays U.S. Aggregate (5-7 year); 6% Bloomberg Barclays U.S. Aggregate (10+ year); 6% Bloomberg Barclays U.S. Corporate High Yield Index; 3% JP Morgan GBI Global Ex-U.S. TR USD Index; 5% JP Morgan EMBI Global TR USD Index; 20% S&P 500 Index; 8% Russell Mid Cap TR USD Index; 6% Russell 2000 Index; 5% MSCI EAFE GR USD Index; 5% MSCI Emerging Markets GR USD; 5% FTSE EPRA/NAREIT Developed TR USD Index; 2% Bloomberg Commodity Index; 3% HFRI Relative Value Index; 6% HFRI Macro Index; 4% HFRI Event Driven Index; 2% HFRI Equity Hedge Index.

Chart shows the growth of $100 invested in a hypothetical diversified portfolio versus select asset classes. ***Performance results for the 4 Asset Group without Private Capital Portfolio are hypothetical and do not represent an actual portfolio in existence now or during the time period shown. Index return information is provided for illustrative purposes only.*** Index returns do not represent investment returns or the results of actual trading nor are they forecasts of expected gains or losses a portfolio might experience. Index returns reflect general market results, assume the reinvestment of dividends and other distributions, and generally do not reflect deduction for fees, expenses or taxes applicable to an actual investment. Unlike most asset class indices, HFR Index returns reflect deduction for fees. Because the HFR indices are calculated based on information that is voluntarily provided actual returns may be lower than those reported. An index is unmanaged and not available for direct investment. **Hypothetical and past performance does not guarantee future results.** Please see the end of this report for the definition of the indices and a description of the asset class risks.)

Chart 4 shows the average return and risk (measured by standard deviation) of several key asset classes over the past 20 years. In general, over the long term, an asset class that exhibited increased risk was more likely to have had higher returns. In Chart 4, this relationship is reflected in the fact that most equity asset classes are positioned in the upper right-hand quadrant (higher returns and higher risk) and most fixed-income classes are positioned in the lower left-hand quadrant (lower returns and lower risk).

The hypothetical diversified portfolio, marked by the crosshairs, provided equity-like returns with much lower volatility than all of the equity asset classes.

Chart 4. Performance versus risk—20 years ended on August 31, 2018



Sources: Wells Fargo Investment Institute, Morningstar Direct, September 2018. Please see disclosures below Chart 3 for the composition of the Moderate Growth & Income Four Asset Group Portfolio w/o Private Capital.

Commodities are represented by the Bloomberg Commodity Index; **Emerging Market Stocks** by MSCI Emerging Markets USD Index; **Large Cap Stocks** by S&P 500 Index; **International Developed Market Stocks** by MSCI EAFE GR USD Index; **Small Cap Stocks** by Russell 2000 Index; **Mid Cap Stocks** by Russell Midcap Index; **Hedge Funds** by HFRI Fund Weighted Index; **Investment Grade U.S. Bonds** by Bloomberg Barclays U.S. Aggregate Bond Index; **High Yield Bonds** by Bloomberg Barclays U.S. Corporate High-Yield Bond Index; **Developed Market Bonds** by JP Morgan Global Ex United States Index; **Emerging Market Bonds** by JP Morgan EMBI Global Index; **Public Real Estate** by FTSE EPRA/NAREIT Developed Index. Standard deviation is a measure of volatility.

Performance results for the 4 Asset Group without Private Capital Portfolio are hypothetical and do not represent an actual portfolio in existence now or during the time period shown. Index return information is provided for illustrative purposes only. Index returns do not represent investment returns or the results of actual trading nor are they forecasts of expected gains or losses a portfolio might experience. Index returns reflect general market results, assume the reinvestment of dividends and other distributions, and generally do not reflect deduction for fees, expenses or taxes applicable to an actual investment. Unlike most asset class indices, HFR Index returns reflect deduction for fees. Because the HFR indices are calculated based on information that is voluntarily provided actual returns may be lower than those reported. An index is unmanaged and not available for direct investment. **Hypothetical and past performance does not guarantee future results.** Please see the end of this report for the definition of the indices and a description of the asset class risks.

