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2017 Capital Market Assumptions Methodology—The Building-Block Approach

In This Special Report

2017 Capital Market Assumptions Methodology—The Building-Block Approach

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Among other things, successful investing requires investors to make important choices about opportunities for growth and income. As part of our asset allocation and investment strategy, we regularly review our capital market assumptions (CMAs) as well as our strategic and tactical asset allocation mixes. Our CMAs are hypothetical return expectations based on longer-term trends we expect to prevail over the next 10 or 15 years (or approximately two market cycles). Two perspectives are used to create the inputs: historical data series and forward-looking capital market risk adjustments. These assumptions are not intended to predict the future but rather to put into perspective realistic expectations of potential investment risk and return traits. They do not represent the returns an investor should expect in any particular year. Also, they may differ markedly from recent experience, especially after an unusual series of market conditions, such as those we experienced in 2008–2009.

CMAs are developed for two important reasons: to help determine portfolio allocation and to assess the probability that investors will be able to reach their financial goals. CMAs consist of several factors, including return, risk, and correlation expectations for the specific asset classes in our investment strategies. This report discusses our methodology for constructing CMAs of the various asset classes as well as the long-term factors that may affect the overall investment-strategy process. It is intended to accompany our monthly Asset Allocation Strategy report.

Background

The process of allocating assets starts with our assumptions for the risk and return that investors might expect from each of the asset classes we use in Wells Fargo Investment Institute portfolios.

These assumptions are intended to reflect the relative behavior of the classes over the next couple of market cycles, somewhere between 10 and 15 years. Our CMAs are based on a combination of an analysis of historical observations and our understanding of the returns that investors demand for varying types and levels of risk. By design, they are not updated in response to recent performance. They are intended to be realistic—but conservative—estimates, erring on the high side for risk and the low side for return. We believe that it is best to base an investment plan on conservative assumptions, and these assumptions should provide investors with a context for how they might reasonably expect the various asset classes to perform over a multiple-cycle period.

As part of our asset allocation and investment strategy, we create these longer-term CMAs as inputs for two primary applications. We use CMAs as inputs into a mean-variance optimizer (MVO), which is a tool used to allocate assets to build optimal portfolios based on risk and return, and is a key component used in developing specific portfolio allocations. An optimizer, or tool, constrained to produce diversified allocations, can provide directional guidance in setting strategic asset allocations. The MVO process searches for the efficient frontier based on CMAs (that is, return, risk, and correlation) that we formulate. We also use CMAs to populate risk and return expectations for investment planning software designed to forecast investors' probability of meeting their financial goals based on portfolio allocation and estimated cash flows. Bear in mind, our CMAs are estimates of how asset classes and combinations of classes may respond during various market environments. The assumptions are not designed to predict actual performance, and there are no assurances that any estimates used will be achieved.

Capital Market Assumptions—Methodology

CMAs are developed to reflect the expected relationship of capital markets with inflation over multiple market cycles, spanning a 10- to 15-year time horizon. CMAs consist of three distinct parts: hypothetical return, hypothetical risk, and correlation expectations with other asset classes. Keep in mind, correlation measures the degree to which asset classes move in sync; it does not measure the magnitude of that movement.

Inflation forms the first building block of the approach, as investors demand this level of return just to break even in real (inflation-adjusted) terms.

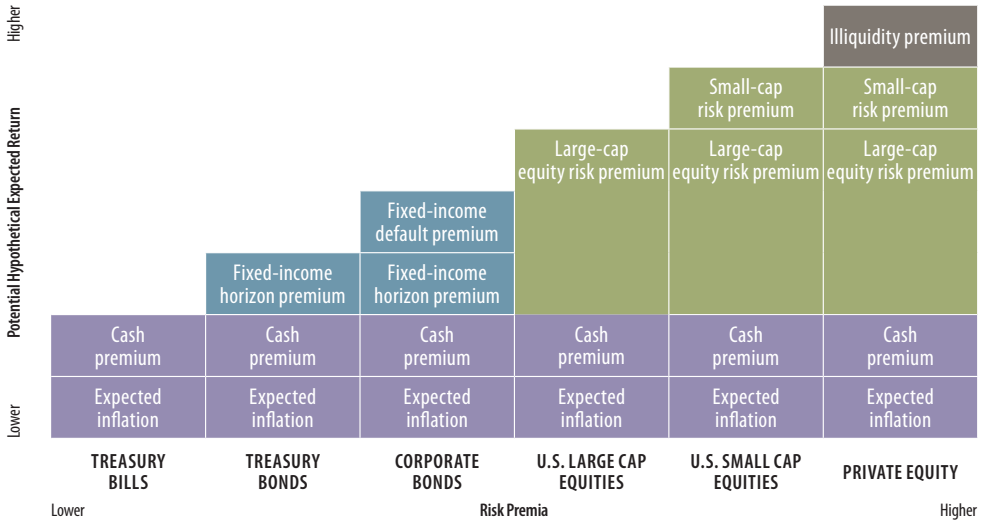
Hypothetical Return

We use a building-block approach based on the underlying principle that investors demand compensation for each element of risk in an asset class. Inflation forms the first building block of the approach, as investors demand this level of return just to break even in real (inflation-adjusted) terms.

Cash premium is the second building block. Expected inflation added to the cash premium equals our hypothetical *risk-free* rate of return—the theoretical rate of return of an investment with the lowest risk. This sum forms one of the input variables for a technique called the Sharpe-ratio analysis—which compares various levels of the risk versus reward trade-off—explained below.

Next, various types and amounts of risk premia are added to the risk-free rate to determine our return expectations for each of the asset classes. These risk premia include fixed income duration risk (for short-, intermediate-, and long-term premia), credit risk, default risk, equity risk, and private capital illiquidity risk, among others. Historical performance relationships are used as a foundation for estimating the building-block risk premia. After adding relevant risk premia to the risk-free rate, the result is an arithmetic mean hypothetical return for each asset class.

Conceptual View of Risk Premia



For illustrative purposes only. Chart is conceptual and does not reflect any actual returns or represent any specific asset classifications.

The arithmetic mean return is a simple average that typically represents performance for a single period. This is useful when considering how an asset class can perform in a given year. However, our time frame goes beyond one year, and we need to factor in the compounding effect on returns over multiple time periods. Therefore, we believe that the more appropriate way to express return assumptions over a long time horizon is to convert the arithmetic mean for each asset class to the geometric mean.

To illustrate the difference between arithmetic and geometric returns, suppose $100,000 was invested in a stock portfolio, and that portfolio experiences successive returns of +20 percent in one year and -20 percent in the second. At the end of the first year, the portfolio is worth $120,000, and at the end of the second year, it is worth $96,000. The annual arithmetic mean is 0.0 percent, whereas the annual geometric mean is -2.02 percent. As you can see, the geometric mean captures

changes in portfolio performance over multiple years (i.e., compounding) and is generally lower than the arithmetic mean, thus providing a more conservative estimate for our return assumptions.

Sharpe ratios rise for equity risk, hedging strategies, and illiquidity premia, creating a roughly linear capital market line (CML).

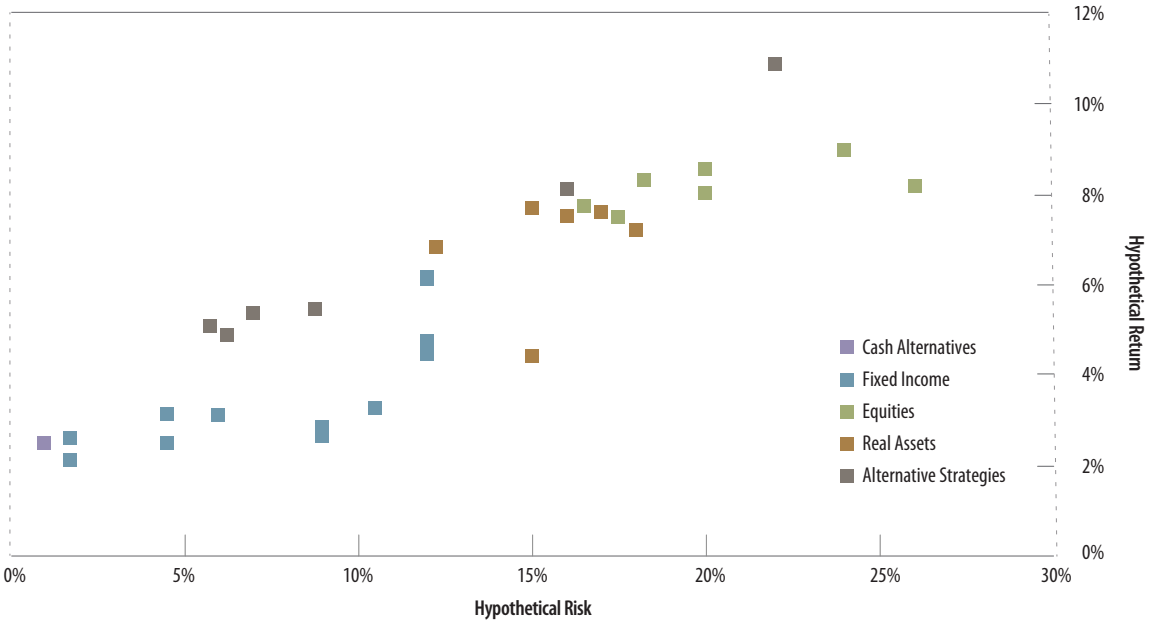
Hypothetical Risk

The risk assumptions of our CMA methodology, measured as volatility or variability of returns, are based on a historical perspective and future expectations. We consider the variability of historical returns within the context of how current macroeconomic conditions differ from those when the historical returns occurred.

We then overlay a Sharpe-ratio equivalency analysis for each asset group. In effect, the Sharpe ratio measures the additional return that an investor could expect to receive for taking on additional risk.

