

Managed Income Strategies with Tax Management Preference

Strategy Summary | Fourth Quarter 2017

Strategy summary

The Portfolio Advisor Managed Income preference is most appropriate for clients who are looking to take distributions from their portfolios. The strategies in the Managed Income preference place a greater emphasis on the potential to generate income while attempting to reduce interest rate, inflation and sequence of return risk.

The strategies aim to help improve the likelihood of delivering consistent income for clients who are focused on taking distributions from their portfolios. To the extent possible, fixed-income exposures are fulfilled using bonds exempt from federal income taxes.

From the inception of the strategies, the Investment Management Group took a fresh look at potential sources of income, seeking to balance client needs for income, growth, inflation protection and reduced sequence of return risk.

- Includes strategies to generate income needed for the long term
- Aims to manage the risks specific to an income-focused portfolio
- Portfolio management focusing on yield in conjunction with total return

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.

Strategy composition

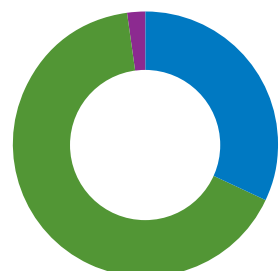
Investment Strategy

Managed Income

Preference Overlay

Income-Focused Portfolio
Tax Management

Conservative Long-Term



- 31% Equity
- 67% Fixed Income
- 2% Cash/Money Market

Asset Allocation	Asset Class	Investment	Strategy Weight (%)
	Large Cap Value Stocks	FlexShares Quality Dividend	13.33%
	Large Cap Value Stocks	iShares Russell 1000	6.67%
	Municipal Bonds	T. Rowe Price Summit Municipal Intermediate	14.00%
	Short-Term Municipal Bonds	AB Diversified Municipal	14.00%
	High Yield Municipal Bonds	Nuveen High Yield Municipal Bond	22.00%
	Emerging Markets Bonds	PIMCO Emerging Local Bond Fund	4.00%
	TIPS	PIMCO 1-5 Year U.S. TIPS	8.00%
	TIPS	DFA Inflation-Protected Securities	5.00%
	Managed Futures	AQR Managed Futures Strategy	5.00%
	MLPs	Alerian MLP	6.00%
	Cash/Money Market	Cash	2.00%

Strategy composition (continued)

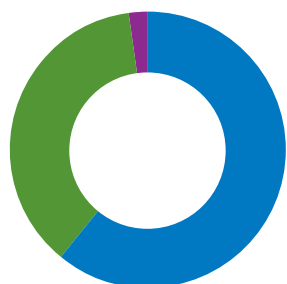
Moderate Long-Term



- 46% Equity
- 52% Fixed Income
- 2% Cash/Money Market

Asset Allocation	Asset Class	Investment	Strategy Weight (%)
	Large Cap Value Stocks	FlexShares Quality Dividend	22.33%
	Large Cap Value Stocks	iShares Russell 1000	11.67%
	Municipal Bonds	T. Rowe Price Summit Municipal Intermediate	3.00%
	Short-Term Municipal Bonds	AB Diversified Municipal	11.00%
	High Yield Municipal Bonds	Nuveen High Yield Municipal Bond	19.00%
	Emerging Markets Bonds	PIMCO Emerging Local Bond	9.00%
	TIPS	PIMCO 1-5 Year U.S. TIPS	5.00%
	TIPS	DFA Inflation-Protected Securities	5.00%
	Managed Futures	AQR Managed Futures Strategy	5.00%
	MLPs	Alerian MLP	6.00%
	Cash/Money Market	Cash	2.00%

Aggressive Long-Term



- 59% Equity
- 39% Fixed Income
- 2% Cash/Money Market

Asset Allocation	Asset Class	Investment	Strategy Weight (%)
	Large Cap Value Stocks	FlexShares Quality Dividend	26.67%
	Large Cap Value Stocks	iShares Russell 1000	13.33%
	Emerging Markets Stocks	TIAA-CREF Emerging Markets Equity Index	8.00%
	Short-Term Municipal Bonds	AB Diversified Municipal	11.00%
	High Yield Municipal Bonds	Nuveen High Yield Municipal Bond	7.00%
	Emerging Markets Bonds	PIMCO Emerging Local Bond	10.00%
	TIPS	PIMCO 1-5 Year U.S. TIPS	5.00%
	TIPS	DFA Inflation-Protected Securities	6.00%
	Managed Futures	AQR Managed Futures Strategy	3.00%
	MLPs	Alerian MLP	8.00%
	Cash/Money Market	Cash	2.00%