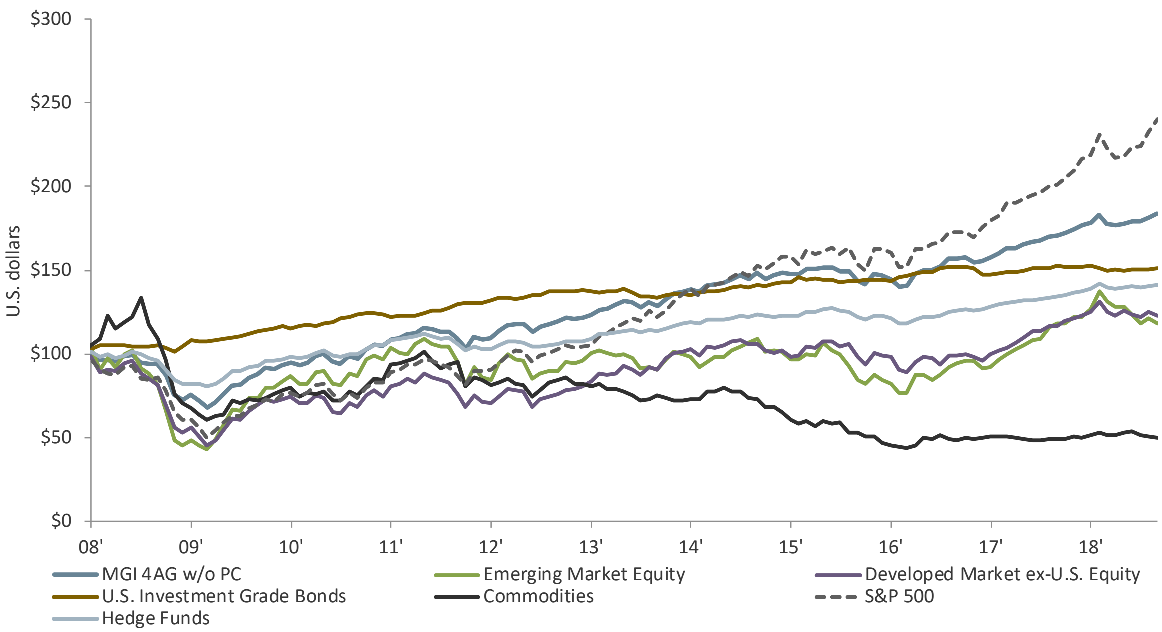
Since the financial crisis

In 2008 and 2009, the global economy suffered the worst financial crisis since the Great Depression. Subsequently, the S&P 500 Index moved ahead of the hypothetical diversified portfolio and bond portfolio, but with greater volatility. Over the same period, international markets, hedge fund strategies, and commodities have fallen behind (see Chart 5).

Does that suggest that now is the time to exit these other asset classes? Not necessarily. Exposure to a globally diverse set of low-correlated assets can smooth the performance ride and better position a portfolio for long-term success. We believe that diversification can help to improve portfolio performance and can help mitigate market downturns.

There are years (2008, 2011, and 2015) when conditions in the global financial markets will cause a diversified portfolio to underperform our longer-term capital market assumptions and also years when it may rise above them (see Chart 6).[1] Over the long term, our strategic allocations have met and (in many cases) exceeded our expectations.

