

Prospectus Inside

MassMutual Premier Funds

Multiclass Shares - February 1, 2020



MASSMUTUAL PREMIER FUNDS

This Prospectus describes the following Funds:

<u>Fund Name</u>	<u>Class I</u>	<u>Class R5</u>	<u>Service Class</u>	<u>Administrative Class</u>	<u>Class A</u>	<u>Class R4</u>	<u>Class R3</u>
MassMutual Premier U.S. Government Money Market Fund			MKSXX				
MassMutual Premier Short-Duration Bond Fund	MSTZX	MSTDX	MSBYX	MSTLX	MSHAX	MPSDX	MSDNX
MassMutual Premier Inflation-Protected and Income Fund	MIPZX	MIPSX	MIPYX	MIPLX	MPSAX	MIPRX	MIPNX
MassMutual Premier Core Bond Fund	MCZZX	MCBDX	MCBYX	MCBLX	MMCBX	MCZRX	MCBNX
MassMutual Premier Diversified Bond Fund	MDBZX	MDBSX	MDBYX	MDBLX	MDVAX	MDBFX	MDBRX
MassMutual Premier High Yield Fund	MPHZX	MPHSX	DLHYX	MPHLX	MPHAX	MPHRX	MPHNX
MassMutual Premier Balanced Fund	MBBIX	MBLDX	MBAYX	MMBLX	MMBDX	MBBRX	MMBRX
MassMutual Premier Disciplined Value Fund	MPIVX	MEPSX	DENVX	MPILX	MEPAX	MPIRX	MPINX
MassMutual Premier Main Street Fund	MSZIX	MMSSX	MMSYX	MMSLX	MSSAX	MSSRX	MMSNX
MassMutual Premier Disciplined Growth Fund	MPDIX	MPGSX	DEIGX	MPGLX	MPGAX	MPDGX	MPDRX
MassMutual Premier Small Cap Opportunities Fund	MSOOX	MSCDX	MSVYX	MSCLX	DLBMX	MOORX	MCCRX
MassMutual Premier Global Fund	MGFZX	MGFSX	MGFYX	MGFLX	MGFAX	MGFRX	MGFNX
MassMutual Premier International Equity Fund	MIZIX	MIEDX	MYIEX	MIELX	MMIAX	MEIRX	MEERX
MassMutual Premier Strategic Emerging Markets Fund	MPZSX	MPSMX	MPEYX	MPLSX	MPASX	MPRSX	MPZRX

Important Notice: Beginning on January 1, 2021, as permitted by regulations adopted by the Securities and Exchange Commission, paper copies of the Fund's annual and semi-annual reports will no longer be sent by mail, unless you specifically request paper copies of the reports from the Fund (or from your financial intermediary, such as a broker-dealer, bank, or retirement plan recordkeeper). Instead, the reports will be made available on the Fund's website (<http://www.massmutual.com/funds>), and you will be notified by mail each time a report is posted and provided with a website link to access the report.

If you already elected to receive shareholder reports electronically, you will not be affected by this change and you need not take any action. If you would like to receive shareholder reports and other communications electronically from the Fund and are either a direct investor in the Fund or MassMutual serves as your retirement plan recordkeeper, please call (800) 767-1000 extension 43012 or send your request to enroll to RSProspectusFulfillment@massmutual.com. If you have invested in the Fund through another financial intermediary (such as a broker-dealer, bank, or retirement plan recordkeeper), you can request electronic delivery by contacting that financial intermediary.

Beginning on January 1, 2019, you may elect to receive all future reports in paper free of charge. If you invest directly with the MassMutual Funds or MassMutual serves as your retirement plan recordkeeper, you can call (800) 767-1000 extension 43012 or send an email request to RSProspectusFulfillment@massmutual.com to inform the Funds or MassMutual that you wish to continue receiving paper copies of your shareholder reports. If you invest through a financial intermediary other than MassMutual, you can contact that financial intermediary to request that you continue to receive paper copies of your shareholder reports. Your election to receive reports in paper will apply to all funds held in your account if you invest through your financial intermediary or all funds held within the fund complex if you invest directly with a Fund.

The Securities and Exchange Commission has not approved or disapproved these securities or passed upon the adequacy of this Prospectus. Any statement to the contrary is a crime.

PROSPECTUS
February 1, 2020

MASSMUTUAL PREMIER FUNDS
MassMutual Premier Short-Duration Bond Fund
Supplement dated October 30, 2020 to the
Prospectus dated February 1, 2020 and the
Summary Prospectus dated February 1, 2020

This supplement provides new and additional information beyond that contained in the Prospectus and Summary Prospectus, and any previous supplements. It should be retained and read in conjunction with the Prospectus and Summary Prospectus, and any previous supplements.

*Effective November 1, 2020, the following information replaces similar information found under the heading **Average Annual Total Returns** in the section titled **Investments, Risks, and Performance** (on page 11 of the Prospectus):*

Average Annual Total Returns
(for the periods ended December 31, 2019)

	One Year	Five Years	Ten Years	
Class R5	Return Before Taxes	4.49%	2.46%	2.66%
	Return After Taxes on Distributions	3.11%	1.23%	1.56%
	Return After Taxes on Distributions and sales of Fund Shares	2.66%	1.34%	1.61%
Class I	Return Before Taxes	4.61%	2.55%	2.77%
Service Class	Return Before Taxes	4.36%	2.34%	2.57%
Administrative Class	Return Before Taxes	4.31%	2.23%	2.48%
Class A	Return Before Taxes	1.39%	1.47%	1.97%
Class R4	Return Before Taxes	4.13%	2.11%	2.30%
Class R3	Return Before Taxes	3.89%	1.80%	2.00%
Bloomberg Barclays U.S. Aggregate 1-3 Year Bond Index (reflects no deduction for fees, expenses, or taxes)⁽¹⁾	4.04%	1.69%	1.56%	
Bloomberg Barclays U.S. 1-3 Year Government Bond Index (reflects no deduction for fees, expenses, or taxes)	3.59%	1.40%	1.25%	

(1) Going forward, the Fund's performance benchmark index will be the Bloomberg Barclays U.S. Aggregate 1-3 Year Bond Index rather than the Bloomberg Barclays U.S. 1-3 Year Government Bond Index because the Bloomberg Barclays U.S. Aggregate 1-3 Year Bond Index more closely represents the Fund's investment strategy.

