Putnam Investments Total Return Composite

Year	Gross of Fees Return (%)	Net of Fees Return (%)	Annual Benchmark Returns 1 mo. LIBOR (%)	Annual Benchmark Returns 60/40 (%)	Three-year Standard Deviation of Composite (%)[1]	Three-year Standard Deviation of Benchmark 1 mo. LIBOR[1]	Three-year Standard Deviation of Benchmark 60/40[1]	Standard Deviation of Account Returns (%)[2]	Composite Assets (millions)	Total Firm Assets (millions)[3]	Number of Accounts
2017	14.73	13.87	1.07	16.24	6.02	0.11	6.63	N/A	849	117,916	≤5
2016	9.96	9.11	0.48	5.33	6.60	0.05	7.14	N/A	849	109,728	≤5
2015	-4.11	-5.08	0.18	-1.72	7.21	0.02	7.07	N/A	921	110,621	≤5
2014	3.43	2.39	0.16	2.80	7.18	0.02	6.92	N/A	992	120,093	≤5
2013	5.52	4.46	0.19	13.54	8.81	0.01	8.73	N/A	1,254	110,816	≤5
2012	13.13	11.99	0.25	10.15	10.23	0.01	10.96	N/A	2,837	98,926	≤5
2011	4.83	3.77	0.23	-0.63	12.96	0.03	13.85	N/A	1,966	95,033	≤5
2010	14.83	13.68	0.27	9.50	15.90	0.41	15.87	N/A	1,751	102,320	≤5
2009	27.30	26.02	0.36	18.72	14.76	0.62	14.22	N/A	1,116	96,570	≤5
2008	-18.10	-18.92	3.10	-22.97	N/A	N/A	N/A	N/A	792	90,084	≤5

1 The three-year, annualized ex-post standard deviation of monthly composite and benchmark returns represents a measure of total investment risk (volatility) and calculates the variance of a distribution of returns. Data is not presented for periods with less than 36 months of composite returns.

2 The standard deviation of comparable performance over time is a measure of volatility. Composite dispersion is measured by the standard deviation across equal weighted portfolios represented within the composite for the full year. Standard deviation is N/A for composites with five or fewer accounts for the full year.

3 Total Firm Assets prior to 2011 do not include Guaranteed Investment Contract ("GIC") assets.

Firm overview: Putnam Investments claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Putnam Investments has been independently verified from January 1, 2000 through December 31, 2016. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The Putnam Investments Total Return Composite has been examined from January 1, 2009 through December 31, 2016. The verification and performance examination reports are available upon request. Putnam Investments (the "Firm") is defined as a broad-based investment management organization that provides financial services to institutions and individuals through separately managed accounts, pooled funds, and mutual funds. Except for a minority stake owned by employees, the Firm is a wholly-owned subsidiary of Great West Lifeco Inc. Investment management is provided by four wholly-owned subsidiaries of the Firm: The Putnam Advisory Company, LLC, Putnam Investment Management, LLC, Putnam Fiduciary Trust Company, and Putnam Investments Limited. A list of the Firm's composite descriptions is available upon request.

Composition of composite: The Putnam Investments Total Return Composite (the "Composite") seeks to deliver a more efficient risk/return profile than a traditionally balanced global portfolio through dynamic risk allocation and drawdown control. By relaxing certain traditional investment constraints, like the "no leverage" constraint, the strategy can seek returns and diversification from a variety of sources, while keeping the risks deriving from these sources in good balance. The strategy also seeks a total positive return. The ICE BofA Merrill Lynch US Dollar 1-Month LIBOR Constant Maturity Index is used as a cash benchmark for comparative purposes. As the strategy is designed to deliver a more efficient risk/return profile than a traditionally balanced global portfolio, performance is also monitored relative to a 60% MSCI World Index/40% FTSE World Government Bond Index benchmark. The 60/40 benchmark is rebalanced on a monthly basis. The Composite comprises all U.S. dollar based discretionary accounts, or accounts hedged to U.S. dollars, managed by the Firm in this investment style. The Composite may include accounts with different benchmarks. The Composite creation date was July 29, 2008. This strategy allows for the use of leverage. The Composite was previously called Total Return Master. The name change occurred April 8, 2016.

Risk considerations: This strategy is not intended to be a complete investment program. Diversification does not assure a profit or protect against loss. It is possible to lose money in a diversified portfolio. It is important to understand that you can lose money by investing in this strategy. This strategy may not be suitable for all investors. Investing in this strategy entails numerous risks including but not limited to: market risk, liquidity risks, emerging market risk, prepayment risk, credit risk, interest rate risk and counterparty risk. This strategy may use futures, forwards, swaps and other derivative instruments on equity, fixed income and commodity indices and currencies to gain exposure to various markets. Commodities trading involves substantial risk of loss. There are additional risks involved with trading securities in a margin account, including the fact that you can lose more funds than you deposit in the margin account. Derivatives involve special risks and costs. Some derivatives are "leveraged," which means that they provide a portfolio with investment exposure greater than the value of your portfolio's investment in the derivatives. As a result, these derivatives may magnify or otherwise increase investment losses to a portfolio. Strategies that use leverage to gain exposure to various markets may not be suitable for all investors. Any use of leverage exposes the strategy to risk of loss. In some cases the risk may be substantial. This strategy may also sell securities short and may engage in securities lending. Selling short is a strategy employed by aggressive investors attempting to benefit from the expected price deterioration of a security and can lead to extraordinary losses. When engaging in the short sale of securities, the Firm will sell borrowed shares with the intent of repurchasing the shares at a lower price before returning the shares to the lender. A portfolio that engages in short sales may incur losses if the securities appreciate in value prior to repurchase. Also, such portfolios may experience greater volatility due to potential leverage. The loss involved in a short position is theoretically unlimited.