Chart 5. Cumulative performance from October 2007 to August 2018



Sources: Wells Fargo Investment Institute, Morningstar Direct, September 2018. ***Performance results for the Four Asset Group without Private Capital Portfolio are hypothetical and do not represent an actual portfolio in existence now or during the time period shown. Index return information is provided for illustrative purposes only.*** Index returns do not represent investment returns or the results of actual trading nor are they forecasts of expected gains or losses a portfolio might experience. Index returns reflect general market results, assume the reinvestment of dividends and other distributions, and generally do not reflect deduction for fees, expenses or taxes applicable to an actual investment. Unlike most asset class indices, HFR Index returns reflect deduction for fees. Because the HFR indices are calculated based on information that is voluntarily provided actual returns may be lower than those reported. An index is unmanaged and not available for direct investment. **Hypothetical and past performance does not guarantee future results.** Please see the end of this report for the definition of the indices and a description of the asset class risks. Please see disclosures below Chart 3 for composition of the Moderate Growth & Income Four Asset Group Portfolio without private capital and for representative asset-class indices.

[1] Capital Market Assumptions are estimates of how asset classes and combinations of asset classes may respond during various market environments. Assumptions are not designed to predict actual performance, and there are no assurances that any estimates used will be achieved.

Asset allocation strategy cannot guarantee investment returns or protect a portfolio from investment losses; however, we believe a strategy properly matched to an investor's time horizon and risk tolerance can assist in meeting long-term financial goals. A diversified portfolio invariably will underperform some of its components, and 2018 has been no exception.

However, as Chart 6 illustrates, there is no way to know in advance which asset classes will rise to the top of the group in any given year (e.g., emerging markets equity was the top performer in 2017 and near the bottom year to date in 2018). The hypothetical diversified asset allocation portfolio has shown consistent long-term performance and has generally stayed in the middle lane and avoided the extremes experienced by single asset class strategies.