*Effective November 1, 2020, the following information supplements similar information found under the heading **Index Descriptions** (on page 132 of the Prospectus):*

The **Bloomberg Barclays U.S. Aggregate 1-3 Year Bond Index** measures the performance of investment grade, U.S. dollar-denominated, fixed-rate taxable bond market securities with maturities of 1-3 years, including Treasuries, government-related and corporate securities, mortgage-backed securities (MBS) (agency fixed-rate and hybrid ARM pass-throughs), asset-backed securities (ABS), and commercial mortgage-backed securities (CMBS). It rolls up into other Bloomberg Barclays flagship indexes, such as the multi-currency Global Aggregate Index and the U.S. Universal Index, which includes high yield and emerging markets debt. The Index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.

PLEASE RETAIN THIS SUPPLEMENT FOR FUTURE REFERENCE

**B3000M-20-05
SDB-20-01**

MASSMUTUAL PREMIER FUNDS
MassMutual Premier Balanced Fund
MassMutual Premier Disciplined Value Fund
MassMutual Premier Disciplined Growth Fund
Supplement dated September 24, 2020 to the
Prospectus dated February 1, 2020

This supplement provides new and additional information beyond that contained in the Prospectus and any previous supplements. It should be retained and read in conjunction with the Prospectus and any previous supplements.

*Effective on or about November 18, 2020, **Invesco Advisers, Inc.** (“Invesco”) will replace **Barings LLC** (“Barings”) as subadviser of the **MassMutual Premier Balanced Fund** (“Balanced Fund”). **Invesco Capital Management LLC** (“ICM”) will serve as sub-subadviser of the Fund.*

*Effective on or about November 18, 2020, **Wellington Management Company LLP** (“Wellington Management”) will replace **Barings** as subadviser of the **MassMutual Premier Disciplined Value Fund** (“Disciplined Value Fund”).*

*Effective on or about November 18, 2020, **Wellington Management** will replace **Barings** as subadviser of the **MassMutual Premier Disciplined Growth Fund** (“Disciplined Growth Fund”).*

*Effective on or about November 18, 2020, the following information replaces the information for the **Balanced Fund** found in the section titled **Investment Objective** on page 38:*

The Fund seeks a high total return.

*Effective on or about November 18, 2020, the following information replaces the information for the **Balanced Fund** found under the heading **Principal Investment Strategies** in the section titled **Investments, Risks, and Performance** beginning on page 38:*

The Fund seeks its investment objective by investing across different asset classes (U.S. equity securities and fixed income securities) each represented by a different segment of the Fund’s portfolio. Under normal market conditions, the Fund’s subadviser, *Invesco Advisers, Inc.*, and sub-subadviser, *Invesco Capital Management LLC* (together with *Invesco Advisers, Inc.*, “Invesco”), expect that 55%-75% of the Fund’s net assets will be invested in U.S. equity securities (the “U.S. Equity Segment”) and 25%-45% of the Fund’s net assets will be invested in fixed income securities (the “Bond Segment”) that meet certain environmental, social, and governance (“ESG”) criteria as described below. The Fund will target a long term strategic allocation of 65% to the U.S. Equity Segment and 35% to the Bond Segment. Invesco will periodically rebalance the portfolio back to these strategic weights. The Fund may at times have significant exposure to one or more industries or sectors. The Fund may hold a portion of its assets in cash or cash equivalents.

Using an indexing strategy, Invesco generally will invest at least 80% of the Fund’s assets allocated to the U.S. Equity Segment in the equity securities of companies included within the Invesco US Multi-Factor ESG 150 Index* (the “Invesco Index”). Invesco Indexing LLC, an affiliate of Invesco, serves as the index provider for the Invesco Index.

The Invesco Index employs a factor-based model and is designed to select equity securities of U.S. large- and mid-capitalization companies that meet high ESG standards. The Invesco Index includes constituents of the Invesco Indexing Investable Universe (the “Investable Universe”) that are designated as U.S. large- or mid-capitalization securities in accordance with the Investable Universe methodology. Each eligible security is categorized by sector and assigned a score using a system established by Sustainalytics US Inc. (“Sustainalytics”), a third-party research provider that measures the strength of each pillar of ESG practices (the “ESG Score”). The top 75% of companies based on their ESG Scores within each sector, excluding those in the tobacco, aerospace, coal, and pipeline industries, those in the bottom 10% by overall ESG Score, or those with a detrimental score for controversies, remain eligible for inclusion in the Invesco Index. Those remaining eligible securities are assigned a factor-based model score (the “Model Score”), which is computed by equal risk weighting the following individual factor scores:

Quality. A company’s quality factor score is based on an equally-weighted composite of three metrics: management quality (measured by the average quarterly percentage change in shares outstanding over the previous three years), earnings quality (measured by dividing the most recent year’s operating cash

flow by the most recent year's earnings), and operating quality (measured by dividing the most recent year's aggregate gross income by the most recent year's average total assets).

Value. A company's value factor score is based on an equally-weighted composite of free cash flow yield, earnings yield, and book value of equity yield generally and for banks is based on earnings yield and book value of equity yield and for real estate companies is based on earnings yield, book value of equity yield, and funds from operations yield. Free cash flow yield, funds from operations yield, and earnings yield are measured over the previous year while book value yield is based on the most recent financial statement.