In our analysis, we assume a certain level of market efficiency, which means that similar asset classes will have similar Sharpe ratios. Otherwise, traders would take advantage of persistent arbitrage opportunities. Sharpe ratios rise for equity risk, alternative strategies, and illiquidity premia, creating a roughly linear capital market line (CML). The use of a Sharpe-ratio equivalency analysis assists in preventing overallocation to asset classes that may be preferred by the MVO.

Capital Market Line Based on Wells Fargo Investment Institute Forward-Looking Capital Market Assumptions



Source: Wells Fargo Investment Institute, as of July 18, 2017

For illustrative purposes. Hypothetical returns represent our estimate of likely average returns over the next several market cycles. They do not represent the returns that an investor should expect in any particular year. The return and risk assumptions are statistical averages that do not represent the experience of any individual investor or any specific time period. Standard deviation is a measure of volatility. It reflects the degree of variability surrounding the outcome of an investment decision; the higher the standard deviation, the greater the risk. The assumptions are not designed to predict actual performance. Hypothetical return estimates are subject to uncertainty and error. They are based on estimates that may not be achieved and assumptions that may not occur.

Correlation is a statistical measure that describes the degree of association between two asset classes.

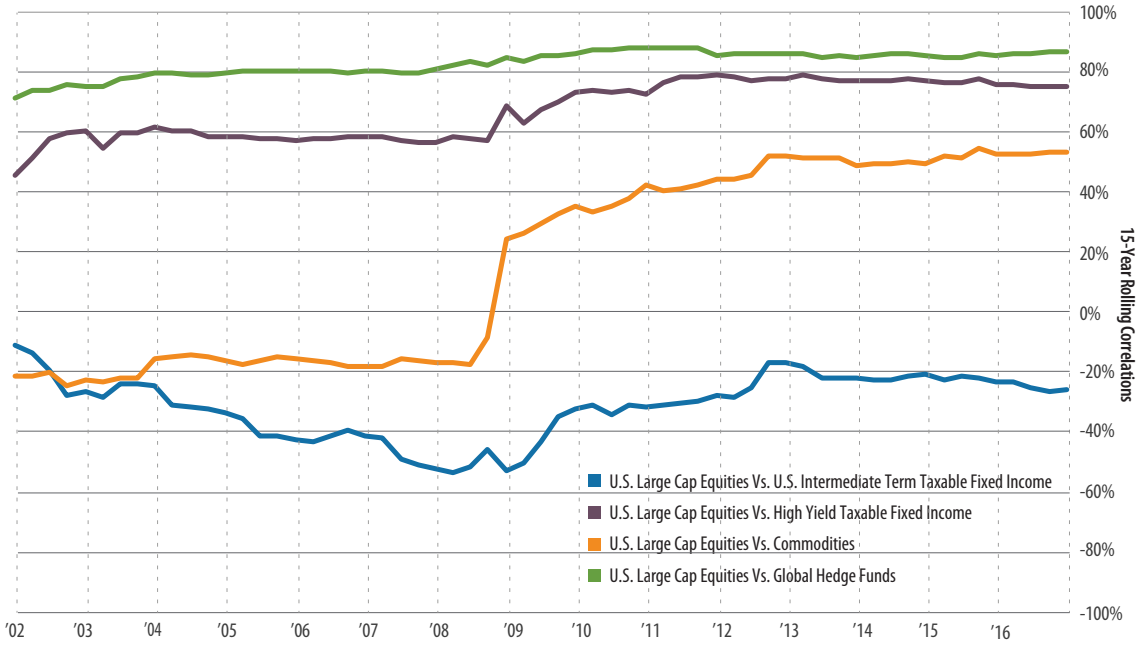
Correlation

Correlation plays an important role in portfolio diversification and is a primary input in portfolio construction. Correlation is a statistical measure that describes the degree of association between two asset classes. That is, it reflects the degree to which two asset classes move in the same direction. Different from mean return and risk (or volatility), correlation does not indicate the magnitude of asset-class movement. Correlation can range in value between -1 and +1. A correlation of -1 between two asset classes indicates perfect negative association in movement (that is, they always move in the opposite direction), whereas a correlation of +1 denotes perfect positive association. It is important to note that correlation represents past performance and that past performance is no guarantee of future results.

As shown in the following chart, correlation among asset classes can vary in value over time and through different environments. For example, during significant market downturns, systematic macro factors dominate over idiosyncratic (or asset-specific) factors. As a result, many asset classes tend to move in the same direction, causing correlation among them to increase significantly. High correlation implies diminished diversification benefit to mitigate risk.

Correlation Between U.S. Large Cap Equities and Various Asset Classes

Historical 15-Year Rolling Correlations, 2002–2016



Sources: Bloomberg, Morningstar Direct, and Wells Fargo Investment Institute, as of December 31, 2016

Index returns assume reinvestment of dividends and other distributions.

U.S. Large Cap Equities = Ibbotson SBBI U.S. Large Stock Total Return Index
U.S. Intermediate Term Taxable Fixed Income = Bloomberg Barclays U.S. Aggregate Total Return Index
High Yield Taxable Fixed Income = Bloomberg Barclays U.S. Corporate High Yield Total Return Index
Commodities = Bloomberg Commodity Total Return Index
Global Hedge Funds = HFRI Fund Weighted Composite Index

Chart is for illustrative purposes only and is not indicative of any investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** There is no direct correlation between the performance of an index and the performance of a client portfolio and there is no guarantee that future correlations between the indices will remain the same.

The Ibbotson SBBI U.S. Large Stock Total Return Index is a custom index designed to measure the performance of large capitalization U.S. stocks represented in the S&P 500 Total Return Index. Please see below for the definitions of the other representative indices.

We use a 15-year return time series to construct correlation among asset classes, which matches our strategic time horizon. We prefer to start with logarithmic returns which reflect continuous compounding, as we believe they are more relevant to model multiple time periods, such as in the context of retirement planning. We incorporate a comprehensive range of asset classes in our correlation matrix so it can be used for a wide range of asset allocation applications and investor profiles.

We also tested the correlation matrix to understand its impact on asset allocation and ensure that it has required statistical properties.

Asset Class Correlation Matrix, 2002–2016

	Cash Alternatives	U.S. Inv. Grade Fixed Income	High Yield Taxable Fixed Income	Dev. Mkt. Ex-U.S. Fixed Income	Emerg. Mkt. Fixed Income	U.S. Large Cap Equities	U.S. Mid Cap Equities	U.S. Small Cap Equities	Dev. Mkt. Ex-U.S. Equities	Emerg. Mkt. Equities	Public Real Estate	Commodities	Global Hedge Funds
Cash Alternatives	1.00	0.07	-0.13	0.12	-0.01	-0.09	-0.09	-0.10	0.05	0.15	0.02	0.14	0.09
U.S. Inv. Grade Fixed Income	0.07	1.00	-0.03	0.63	0.39	-0.31	-0.28	-0.33	-0.19	-0.07	0.06	-0.10	-0.22
High Yield Taxable Fixed Income	-0.13	-0.03	1.00	0.04	0.76	0.74	0.80	0.71	0.73	0.79	0.74	0.53	0.80
Dev. Mkt. Ex-U.S. Fixed Income	0.12	0.63	0.04	1.00	0.34	-0.07	-0.04	-0.07	0.17	0.15	0.24	0.16	0.01
Emerg. Mkt. Fixed Income	-0.01	0.39	0.76	0.34	1.00	0.50	0.54	0.44	0.55	0.70	0.62	0.40	0.56
U.S. Large Cap Equities	-0.09	-0.31	0.74	-0.07	0.50	1.00	0.97	0.93	0.88	0.78	0.77	0.37	0.83
U.S. Mid Cap Equities	-0.09	-0.28	0.80	-0.04	0.54	0.97	1.00	0.95	0.91	0.84	0.83	0.47	0.90
U.S. Small Cap Equities	-0.10	-0.33	0.71	-0.07	0.44	0.93	0.95	1.00	0.86	0.75	0.79	0.36	0.83
Dev. Mkt. Ex-U.S. Equities	0.05	-0.19	0.73	0.17	0.55	0.88	0.91	0.86	1.00	0.90	0.83	0.48	0.91
Emerg. Mkt. Equities	0.15	-0.07	0.79	0.15	0.70	0.78	0.84	0.75	0.90	1.00	0.78	0.59	0.93
Public Real Estate	0.02	0.06	0.74	0.24	0.62	0.77	0.83	0.79	0.83	0.78	1.00	0.42	0.76
Commodities	0.14	-0.10	0.53	0.16	0.40	0.37	0.47	0.36	0.48	0.59	0.42	1.00	0.62
Global Hedge Funds	0.09	-0.22	0.80	0.01	0.56	0.83	0.90	0.83	0.91	0.93	0.76	0.62	1.00

Index correlations represent past performance. **Past performance is no guarantee of future results.** An index is unmanaged and not available for direct investment. Index returns reflect general market results, do not reflect actual portfolio returns or the experience of any investor, nor do they reflect the impact of any fees, expenses or taxes applicable to an actual investment. Unlike most asset class indices, HFR Index returns reflect deduction for fees and expenses. There is no guarantee that future correlations between the indices will remain the same. Please see the end of this report for the risks associated with these asset classes.

The asset classes above are represented by the following indices:

Cash Alternatives. Bloomberg Barclays 1–3 Month Treasury Bill Index is representative of money markets.

U.S. Investment Grade Fixed Income. Bloomberg Barclays U.S. Aggregate Bond Index is a broad-based measure of the investment grade, US dollar-denominated, fixed-rate taxable bond market.

High Yield Taxable Fixed Income. Bloomberg Barclays U.S. Corporate High-Yield Index covers the universe of fixed-rate, non-investment-grade debt.