Chart 6. Calendar year asset class returns

2003	2004	2005	2006	2007	2008	2009	2010
Emg Mkt Equity 56.3%	Public Real Estate 38.0%	Emg Mkt Equity 34.5%	Public Real Estate 42.4%	Emg Mkt Equity 39.8%	Dev ex US Fixed Inc 11.4%	Emg Mkt Equity 79.0%	US Small Cap Equity 26.9%
US Small Cap Equity 47.3%	Emg Mkt Equity 26.0%	Commod 21.4%	Emg Mkt Equity 32.6%	Commod 16.2%	Inv Grade Fixed Inc 5.2%	High Yield Fixed Inc 58.2%	US Mid Cap Equity 25.5%
Public Real Estate 40.7%	Dev ex US Equity 20.7%	Public Real Estate 15.4%	Dev ex US Equity 26.9%	Dev ex US Equity 11.6%	Cash Alternative 1.8%	US Mid Cap Equity 40.5%	Public Real Estate 20.4%
US Mid Cap Equity 40.1%	US Mid Cap Equity 20.2%	Dev ex US Equity 14.0%	US Small Cap Equity 18.4%	Dev ex US Fixed Inc 11.3%	CPI 0.1%	Public Real Estate 38.3%	Emg Mkt Equity 19.2%
Dev ex US Equity 39.2%	US Small Cap Equity 18.3%	US Mid Cap Equity 12.7%	US Large Cap Equity 15.8%	Hedge Funds 10.0%	Emg-Mkt Fixed Inc -10.9%	Dev ex US Equity 32.5%	Commod 16.8%
High Yield Fixed Inc 29.0%	Mod Grwth Inc Portf 13.1%	Emg-Mkt Fixed Inc 10.7%	US Mid Cap Equity 15.3%	Mod Grwth Inc Portf 7.4%	Hedge Funds -19.0%	Emg-Mkt Fixed Inc 28.2%	High Yield Fixed Inc 15.1%
US Large Cap Equity 28.7%	Dev ex US Fixed Inc 12.0%	Hedge Funds 9.3%	Mod Grwth Inc Portf 14.5%	Inv Grade Fixed Inc 7.0%	60%,40% Portf -21.6%	US Small Cap Equity 27.2%	US Large Cap Equity 15.1%
Mod Grwth Inc Portf 26.2%	Emg-Mkt Fixed Inc 11.7%	Mod Grwth Inc Portf 7.9%	Hedge Funds 12.9%	Emg-Mkt Fixed Inc 6.3%	Mod Grwth Inc Portf -24.3%	US Large Cap Equity 26.5%	Mod Grwth Inc Portf 14.6%
Emg-Mkt Fixed Inc 25.7%	High Yield Fixed Inc 11.1%	US Large Cap Equity 4.9%	High Yield Fixed Inc 11.8%	60%,40% Portf 6.2%	High Yield Fixed Inc -26.2%	Mod Grwth Inc Portf 26.0%	60%,40% Portf 12.2%
Commod 23.9%	US Large Cap Equity 10.9%	US Small Cap Equity 4.6%	60%,40% Portf 11.1%	US Mid Cap Equity 5.6%	US Small Cap Equity -33.8%	Hedge Funds 20.0%	Emg-Mkt Fixed Inc 12.0%
Hedge Funds 19.5%	Commod 9.1%	60%,40% Portf 3.9%	Emg-Mkt Fixed Inc 9.9%	US Large Cap Equity 5.5%	Commod -35.6%	Commod 18.9%	Hedge Funds 10.2%
60%,40% Portf 18.6%	Hedge Funds 9.0%	CPI 3.4%	Dev ex US Fixed Inc 6.8%	Cash Alternative 4.8%	US Large Cap Equity -37.0%	60%,40% Portf 18.5%	Dev ex US Equity 8.2%
Dev ex US Fixed Inc 18.6%	60%,40% Portf 8.4%	Cash Alternative 3.0%	Cash Alternative 4.8%	CPI 4.1%	US Mid Cap Equity -41.5%	Inv Grade Fixed Inc 5.9%	Dev ex US Fixed Inc 6.8%
Inv Grade Fixed Inc 4.1%	Inv Grade Fixed Inc 4.3%	High Yield Fixed Inc 2.7%	Inv Grade Fixed Inc 4.3%	High Yield Fixed Inc 1.9%	Dev ex US Equity -43.1%	Dev ex US Fixed Inc 3.9%	Inv Grade Fixed Inc 6.5%
CPI 1.9%	CPI 3.3%	Inv Grade Fixed Inc 2.4%	CPI 2.5%	US Small Cap Equity -1.6%	Public Real Estate -47.7%	CPI 2.7%	CPI 1.5%
Cash Alternative 1.0%	Cash Alternative 1.2%	Dev ex US Fixed Inc -9.2%	Commod 2.1%	Public Real Estate -7.0%	Emg Mkt Equity -53.2%	Cash Alternative 0.1%	Cash Alternative 0.1%

