

Downside Risk Mitigated – Actively Managed

Strategy Summary | Fourth Quarter 2017

Strategy summary

Downside Risk Mitigated – Actively Managed Strategies are designed to offer a diversified allocation that reduces downside market participation while seeking to select managers who will provide better risk-adjusted returns than their underlying benchmarks over a full market cycle. These strategies also shift a portion of the traditional equity allocation to investments designed to reduce equity risk, including high-yield and long/short equity strategies.

Within these strategies, the research team will focus on what they call “Falling Market Managers” for most of the client risk profiles and asset class selections. These managers have the opportunity to outperform during periods of market decline because of their eye toward mitigating investment risk. Consequently, these managers tend not to fully participate in prolonged market rallies.

The information shown below is for the selected base models of the referenced strategies. A client’s tolerance for risk, investment time frame and investment preferences, among other factors, will ultimately determine the most appropriate strategy for each particular client.

Investment Strategy

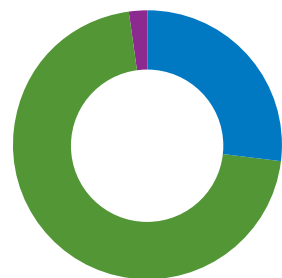
Downside Risk Mitigated –
Actively Managed

Preference Overlay

None

Strategy composition

Conservative Long-Term

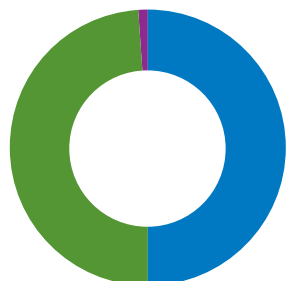


- 30% Equity
- 68% Fixed Income
- 2% Cash/Money Market

| Asset Allocation | Asset Class | Investment | Strategy Weight (%) |
|------------------|-------------------------|--------------------------------------|---------------------|
| | Large Cap Growth Stocks | Jensen Quality Growth | 4.67% |
| | Large Cap Growth Stocks | ClearBridge Aggressive Growth | 2.33% |
| | Large Cap Value Stocks | American Century Value | 3.33% |
| | Large Cap Value Stocks | TCW Relative Value Large Cap | 1.67% |
| | Mid Cap Value Stocks | Wells Fargo Special Mid Cap Value | 4.00% |
| | International Stocks | Harding Loevner International Equity | 2.67% |
| | International Stocks | Artisan International | 1.33% |
| | Equity Long/Short | 361 Global Long/Short Equity | 5.00% |
| | Bonds | iShares Core US Aggregate Bond | 7.00% |
| | Bonds | Federated Total Return Bond | 7.00% |
| | Bonds | Metropolitan West Intermediate Bond | 7.00% |
| | Short-Term Bonds | Vanguard Short-Term Bond | 10.50% |
| | Short-Term Bonds | USAA Short-Term Bond | 10.50% |
| | High Yield Bonds | Buffalo High-Yield | 11.00% |
| | Emerging Markets Bonds | PIMCO Emerging Local Bond | 3.00% |
| | TIPS | TIAA-CREF Inflation Linked Bond | 6.00% |
| | TIPS | DFA Inflation-Protected Securities | 6.00% |
| | Managed Futures | AQR Managed Futures | 5.00% |
| | Cash/Money Market | Cash | 2.00% |

Strategy composition (continued)

