

Tennessee Treasury Managed Fund

Volatility Meter*

The Investment volatility, when shown, is a function of the investment option's Morningstar 3-year Risk Rating. The Asset Category volatility is based on the average standard deviation of investment options in this asset category.

Low	Moderate	High
▲ Asset Category		

***For illustrative purposes only.** The Asset Category volatility measure will always be displayed. If the Investment volatility measure is not displayed, the investment may have fewer than three years of history or the data may not be available.

Asset Category

Allocation--50% to 70% Equity

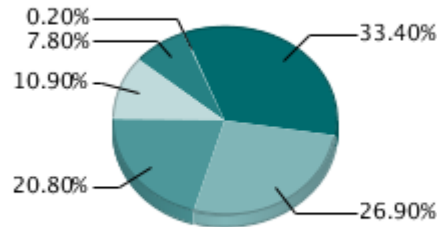
Investment Objective & Strategy

The primary investment objective of the Fund is that of the Retirement System: to establish a stable, diversified investment portfolio that, in the long-term, will meet or exceed the assumed actuarial rate of return, as adopted by the Board, in order to provide sufficient liquidity to pay pension benefits to the Retirement System's beneficiaries in a timely manner.

Risk Profile

This investment option may be most appropriate for someone willing to balance the risk of principal fluctuation with the potential for greater capital growth over time. The investor may have a medium to long investment horizon. Generally, investors choosing this option want to invest in a mixture of diverse investments suiting their needs but may not have the time, desire, or knowledge to select and manage their own portfolios. Asset allocation and balanced investment options and models are subject to the risks of the underlying funds, which can be a mix of stocks/stock funds and bonds/bond funds. For more information, see the prospectus and/or disclosure documents.

Asset Allocation¹



	% of Assets
U.S. Stock	33.40
Fixed Income	26.90
Non U.S. Stock	20.80
Other	10.90
Domestic Real Estate	7.80
Cash	0.20

Geographic Diversification

	% of Assets
United States	81.30
Developed International	14.50
Emerging International	4.20

Bond Sector Diversification

	% of Assets
Government	36.58
Corporate	27.20
Mortgage Backed Securities	26.59
Inflation Pr	9.63

Equity Sector Diversification

	% of Assets
Large Cap	56.17
International	27.93
Emerging Market	8.14
Mid Cap	5.14
Small Cap	2.62

Largest Holdings

	% of Assets
Apple Inc	1.19
iShares MSCI South Korea ETF	1.02
iShares MSCI Taiwan ETF	0.79
Fed Home LN Discount NT	0.68
US Treasury N/B	0.67

Percent of Total Net Assets 4.35%

Risk Statistics (3 Year)[^]

Standard Deviation..... 5.73

[^]Risk Statistics are measured using the Prospectus' benchmark, where applicable. The rating, risk, and return values are relative to each fund's asset category.

Maturity Allocation

	% of Assets
Under 5 Years	15.48
5 - 10 Years	47.05
Over 10 Years	37.47

Net Expense Ratio

.13%

Gross Expense Ratio

.13%

Inception Date

07/01/2015

Data Effective Date

09/30/2017

Carefully consider the investment option's objectives, risks, fees and expenses. Contact us for a prospectus, summary prospectus and disclosure document, as available, containing this information. Read them carefully before investing.

The gross and net expense ratio, if shown, reflect the most current data available at the time of production, which may differ from the data effective date. The Net expense ratio shown is net of any fee waivers or expense reimbursements.