Calculation of composite: Returns are presented in U.S. dollars ("USD"). Benchmark, Putnam account and Putnam mutual fund valuation sources and timing may sometimes differ, causing dispersion within the composite and between the composite and the benchmark. The results of the Composite for all periods shown include the reinvestment of dividends and other earnings. The Firm values securities using market quotations, fair value prices from pricing services and/or broker quotations. In limited circumstances, the Firm will value securities based solely on its own analysis, this may include using model prices based on third-party data or, for private equity securities, a fair valuation process whereby a special Valuation committee will review the nature of each deal, the model currently used to value each deal, and any critical underlying assumptions in order to determine fair value. Fair valuations based on internal resources are made in accordance with the Putnam Funds Pricing Procedures and are subject to the oversight of the Firm's Valuation Committee. Please note that, in limited cases, the inputs used to value the security are unobservable and reflect the source's own assumptions. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

Benchmark disclosure: The ICE BofA Merrill Lynch US Dollar 1-Month LIBOR Constant Maturity Index tracks the performance of a synthetic asset paying Libor to a stated maturity. The index is based on the assumed purchase at par of a synthetic instrument having exactly its stated maturity and with a coupon equal to that day's fixing rate. That issue is assumed to be sold the following business day (priced at a yield equal to the current day fixing rate) and rolled into a new instrument. The MSCI World Index (ND) is an unmanaged index of equity securities from developed countries. The FTSE World Government Bond Index is an index of bonds issued by governments in the U.S., Europe and Asia. Benchmark returns are not examined by the independent verifier. Benchmarks are generally taken from published sources and may have different calculation methodologies, pricing times, and foreign exchange sources from the Composite. The effect of those differences is deemed to be immaterial. The exchange rate source of the benchmark and the Composite is Reuters. The securities holdings of the Composite may differ materially from those of the index used for comparative purposes. Indexes are unmanaged and do not incur expenses. You cannot invest directly in an index. ICE Data Indices, LLC ("ICE BofAML"), used with permission. ICE BofAML permits use of the ICE BofAML indices and related data on an "as is" basis; makes no warranties regarding same; does not guarantee the suitability, quality, accuracy, timeliness, and/or completeness of the ICE BofAML indices or any data included in, related to, or derived therefrom; assumes no liability in connection with the use of the foregoing; and does not sponsor, endorse, or recommend Putnam Investments, or any of its products or services.

Gross and Net of fees disclosure: Gross of Fee Returns are net of transactions costs but do not include the deduction of management fees and other expenses that may be incurred in managing an investment account. A portfolio's return will be reduced by management and other fees. The impact of management fees can be material. For instance, assume that $1 million is invested in a Putnam account, and this account achieves a 10% compounded annual return, gross of fees, for 10 years. If an advisory fee of 0.50% was charged each year for the 10-year period, the annual return would be 9.5% and the ending dollar value would be $2,478,200, net of fees, as opposed to $2,593,700, gross of fees. The actual fee rates are stated in advisory contracts with clients. Gross-of-fee performance for mutual fund accounts included in the Composite is calculated by adding back the prorated monthly percentage of the total net annual expense ratio (as published in the fund's annual report) to the monthly return on net asset value per share. Annual expense ratios for the current year may be based on the prior year's financial statements. Returns may be adjusted based upon each year's audited annual report.

Net of fee returns are calculated using a model fee ("Model Net Fee"). For the applicable time periods, net of fees returns reflect either the deduction of the highest management fee that is paid by a portfolio in the Composite during the performance period, applied on a monthly basis or the deduction of the highest applicable management fee in effect during the performance period that would be charged based on the fee schedule appropriate to this mandate, without the benefit of breakpoints, applied on a monthly basis, whichever is higher. Net of fee calculation methodology may change over time. For composites that include commingled funds that pay a performance fee and that calculate performance using the highest fee paid by an account in the composite, performance based fee adjustments are included in net of fee returns. For commingled funds, the fee is typically updated for the most recent fiscal year end after the portfolio has been audited. Returns may be adjusted based upon each year's audited annual report. Please be advised that the Composite may include other investment products or share classes of funds that are subject to management fees, including performance fees, that are inapplicable to you but that could have been in excess of the Model Net Fee. Therefore, the actual performance of all the portfolios in the composite on a net-of-fees basis will be different, and may be higher or lower, than the Model Net Fee performance. Composites that include certain commingled portfolios may also assess a performance fee to underlying investors which could result in the underlying investors paying a higher total management fee than the highest stated management fee below. However, Model Net Fee performance is intended to provide the most appropriate example of the impact management fees would have by applying management fees relevant to you to the gross performance of the Composite. Actual investment advisory fees incurred by clients are typically negotiated on an individual basis and may vary depending upon, among other things, the applicable fee schedule and portfolio size.

Fee schedule: The standard fee schedule is based on the market value of an account's assets under management and is stated on an annual basis. Separate account management fees are subject to change and are for investment management services only. Standard management fee is: 0.75% of assets on the first $50 million, 0.70% of assets on the next $50 million, 0.60% of assets on the next $150 million, and 0.50% on the next $250 million and 0.25% for assets over $500 million.

Past performance is not a guarantee of future performance. No assurance can be given as to future performance.