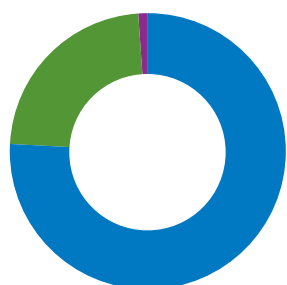
Moderate Long-Term



- 52% Equity
- 47% Fixed Income
- 1% Cash/Money Market

| Asset Allocation | Asset Class | Investment | Strategy Weight (%) |
|------------------|-------------------------|---------------------------------------|---------------------|
| | Large Cap Growth Stocks | Jensen Quality Growth | 6.00% |
| | Large Cap Growth Stocks | ClearBridge Aggressive Growth | 3.00% |
| | Large Cap Value Stocks | American Century Value | 7.33% |
| | Large Cap Value Stocks | TCW Relative Value Large Cap | 3.67% |
| | Mid Cap Growth Stocks | Nationwide Geneva Mid Cap Growth | 3.00% |
| | Mid Cap Value Stocks | Wells Fargo Special Mid Cap Value | 8.00% |
| | International Stocks | Harding Loevner International Equity | 3.33% |
| | International Stocks | Artisan International | 1.67% |
| | REITs | Cohen & Steers Real Estate Securities | 3.00% |
| | Equity Long/Short | Diamond Hill Long-Short | 8.00% |
| | Bonds | Federated Total Return Bond | 5.67% |
| | Bonds | iShares Core US Aggregate Bond | 5.67% |
| | Bonds | Metropolitan West Intermediate Bond | 5.66% |
| | Short-Term Bonds | Vanguard Short-Term Bond | 4.00% |
| | Short-Term Bonds | USAA Short-Term Bond | 4.00% |
| | High Yield Bonds | Buffalo High-Yield | 8.00% |
| | Emerging Markets Bonds | PIMCO Emerging Local Bond | 3.00% |
| | TIPS | TIAA-CREF Inflation Linked Bond | 5.50% |
| | TIPS | DFA Inflation-Protected Securities | 5.50% |
| | Managed Futures | AQR Managed Futures Strategy | 5.00% |
| | Cash/Money Market | Cash | 1.00% |

Aggressive Long-Term



- 81% Equity
- 18% Fixed Income
- 1% Cash/Money Market

| Asset Allocation | Asset Class | Investment | Strategy Weight (%) |
|------------------|-------------------------|---------------------------------------|---------------------|
| | Large Cap Growth Stocks | Jensen Quality Growth | 8.00% |
| | Large Cap Growth Stocks | ClearBridge Aggressive Growth | 4.00% |
| | Large Cap Value Stocks | American Century Value | 7.33% |
| | Large Cap Value Stocks | TCW Relative Value Large Cap | 3.67% |
| | Mid Cap Growth Stocks | Nationwide Geneva Mid Cap Growth | 3.00% |
| | Mid Cap Value Stocks | Wells Fargo Special Mid Cap Value | 11.00% |
| | Small Cap Stocks | AMG River Road Small Cap Value | 3.00% |
| | International Stocks | Harding Loevner International Equity | 5.33% |
| | International Stocks | Artisan International | 2.67% |
| | Intl Small Cap Stocks | MFS International New Discovery | 3.00% |
| | Emerging Markets Stocks | Harding Loevner Emerging Markets | 7.00% |
| | REITs | Cohen & Steers Real Estate Securities | 6.00% |
| | Equity Long/Short | Diamond Hill Long-Short | 12.00% |
| | Bonds | Delaware Diversified Income | 3.00% |
| | Short-Term Bonds | USAA Short-Term Bond | 4.00% |
| | High Yield Bonds | Buffalo High-Yield | 5.00% |
| | Emerging Markets Bonds | PIMCO Emerging Local Bond | 3.00% |
| | TIPS | TIAA-CREF Inflation Linked Bond | 1.50% |
| | TIPS | DFA Inflation-Protected Securities | 1.50% |
| | Managed Futures | AQR Managed Futures Strategy | 5.00% |
| | Cash/Money Market | Cash | 1.00% |

Strategy performance

Conservative Long-Term

| | Quarter To Date | 6 Months To Date | 1 Year To Date | 3 Years To Date | 5 Years To Date | Return Since Inception 3/31/10 | Standard Deviation ³ Since Inception 3/31/10 |
|---------------------------------------|-----------------|------------------|----------------|-----------------|-----------------|--------------------------------|---------------------------------------------------------|
| Strategy - Gross of Fees ¹ | 1.58 | 3.11 | 6.77 | 3.48 | 3.54 | 4.23 | 3.41 |
| Strategy - Net of Fees | 1.37 | 2.69 | 5.89 | 2.62 | 2.74 | 3.49 | 3.34 |
| Indexes² | | | | | | | |
| Russell 3000 | 6.34 | 11.20 | 21.13 | 11.12 | 15.58 | 13.54 | 12.22 |
| MSCI ACWI ex-USA | 5.00 | 11.48 | 27.19 | 7.83 | 6.80 | 5.66 | 14.79 |
| Bloomberg Barclays US Aggregate Bond | 0.39 | 1.24 | 3.54 | 2.24 | 2.10 | 3.50 | 2.73 |