Price Momentum. A company's price momentum factor score is based on the average monthly total return over the past nine months, excluding the most recent month, divided by the standard error of those total returns.

Low Volatility. A company's low volatility factor score is based on the standard deviation of monthly total returns to a company's stock price for the most recent 36-month period.

The top 150 securities based on their Model Scores are included in the Invesco Index. Invesco Index constituents generally are weighted based on their market capitalizations and Model Scores. These weights are adjusted to ensure that each constituent and the Invesco Index as a whole satisfy certain constraints with respect to sector exposure, maximum security weights, and minimum security weights, as compared to a float-adjusted, market-capitalization weighted benchmark comprised of all of the U.S. large- or mid-capitalization securities of the Investable Universe. The Invesco Index is rebalanced effective the third Friday in June and December. In addition, Invesco Index maintenance is performed effective the third Friday in March and September, during which constituents may be removed if they are no longer constituents of the Investable Universe, are within the bottom 10% by ESG Score, or have a detrimental score for controversies. The U.S. Equity Segment is rebalanced and maintained in accordance with the Invesco Index, meaning that it will buy and sell securities in response to changes in the Invesco Index.

Although the U.S. Equity Segment generally will invest in substantially all of the securities comprising the Invesco Index in proportion to their weightings in the Invesco Index, under various circumstances it may not be possible or practicable to purchase all of those securities in those same weightings. In those circumstances, the U.S. Equity Segment may hold cash or purchase a sample of the securities in the Invesco Index. When it relies on a "sampling" methodology, Invesco uses quantitative analysis to select securities from the Invesco Index universe to obtain a representative sample of securities that has, overall, investment characteristics similar to the Invesco Index in terms of key risk factors, performance attributes, and other characteristics such as industry weightings, market capitalization, return variability, earnings valuation, yield, and other financial characteristics of securities. When employing a sampling methodology, Invesco bases the number of the holdings in the U.S. Equity Segment on a number of factors, including asset size of the U.S. Equity Segment, and generally expects the U.S. Equity Segment to hold fewer than the total number of securities in the Invesco Index. However, Invesco reserves the right to invest in as many securities as it believes necessary to achieve the Fund's investment objective. The U.S. Equity Segment may invest in common stocks, preferred stocks, exchange-traded funds ("ETFs"), or other equity securities. The U.S. Equity Segment may use futures contracts, a type of derivative, to seek performance that corresponds to the Invesco Index and/or to manage cash flows. Use of futures contracts by the U.S. Equity Segment may create investment leverage.

Fixed income securities in which the Bond Segment invests primarily include U.S. dollar-denominated debt securities that are rated investment grade at the time of purchase, meaning that they will be rated Baa3 or higher by Moody's, BBB- or higher by Standard & Poor's or the equivalent by any NRSRO. Debt securities in which the Bond Segment invests may include domestic and foreign corporate debt obligations, domestic and foreign government debt obligations, including U.S. Government securities, mortgage-related securities, asset-backed securities, and other debt obligations. The Bond Segment may also invest in unrated securities in which case Invesco may internally assign ratings to certain of those securities, after assessing their credit quality, in investment grade categories similar to those of NRSROs. There can be no assurance, nor is it intended, that Invesco's credit analysis is consistent or comparable with the credit analysis process used by an NRSRO. In the event that a security receives different ratings from different NRSROs, the Bond Segment will treat the security as being rated in the highest rating category received from an NRSRO. The

Bond Segment may invest in illiquid or thinly traded securities. The Bond Segment may also invest in securities that are subject to resale restrictions such as those contained in Rule 144A. The Bond Segment may invest up to 5% its assets in securities below investment grade (“junk” or “high yield” bonds), including securities in default. In the event that a security is downgraded after its purchase by the Bond Segment, the Bond Segment may continue to hold the security if Invesco considers that doing so would be consistent with the Fund’s investment objective. The Bond Segment may also enter into dollar roll transactions.

The Bond Segment may invest a portion of its assets in foreign debt securities, including securities issued by foreign governments or companies in both developed and emerging markets. The Bond Segment may not invest more than 20% of its net assets in foreign debt securities.

The Bond Segment has no limitations on the range of maturities of the debt securities in which it can invest and may hold securities with short-, medium-, or long-term maturities. The maturity of a security differs from its effective duration, which attempts to measure the expected volatility of a security’s price to interest rate changes. The Bond Segment may but will not necessarily engage in treasury futures contracts in order to seek to enhance the Fund’s investment return or to try to manage investment risks. Use of treasury futures contracts by the Bond Segment may create investment leverage.

Invesco selects investments for the Bond Segment based on its analysis of opportunities and risks of various fixed income securities and market sectors by focusing on business cycle analysis and relative values between corporate and government sectors. The Bond Segment mainly seeks income earnings on its investments plus capital appreciation that may arise from decreases in interest rates, from improving credit fundamentals for a particular sector or security, or from other investment techniques. Invesco may sell securities that it believes no longer meet the above criteria.

Additionally, as part of the credit selection and portfolio construction process, Invesco employs a proprietary framework for evaluating each issuer based on ESG criteria that, with respect to the Bond Segment, it has determined to be important in the investment selection process. Invesco has developed an ESG risk evaluation that is integrated into its core fundamental credit research process. As part of this process, corporate and government issuers are evaluated and assigned an overall ESG score based on separate “E,” “S,” and “G” factor scores, which are derived using a proprietary scoring system that involves a quantitative and qualitative assessment of “E,” “S,” and “G” factors. As part of this research process, Invesco may use third-party ESG ratings, company reporting, and engagement with management. If an issuer is determined by Invesco to have an overall ESG score that meets the applicable threshold that Invesco has established for that type of issuer, securities issued by it will be considered as a potential investment for the Bond Segment.