2011	2012	2013	2014	2015	2016	2017	YTD	'03-'17 Average
Emg-Mkt Fixed Inc 8.5%	Public Real Estate 28.7%	US Small Cap Equity 38.8%	Public Real Estate 15.9%	US Large Cap Equity 1.4%	US Small Cap Equity 21.3%	Emg Mkt Equity 37.8%	US Small Cap Equity 14.3%	Emg Mkt Equity 12.7%
Inv Grade Fixed Inc 7.8%	Emg Mkt Equity 18.6%	US Mid Cap Equity 34.8%	US Large Cap Equity 13.7%	Emg-Mkt Fixed Inc 1.2%	High Yield Fixed Inc 17.1%	Dev ex US Equity 25.6%	US Large Cap Equity 9.9%	US Mid Cap Equity 12.1%
Dev ex US Fixed Inc 5.9%	Emg-Mkt Fixed Inc 18.5%	US Large Cap Equity 32.4%	US Mid Cap Equity 13.2%	60%,40% Portf 1.2%	US Mid Cap Equity 13.8%	US Large Cap Equity 21.8%	US Mid Cap Equity 8.2%	US Small Cap Equity 11.2%
High Yield Fixed Inc 5.0%	Dev ex US Equity 17.9%	Dev ex US Equity 23.3%	60%,40% Portf 10.6%	CPI 0.7%	US Large Cap Equity 12.0%	US Mid Cap Equity 18.5%	60%,40% Portf 5.5%	Public Real Estate 10.4%
60%,40% Portf 5.0%	US Mid Cap Equity 17.3%	60%,40% Portf 17.7%	Mod Grwth Inc Portf 6.6%	Inv Grade Fixed Inc 0.5%	Commod 11.8%	US Small Cap Equity 14.6%	Public Real Estate 2.8%	US Large Cap Equity 9.9%
CPI 3.0%	US Small Cap Equity 16.3%	Mod Grwth Inc Portf 12.1%	Inv Grade Fixed Inc 6.0%	Public Real Estate 0.1%	Emg Mkt Equity 11.6%	60%,40% Portf 14.3%	Mod Grwth Inc Portf 2.8%	High Yield Fixed Inc 9.0%
US Large Cap Equity 2.1%	US Large Cap Equity 16.0%	Hedge Funds 9.1%	Emg-Mkt Fixed Inc 5.5%	Cash Alternative 0.0%	Emg-Mkt Fixed Inc 10.2%	Mod Grwth Inc Portf 13.2%	CPI 2.2%	Emg-Mkt Fixed Inc 8.9%
Mod Grwth Inc Portf 0.8%	High Yield Fixed Inc 15.8%	High Yield Fixed Inc 7.4%	US Small Cap Equity 4.9%	Dev ex US Equity -0.4%	Mod Grwth Inc Portf 9.0%	Public Real Estate 11.4%	Hedge Funds 2.0%	Dev ex US Equity 8.6%
Cash Alternative 0.1%	Mod Grwth Inc Portf 12.6%	Public Real Estate 4.4%	Hedge Funds 3.0%	Hedge Funds -1.1%	60%,40% Portf 8.2%	Dev ex US Fixed Inc 9.9%	High Yield Fixed Inc 2.0%	Mod Grwth Inc Portf 8.5%
US Mid Cap Equity -1.5%	60%,40% Portf 11.4%	CPI 1.5%	High Yield Fixed Inc 2.5%	Mod Grwth Inc Portf -1.9%	Hedge Funds 5.4%	Emg-Mkt Fixed Inc 9.3%	Cash Alternative 1.1%	60%,40% Portf 7.9%
US Small Cap Equity -4.2%	Hedge Funds 6.4%	Cash Alternative 0.0%	CPI 0.8%	US Mid Cap Equity -2.4%	Public Real Estate 5.0%	Hedge Funds 8.6%	Inv Grade Fixed Inc -1.0%	Hedge Funds 6.1%
Hedge Funds -5.3%	Inv Grade Fixed Inc 4.2%	Inv Grade Fixed Inc -2.0%	Cash Alternative 0.0%	US Small Cap Equity -4.4%	Inv Grade Fixed Inc 2.6%	High Yield Fixed Inc 7.5%	Dev ex US Equity -1.9%	Dev ex US Fixed Inc 4.3%
Public Real Estate -5.8%	CPI 1.7%	Emg Mkt Equity -2.3%	Emg Mkt Equity -1.8%	High Yield Fixed Inc -4.5%	CPI 2.1%	Inv Grade Fixed Inc 3.5%	Dev ex US Fixed Inc -2.0%	Inv Grade Fixed Inc 4.1%
Dev ex US Equity -11.7%	Dev ex US Fixed Inc 0.8%	Dev ex US Fixed Inc -5.1%	Dev ex US Fixed Inc -2.5%	Dev ex US Fixed Inc -4.8%	Dev ex US Fixed Inc 1.9%	CPI 2.1%	Commod -3.9%	CPI 2.1%
Commod -13.3%	Cash Alternative 0.1%	Emg-Mkt Fixed Inc -6.6%	Dev ex US Equity -4.5%	Emg Mkt Equity -14.6%	Dev ex US Equity 1.5%	Commod 1.7%	Emg-Mkt Fixed Inc -5.1%	Cash Alternative 1.2%
Emg Mkt Equity -18.2%	Commod -1.1%	Commod -9.5%	Commod -17.0%	Commod -24.7%	Cash Alternative 0.3%	Cash Alternative 0.8%	Emg Mkt Equity -6.9%	Commod -0.3%