Strategy performance

Conservative Long-Term

	Quarter to Date	6 Months to Date	1 Year to Date	3 Year to Date	Return Since Inception 4/29/13	Standard Deviation ³ Since Inception 4/29/13
Strategy - Gross of Fees ¹	2.12	3.82	7.06	3.69	3.46	3.61
Strategy - Net of Fees	1.83	3.22	5.84	2.51	2.28	3.60
Indexes²						
Russell 3000 TR USD	6.34	11.20	21.13	11.12	14.01	9.72
MSCI ACWI Ex USA NR USD	5.00	11.48	27.19	7.83	6.13	11.58
Bloomberg Barclays Municipal TR USD	0.75	1.82	5.45	2.98	2.96	3.58

Moderate Long-Term

	Quarter to Date	6 Months to Date	1 Year to Date	3 Year to Date	Return Since Inception 4/29/13	Standard Deviation ³ Since Inception 4/29/13
Strategy - Gross of Fees ¹	3.10	5.40	9.67	5.27	5.38	4.76
Strategy - Net of Fees	2.80	4.79	8.42	4.07	4.17	4.76
Indexes²						
Russell 3000 TR USD	6.34	11.20	21.13	11.12	14.01	9.72
MSCI ACWI Ex USA NR USD	5.00	11.48	27.19	7.83	6.13	11.58
Bloomberg Barclays Municipal TR USD	0.75	1.82	5.45	2.98	2.96	3.58

Aggressive Long-Term

	Quarter to Date	6 Months to Date	1 Year to Date	3 Year to Date	Return Since Inception 4/29/13	Standard Deviation ³ Since Inception 4/29/13
Strategy - Gross of Fees ¹	3.58	6.34	12.01	4.46	4.44	6.69
Strategy - Net of Fees	3.28	5.73	10.73	3.27	3.24	6.69
Indexes²						
Russell 3000 TR USD	6.34	11.20	21.13	11.12	14.01	9.72
MSCI ACWI Ex USA NR USD	5.00	11.48	27.19	7.83	6.13	11.58
Bloomberg Barclays Municipal TR USD	0.75	1.82	5.45	2.98	2.96	3.58

Please refer to the following pages for important disclosure information.

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 represents past performance and is no guarantee of future results. The performance is as of December 31, 2017.

1. The strategy performance presented above reflects the investment management of the strategy since inception (4/29/2013) but does not reflect the management of client accounts in the program. The strategy performance represents 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 is provided by Morningstar, Inc. The impact of an individual fund on overall performance is measured by the fund's performance multiplied by its weight in that strategy. Performance figures reflect the reinvestment of dividends and other income. The synthetic blend also represents quarterly rebalancing. Investments and allocations noted above are as of the date of this report. Investments and allocations may have changed in the interim. Clients will receive trade confirmations for trades done on their behalf within the account. Please note: clients have the option to suppress confirmations, 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. The strategy performance represented is presented as gross and net of the advisory fee. The net returns are computed by reducing the gross performance by the maximum client fee of 1.15%.
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 indices are as follows:
Russell 3000 – The Russell 3000 is a 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 Municipal Bond Index is a broad market index of investment-grade, tax-exempt bonds with a maturity of at least one year, and consists of approximately 1,100 bonds, 60% of which are revenue bonds and 40% of which are state government obligations.
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. The standard deviation represented is based on returns of the strategy holdings as provided by Morningstar, Inc.

There can be no assurances that the Managed Income Strategies will achieve their stated goals. Managed Income Strategies do not guarantee income nor do they ensure a profit or protect against losses in declining markets. The strategies may not generate sufficient income to support all income distribution needs in retirement. Investors should consider managed accounts as part of a larger diversified portfolio. Total returns of Managed Income Strategies portfolios may be less than portfolios not designed for income distribution.

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** – 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.

Mutual funds and Exchange-Traded Funds (ETFs) 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 advisor.

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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