The ESG evaluation process for the Bond Segment also includes some exclusionary screening criteria which are intended to avoid investing in companies that are non-compliant with the UN Global Compact as well as companies that derive a significant portion of their revenue from: tobacco product manufacturing or distribution; extraction of fossil fuels from oil sands; mining or distribution of thermal coal; alcohol manufacturing or distribution; military contracting; manufacture of small arms including civilian firearms; provision of gambling products or services; or the provision of adult entertainment products or services. Additionally, companies involved in the following at any threshold are excluded: manufacture of nonconventional weapons including landmines and cluster munitions; or manufacture of nuclear, biological, or chemical weapons.

Invesco will monitor the “E,” “S,” and “G” factors of the Bond Segment’s holdings. If Invesco determines that a security’s overall ESG score has ceased to meet its threshold for inclusion in the Bond Segment, Invesco may sell that security, provided it can do so in an orderly manner given then-prevailing market conditions.

The Fund expects that it will engage in active and frequent trading and so will typically have a relatively high portfolio turnover rate.

* The “Invesco US Multi-Factor ESG 150 Index” and “Invesco Indexing” are the property of Invesco Indexing LLC and have been licensed for use by Invesco Capital Management LLC (“ICM”).

The shares (“Shares”) of the Fund (the “Product”) are not sponsored, endorsed, sold, or promoted by Invesco Indexing LLC (“Licensor”). Licensor makes no representation or warranty, express or implied, to the owners of the Shares or any member of the public regarding the advisability of investing in securities generally or in the Shares particularly or the ability of the Invesco US Multi-Factor ESG 150 Index to track general stock market performance. Licensor is an affiliate of ICM and Invesco and its relationship to ICM and Invesco includes the licensing of certain trademarks and trade names of Licensor and of the Invesco US Multi-Factor ESG 150 Index which is determined, composed, and calculated by Licensor without regard to ICM, Invesco, the Product, or the Shares. Licensor has no obligation to take the needs of the Licensee or the owners of the Shares into consideration in determining, composing, or calculating the Invesco US Multi-Factor ESG 150 Index. Licensor is not responsible for and has not participated in any determination or calculation made with respect to issuance or redemption of the Shares. Licensor has no obligation or liability in connection with the administration, marketing, or trading of the Shares.

Licensor does not guarantee the accuracy and/or the completeness of the Invesco US Multi-Factor ESG 150 Index and/or any data included therein. Licensor makes no warranty, express or implied, as to results to be obtained by ICM, Invesco, the Product, or any owner of the Shares, or any other person or entity from the use of the Invesco US Multi-Factor ESG 150 Index or any data included therein in connection with the rights licensed hereunder or for any other use.

Licensor makes no express or implied warranties, and hereby expressly disclaims all warranties of merchantability or fitness for a particular purpose with respect to the Invesco US Multi-Factor ESG 150 Index or any data included therein. Without limiting any of the foregoing, in no event shall Licensor have any liability for any special, punitive, indirect, or consequential damages (including lost profits), even if notified of the possibility of such damages.

*Effective on or about November 18, 2020, the paragraphs labeled “**Bank Loans Risk**,” “**Convertible Securities Risk**,” “**Growth Company Risk**,” “**Quantitative Models Risk**,” “**Repurchase Agreement Risk**,” “**Sovereign Debt Obligations Risk**,” and “**Value Company Risk**” under the heading **Principal Risks** in the section titled **Investments, Risks, and Performance** beginning on page 40 are hereby deleted in full for the **Balanced Fund**.*

*Effective on or about November 18, 2020, the following information supplements the information for the **Balanced Fund** found under the heading **Principal Risks** in the section titled **Investments, Risks, and Performance** beginning on page 40:*

ESG Risk Because the Invesco Index and the Bond Segment use ESG factors to assess and exclude certain investments for non-financial reasons, the Fund may forego some market opportunities available to funds that do not use these factors. The securities of companies with favorable ESG scores may underperform similar companies that do not score as well or may underperform the stock market as a whole. As a result, the Fund may underperform funds that do not screen or score companies based on ESG factors or funds that use a different ESG methodology. Information used to evaluate such ESG factors may not be readily available, complete, or accurate, which could negatively impact the Fund’s performance. In addition, a company’s ESG score may differ from that assigned by other funds or an investor. As a result, the companies deemed eligible for inclusion in the Fund’s portfolio may not reflect the beliefs or values of any particular investor and may not be deemed to exhibit positive or favorable ESG characteristics if different metrics were used to evaluate them.

Indexing Risk The U.S. Equity Segment’s performance may not track the performance of the Invesco Index due to a number of factors, including fees and expenses of the Fund, the Fund’s cash positions, and differences between securities held by the Fund and the securities comprising the Invesco Index resulting from legal restrictions, costs, or liquidity constraints, especially during times when a sampling methodology is used.

Passive Management Risk With an indexing strategy, there is no attempt to seek returns in excess of a benchmark index, to use defensive strategies, or to reduce the effects of any long-term poor investment performance. Therefore, with respect to the U.S. Equity Segment, the Fund would not necessarily buy or sell a security unless that security is added or removed, respectively, from the Invesco Index, even if that security generally is underperforming.

*Effective on or about November 18, 2020, the following information replaces the paragraph labeled “**Dollar Roll and Reverse Repurchase Agreement Transaction Risk**” for the **Balanced Fund** found under the heading **Principal Risks** in the section titled **Investments, Risks, and Performance** on page 42:*

Dollar Roll Risk Dollar roll transactions generally create leverage and subject the Fund to the credit risk of the counterparty.