Developed Market Ex-U.S. Fixed Income. JP Morgan Non-U.S. Global Government Bond Index (Hedged) is an unmanaged market index representative of the total return performance, on a hedged basis, of major non-U.S. bond markets. It is calculated in U.S. dollars.

Emerging Market Fixed Income. JP Morgan Emerging Markets Bond Index (EMBI Global) currently covers 27 emerging market countries. Included in the EMBI Global are U.S.-dollar-denominated Brady bonds, Eurobonds, traded loans, and local market debt instruments issued by sovereign and quasi-sovereign entities.

U.S. Large Cap Equities. Ibbotson SBBI U.S. Large Cap Stock Index tracks the performance of the S&P 500 Index stocks.

U.S. Mid Cap Equities. 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..

U.S. Small Cap Equities. 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.

Developed Market Ex-U.S. Equities (U.S. Dollar)/(Local). MSCI EAFE Developed Market Index is a free-float-adjusted market-capitalization-weighted index that is designed to measure the equity market performance of 21 developed market countries, excluding the U.S. and Canada.

Emerging Market Equities (U.S. Dollar)/(Local). MSCI Emerging Markets Index is a free-float-adjusted market-capitalization-weighted index that is designed to measure equity market performance of 23 emerging markets.

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

Commodities. Bloomberg Commodity Index is a broadly diversified index composed of futures contracts on 19 physical commodities traded on U.S. exchanges.

Global Hedge Funds. The HFRI Fund Weighted Composite Index is a global, equal-weighted 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 12-month track record of active performance. The HFRI Fund Weighted Composite Index does not include funds of hedge funds.

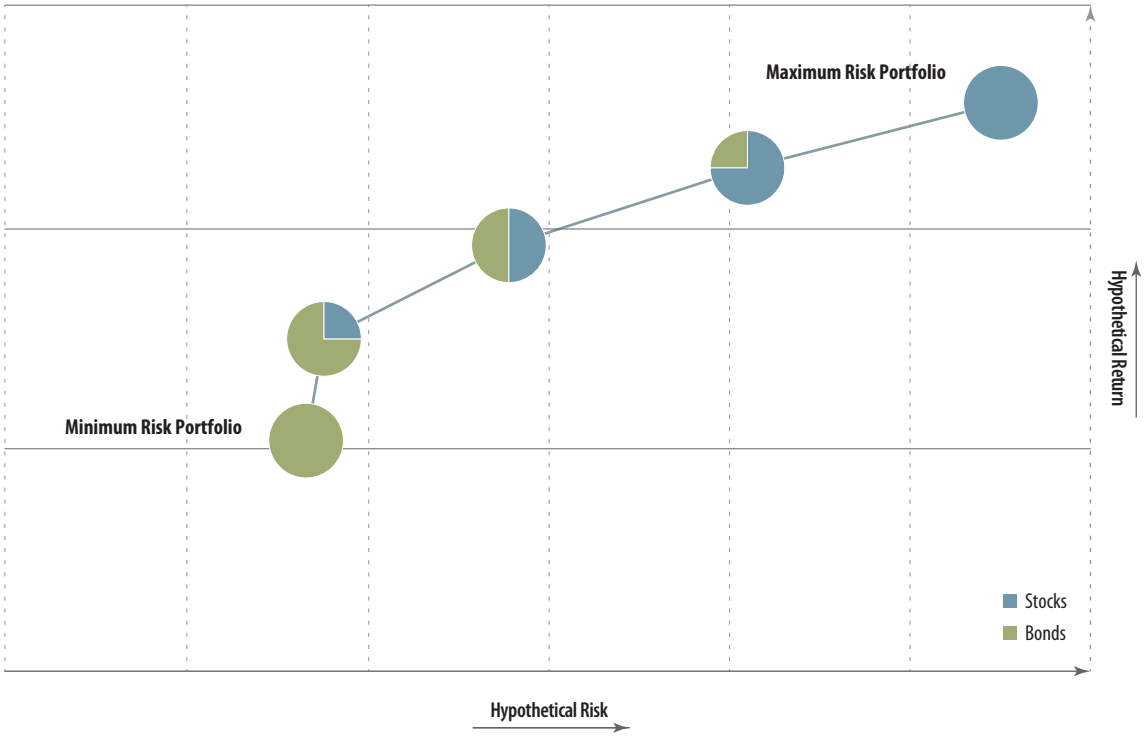
Asset Allocation

We apply Modern Portfolio Theory as a starting point in constructing our strategic asset allocations. The Modern Portfolio Theory was originally developed by Nobel Prize Laureate Harry Markowitz in 1952. It hypothesizes the existence of an efficient frontier of optimal portfolios that offer the maximum possible expected return for a given level of risk. Since its introduction, the theory has received broad acceptance in academia and in the financial industry.

In practice, the most common way to derive the efficient frontier is by a numerical optimization process as noted above, known as MVO. The MVO process searches for the efficient frontier based on CMAs (that is, return, risk, and correlation) that we formulate. We also apply asset allocation constraints to the MVO process, to ensure continuity in the allocations from one year to another and to ensure that the final allocation is well diversified. The chart below illustrates a hypothetical efficient frontier based on two asset classes: large-cap equities and investment-grade fixed income. In general, the more distinct asset classes are incorporated, the more efficient the optimized allocation.

Conceptual View of Portfolios Representing an Efficient Frontier

Stocks and Bonds



Source: Wells Fargo Investment Institute, as of July 18, 2017
Chart is conceptual and does not reflect any actual returns or represent any specific asset classification.

2017 CMAs—Return Expectations

We consider long-term themes in the development of our CMAs. Several of the key global investment trends we expect to see over the next 10 to 15 years are:

- Inflation that is lower than long-term averages but still above the Federal Reserve's (Fed's) target
- Interest rates slowly rising to accommodate improving economic growth and moderate inflationary pressures
- Higher volatility in the capital markets and lower-than-historical total returns in the fixed-income markets
- Improving developed market growth, with emerging market growth leveling off
- Modest commodity price gains as supply and demand balance
- Greater importance placed on Alternative Investments to generate alpha and reduce traditional asset-class risk

The Federal Reserve (the Fed) has adopted a target inflation rate of 2.0 percent; however, we believe it is willing to err on the high side of that number to promote growth.

Inflation

Our assumption for inflation is 2.5 percent. Since 1913, the median U.S. inflation rate has been 2.8 percent, and the average has been 3.3 percent. While a reversion to the historical average may occur over longer periods of time, we believe that for a good portion of the CMA time frame (10 to 15 years), a low global growth, low global inflationary environment likely will persist. Our projection is slightly above the recent 10- and 20-year averages and is greater than current levels. Specifically, over the past 20 years, the U.S. Consumer Price Index (CPI), which measures the price of a fixed basket of goods and services purchased by an average consumer, has averaged 2.2 percent, and it has averaged just 1.8 percent over the past 10 years. The Fed has adopted a target inflation rate of 2.0 percent; however, we believe it is willing to err on the high side of that number to promote growth. These factors make us comfortable with our 2.5 percent assumption for this foundational building block.

The data provided below is for information purposes only and is not intended as a recommendation of the suitability to invest in any particular asset class or strategy. CMAs are based on forecasts and are not promises of actual returns or performance that may be realized. They are based on estimates that may not be achieved and assumptions that may not occur. Consult your investment professional before taking any action based on this information.

Cash and Cash Alternatives

Our return premium for cash is zero.

Our return premium for cash is zero. Although the historical real return of U.S. 30-day Treasury bills has been 0.47 percent since 1926 (source: Morningstar, as of December 31, 2016), more recent history reflects a discount for cash relative to inflation. We do not believe this negative cash premium will last over the entire time frame; however, the average premium over this period is expected to be lower than the long-term average. As the Fed normalizes interest-rate policy, cash should once again provide a premium to inflation.

Combining our long-term inflation assumption and cash premium, we arrive at our hypothetical expected risk-free return of 2.5 percent. Obviously, this rate is higher than current return rates available through money market or short-term instruments, but we anticipate the 2.5 percent annualized rate to be a reasonable return expectation over a 10- to 15-year time horizon.

Fixed Income

Rising interest rates likely will have a negative impact on bond prices and total returns; however, we expect higher yields will likely offset some of the price declines.

Our view is that interest rates will gradually rise from recent lows to more normalized levels over the intermediate to long term as the U.S. economy continues to recover and the Fed increases the federal funds rate toward its long-run target of 3.0 percent. The longer-term (since 1954) historical average federal funds rate is roughly 5.0 percent. Rising interest rates likely will have a negative impact on bond prices (bond prices generally fall as interest rates rise and vice versa) and total returns; however, higher yields likely will offset some of the price declines. To reflect the potential for capital losses in bonds and the persistent low-rate environment, we have reduced return assumptions in all bond categories in recent years.

U.S. Fixed Income

U.S. short-, intermediate-, and long-term bond horizon (term) premia over cash are rooted in the historical yield-curve slope. Historically, the median spreads over the various constant-rate maturities* are as follows.

- Short term (Ibbotson U.S. 1-year Treasury over U.S. Treasury 3-month T-bill auction yield) is 39 basis points (100 basis points equals 1 percent) (April 1953 to December 2016).
- Intermediate term (Ibbotson U.S. Intermediate Term Government Yield over Ibbotson U.S. 1-year Treasury) is 60 basis points (April 1953 to December 2016).
- Long term (Ibbotson U.S. Long Term Yield over Ibbotson U.S. Intermediate Term Government Yield) is 55 basis points (January 1926 to December 2016).

In addition to the term premia, we also add premia for credit risk and default risk. The credit risk premium is derived from historical yield spreads relative to comparable Treasury yields, while the default risk premium is based on historical default and recovery rate experience. In prior years, we lowered our return expectations for most U.S. fixed-income asset classes based on our view that performance over the next 10 years likely will be lower than historical performance.