Sources: Wells Fargo Investment Institute, Morningstar Direct, August 31, 2018. An index is unmanaged and not available for direct investment. Asset allocation does not guarantee a profit or protect against loss. Average is calculated as geometric mean. Average is calculated as 15 years from 2003-2017. Portfolios are rebalanced quarterly. **Past performance is no guarantee of future results**. Please see disclosures for a description of the risks associated with each asset class and for the definitions of the indices. 60%/40% Portfolio is composed of 60% S&P 500 Index and 40% Bloomberg Barclays U.S. Aggregate Bond Index.

Portfolio returns matter

A significant factor in developing a sound asset allocation plan is having a well-thought-out diversification strategy designed to help achieve consistent returns over time. There are three reasons why we believe how investors achieve their portfolio returns matter:

1. *First, smooth and steady performance often wins the race.* Portfolios that generate consistent returns are likely to increase wealth more over time than portfolios that produce more volatile returns. As an illustration, consider three hypothetical portfolios, each with $1 million at inception:

	A	B	C
Year 1	10%	5%	20%
Year 2	10%	-25%	20%
Year 3	10%	50%	-10%
Total arithmetic return	30%	30%	30%
Ending value	$1,331,000	$1,181,250	$1,296,000

Source: Wells Fargo Investment Institute, 2018. Hypothetical examples do not represent actual performance results achieved and are for illustrative purposes only.

Portfolio A generates a consistent 10% return in year 1, year 2, and year 3. Portfolio B and C produce more volatile returns. Portfolio B gains 5% in the first year, loses 25% in the second year, and gains 50% in the third year. Portfolio C returns 20% in the first year, gains 20% in the second year, and then loses 10% in the third year.

Over the three years, all three portfolios produced a total return of 30%. However, at the end of year 3, Portfolio A had grown to $1,331,000. This is significantly greater than the $1,181,250 ending value of Portfolio B and the $1,296,000 ending value of Portfolio C.

2. *Second, when the value of the overall portfolio drops significantly, it may dig a "hole" out of which it can be difficult to climb.* Returning to our example, when Portfolio B lost 25%, it had to earn 33% just to recover back to its original value. This was also evident in the years during and after the financial crisis—in which a diversified portfolio lost less and recovered more quickly than an all-equity portfolio.

3. *Finally, the more volatile a portfolio is, the more likely investors are to throw in the towel.* In the second year of investing for Portfolio B, many investors may have decided that they can't tolerate any additional pain—and then decide to abandon their investment strategy prematurely. By remaining invested during the market drop only, and then fleeing to the sidelines just before a recovery, portfolios are more likely to miss out on subsequent gains. Such actions can significantly impact the long-term value of an investor's portfolio—and jeopardize the objective of achieving their long-term financial goals.

Investor implications

We believe that it is important for investors to:
1) build an investment strategy that addresses specific investment needs, 2) understand their ability to assume risk, 3) maintain adequate liquidity to ride through short-term market turmoil, and 4) match the time horizon of their investments with the time horizon of their financial goals.

These considerations are often forgotten. During times of greed, investors may stretch their investment horizons leading to an overallocation to risky assets, while in times of fear, their investment horizons may shrink—leading to an overallocation to cash. Such an approach can lead to very unsatisfactory results. Instead, we suggest that investors consider building a global asset allocation, and rebalancing it on a regular basis.