*Effective on or about November 18, 2020 the following information replaces similar information for the Balanced Fund found under the heading **Performance Information** in the section titled **Investments, Risks, and Performance** on page 44:*

The following bar chart and table provide some indication of the risks of investing in the Fund. The bar chart shows changes in the Fund's performance from year to year for Class R5 shares. The table shows how the Fund's average annual returns for 1, 5, and 10 years compare with those of a broad measure of market performance and three additional indexes, including an index that provides a comparison relevant to the Fund's allocation to fixed income investments (Bloomberg Barclays U.S. Aggregate Bond Index), an index of funds with similar investment objectives (Lipper Balanced Fund Index), and a hypothetical custom index which comprises the S&P 500 (65%) and Bloomberg Barclays U.S. Aggregate Bond (35%) Indexes (Custom Balanced Index). The Fund's investment objective and investment strategy changed on or about November 18, 2020. The performance results shown below would not necessarily have been achieved had the Fund's current investment strategy been in effect for the entire period for which performance results are presented. Performance for Class I, Class R4, and Class R3 shares of the Fund for periods prior to their inception date (04/01/14) is based on the performance of Class R5 shares, adjusted for Class R4 and Class R3 shares to reflect Class R4 and Class R3 expenses, respectively. Performance for Class A shares of the Fund reflects any applicable sales charge. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future. More up-to-date performance information is available at <http://www.massmutual.com/funds> or by calling 1-888-309-3539.

*Effective on or about November 18, 2020, the following information replaces similar information for the Balanced Fund found under the heading **Average Annual Total Returns** in the section titled **Investments, Risks, and Performance** on page 45:*

	<u>One Year</u>	<u>Five Years</u>	<u>Ten Years</u>
Custom Balanced Index (reflects no deduction for fees, expenses, or taxes)	23.33%	8.80%	10.25%

*Effective on or about November 18, 2020, the information regarding the MSCI EAFE Index for the Balanced Fund found under the heading **Average Annual Total Returns** in the section titled **Investments, Risks, and Performance** on page 45 is hereby deleted.*

*Effective on or about November 18, 2020, the following information replaces the information for the Balanced Fund found under the headings **Subadviser** and **Portfolio Managers** in the section titled **Management** on page 45:*

Subadviser(s): Invesco Advisers, Inc. ("Invesco")

Sub-subadviser(s): Invesco Capital Management LLC ("ICM")

Portfolio Manager(s):

Jacob Borbidge, CFA, CAIA is a Senior Portfolio Manager and Head of Investment Research at Invesco. He has managed the Fund since November 2020.

Matt Brill, CFA is a Senior Portfolio Manager at Invesco. He has managed the Fund since November 2020.

Pratik Doshi, CFA is a Portfolio Manager at Invesco. He has managed the Fund since November 2020.

Peter Hubbard is a Director of Portfolio Management at Invesco. He has managed the Fund since November 2020.

Michael D. Hyman is Chief Investment Officer, Global Investment Grade & Emerging Markets for Invesco Fixed Income at Invesco. He has managed the Fund since November 2020.

Michael Jeanette is a Senior Portfolio Manager at Invesco. He has managed the Fund since November 2020.

Duy Nguyen, CFA, CAIA is Chief Investment Officer and a Senior Portfolio Manager, Invesco Investment Solutions at Invesco. He has managed the Fund since November 2020.

Todd Schomberg, CFA is a Senior Portfolio Manager at Invesco. He has managed the Fund since November 2020.

Tony Seisser is a Portfolio Manager at Invesco. He has managed the Fund since November 2020.

*Effective on or about November 18, 2020, the following information replaces the information for the Disciplined Value Fund found in the section titled **Investment Objective** on page 46:*

The Fund seeks long-term total return.

*Effective on or about November 18, 2020, the following information replaces the information for the Disciplined Value Fund found under the heading **Principal Investment Strategies** in the section titled **Investments, Risks, and Performance** beginning on page 46:*

The Fund invests primarily in equity securities of U.S. large- and mid-cap companies. The Fund currently invests substantially all of its assets in companies represented in the MSCI USA Value Index at the time of purchase, although the Fund is actively managed and is not an index fund or a passively managed investment. Constituents of the MSCI USA Value Index are companies that exhibit certain value characteristics, as defined by the index provider, such as lower price-to-book ratios, lower prices relative to forecasted earnings, and higher dividend yields. As of August 31, 2020, the market capitalization range of companies included in the MSCI USA Value Index was \$2.2 billion to \$404.2 billion.

Equity securities in which the Fund invests may include common stocks, preferred stocks, securities convertible into common or preferred stock, rights, and warrants. The Fund may hold a portion of its assets in unlisted securities. The Fund may invest in exchange-traded funds and may use equity index futures contracts as a substitute for direct investments in order to help manage cash flows. Use of derivatives by the Fund may create investment leverage. The Fund may at times have significant exposure to one or more industries or sectors. The Fund may hold a portion of its assets in cash or cash equivalents.

The Fund's subadviser, *Wellington Management Company LLP* ("Wellington Management"), manages the Fund's assets using a proprietary, dynamic multi-factor approach that is based on quantitative and qualitative research and analysis. In selecting securities, Wellington Management seeks to allocate the Fund's assets to equity securities that it believes share complementary factor exposures. Factors are characteristics that are important in explaining the returns and risks of a group of securities. Typical factors that Wellington Management uses to select equity securities for the Fund are: (1) mean-reversion (e.g., stocks that are inexpensive relative to their historical fundamentals); (2) trend following (e.g., strong momentum and higher growth potential); (3) risk aversion (e.g., financially healthy, stable, and lower volatility companies); and (4) risk seeking (e.g., stocks that are typically more volatile, but may play an important role in overall portfolio diversification). Securities are typically sold as a byproduct of the factor selection, allocation, and rebalancing processes. In exceptional circumstances, Wellington Management may exclude or remove an issuer or security from the Fund where it believes the data available does not accurately reflect current events.