*Constant-rate maturities are the fixed maturities, currently 1, 3 and 6 months and 1, 2, 3, 5, 7, 10, 20, and 30 years, that exist along the yield curve. This yield (rate) is based on the closing market bid yields on actively traded Treasury securities in the over-the-counter market.

We also include CMAs for U.S. Investment Grade Fixed Income. These assumptions are intended to capture return and risk expectations for multiple bond asset classes, including various domestic investment-grade sectors across the maturity spectrum. It can be used as a core bond holding and has return, risk, and correlations similar to an intermediate-bond index.

Municipal Fixed Income CMAs are calculated by taking the equivalent taxable return assumptions and applying a municipal/taxable yield ratio of 80 percent based on historical relationships.

High Yield Fixed Income

We use 521 basis points as our forward-looking credit premium and -140 basis points as our default premium assumptions.

U.S. High Yield Fixed Income refers to bonds that are rated below U.S. investment grade, and therefore, investors require a sizable spread premium over U.S. Treasuries to compensate for increased credit and default risk. The longer-term average credit premium is 521 basis points, and the median is 471 basis points (source: Bloomberg Barclays U.S. High Yield Corporate Index, as of December 31, 2016). We use 521 basis points as our hypothetical forward-looking credit premium and -140 basis points as our default premium assumptions. Over the strategic time horizon, we expect default levels to be consistent with historical experience. However, we have reduced our hypothetical return assumption by 50 basis points, as we believe that the extra yield investors command may be reduced as demand for higher-yielding assets compresses yields over our strategic horizon. High Yield Fixed Income is similar in maturity and duration (duration measures a bond's price sensitivity to a one percent change in interest rates) to intermediate bonds, so we use a term premium of 99 basis points. Overall, our hypothetical return assumption is below the long-term average and our risk assumption remains higher than historical averages.

High Yield Fixed Income = Inflation + Cash + Term + Credit Premium + Default Premium – Qualitative Adjustment

Developed Market Ex-U.S. Fixed Income

Our hypothetical return and risk assumptions are unchanged from last year

The Developed Market (DM) Ex-U.S. Fixed Income asset class represents multiple yield curves with an average duration close to intermediate bonds. Therefore, we give DM bonds a term premium of 99 basis points. Because our hypothetical return assumptions are U.S-dollar based, currency must be considered as a variable in performance. We assume investors will demand a currency premium for holding bonds in foreign currencies, as income and principal payments will be translated back into the investor's home currency at a possible gain or loss depending on the relative value of the U.S. dollar. Our assumption is that the currency premium will be approximately 50 basis points over the strategic time horizon. Our hypothetical return and risk assumptions are unchanged from last year.

DM Ex-U.S. Fixed Income = Inflation + Cash + Term + Currency – Qualitative Adjustment

Constant-rate maturities are the fixed maturities, currently 1, 3 and 6 months and 1, 2, 3, 5, 7, 10, 20, and 30 years, that exist along the yield curve. This yield (rate) is based on the closing market bid yields on actively traded Treasury securities in the over-the-counter market.

Emerging Market Fixed Income

The risk assumption was reduced slightly this year, but it remains above historical averages.

We use the JPMorgan Emerging Markets Bond Index (EMBIG) to form our CMAs for Emerging Market (EM) Fixed Income. The JPM EMBIG is an intermediate- to long-duration, primarily U.S.-dollar-denominated index. Given average maturities that fall between intermediate and longer term, we give EM Fixed Income a term premium of 125 basis points. A credit premium of 426 basis points and default premium of -44 basis points are added for sovereign credit risk and potential default risk. The risk assumption was reduced slightly this year, but it remains above historical averages.

EM Fixed Income = Inflation + Cash + Term + Credit Premium + Default Premium + Currency − Qualitative Adjustment

Equities

U.S. Equities

Equity return assumptions also begin with our long-term inflation and cash-premium assumptions. Then we add the real equity risk premium (approximated from historical analysis) and a forward-looking dividend-yield assumption to arrive at our total-return assumption. The equity risk premium is calculated using the appropriate total-return index as the starting point for each of the equity asset classes, then subtracting the income component of the index and the cash return approximated from the Ibbotson Associates Stocks, Bonds, Bills, and Inflation (IA SBBI) U.S. 30 Day T-Bill Total Return Index* for the corresponding time period. Forward-looking qualitative adjustments may be made to both return and standard deviation to bring risk-adjusted returns (Sharpe ratios) in line with our outlook.

Our return and risk assumptions are unchanged from last year.

Large cap. Our real equity risk premium estimate for U.S. Large Cap Equities is 420 basis points. We expect an average hypothetical dividend yield of 225 basis points over the strategic time horizon, lower than the historical average dividend rate of roughly 3 percent but somewhat higher than the average dividend yields in the past 10- to 15-year period as represented by the S&P 500 Index. Our hypothetical return and risk assumptions remain consistent with last year.

U.S. Large Cap Equities = Inflation + Cash + Real Equity Risk Premium + Dividend Yield

Mid cap. Our real equity risk premium for U.S. Mid Cap Equities is 813 basis points. We expect an average hypothetical dividend yield of 175 basis points over the strategic time horizon, a little higher than the historical average dividend rate of 167 basis points but in line with the average dividend yields of the past 10- to 15-year period as represented by the Russell Mid Cap Index. Recent history shows that mid caps have outperformed both large- and small-cap stocks. However, we adjust the return assumption lower relative to historical averages to maintain a risk/return relationship that we believe should be between large- and small-cap assumptions. Our hypothetical return assumption is unchanged from last year. Our risk assumption remains consistent with the historical risk observed in this asset class.

U.S. Mid Cap Equities = Inflation + Cash + Real Equity Risk Premium + Dividend Yield − Qualitative Adjustment

*The IA SBBI U.S. 30 Day T-Bill Total Return Index shows the growth in value of $100 from 30-day U.S. Treasury bills, including gross interest reinvested.

Small cap. Our real equity risk premium for U.S. Small Cap Equities is based on the historical average of 692 basis points as represented by the Russell 2000 Index. We expect an average dividend yield of 125 basis points over the strategic time horizon, a little lower than the historical average dividend rate of 147 basis points and somewhat lower than the average dividend yields of the past 10- to 15-year period. Our hypothetical return assumption remains unchanged from last year, in part reflecting our belief that small-cap risk-adjusted returns should be similar to large-cap risk-adjusted returns. Our risk assumption is unchanged and remains above long-term averages.

U.S. Small Cap Equities	=	Inflation	+	Cash	+	Real Equity Risk Premium	+	Dividend Yield	–	Qualitative Adjustment

Developed Market Ex-U.S. Equities

Risk remains somewhat higher than that for U.S. Large Cap Equities.

Similar to U.S. equity return assumptions, Developed Market (DM) Ex-U.S. Equity return assumptions begin with our long-term inflation and cash-premium assumptions. Then we add our real equity risk premium of 226 basis points derived from historical analysis based on the MSCI EAFE Index. We then add 50 basis points as a currency premium and 300 basis points as a hypothetical assumption for the dividend yield. We add 59 basis points as a qualitative adjustment to reflect our view that investors will demand a return similar to U.S. Large Cap Equities over time. Risk remains somewhat higher than that for U.S. Large Cap Equities.

DM Ex-U.S. Equities	=	Inflation	+	Cash	+	Real Equity Risk Premium	+	Currency Risk Premium	+	Dividend Yield	+	Qualitative Adjustment

Emerging Market Equities

We begin with our real equity risk premium of 654 basis points derived from historical analysis based on the MSCI Emerging Markets Index. We then add 75 basis points as a currency premium and 225 basis points as an assumption for the dividend yield. This is slightly below the 238 basis points that has been the historical average dividend yield. Reflecting our view that emerging equity markets are maturing, we subtract 58 basis points as a qualitative adjustment. The result is no change this year in our strategic return assumption for Emerging Market (EM) Equities. In addition, we held risk the same as last year, consistent with the historical risk observed in this asset class.

EM Equities	=	Inflation	+	Cash	+	Real Equity Risk Premium	+	Currency Risk Premium	+	Dividend Yield	–	Qualitative Adjustment

Real Assets

Public Real Estate (Real Estate Investment Trusts/REITs)

Although we classify REITs as a real asset, the asset class shares similar characteristics with equities, including trading on equity exchanges.

Although we classify REITs as a real asset, the asset class shares similar characteristics with equities, including trading on equity exchanges. REITs differ from equities, however, in that their underlying holdings are real assets (real estate), which can appreciate in value, and they are required to distribute at least 90 percent of taxable income to shareholders annually. Our return assumption begins with our long-term inflation and cash-premium assumptions. Then we add the real equity risk premium of 165 basis points (approximated from historical analysis based on the FTSE EPRA/NAREIT Index), a modest currency premium of 25 basis points (for international REITs), and an assumption for the dividend yield of 4.25 percent, which is slightly higher than the longer-term historical average. Private real estate return assumptions are derived from adding our yield assumption for the asset class to the risk-free rate.

Public Real Estate = Inflation + Cash + Real Equity Risk Premium + Currency Premium + Dividend Yield

Infrastructure

Our return assumption is based on a current yield of 4 percent and a real equity risk premium of 556 basis points (approximated from historical analysis based on the S&P Global Infrastructure Index). The index is designed to track 75 companies from around the world chosen to represent the listed infrastructure industry. This is added to the risk-free rate, and a downward adjustment of 340 basis points is made to account for the short historical period and our neutral outlook going forward. Our assumptions are far more conservative than historical returns would suggest; however, we think that many of the inefficiencies of this market have been removed.