Glossary & Investment Option Disclosures

3-Year Risk Rating	An annualized measure of a fund's downside volatility over a three-year period. Morningstar Risk Rating is derived directly from Morningstar Risk, which is an assessment of the variations in a fund's monthly returns, with an emphasis on downside variations, in comparison to similar funds. In each Morningstar Category, the top 10% of investments earn a High rating, the next 22.5% Above Average, the middle 35% Average, the next 22.5% Below Average, and the bottom 10% Low. Investments with less than three years of performance history are not rated.
Alpha	Alpha is a measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. A positive Alpha figure indicates the portfolio has performed better than its beta would predict. In contrast, a negative Alpha indicates the portfolio has underperformed, given the expectations established by beta.
Beta	Beta is a measure of a portfolio's sensitivity to market movements. The beta of the market is 1.00 by definition. Morningstar calculates beta by comparing a portfolio's excess return over T-bills to the benchmark's excess return over T-bills, so a beta of 1.10 shows that the portfolio has performed 10% better than its benchmark in up markets and 10% worse in down markets, assuming all other factors remain constant. Conversely, a beta of 0.85 indicates that the portfolio's excess return is expected to perform 15% worse than the benchmark's excess return during up markets and 15% better during down markets.
Effective Duration	Effective duration for all long fixed income positions in a portfolio. Morningstar asks fund companies to calculate and send average effective duration (also known as "option adjusted duration") for each of their fixed income or allocation funds. We ask for effective duration because the measure gives better estimation of how the price of bonds with embedded options, which are common in many mutual funds, will change as a result of changes in interest rates. Effective duration takes into account expected mortgage prepayment or the likelihood that embedded options will be exercised if a fund holds futures, other derivative securities, or other funds as assets, the aggregate effective duration should include the weighted impact of those exposures. Standard practice for calculating this data point requires determination of a security's option-adjusted spread, including the use of option models or Monte Carlo simulation, as well as interest-rate scenario testing Morningstar requests that the fund only report data in this field that has been specifically labeled effective or option-adjusted duration, or that fund is certain has been calculated in the fashion described.
Effective Maturity	Average effective maturity is a weighted average of all the maturities of the bonds in a portfolio, computed by weighting each bond's effective maturity by the market value of the security. Average effective maturity takes into consideration all mortgage prepayments, puts, and adjustable coupons. Longer-maturity funds are generally considered more interest-rate sensitive than their shorter counterparts. We list Average Effective Maturity for Taxable Fixed-Income and Hybrid funds and Average Nominal Maturity for Municipal Bond Funds.
Equity Style Box	The Morningstar U.S. Equity Style Box™ is a grid that provides a graphical representation of the investment style of stocks and portfolios. It classifies securities according to market capitalization (the vertical axis) and 10 growth and value factors (the horizontal axis) and allows us to provide analysis on a 3-by-3 Style Box - as well as providing the traditional style box assignment, which is the basis for the Morningstar Category. Two of the style categories, value and growth, are common to both stocks and portfolios. However, for stocks, the central column of the style box represents the core style (those stocks for which neither value nor growth characteristics dominate); for portfolios, it represents the blend style (a mixture of growth and value stocks or mostly core stocks). Furthermore, the core style for stocks is wider than the blend style for portfolios. In general, a growth-oriented fund will hold the stocks of companies that the portfolio manager believes will increase earnings faster than the rest of the market. A value-oriented fund contains mostly stocks the manager thinks are currently undervalued in price and will eventually see their worth recognized by the market. A blend fund might be a mix of growth stocks and value stocks, or it may contain stocks that exhibit both characteristics.
Fixed Income Style Box	The model for the fixed income style box is based on the two pillars of fixed-income performance: interest-rate sensitivity and credit quality. The three interest sensitivity groups are limited, moderate and extensive and the three credit quality groups are high, medium and low. These groupings display a portfolio's effective duration and third party credit ratings to provide an overall representation of the fund's risk orientation given the sensitivity to interest rate and credit rating of bonds in the portfolio. On a monthly basis Morningstar calculates duration breakpoints based around the 3 year effective duration of the Morningstar Core Bond Index (MCBI). By using the MCBI as the duration benchmark, Morningstar is letting the effective duration bands to fluctuate in lock-steps with the market which will minimize market-driven style box changes. Municipal bond funds with duration of 4.5 years or less qualify as low; more than 4.5 years but less than 7 years, medium; and more than 7 years, high. For hybrid funds, both equity and fixed-income style boxes appear.
Portfolio Turnover	Portfolio turnover is a measure of the portfolio manager's trading activity which is computed by taking the lesser of purchases or sales (excluding all securities with maturities of less than one year) and dividing by average monthly net assets. A turnover ratio of 100% or more does not necessarily suggest that all securities in the portfolio have been traded. In practical terms, the resulting percentage loosely represents the percentage of the portfolio's holdings that have changed over the past year.
R² R-squared	R ² , also known as the Coefficient of Determination, reflects the percentage of a portfolio's movement that can be explained by the movement of its primary benchmark over the past three years. An R-squared of 100 indicates that all movement of a fund can be explained by the movement of the index.
Sharpe Ratio	A risk-adjusted measure developed by Nobel Laureate William Sharpe. It is calculated by using standard deviation and excess return to determine reward per unit of risk. The higher the Sharpe Ratio, the better the fund's historical risk-adjusted performance. The Sharpe ratio is calculated for the past 36-month period by dividing a fund's annualized excess returns by the standard deviation of a fund's annualized excess returns. Since this ratio uses standard deviation as its risk measure, it is most appropriately applied when analyzing a fund that is an investor's sole holding. The Sharpe Ratio can be used to compare two funds directly on how much risk a fund had to bear to earn excess return over the risk-free rate.
Standard Deviation	Standard deviation is a statistical measurement of dispersion about an average, which, for a mutual fund, depicts how widely the returns varied over the past three years. Investors use the standard deviation of historical performance to try to predict the range of returns that are most likely for a given fund. When a fund has a high standard deviation, the predicted range of performance is wide, implying greater volatility. Standard deviation is most appropriate for measuring risk if it is for a fund that is an investor's only holding. The figure can not be combined for more than one fund because the standard deviation for a portfolio of multiple funds is a function of not only the individual standard deviations, but also of the degree of correlation among the funds' returns. If a fund's returns follow a normal distribution, then approximately 68 percent of the time they will fall within one standard deviation of the mean return for the fund, and 95 percent of the time within two standard deviations. Morningstar computes standard deviation using the trailing monthly total returns for the appropriate time period. All of the monthly standard deviations are then annualized.