The Fund expects that it will engage in active and frequent trading and so will typically have a relatively high portfolio turnover rate.

*Effective on or about November 18, 2020, the paragraph labeled "**Indexing Risk**" under the heading **Principal Risks** in the section titled **Investments, Risks, and Performance** on page 47 is hereby deleted in full for the Disciplined Value Fund.*

*Effective on or about November 18, 2020, the following information supplements the information for the Disciplined Value Fund found under the heading **Principal Risks** in the section titled **Investments, Risks, and Performance** beginning on page 47:*

Small and Mid-Cap Company Risk Market risk and liquidity risk are particularly pronounced for securities of small and medium-sized companies, which may trade less frequently and in smaller volumes than more widely-held securities, and may fluctuate in price more than other securities. Their shares can be less liquid than those of larger companies, especially during market declines. Small and medium-sized companies may have limited product lines, markets, or financial resources and may be dependent on a limited management group; they may have been recently organized and have little or no track record of success.

Risk of Investment in Other Funds or Pools The Fund is indirectly exposed to all of the risks of the underlying funds, including ETFs, in which it invests, including the risk that the underlying funds will not perform as expected. The Fund indirectly pays a portion of the expenses incurred by the underlying funds.

*Effective on or about November 18, 2020, the following information replaces the information for the Disciplined Value Fund found under the headings **Subadviser** and **Portfolio Managers** in the section titled **Management** on page 49:*

Subadviser(s): Wellington Management Company LLP (“Wellington Management”)

Portfolio Manager(s):

Tom S. Simon, CFA, FRM is a Senior Managing Director and Portfolio Manager at Wellington Management. He has managed the Fund since November 2020.

Gregg R. Thomas, CFA is a Senior Managing Director and Director of Investment Strategy at Wellington Management. He has managed the Fund since November 2020.

*Effective on or about November 18, 2020, the following information replaces the information for the Disciplined Growth Fund found in the section titled **Investment Objective** on page 55:*

The Fund seeks long-term total return.

*Effective on or about November 18, 2020, the following information replaces the information for the Disciplined Growth Fund found under the heading **Principal Investment Strategies** in the section titled **Investments, Risks, and Performance** beginning on page 55:*

The Fund invests primarily in equity securities of U.S. large- and mid-cap companies. The Fund currently invests substantially all of its assets in companies represented in the MSCI USA Growth Index at the time of purchase, although the Fund is actively managed and is not an index fund or a passively managed investment. Constituents of the MSCI USA Growth Index are companies that exhibit certain growth characteristics, as defined by the index provider, such as historical and predicted future earnings per share growth rates and trends, historical sales per share growth trends, and internal growth rate. As of August 31, 2020, the market capitalization range of companies included in the MSCI USA Growth Index was \$2.1 billion to \$2,258.4 billion.

Equity securities in which the Fund invests may include common stocks, preferred stocks, securities convertible into common or preferred stock, rights, and warrants. The Fund may hold a portion of its assets in unlisted securities. The Fund may invest in exchange-traded funds and may use equity index futures contracts as a substitute for direct investments in order to help manage cash flows. Use of derivatives by the Fund may create investment leverage. The Fund may at times have significant exposure to one or more industries or sectors. The Fund may hold a portion of its assets in cash or cash equivalents.

The Fund’s subadviser, *Wellington Management Company LLP* (“Wellington Management”), manages the Fund’s assets using a proprietary, dynamic multi-factor approach that is based on quantitative and qualitative research and analysis. In selecting securities, Wellington Management seeks to allocate the Fund’s assets to equity securities that it believes share complementary factor exposures. Factors are characteristics that are important in explaining the returns and risks of a group of securities. Typical factors that Wellington Management uses to select equity securities for the Fund are: (1) mean-reversion (e.g., stocks that are inexpensive relative to their historical fundamentals); (2) trend following (e.g., strong momentum and higher growth potential); (3) risk aversion (e.g., financially healthy, stable, and lower volatility companies); and (4) risk seeking (e.g., stocks that are typically more volatile, but may play an important role in overall portfolio diversification). Securities are typically sold as a byproduct of the factor selection, allocation, and rebalancing processes. In exceptional circumstances, Wellington Management may exclude or remove an issuer or security from the Fund where it believes the data available does not accurately reflect current events.

The Fund expects that it will engage in active and frequent trading and so will typically have a relatively high portfolio turnover rate.

*Effective on or about November 18, 2020, the paragraph labeled “**Indexing Risk**” under the heading **Principal Risks** in the section titled **Investments, Risks, and Performance** on page 56 is hereby deleted in full for the Disciplined Growth Fund.*

*Effective on or about November 18, 2020, the following information supplements the information for the Disciplined Growth Fund found under the heading **Principal Risks** in the section titled **Investments, Risks, and Performance** beginning on page 56:*

Small and Mid-Cap Company Risk Market risk and liquidity risk are particularly pronounced for securities of small and medium-sized companies, which may trade less frequently and in smaller volumes than more widely-held securities, and may fluctuate in price more than other securities. Their shares can be less liquid than those of larger companies, especially during market declines. Small and medium-sized companies may have limited product lines, markets, or financial resources and may be dependent on a limited management group; they may have been recently organized and have little or no track record of success.

Risk of Investment in Other Funds or Pools The Fund is indirectly exposed to all of the risks of the underlying funds, including ETFs, in which it invests, including the risk that the underlying funds will not perform as expected. The Fund indirectly pays a portion of the expenses incurred by the underlying funds.

*Effective on or about November 18, 2020, the following information replaces the information for the Disciplined Growth Fund found under the headings **Subadviser** and **Portfolio Managers** in the section titled **Management** on page 58:*

Subadviser(s): Wellington Management Company LLP (“Wellington Management”)

Portfolio Manager(s):

Tom S. Simon, CFA, FRM is a Senior Managing Director and Portfolio Manager at Wellington Management. He has managed the Fund since November 2020.