Infrastructure = Inflation + Cash + Dividend + Real Equity Risk Premium – Qualitative Adjustment

Commodities

Commodity consumption should correlate with global growth (International Monetary Fund forecast at 3.66 percent over our strategic horizon), and therefore, commodity prices should move in line with global inflation (forecast at 76 basis points higher than U.S. inflation over the forecast horizon). A downward qualitative adjustment of 145 basis points reflects our belief that the commodities bear market may persist for some time. Estimates for slowing emerging market growth, supply and demand factors, and the expected strengthening U.S. dollar trend led us to maintain a relatively low hypothetical return assumption.

Commodities = Global Real GDP + Global Inflation + Cash – Qualitative Adjustment

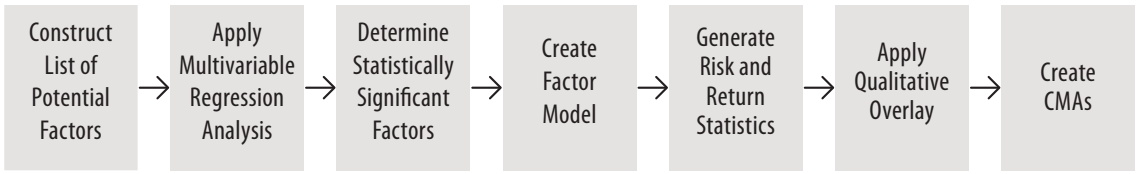
Alternative Investments

We build a multifactor model that can be used to develop performance expectations and aid in portfolio construction.

We rely on a couple of different methods for creating our CMAs for this asset group, depending on the unique risk and return characteristics of the particular asset class. For private placement hedge funds, we prefer to use regression analysis to isolate a set of statistically significant factors over 10-year time frames that have influenced risks and returns for these types of strategies. Regression analysis is a statistical measure that takes a group of random variables and using mathematical formulas, determines the predictive power these variables have on influencing other variables. Once these factors have been identified, we build a multifactor model that can be used to develop performance expectations and aid in portfolio construction.

The main advantage of the multifactor model approach is that it simulates the unique characteristics of hedge funds better than the building-block approach. Generally speaking, hedge funds tend to be exposed to nearly all asset groups, and assets within a specific hedge fund can be held both long and short depending on the strategy. Therefore, the building-block approach may not accurately establish expected risk and return profiles for hedge funds. On the other hand, the key challenge with the multifactor model approach is that data used to represent hedge fund performance can have certain biases, such as survivorship or smoothing, which can skew the model. In addition to these biases, we believe that performance and volatility tendencies for hedge funds have been significantly influenced by global monetary policy trends since the 2008 financial crisis. To compensate for these effects, we overlay a qualitative assessment of our hypothetical risk and return expectations with the results of the multifactor model to generate the formal CMAs for the asset class. Overall, we continue to believe that, compared with other asset groups, alternative investments have the best risk-adjusted return potential. Below we discuss our CMA rationale for each of the alternative investment asset classes.*

Qualitative Assessment Overlay Combined With a Multifactor Model Approach



* **Alternative Investments, such as hedge funds, are not suitable for all investors.** They are speculative and involve a high degree of risk that is suitable only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program.

Private Placement Hedge Fund Model Approach

HEDGE FUND STRATEGY	DESCRIPTION	MODEL FACTORS	R-SQUARED
Relative Value	Relative Value strategies employ a variety of fundamental and quantitative techniques to establish investment theses. Security types that are often used in these strategies range broadly across equity, fixed income, derivatives, or other investment vehicles. Strategies can involve leverage and are typically quantitatively driven to measure the existing relationship between instruments and, in some cases, identify attractive positions in which the risk-adjusted spread between these instruments represents an attractive opportunity.	• U.S. Convertible Bonds • U.S. Corporate (BAA) Spreads to 10-Year Treasury • U.S. Corporate High Yield • U.S. Asset Backed Securities (ABS) • U.S. Auto ABS • U.S. Investment Grade CMBS • Crude Oil Futures	89%
Macro	The Macro asset class trades a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and their impact 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 assessments, quantitative and fundamental approaches, and long- and short-term holding periods.	• Global Commodities • Cross Asset Trends • Implied Equity Volatility (VIX) • Trend Following Replication Strategy • European Equities • FX Momentum • Commodity Momentum • 2-Year U.S. Interest Rate Swaps • Spread between U.S. and Euro 10-Year • Crude Oil Futures	75%
Event Driven	The Event Driven asset class is a collection of idiosyncratic strategies seeking to capitalize on corporate actions, distressed/restructuring situations, catalyst-driven strategies (such as mergers, acquisitions, buybacks, spinouts, and corporate restructurings), and activist investing. Security types can range from most senior in the capital structure to junior or subordinated and frequently involve additional derivative securities.	• Global Equities • European Equities • Leading Economic Indicators • U.S. Corporate High Yield • U.S. Corporate (BAA) Spreads to 10-Year Treasury • Bank Loans • Technology Equities • Crude Oil Futures • Liquidity Risk	86%
Equity Hedge	The Equity Hedge asset class 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.	• Global Equities • European Equities • Technology Equities • Small Cap Equities • Crude Oil Futures • Equity Momentum • Equity Correlations	91%

R-squared is a statistical measure that represents the percentage of an asset class's movements that can be explained by the model factors.

Private Capital (Equity and Debt)

One major distinction between private capital and its public counterparts is illiquidity. In other words, private capital investments do not trade frequently. This illiquidity can provide a sizable return premium to private capital over time. However, it also poses challenges to accurately pricing private capital investments and estimating performance statistics, especially standard deviation and correlation of return.

Therefore, we turn to an alternative way to estimate private capital assumptions—the Capital Asset Pricing Model (CAPM). The CAPM framework was developed by Nobel Prize Laureate William Sharpe in 1962. The CAPM separates expected return of an asset class into three components: a risk-free rate, a return due to exposure to a systematic market, and a return attributable to investment-specific characteristics. The investment-specific return, in turn, can be separated into an information ratio and residual risk.

In the case of private equity,* the systematic return of the public market is first calculated using indices for public markets such as U.S. Small Cap Equities as represented by the Russell 2000 Index. Then the investment-specific return for private equity is generated using the return spread between private equity and public equity including an illiquidity premium.

This decomposition reflects the view that private and public equity markets are exposed to the same underlying economic factors, and private equity provides additional return to compensate for its illiquidity. In this framework, not only can return be estimated, similar to our building-block process, but also, standard deviation and correlation can be generated.

To complete the approach, we estimated the information ratio and residual risk by comparing the private equity and public equity markets and analyzing the risk and return characteristics of their constituents. The estimated information ratio and residual risk are combined with our assumptions for the risk-free rate and public equity markets' equity risk premia to develop reasonable return, risk, and correlation assumptions for private equity.

Private debt return assumptions rely heavily on yield expectations. We expect a premium over High Yield Fixed Income for illiquidity and for potential equity warrants. Second-lien private debt typically generates a premium over high High Yield Fixed Income, while mezzanine debt can offer an even higher illiquidity premium. Finally, distressed debt investors could generate equity-like returns during periods of market dislocation.

2017 Capital Market Assumptions Adjustments

	CMA ADJUSTMENTS	RATIONALE	ALLOCATION IMPLICATIONS
Inflation	Maintained long-term inflation assumption at 2.5%	Inflation is expected to be below average in the forecast period, but above the Fed's 2.0% target	None
Cash	Maintained long-term cash-premium assumption at 0.0%	Cash premium has been negative for some time and could remain negative until the Fed normalizes rates	Maintained modest cash allocation for rebalancing and tactical opportunities
Fixed Income	No change in Fixed Income returns this year Intermediate-term (taxable and muni) volatility assumptions decreased Long-term muni volatility assumption decreased Emerging Market Fixed Income volatility decreased	Significant reduction in previous years allowed for minimal adjustments in 2017 Maintaining volatility above average, but brought some closer to long-term average Brought Emerging Market volatility in line with High Yield	Slight reduction in Investment Grade Fixed Income in favor of Private Capital
Equities	No change in strategic asset-class return and risk assumptions Developed Ex-U.S. dividend yield assumption was reduced Developed Ex-U.S. Small Cap returns decreased FM arithmetic return and volatility assumptions decreased	Historical equity risk premiums support minimal adjustment Brought Developed Ex-U.S. dividend yield closer to long-term average Return and volatility assumptions should come down as younger markets mature	No change to equities in the Four Asset Group and Three Asset Group Portfolios (see pages 18-22)
Real Assets	No change to return and risk assumptions this year	Historical equity risk premiums and yields support no adjustment	Added to Private Real Estate in the Four Asset Group portfolios
Alternative Investments	No change to Hedge Fund return and risk assumptions this year A slight decrease in PE return assumption	Significant reductions in previous years allowed for minimal adjustments in 2017 Developed new PE approach that prompted a slight decrease in return assumption	Added to Private Equity in the Four Asset Group portfolios Reduced Event Driven in the Growth portfolios

* **Alternative Investments, such as hedge funds and private equity funds, are not suitable for all investors.** They are speculative and involve a high degree of risk that is suitable only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program.