All Glossary terms are sourced from Morningstar, Inc., except "Fixed" and/or "Stable Value" when shown.

Funds may impose redemption fees and/or transfer restrictions, if assets are held for less than the published holding period. For more information, see the fund's prospectus and/or disclosure documents.

The trademarks, logos, service marks and design elements used are owned by their respective owners and are used by permission.

Holdings and composition of holdings are subject to change.

Asset allocation funds are generally subject to a fund operating expense at the fund level, as well as prorated fund operating expenses of each underlying fund in which they invest. For more information, please refer to the fund prospectus and/or disclosure document.

U.S. Treasury securities, where listed, are guaranteed as to the timely payment of principal and interest if held to maturity. Investment options are neither issued nor guaranteed by the U.S. government.

The responsibility for the content contained in the website(s) provided (if shown) is entirely that of the website owner. Endorsement is neither declared nor implied.

Fee and performance information on the website(s) listed may differ for funds offered through an individual or group variable annuity.

A benchmark index, if shown, is not actively managed, does not have a defined investment objective, and does not incur fees or expenses. Therefore, performance of a fund will generally be less than its benchmark index. You cannot invest directly in a benchmark index.

The Inception Date listed is the date the fund began operations. The Data Effective Date is the date for which the most current data is available. The Period Ending Date is the date for which the fund fact sheet is produced.

Although data is gathered from reliable sources, the completeness or accuracy of the data shown cannot be guaranteed. All information is the most current as it is provided by the data source. Where data obtained from Morningstar, ©2019 Morningstar, Inc. All Rights Reserved. The data: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information. Past performance is no guarantee of future results.

Glossary & Investment Option Disclosures

¹The allocations shown here are subject to change. The fund allocations are based on an investment strategy based on risk and return.

©2019 Great-West Life & Annuity Insurance Company. All rights reserved.