Gregg R. Thomas, CFA is a Senior Managing Director and Director of Investment Strategy at Wellington Management. He has managed the Fund since November 2020.

*Effective on or about November 18, 2020, the following information supplements the information found beginning on page 82 in the section titled **Additional Information Regarding Principal Risks**:*

- **ESG Risk**

With respect to the Balanced Fund, because the Invesco Index and the Bond Segment use ESG factors to assess and exclude certain investments for non-financial reasons, the Fund may forego some market opportunities available to funds that do not use these factors. The securities of companies with favorable ESG scores may underperform similar companies that do not score as well or may underperform the stock market as a whole. As a result, the Fund may underperform funds that do not screen or score companies based on ESG factors or funds that use a different ESG methodology. Information used to evaluate such ESG factors may not be readily available, complete, or accurate, which could negatively impact the Fund’s performance. In addition, a company’s ESG score may differ from that assigned by other funds or an investor. As a result, the companies deemed eligible for inclusion in the Fund’s portfolio may not reflect the beliefs or values of any particular investor and may not be deemed to exhibit positive or favorable ESG characteristics if different metrics were used to evaluate them.

- **Passive Management Risk**

Unlike many investment companies that are “actively managed,” the U.S. Equity Segment of the Balanced Fund is a “passive” investor and therefore does not utilize an investing strategy that seeks returns in excess of the Invesco Index. Therefore, the U.S. Equity Segment would not necessarily buy or sell a security unless that security is added or removed, respectively, from the Invesco Index, even if that security generally is underperforming. If a specific security is removed from the Invesco Index, the Fund may be forced to sell such security at an inopportune time or for a price lower than the security’s current market value. The Invesco Index may not contain the appropriate mix of securities for any particular economic cycle. Additionally, the U.S. Equity Segment rebalances its portfolio in accordance with the Invesco Index, and, therefore, any changes to the Invesco Index’s rebalance schedule will result in corresponding changes to the U.S. Equity Segment’s rebalance schedule. Further, unlike with an actively managed fund, the Invesco does not use techniques or defensive strategies designed to lessen the impact of periods of market volatility or market decline. This means that, based on certain market and economic conditions, the U.S. Equity Segment’s performance could be lower than other types of funds with investment advisers that actively manage their portfolio assets to take advantage of market opportunities or defend against market events.

*Effective on or about November 18, 2020, the following information replaces similar information found on page 90 in the section titled **Additional Information Regarding Principal Risks**:*

- **Indexing Risk**

There are several reasons why the performance of the U.S. Equity Segment of the Balanced Fund may not track the performance of the Invesco Index. For example, the Fund incurs a number of operating expenses not applicable to the Invesco Index, and incurs costs in buying and selling securities. The U.S. Equity Segment may not be fully invested at times, either as a result of cash flows into the Fund or reserves of cash held by the Fund to meet redemptions. The return on the sample of securities purchased by the investment adviser, subadviser, or sub-subadviser, or futures or other derivative positions taken by the investment adviser, subadviser, or sub-subadviser, to replicate the performance of the Invesco Index may not correlate precisely with the return on the Invesco Index. Differences between securities held by the U.S. Equity Segment and the securities comprising the Invesco Index may result from legal restrictions, costs, or liquidity constraints, especially during times when a sampling methodology is used.

*Effective on or about November 18, 2020, information related to the **Balanced Fund, Disciplined Value Fund, Disciplined Growth Fund, Chris C. Cao, and Michael F. Farrell** found under Barings on pages 98 — 100 under the heading **Subadvisers and Portfolio Managers** in the section titled **Management of the Funds** is hereby deleted.*

*Effective on or about November 18, 2020, the following information replaces similar information for Invesco found on page 100 under the heading **Subadvisers and Portfolio Managers** in the section titled **Management of the Funds**:*

Invesco Advisers, Inc. (“Invesco”), located at 1555 Peachtree Street, N.E., Atlanta, Georgia 30309, manages the investments of the **Balanced Fund, Main Street Fund, Small Cap Opportunities Fund, Global Fund, and Strategic Emerging Markets Fund**. Invesco is an indirect wholly-owned subsidiary of Invesco Ltd., a publicly traded company that, through its subsidiaries, engages in the business of investment management on an international basis. In addition, Invesco Capital Management LLC (“ICM”) serves as sub-subadviser for the **Balanced Fund** and subject to the supervision of Invesco, is authorized to trade securities and make discretionary investment decisions on behalf of the Fund. ICM is a wholly-owned subsidiary of Invesco Ltd. and its address is 3500 Lacey Road, Suite 700, Downers Grove, Illinois 60515. As of August 31, 2020, Invesco had approximately \$1.2 trillion in assets under management.

Invesco replaced OFI Global Institutional, Inc. as the subadviser of the Main Street Fund, Small Cap Opportunities Fund, and Strategic Emerging Markets Fund, and replaced OppenheimerFunds, Inc. as the subadviser of the Global Fund at the close of business on May 24, 2019.

Invesco will replace Barings as the subadviser of the Balanced Fund on or about November 18, 2020.

*Effective on or about November 18, 2020, the following information supplements the information for Invesco beginning on page 100 under the heading **Subadvisers and Portfolio Managers** in the section titled **Management of the Funds**:*

Jacob Borbidge, CFA, CAIA _____

is a co-portfolio manager of the *Balanced Fund*. Mr. Borbidge is a portfolio manager at Invesco. He has been associated with Invesco and/or its affiliates since 2004. Prior to 2004, he was a mechanical engineer at ExxonMobil.