2017 Asset-Class Return and Volatility Assumptions

Capital Market Assumptions (10- to 15-Year Horizon)

	HYPOTHETICAL ARITHMETIC RETURN	HYPOTHETICAL GEOMETRIC RETURN	HYPOTHETICAL STANDARD DEVIATION OR RISK	YIELD OR DIVIDEND YIELD	DOWNSIDE RISK	SHARPE RATIO
Inflation	2.5%	2.5%				
Cash Alternatives	2.5%	2.5%	1.0%	2.5%	0.8%	0.00
U.S. Short Term Taxable Fixed Income	2.6%	2.6%	1.8%	2.6%	-0.2%	0.09
U.S. Intermediate Taxable Fixed Income	3.2%	3.1%	4.5%	3.1%	-4.0%	0.17
U.S. Long Term Taxable Fixed Income	3.8%	3.2%	10.5%	3.2%	-12.6%	0.12
High Yield Taxable Fixed Income	6.8%	6.1%	12.0%	6.1%	-11.7%	0.36
Short Term Tax Exempt Fixed Income	2.1%	2.1%	1.8%	2.1%	-0.8%	0.07
Intermediate Tax Exempt Fixed Income	2.6%	2.5%	4.5%	2.5%	-4.7%	0.14
Long Term Tax Exempt Fixed Income	3.0%	2.6%	9.0%	2.6%	-11.1%	0.12
High Yield Tax Exempt Fixed Income	5.4%	4.8%	12.0%	4.8%	-13.1%	0.30
Developed Market Ex-U.S. Fixed Income	3.2%	2.8%	9.0%	2.8%	-10.9%	0.09
Emerging Market Fixed Income	6.8%	6.2%	12.0%	6.2%	-11.7%	0.36
Inflation-Linked Fixed Income	3.3%	3.1%	6.0%	3.1%	-6.3%	0.13
Preferred Stock	5.1%	4.5%	12.0%	4.5%	-13.4%	0.22
U.S. Large Cap Equities	8.9%	7.7%	16.5%	2.3%	-15.9%	0.39
U.S. Mid Cap Equities	9.8%	8.3%	18.3%	1.8%	-17.5%	0.40
U.S. Small Cap Equities	10.3%	8.5%	20.0%	1.3%	-19.2%	0.39
Developed Market Ex-U.S. Equities	8.9%	7.5%	17.5%	3.0%	-17.4%	0.36
Developed Market Ex- U.S. Small Cap Equities	9.8%	8.0%	20.0%	2.0%	-19.8%	0.37
Emerging Market Equities	11.5%	9.0%	24.0%	2.3%	-23.2%	0.37
Frontier Market Equities	11.1%	8.2%	26.0%	3.5%	-26.0%	0.33
Public Real Estate	8.7%	7.2%	18.0%	4.3%	-18.2%	0.34
Private Real Estate*	8.7%	7.7%	15.0%	6.0%	-14.1%	0.42
Infrastructure	8.7%	7.5%	16.0%	4.0%	-15.5%	0.39
Master Limited Partnerships	8.9%	7.6%	17.0%	6.0%	-16.6%	0.38
Timberland	7.5%	6.8%	12.3%	5.0%	-11.4%	0.41
Commodities	5.5%	4.4%	15.0%	0.0%	-17.3%	0.20
Hedge Funds—Relative Value*	5.3%	5.1%	5.8%	0.0%	-3.9%	0.48
Hedge Funds—Macro*	5.1%	4.9%	6.3%	0.0%	-4.9%	0.41
Hedge Funds—Event Driven*	5.6%	5.4%	7.0%	0.0%	-5.5%	0.45
Hedge Funds—Equity Hedge*	5.8%	5.5%	8.8%	0.0%	-7.9%	0.38
Private Equity*	13.0%	10.9%	22.0%	0.0%	-19.3%	0.48
Private Debt*	9.3%	8.1%	16.0%	6.8%	-14.9%	0.42

Source: Wells Fargo Investment Institute

Capital market and asset-class assumptions are estimates of how asset classes and combinations of classes may respond during various market environments. For example, downside risk is based on our assumptions about average returns, and the variability of returns represents the minimum return that would be statistically likely in 95 percent of annual returns. In other words, in 19 out of 20 years, performance likely would be better than this figure, and in the 20th year, it likely would be worse. There is no guarantee that any particular 20-year period would follow this pattern. Hypothetical returns represent our estimate of likely average returns over the next several market cycles. They do not represent the returns that an investor should expect in any particular year. Geometric return is the compounded annual return that would give the same result as a given series of annual returns based on those same assumptions. The return and risk assumptions are statistical averages that do not represent the experience of any individual investor or any specific time period. Standard deviation is a measure of volatility. It reflects the degree of variability surrounding the outcome of an investment decision; the higher the standard deviation, the greater the risk. Yield on a bond is the yield-to-maturity of the bond. Dividend yield on an equity or real-asset investment represents the projected dividend as a percentage of the purchase price. The assumptions are not designed to predict actual performance, and there are no assurances that any estimates used will be achieved. The information given has been provided as a guide to help with investment planning and does not represent the maximum loss a portfolio could experience. Sharpe ratio measures the additional return that an investor could expect to receive for accepting additional risk.

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Strategic Asset Allocations—Four-Asset Group: Fixed Income, Equities, Real Assets, and Alternative Investments

		Conservative			Moderate			Aggressive	
		2017	2016	CHANGE	2017	2016	CHANGE	2017	2016	CHANGE
Income	**Cash Alternatives**	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	Total Fixed Income	75.0%	77.0%	-2.0%	60.0%	62.0%	-2.0%	51.0%	53.0%	-2.0%
	U.S. Taxable Investment Grade Fixed Income	58.0%	60.0%	-2.0%	42.0%	44.0%	-2.0%	30.0%	32.0%	-2.0%
	Short Term Taxable	20.0%	20.0%	0.0%	12.0%	12.0%	0.0%	2.0%	2.0%	0.0%
	Intermediate Taxable	33.0%	35.0%	-2.0%	23.0%	25.0%	-2.0%	19.0%	21.0%	-2.0%
	Long Term Taxable	5.0%	5.0%	0.0%	7.0%	7.0%	0.0%	9.0%	9.0%	0.0%
	High Yield Taxable Fixed Income	6.0%	6.0%	0.0%	7.0%	7.0%	0.0%	8.0%	8.0%	0.0%
	Developed Market Ex-U.S. Fixed Income	8.0%	8.0%	0.0%	6.0%	6.0%	0.0%	5.0%	5.0%	0.0%
	Emerging Market Fixed Income	3.0%	3.0%	0.0%	5.0%	5.0%	0.0%	8.0%	8.0%	0.0%
	Total Equities	6.0%	6.0%	0.0%	18.0%	18.0%	0.0%	25.0%	25.0%	0.0%
	U.S. Large Cap Equities	2.0%	2.0%	0.0%	10.0%	10.0%	0.0%	11.0%	11.0%	0.0%
	U.S. Mid Cap Equities	2.0%	2.0%	0.0%	4.0%	4.0%	0.0%	6.0%	6.0%	0.0%
	U.S. Small Cap Equities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	0.0%
	Developed Market Ex-U.S. Equities	2.0%	2.0%	0.0%	4.0%	4.0%	0.0%	4.0%	4.0%	0.0%
	Emerging Market Equities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total Real Assets	5.0%	4.0%	1.0%	6.0%	5.0%	1.0%	8.0%	7.0%	1.0%
	Public Real Estate	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	3.0%	3.0%	0.0%
	Private Real Estate*	3.0%	2.0%	1.0%	4.0%	3.0%	1.0%	5.0%	4.0%	1.0%
	Commodities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total Alternative Investments*	11.0%	10.0%	1.0%	13.0%	12.0%	1.0%	13.0%	12.0%	1.0%
	Hedge Funds—Relative Value	5.0%	4.0%	1.0%	5.0%	4.0%	1.0%	5.0%	4.0%	1.0%
	Hedge Funds—Macro	3.0%	3.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
	Hedge Funds—Event Driven	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	Hedge Funds—Equity Hedge	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Private Equity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Growth and Income	**Cash Alternatives**	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	Total Fixed Income	39.0%	41.0%	-2.0%	29.0%	31.0%	-2.0%	21.0%	23.0%	-2.0%
	U.S. Taxable Investment Grade Fixed Income	25.0%	27.0%	-2.0%	15.0%	17.0%	-2.0%	7.0%	9.0%	-2.0%
	Short Term Taxable	4.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Intermediate Taxable	14.0%	16.0%	-2.0%	10.0%	12.0%	-2.0%	2.0%	4.0%	-2.0%
	Long Term Taxable	7.0%	7.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
	High Yield Taxable Fixed Income	6.0%	6.0%	0.0%	6.0%	6.0%	0.0%	6.0%	6.0%	0.0%
	Developed Market Ex-U.S. Fixed Income	3.0%	3.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
	Emerging Market Fixed Income	5.0%	5.0%	0.0%	6.0%	6.0%	0.0%	6.0%	6.0%	0.0%
	Total Equities	32.0%	32.0%	0.0%	40.0%	40.0%	0.0%	48.0%	48.0%	0.0%
	U.S. Large Cap Equities	14.0%	14.0%	0.0%	18.0%	18.0%	0.0%	22.0%	22.0%	0.0%
	U.S. Mid Cap Equities	6.0%	6.0%	0.0%	7.0%	7.0%	0.0%	8.0%	8.0%	0.0%
	U.S. Small Cap Equities	4.0%	4.0%	0.0%	5.0%	5.0%	0.0%	6.0%	6.0%	0.0%
	Developed Market Ex-U.S. Equities	5.0%	5.0%	0.0%	6.0%	6.0%	0.0%	7.0%	7.0%	0.0%
	Emerging Market Equities	3.0%	3.0%	0.0%	4.0%	4.0%	0.0%	5.0%	5.0%	0.0%
	Total Real Assets	10.0%	9.0%	1.0%	11.0%	10.0%	1.0%	11.0%	10.0%	1.0%
	Public Real Estate	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	Private Real Estate*	5.0%	4.0%	1.0%	6.0%	5.0%	1.0%	6.0%	5.0%	1.0%
	Commodities	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
	Total Alternative Investments*	16.0%	15.0%	1.0%	17.0%	16.0%	1.0%	17.0%	16.0%	1.0%
	Hedge Funds—Relative Value	4.0%	4.0%	0.0%	3.0%	3.0%	0.0%	2.0%	2.0%	0.0%
	Hedge Funds—Macro	4.0%	4.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
	Hedge Funds—Event Driven	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
	Hedge Funds—Equity Hedge	0.0%	0.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
	Private Equity	6.0%	5.0%	1.0%	7.0%	6.0%	1.0%	8.0%	7.0%	1.0%