Moderate Long-Term

| | Quarter To Date | 6 Months To Date | 1 Year To Date | 3 Years To Date | 5 Years To Date | Return Since Inception 9/30/09 | Standard Deviation ³ Since Inception 9/30/09 |
|---------------------------------------|-----------------|------------------|----------------|-----------------|-----------------|--------------------------------|---------------------------------------------------------|
| Strategy - Gross of Fees ¹ | 2.60 | 4.23 | 8.86 | 4.89 | 5.76 | 6.44 | 5.85 |
| Strategy - Net of Fees | 2.39 | 3.81 | 7.99 | 4.04 | 4.91 | 5.60 | 5.78 |
| Indexes² | | | | | | | |
| Russell 3000 | 6.34 | 11.20 | 21.13 | 11.12 | 15.58 | 14.26 | 12.30 |
| MSCI ACWI ex-USA | 5.00 | 11.48 | 27.19 | 7.83 | 6.80 | 5.98 | 14.66 |
| Bloomberg Barclays US Aggregate Bond | 0.39 | 1.24 | 3.54 | 2.24 | 2.10 | 3.53 | 2.78 |

Aggressive Long-Term

| | Quarter To Date | 6 Months To Date | 1 Year To Date | 3 Years To Date | 5 Years To Date | Return Since Inception 10/31/09 | Standard Deviation ³ Since Inception 10/31/09 |
|---------------------------------------|-----------------|------------------|----------------|-----------------|-----------------|---------------------------------|----------------------------------------------------------|
| Strategy - Gross of Fees ¹ | 3.84 | 6.33 | 13.94 | 6.66 | 8.20 | 8.60 | 8.98 |
| Strategy - Net of Fees | 3.66 | 5.94 | 13.09 | 5.84 | 7.37 | 7.77 | 8.91 |
| Indexes² | | | | | | | |
| Russell 3000 | 6.34 | 11.20 | 21.13 | 11.12 | 15.58 | 14.78 | 12.29 |
| MSCI ACWI ex-USA | 5.00 | 11.48 | 27.19 | 7.83 | 6.80 | 6.21 | 14.73 |
| Bloomberg Barclays US Aggregate Bond | 0.39 | 1.24 | 3.54 | 2.24 | 2.10 | 3.50 | 2.79 |

The performance numbers presented are annualized average total returns. Please refer to the following pages for important disclosure information.

The performance data quoted represent past performance, and are no guarantee of future results. Returns and the principal value of an investment will fluctuate so that the accumulation units or shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance quoted above.

You cannot invest directly in any index. Unlike mutual funds, index returns do not reflect a deduction for fees or expenses.

The performance data quoted represent past performance and are no guarantee of future results. The performance is as of December 31, 2017.

Prior to June 30, 2016, the strategy performance was represented by a synthetic blend of strategy holdings based on the strategic asset allocation of the base model. The performance of the underlying holdings of the strategy was provided by Morningstar, Inc. The impact of an individual fund on overall performance was measured by the fund's performance multiplied by its weight in that strategy. The synthetic blend also represented quarterly rebalancing. In June 2016, the firm implemented the use of actual client account performance to present the strategy performance. The use of client performance has been applied retroactively since inception.