Through market cycles when specific assets may be overvalued or undervalued, rebalancing forces the discipline of buying risk when it is cheap and selling risk when it is expensive. In other words, it supports buying low and selling high. Finally, investors should not let short-term emotions (which can be exacerbated by media reports) derail a disciplined investment strategy. There are many examples of investors timing in and out of markets, or jumping on the “theme of the day,” only to be caught on the wrong side of a market move. At any point in time, one asset class will outperform all others. That does not mean that investors should scrap a diversification strategy. Time and time again, we have found that investors fall into that trap. In our opinion, asset allocation is the best way to capture the upside potential of the full investment spectrum through the ups and downs of market cycles.

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Risk Considerations

Asset allocation and diversification are investment methods used to help manage risk. They do not guarantee investment returns or eliminate risk of loss. All investing involve risks, including the possible loss of principal. There can be no assurance that any investment strategy will be successful. Investments fluctuate with changes in market and economic conditions and in different environments due to numerous factors some of which may be unpredictable. Each asset class has its own risk and return characteristics. The risks associated with the representative index asset classes shown in this report include:

Commodities: The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates or other factors affecting a particular industry or commodity.

Equity Securities: Stocks are subject to market risk which means their value may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. The prices of small/mid-company stocks are generally more volatile than large company stocks. They often involve higher risks because of smaller and mid-sized companies may lack the management expertise, financial resources, product diversification and competitive strengths to endure adverse economic conditions.

Fixed Income: Investments in fixed-income securities are subject to interest rate and credit risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond's price. Credit risk is the risk that an issuer will default on payments of interest and principal. High yield fixed income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment grade fixed income securities. All fixed income investments may be worth less than their original cost upon redemption or maturity. U.S. government securities are backed by the full faith and credit of the federal government as to payment of principal and interest if held to maturity. Although free from credit risk, they are subject to interest rate risk.

Foreign/Emerging Markets: Investing in foreign securities presents certain risks not associated with domestic investments, such as currency fluctuation, political and economic instability, and different accounting standards. This may result in greater share price volatility. These risks are heightened in emerging markets.

Real Estate: Investing in real estate investment trusts (REITs) have special risks, including possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions.

Hedge Funds: Hedge Funds are only available to persons who are "accredited investors" or "qualified purchasers" within the meaning of U.S. securities laws. Hedge funds trade in diverse complex strategies that are affected in different ways and at different times by changing market conditions. Strategies may, at times, be out of market favor for considerable periods with adverse consequences.

Hedge Strategies: Event Driven strategies involve investing in opportunities created by significant transactional events, such as spinoffs, mergers and acquisitions, bankruptcy reorganization, recapitalization and share buybacks. Managers who use such strategies may invest in, and might sell short, the securities of companies where the security's price has been, or is expected to be, affected by a distressed situation. **Equity Hedge** strategies maintain positions both long and short in primarily equity and equity derivative securities. **Macro** managers trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets. **Relative Value** strategies focus on exploiting perceived imbalances or valuation discrepancies between related markets or instruments.

Index Definitions

An index is unmanaged and not available for direct investment.

Investment Grade Bonds: Bloomberg Barclays U.S. Aggregate Bond Index is composed of the Bloomberg Barclays U.S. Government/Credit Index and the Bloomberg Barclays U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities.

High Yield Bonds: Bloomberg Barclays U.S. Corporate High-Yield Bond Index covers the U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bond market. Securities are classified as high-yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB= or below. Included issues must have at least one year until final maturity.

Cash Alternatives/Treasury Bills: Bloomberg Barclays U.S. Treasury Bills (1-3M) Index is representative of money markets.

Commodities: Bloomberg Commodity Index is a broadly diversified index of commodity futures on 20 physical commodities, subdivided into energy, U.S. agriculture, livestock, precious metals, and industrial metals sectors. Commodity weights are derived in a manner that attempts to fairly represent the importance of a diversified group of commodities to the world economy.

REITs: FTSE EPRA/NAREIT Developed Index is designed to track the performance of listed real-estate companies and REITs in developed countries worldwide.