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Growth continued on page 19

Continued from page 18

Growth

	Conservative			Moderate			Aggressive		
	2017	2016	CHANGE	2017	2016	CHANGE	2017	2016	CHANGE
Cash Alternatives	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
Total Fixed Income	14.0%	16.0%	-2.0%	9.0%	9.0%	0.0%	4.0%	4.0%	0.0%
U.S. Taxable Investment Grade Fixed Income	4.0%	6.0%	-2.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%
Short Term Taxable	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Intermediate Taxable	2.0%	4.0%	-2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Long Term Taxable	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%
High Yield Taxable Fixed Income	5.0%	5.0%	0.0%	4.0%	4.0%	0.0%	2.0%	2.0%	0.0%
Developed Market Ex-U.S. Fixed Income	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Emerging Market Fixed Income	5.0%	5.0%	0.0%	3.0%	3.0%	0.0%	2.0%	2.0%	0.0%
Total Equities	56.0%	56.0%	0.0%	63.0%	63.0%	0.0%	70.0%	70.0%	0.0%
U.S. Large Cap Equities	24.0%	24.0%	0.0%	24.0%	24.0%	0.0%	24.0%	24.0%	0.0%
U.S. Mid Cap Equities	9.0%	9.0%	0.0%	10.0%	10.0%	0.0%	12.0%	12.0%	0.0%
U.S. Small Cap Equities	7.0%	7.0%	0.0%	8.0%	8.0%	0.0%	9.0%	9.0%	0.0%
Developed Market Ex-U.S. Equities	9.0%	9.0%	0.0%	11.0%	11.0%	0.0%	12.0%	12.0%	0.0%
Emerging Market Equities	7.0%	7.0%	0.0%	10.0%	10.0%	0.0%	13.0%	13.0%	0.0%
Total Real Assets	12.0%	11.0%	1.0%	12.0%	11.0%	1.0%	11.0%	10.0%	1.0%
Public Real Estate	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
Private Real Estate*	7.0%	6.0%	1.0%	7.0%	6.0%	1.0%	8.0%	7.0%	1.0%
Commodities	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%
Total Alternative Investments*	16.0%	15.0%	1.0%	14.0%	15.0%	-1.0%	13.0%	14.0%	-1.0%
Hedge Funds—Relative Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Hedge Funds—Macro	3.0%	3.0%	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%
Hedge Funds—Event Driven	2.0%	2.0%	0.0%	0.0%	2.0%	-2.0%	0.0%	2.0%	-2.0%
Hedge Funds—Equity Hedge	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
Private Equity	9.0%	8.0%	1.0%	10.0%	9.0%	1.0%	11.0%	10.0%	1.0%

*Alternative investments are not suitable for all investors. They are speculative and involve a high degree of risk that is suitable only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program.

Strategic Asset Allocations—Four-Asset Group without Private Capital: Fixed Income, Equities, Real Assets, and Alternative Investments

		Conservative			Moderate			Aggressive	
	2017	2016	CHANGE	2017	2016	CHANGE	2017	2016	CHANGE
Income									
Cash Alternatives	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
Total Fixed Income	77.0%	77.0%	0.0%	64.0%	64.0%	0.0%	56.0%	56.0%	0.0%
U.S. Taxable Investment Grade Fixed Income	61.0%	61.0%	0.0%	46.0%	46.0%	0.0%	35.0%	35.0%	0.0%
Short Term Taxable	21.0%	21.0%	0.0%	14.0%	14.0%	0.0%	4.0%	4.0%	0.0%
Intermediate Taxable	35.0%	35.0%	0.0%	25.0%	25.0%	0.0%	21.0%	21.0%	0.0%
Long Term Taxable	5.0%	5.0%	0.0%	7.0%	7.0%	0.0%	10.0%	10.0%	0.0%
High Yield Taxable Fixed Income	5.0%	5.0%	0.0%	7.0%	7.0%	0.0%	8.0%	8.0%	0.0%
Developed Market Ex-U.S. Fixed Income	8.0%	8.0%	0.0%	6.0%	6.0%	0.0%	5.0%	5.0%	0.0%
Emerging Market Fixed Income	3.0%	3.0%	0.0%	5.0%	5.0%	0.0%	8.0%	8.0%	0.0%
Total Equities	6.0%	6.0%	0.0%	16.0%	16.0%	0.0%	24.0%	24.0%	0.0%
U.S. Large Cap Equities	2.0%	2.0%	0.0%	10.0%	10.0%	0.0%	11.0%	11.0%	0.0%
U.S. Mid Cap Equities	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	6.0%	6.0%	0.0%
U.S. Small Cap Equities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	0.0%
Developed Market Ex-U.S. Equities	2.0%	2.0%	0.0%	4.0%	4.0%	0.0%	4.0%	4.0%	0.0%
Emerging Market Equities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Real Assets	2.0%	4.0%	-2.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
Public Real Estate	2.0%	4.0%	-2.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
Commodities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Alternative Investments*	12.0%	10.0%	2.0%	12.0%	12.0%	0.0%	12.0%	12.0%	0.0%
Hedge Funds—Relative Value	6.0%	4.0%	2.0%	4.0%	4.0%	0.0%	4.0%	4.0%	0.0%
Hedge Funds—Macro	3.0%	3.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
Hedge Funds—Event Driven	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
Hedge Funds—Equity Hedge	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Growth and Income									
Cash Alternatives	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
Total Fixed Income	41.0%	41.0%	0.0%	31.0%	31.0%	0.0%	23.0%	23.0%	0.0%
U.S. Taxable Investment Grade Fixed Income	29.0%	29.0%	0.0%	17.0%	17.0%	0.0%	9.0%	9.0%	0.0%
Short Term Taxable	4.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Intermediate Taxable	16.0%	16.0%	0.0%	11.0%	11.0%	0.0%	4.0%	4.0%	0.0%
Long Term Taxable	9.0%	9.0%	0.0%	6.0%	6.0%	0.0%	5.0%	5.0%	0.0%
High Yield Taxable Fixed Income	5.0%	5.0%	0.0%	6.0%	6.0%	0.0%	6.0%	6.0%	0.0%
Developed Market Ex-U.S. Fixed Income	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	2.0%	2.0%	0.0%
Emerging Market Fixed Income	4.0%	4.0%	0.0%	5.0%	5.0%	0.0%	6.0%	6.0%	0.0%
Total Equities	35.0%	35.0%	0.0%	44.0%	44.0%	0.0%	52.0%	52.0%	0.0%
U.S. Large Cap Equities	13.0%	13.0%	0.0%	20.0%	20.0%	0.0%	22.0%	22.0%	0.0%
U.S. Mid Cap Equities	7.0%	7.0%	0.0%	8.0%	8.0%	0.0%	9.0%	9.0%	0.0%
U.S. Small Cap Equities	6.0%	6.0%	0.0%	6.0%	6.0%	0.0%	8.0%	8.0%	0.0%
Developed Market Ex-U.S. Equities	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%	7.0%	7.0%	0.0%
Emerging Market Equities	4.0%	4.0%	0.0%	5.0%	5.0%	0.0%	6.0%	6.0%	0.0%
Total Real Assets	7.0%	7.0%	0.0%	7.0%	7.0%	0.0%	7.0%	7.0%	0.0%
Public Real Estate	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
Commodities	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
Total Alternative Investments*	14.0%	14.0%	0.0%	15.0%	15.0%	0.0%	15.0%	15.0%	0.0%
Hedge Funds—Relative Value	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
Hedge Funds—Macro	6.0%	6.0%	0.0%	6.0%	6.0%	0.0%	6.0%	6.0%	0.0%
Hedge Funds—Event Driven	3.0%	3.0%	0.0%	4.0%	4.0%	0.0%	4.0%	4.0%	0.0%
Hedge Funds—Equity Hedge	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%

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Growth

	Conservative			Moderate			Aggressive		
	2017	2016	CHANGE	2017	2016	CHANGE	2017	2016	CHANGE
Cash Alternatives	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
Total Fixed Income	17.0%	17.0%	0.0%	8.0%	8.0%	0.0%	6.0%	5.0%	1.0%
U.S. Taxable Investment Grade Fixed Income	7.0%	7.0%	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%
Short Term Taxable	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Intermediate Taxable	4.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Long Term Taxable	3.0%	3.0%	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%
High Yield Taxable Fixed Income	5.0%	5.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
Developed Market Ex-U.S. Fixed Income	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Emerging Market Fixed Income	5.0%	5.0%	0.0%	3.0%	3.0%	0.0%	3.0%	2.0%	1.0%
Total Equities	62.0%	62.0%	0.0%	71.0%	71.0%	0.0%	82.0%	81.0%	1.0%
U.S. Large Cap Equities	24.0%	24.0%	0.0%	25.0%	25.0%	0.0%	25.0%	25.0%	0.0%
U.S. Mid Cap Equities	11.0%	11.0%	0.0%	13.0%	13.0%	0.0%	16.0%	15.0%	1.0%
U.S. Small Cap Equities	10.0%	10.0%	0.0%	12.0%	12.0%	0.0%	15.0%	15.0%	0.0%
Developed Market Ex-U.S. Equities	9.0%	9.0%	0.0%	11.0%	11.0%	0.0%	13.0%	13.0%	0.0%
Emerging Market Equities	8.0%	8.0%	0.0%	10.0%	10.0%	0.0%	13.0%	13.0%	0.0%
Total Real Assets	7.0%	7.0%	0.0%	7.0%	7.0%	0.0%	5.0%	5.0%	0.0%
Public Real Estate	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
Commodities	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%
Total Alternative Investments*	12.0%	12.0%	0.0%	12.0%	12.0%	0.0%	5.0%	7.0%	-2.0%
Hedge Funds—Relative Value	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%
Hedge Funds— Macro	6.0%	6.0%	0.0%	6.0%	6.0%	0.0%	3.0%	3.0%	0.0%
Hedge Funds—Event Driven	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	0.0%	2.0%	-2.0%
Hedge Funds—Equity Hedge	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%

*Alternative investments are not suitable for all investors. They are speculative and involve a high degree of risk that is suitable only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program.