1. The performance presented is a composite of all fee-paying fully discretionary accounts under management by TIAA, FSB, as of December 31, 2017, that are managed in the composite's stated style. Composites are reported quarterly when the minimum of five accounts is met. The composite includes accounts invested in the stated strategy for at least one full month with a minimum market value of \$45,000. Accounts with significant cash flows and/or cash balances are excluded from the composite. The Gross of Fee performance presented reflects the reinvestment of dividends and other earnings but does not reflect the deduction of investment advisory fees and other expenses. Net of Fees performance is calculated net of management fees, transaction costs, and custodial fees. Net of fee returns for the period reflect the actual management fee paid from the accounts in the composite; however in cases where a management fee was not deducted from the account or the account paid the fee for other household accounts, the maximum annual fee of 1.15% was applied. Please see the accompanying fee schedule for specific fee information. Investments and allocations may have changed since the date of this report. Clients will receive trade confirms for trades done on their behalf within the account. Please note: Clients have the option to suppress confirms, at which point clients will need to refer to their monthly custodial statement. Individual client performance may differ from the composite returns based on many factors including, but not limited to, their inception in the program, timing of additional investments, individual preferences, fees, risk, return and time horizon. Since the composite may include accounts of varying types, the fee schedules vary depending on the nature and size of the account as well as the investment vehicle.
2. Index performance information has been obtained from third parties deemed to be reliable. Indices are shown for convenience purposes only. The definitions of the broad market indexes are as follows:
 Russell 3000 – The Russell 3000 is market capitalization weighted index of the largest 3,000 U.S. publicly traded companies. The companies tracked by this index account for about 98% of companies traded in the United States.
 MSCI All-Country World ex-US – The MSCI All-Country World ex-US is a free-float adjusted market capitalization index designed to measure the equity market performance of developed markets and emerging markets, excluding the U.S. It includes securities from 44 countries comprising 23 developed and 31 emerging market countries.
 Bloomberg Barclays Capital – The Bloomberg Barclays Capital Aggregate Bond Index is a broad-based index often used to represent investment grade bonds being traded in the United States.
3. Standard deviation of return measures the average deviations of a return series from its mean, and is often used as a measure of risk. A large standard deviation implies that there have been large swings in the return series of the manager or index.

The portfolio is subject to the risks associated with the types of securities held by each of the underlying investments in which they invest. An investment in an asset allocated portfolio may be subject to all or some of the following investment risks, depending upon its underlying investments:

Equity Investment Risks: Market Risk – the risk that the price of securities may fall in response to economic conditions; **Company Risk** – the risk that the financial condition of a company may deteriorate, causing a decline in the value of the securities it issues; **Style Risk** – the risk that an investment style may lose favor in the marketplace; **Large-Cap Risk** – the risk that large companies may grow more slowly than the overall market; **Small-Cap/Mid-Cap Risk** – the risk that smaller company securities may be more volatile than those of larger ones; **Real Estate Risk** – investing is subject to various risks, including fluctuations in property values, higher expenses or lower income than expected, and potential environmental problems and liability; **Foreign Investment Risk** – the risk that securities of foreign issuers may lose value because of erratic market conditions, economic and political instability or fluctuations in currency exchange rates, which may be magnified in emerging markets.

Fixed-Income Investment Risks: Interest Rate Risk – the risk that the market value of fixed-income securities may fluctuate when interest rates change; **Prepayment Risk** – the risk that the issuers of individual securities may prepay them at a time when interest rates have declined; **Extension Risk** – the risk that the value of individual securities will decline because principal payments are not made as early as possible; **Income Volatility Risk** – the risk that the income from a portfolio of securities may decline in certain interest rate environments; **Credit Risk** – the risk that the issuers of individual securities may default; **Risks of Inflation-Indexed Bonds** – the risks that interest payments on inflation-indexed bonds may decline because of a change in inflation (or deflation) expectations; **Illiquid Securities Risk** – the risk that illiquid securities may be difficult to sell at their fair market value; **Active Management Risk** – the risk that a fund may underperform because of the allocation decisions or individual security selections of its portfolio manager; **Index Risk** – the risk that a portfolio's performance may not match that of its benchmark index; in addition, the portfolio is subject to **Asset Allocation Risk** – whereby the portfolio is impacted by the decisions made regarding the weightings among the different allocations.

| Downside Risk - Actively Managed | Number of Portfolios | Dispersion % | Total Composite Assets |
|----------------------------------|----------------------|--------------|------------------------|
| Conservative Long-Term | 16 | 0.124 | \$4,737,139 |
| Moderate Long-Term | 52 | 0.142 | \$19,114,340 |
| Aggressive Long-Term | 10 | 0.149 | \$5,545,468 |

Mutual funds and Exchange-Traded Funds (ETF's) incur embedded expenses (known as their "expense ratio").

All managed accounts are subject to market risk. Consult with your Advisor to ensure that you are comfortable with the level of risk in your portfolio, and advise them of any changes in your financial situation.

Portfolio Advisor is a fee-based investment advisory managed account service offered through Advice & Planning Services, a division of TIAA-CREF Individual & Institutional Services, LLC, a registered investment adviser.

Investment, insurance and annuity products are not FDIC insured, are not bank guaranteed, are not bank deposits, are not insured by any federal government agency, are not a condition to any banking services or activity, and may lose value.

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