Hedge Funds: HFRI Fund Weighted Index is a fund-weighted (equal-weighted) index designed to measure the total returns (net of fees) of the approximately 2,000 hedge funds that comprise the Index. Constituent funds must have either $50 million under management or a track record of greater than 12 months. Sub-strategies include: HFRI Event-Driven, Distressed/Restructuring Index, and HFRI Event-Driven (Total) Index.

Developed Market Bonds: JP Morgan Global Ex United States Index (JPM GBI Global Ex-US) is a total return, market capitalization weighted index, rebalanced monthly, consisting of the following countries: Australia, Germany, Spain, Belgium, Italy, Sweden, Canada, Japan, United Kingdom, Denmark, Netherlands, and France.

Emerging Market Bonds: JPM EMBI Global Index is a U.S. dollar-denominated, investible, market cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. While products in the asset class have become more diverse, focusing on both local currency and corporate issuance, there is currently no widely accepted aggregate index reflecting the broader opportunity set available, although the asset class is evolving. By using the same index provider as the one used in the developed-market bonds asset class, there is consistent categorization of countries among developed international bonds (ex. U.S.) and emerging market bonds.

International Stocks: MSCI EAFE Index (Europe, Australasia, Far East) Index (MSCI EAFE GR) is a free float-adjusted market capitalization index designed to measure the equity market performance of developed markets, excluding the U.S. and Canada. The index consists of the following 21 developed-market country indexes: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom.

Emerging Market Stocks: MSCI Emerging Markets Index (MSCI EM GR) is a free float-adjusted market capitalization index designed to measure equity market performance of emerging markets. The index consists of the following 23 emerging market country indexes: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates.

Small Cap Stocks: Russell 2000® Index measures the performance of the 2,000 smallest companies in the Russell 3000® Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index.

Mid Cap Stocks: Russell Midcap® Index measures the performance of the 800 smallest companies in the Russell 1000® Index, which represent approximately 25% of the total market capitalization of the Russell 1000® Index.

Large Cap Stocks: S&P 500 Index consists of 500 stocks chosen for market size, liquidity, and industry group representation. It is a market-value-weighted index with each stock's weight in the index proportionate to its market value.

HFRI Relative Value Index maintains positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities. Managers employ a variety of fundamental and quantitative techniques to establish investment theses, and security types range broadly across equity, fixed income, derivative, or other security types.

HFRI Equity Hedge Index maintains positions both long and short in primarily equity and equity derivative securities. A wide variety of investment processes can be employed to arrive at an investment decision, including both quantitative and fundamental techniques; strategies can be broadly diversified or narrowly focused on specific sectors and can range broadly in terms of levels of net exposure, leverage employed, holding period, concentrations of market capitalizations, and valuation ranges of typical portfolios.

HFRI Macro Index is composed of a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency, and commodity markets. Managers employ a variety of techniques, both discretionary and systematic analysis, combinations of top-down and bottom-up theses, quantitative and fundamental approaches, and long- and short-term holding periods. Although some strategies employ RV techniques, macro strategies are distinct from RV strategies in that the primary investment thesis is predicated on predicted or future movements in the underlying instruments rather than realization of a valuation discrepancy between securities.

HFRI Event Driven Index maintains positions in companies currently or prospectively involved in corporate transactions of a wide variety including, but not limited to, mergers, restructurings, financial distress, tender offers, shareholder buybacks, debt exchanges, security issuance, or other capital structure adjustments. Security types can range from most senior in the capital structure to most junior or subordinated and frequently involve additional derivative securities. Event driven exposure includes a combination of sensitivities to equity markets, credit markets, and idiosyncratic, company-specific developments. Investment theses are typically predicated on fundamental characteristics (as opposed to quantitative) with the realization of the thesis predicated on a specific development exogenous to the existing capital structure.

The HFRI Indices are based on information self-reported by hedge fund managers that decide, on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways.

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