Strategic Asset Allocations—Three-Asset Group: Fixed Income, Equities, and Real Assets

		Conservative			Moderate			Aggressive	
	2017	2016	CHANGE	2017	2016	CHANGE	2017	2016	CHANGE
Income									
Cash Alternatives	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
Total Fixed Income	87.0%	87.0%	0.0%	72.0%	72.0%	0.0%	64.0%	64.0%	0.0%
U.S. Taxable Investment Grade Fixed Income	73.0%	73.0%	0.0%	56.0%	56.0%	0.0%	43.0%	43.0%	0.0%
Short Term Taxable	28.0%	28.0%	0.0%	19.0%	19.0%	0.0%	8.0%	8.0%	0.0%
Intermediate Taxable	40.0%	40.0%	0.0%	30.0%	30.0%	0.0%	25.0%	25.0%	0.0%
Long Term Taxable	5.0%	5.0%	0.0%	7.0%	7.0%	0.0%	10.0%	10.0%	0.0%
High Yield Taxable Fixed Income	5.0%	5.0%	0.0%	6.0%	6.0%	0.0%	8.0%	8.0%	0.0%
Developed Market Ex-U.S. Fixed Income	6.0%	6.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
Emerging Market Fixed Income	3.0%	3.0%	0.0%	5.0%	5.0%	0.0%	8.0%	8.0%	0.0%
Total Equities	6.0%	6.0%	0.0%	20.0%	20.0%	0.0%	28.0%	28.0%	0.0%
U.S. Large Cap Equities	2.0%	2.0%	0.0%	12.0%	12.0%	0.0%	15.0%	15.0%	0.0%
U.S. Mid Cap Equities	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	4.0%	4.0%	0.0%
U.S. Small Cap Equities	0.0%	0.0%	0.0%	2.0%	2.0%	0.0%	4.0%	4.0%	0.0%
Developed Market Ex-U.S. Equities	2.0%	2.0%	0.0%	4.0%	4.0%	0.0%	5.0%	5.0%	0.0%
Emerging Market Equities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Real Assets	4.0%	4.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
Public Real Estate	4.0%	4.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
Commodities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Growth and Income									
Cash Alternatives	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
Total Fixed Income	51.0%	51.0%	0.0%	41.0%	41.0%	0.0%	33.0%	33.0%	0.0%
U.S. Taxable Investment Grade Fixed Income	37.0%	37.0%	0.0%	27.0%	27.0%	0.0%	17.0%	17.0%	0.0%
Short Term Taxable	7.0%	7.0%	0.0%	4.0%	4.0%	0.0%	2.0%	2.0%	0.0%
Intermediate Taxable	20.0%	20.0%	0.0%	16.0%	16.0%	0.0%	11.0%	11.0%	0.0%
Long Term Taxable	10.0%	10.0%	0.0%	7.0%	7.0%	0.0%	4.0%	4.0%	0.0%
High Yield Taxable Fixed Income	6.0%	6.0%	0.0%	6.0%	6.0%	0.0%	7.0%	7.0%	0.0%
Developed Market Ex-U.S. Fixed Income	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
Emerging Market Fixed Income	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%	6.0%	6.0%	0.0%
Total Equities	39.0%	39.0%	0.0%	49.0%	49.0%	0.0%	57.0%	57.0%	0.0%
U.S. Large Cap Equities	17.0%	17.0%	0.0%	21.0%	21.0%	0.0%	25.0%	25.0%	0.0%
U.S. Mid Cap Equities	7.0%	7.0%	0.0%	9.0%	9.0%	0.0%	11.0%	11.0%	0.0%
U.S. Small Cap Equities	6.0%	6.0%	0.0%	8.0%	8.0%	0.0%	8.0%	8.0%	0.0%
Developed Market Ex-U.S. Equities	5.0%	5.0%	0.0%	6.0%	6.0%	0.0%	7.0%	7.0%	0.0%
Emerging Market Equities	4.0%	4.0%	0.0%	5.0%	5.0%	0.0%	6.0%	6.0%	0.0%
Total Real Assets	7.0%	7.0%	0.0%	7.0%	7.0%	0.0%	7.0%	7.0%	0.0%
Public Real Estate	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
Commodities	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
Growth									
Cash Alternatives	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%
Total Fixed Income	23.0%	23.0%	0.0%	16.0%	16.0%	0.0%	7.0%	7.0%	0.0%
U.S. Taxable Investment Grade Fixed Income	14.0%	14.0%	0.0%	8.0%	8.0%	0.0%	3.0%	3.0%	0.0%
Short Term Taxable	4.0%	4.0%	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%
Intermediate Taxable	6.0%	6.0%	0.0%	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%
Long Term Taxable	4.0%	4.0%	0.0%	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%
High Yield Taxable Fixed Income	4.0%	4.0%	0.0%	3.0%	3.0%	0.0%	2.0%	2.0%	0.0%
Developed Market Ex-U.S. Fixed Income	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%
Emerging Market Fixed Income	3.0%	3.0%	0.0%	3.0%	3.0%	0.0%	2.0%	2.0%	0.0%
Total Equities	68.0%	68.0%	0.0%	75.0%	75.0%	0.0%	84.0%	84.0%	0.0%
U.S. Large Cap Equities	29.0%	29.0%	0.0%	29.0%	29.0%	0.0%	27.0%	27.0%	0.0%
U.S. Mid Cap Equities	12.0%	12.0%	0.0%	13.0%	13.0%	0.0%	15.0%	15.0%	0.0%
U.S. Small Cap Equities	10.0%	10.0%	0.0%	13.0%	13.0%	0.0%	14.0%	14.0%	0.0%
Developed Market Ex-U.S. Equities	9.0%	9.0%	0.0%	10.0%	10.0%	0.0%	14.0%	14.0%	0.0%
Emerging Market Equities	8.0%	8.0%	0.0%	10.0%	10.0%	0.0%	14.0%	14.0%	0.0%
Total Real Assets	7.0%	7.0%	0.0%	7.0%	7.0%	0.0%	7.0%	7.0%	0.0%
Public Real Estate	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%	5.0%	5.0%	0.0%
Commodities	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	2.0%	0.0%

Risk Considerations

Asset allocation is an investment methods used to help manage risk. It does not ensure a profit or protect against a 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 level of risk associated with a particular investment or asset class generally correlates with the level of return the investment or asset class might achieve. The risks associated with the representative asset classes discussed in this report include:

Alternative Investments: Alternative Investments, such as hedge funds, private equity, private debt and private real estate funds, are speculative and entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds. Hedge fund, private equity and private real estate fund investing involves other material risks including capital loss and the loss of the entire amount invested. They are intended for qualified, financially sophisticated investors who can bear the risks associated with these investments. Hedge fund strategies, such as Equity Hedge, Event Driven, Macro and Relative Value may expose investors to risks such as short selling, leverage, counterparty, liquidity, volatility, the use of derivative instruments and other significant risks.

Cash Alternatives: Each type of cash alternatives, such as bank certificates of deposits, Treasury bills, and ultra-short bond mutual funds, has advantages and disadvantages. They typically offer lower rates of return than longer-term equity or fixed-income securities and may not keep pace with inflation over extended periods of time. While 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 and are considered free from credit risk, they are subject to interest rate risk.

Commodities: Exposure to the commodities markets may subject an investment to greater share price volatility than an investment in traditional equity or debt securities. 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.

Equities: Stock markets, especially foreign markets, are volatile. Stock values may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. Foreign investing has additional risks including those associated with currency fluctuation, political and economic instability, and different accounting standards. These risks are heightened in emerging markets. Mid- and small-cap stocks are generally more volatile, subject to greater risks and are less liquid than large company stocks. Preferred stocks are subject to issuer-specific and market risks. They are generally subordinated to bonds or other debt instruments in an issuer's capital structure, subjecting them to a greater risk of non-payment than more senior securities.

Fixed Income: Investments in fixed-income securities are subject to interest rate, credit/default, call, liquidity, inflation and other 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/or principal. This risk is heightened in lower rated bonds. If sold prior to maturity, fixed income securities are subject to market risk. All fixed income investments may be worth less than their original cost upon redemption or maturity. Inflation-Linked fixed income securities are subject to interest rate risk, especially when real interest rates rise. Municipal bonds offer interest payments exempt from federal taxes, and potentially state and local income taxes. These bonds are subject to interest rate and credit/default risk and potentially the Alternative Minimum Tax (AMT). Quality varies widely depending on the specific issuer.

Master Limited Partnerships (MLPs): involves certain risks which differ from an investment in the securities of a corporation. MLPs may be sensitive to price changes in oil, natural gas, etc., regulatory risk, and rising interest rates. A change in the current tax law regarding MLPs could result in the MLP being treated as a corporation for federal income tax purposes which would reduce the amount of cash flows distributed by the MLP. Other risks include the volatility associated with the use of leverage; volatility of the commodities markets; market risks; supply and demand; natural and man-made catastrophes; competition; liquidity; market price discount from Net Asset Value and other material risks.

Real Estate: Investment in real estate securities have certain risks, including the possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions.

Timberland: Timberland investments are subject to acts of nature such as fire, tornados, hurricanes, forest insects, invasive species and diseases, in addition to the risks associated with short-term price volatility, interest rate fluctuations and lack of liquidity.

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