Matt Brill, CFA _____

is a co-portfolio manager of the *Balanced Fund*. Mr. Brill is a portfolio manager at Invesco. He has been associated with Invesco and/or its affiliates since 2013. Prior to 2013, he was a portfolio manager and vice president at ING Investment Management, where he specialized in investment grade credit and commercial mortgage-backed securities. Prior to that he was a portfolio analyst at Wells Real Estate Funds. He entered the industry in 2002.

Pratik Doshi, CFA _____

is a co-portfolio manager of the *Balanced Fund*. Mr. Doshi is a portfolio manager for ETFs and indexed strategies at Invesco. He has been associated with Invesco and/or its affiliates since 2018 where he implemented active and passive-based strategies across Invesco's commodity, alternatives, and equity ETF lineup. Prior to 2018, he held roles at Saltspring Capital and Gofen and Glossberg. Prior to that, he was a vice president at Bank of America Merrill Lynch. Mr. Doshi entered the financial services industry in 2005 as an analyst at UBS Investment Bank.

Peter Hubbard _____

is a co-portfolio manager of the *Balanced Fund*. Mr. Hubbard is a portfolio manager for ETFs and indexed strategies at Invesco. He has been associated with Invesco and/or its affiliates since 2005. Prior 2005, he was a research analyst at Ritchie Capital, a hedge fund operator.

Michael D. Hyman _____

is a co-portfolio manager of the *Balanced Fund*. Mr. Hyman is Chief Investment Officer, Global Investment Grade & Emerging Markets for Invesco Fixed Income at Invesco. He has been associated with Invesco and/or its affiliates since 2013. Prior to 2013, he was with ING Investment Management and ING Institutional Markets for 12 years as the head of investment grade corporate credit. Prior to joining ING, Mr. Hyman was a director of capital markets for GE Capital and held trading and risk-management positions at various global banks. He entered the industry in 1991.

Michael Jeanette _____

is a co-portfolio manager of the *Balanced Fund*. Mr. Jeanette is a portfolio manager for ETFs and indexed strategies at Invesco. He has been associated with Invesco and/or its affiliates since 2008. Prior to 2008, he held a management position with a trust advisory firm in the private sector. Prior to this, he managed the retail investment business for several US Bancorp (formerly First Bank System) locations in Minneapolis. He began his career as a financial adviser with Shearson Lehman Brothers and Morgan Stanley Smith Barney (formerly Smith Barney).

Duy Nguyen, CFA, CAIA _____

is a co-portfolio manager of the *Balanced Fund*. Mr. Nguyen is Chief Investment Officer and a portfolio manager of the Invesco Investment Solutions team at Invesco, which provides customized multi-asset investment strategies for institutional and retail clients. He has been associated with Invesco and/or its affiliates since 2000. Prior to 2000, Mr. Nguyen served as assistant vice president and quantitative equity analyst for Van Kampen American Capital, as well as vice president and director of quantitative services of FactSet Research Systems, Inc.

Todd Schomberg, CFA _____

is a co-portfolio manager of the *Balanced Fund*. Mr. Schomberg is a portfolio manager at Invesco. He has been associated with Invesco and/or its affiliates since 2016. Prior to 2016, Mr. Schomberg was a portfolio manager and vice president for Voya Investment Management. Before joining Voya Investment Management, he was a senior fixed income analyst with Wells Capital Management.

Tony Seisser _____

is a co-portfolio manager of the *Balanced Fund*. Mr. Seisser is an equity portfolio manager for ETFs and indexed strategies at Invesco. He has been associated with Invesco and/or its affiliates since 2013. Prior to 2013, he was employed by Guggenheim Funds Distributors, Inc. as a global ETF trader.

Before that, he was a compliance investigator at the Chicago Board Options Exchange and CBOE Futures Exchange. Prior to that, Mr. Seisser had a career as a single-stock and ETF market maker on the floor of the Chicago Stock Exchange. He entered the industry in 1990.

*Effective on or about November 18, 2020, the following information replaces similar information for Wellington Management found under the heading **Subadvisers and Portfolio Managers** in the section titled **Management of the Funds** beginning on page 98:*

Wellington Management Company LLP (“Wellington Management”), a Delaware limited liability partnership with principal offices located at 280 Congress Street, Boston, Massachusetts 02210, manages the investments of the **Disciplined Value Fund** and **Disciplined Growth Fund**, and a portion of the portfolio of the **International Equity Fund**. Wellington Management is a professional investment counseling firm which provides investment services to investment companies, employee benefit plans, endowments, foundations, and other institutions. Wellington Management and its predecessor organizations have provided investment advisory services for over 80 years. Wellington Management is owned by the partners of Wellington Management Group LLP, a Massachusetts limited liability partnership. As of July 31, 2020, Wellington Management and its investment advisory affiliates had investment management authority with respect to over \$1.1 trillion in assets.

Wellington Management replaced Invesco as a subadviser of the International Equity Fund on August 4, 2020.

Wellington Management will replace Barings as the subadviser of the Disciplined Value Fund and Disciplined Growth Fund on or about November 18, 2020.

*Effective on or about November 18, 2020, the following information supplements the information for Wellington Management found under the heading **Subadvisers and Portfolio Managers** in the section titled **Management of the Funds** beginning on page 98:*

Tom S. Simon, CFA, FRM _____

has served as a portfolio manager of the **Disciplined Value Fund** and **Disciplined Growth Fund** since 2020. Mr. Simon is a Senior Managing Director and Portfolio Manager of Wellington Management and joined the firm as an investment professional in 2009.

Gregg R. Thomas, CFA _____

has served as a portfolio manager of the **Disciplined Value Fund** and **Disciplined Growth Fund** since 2020. Mr. Thomas is a Senior Managing Director and Director of Investment Strategy of Wellington Management and joined the firm as an investment professional in 2002.

*Effective on or about November 18, 2020, the following information replaces similar information found in the section titled **Index Descriptions** on page 132:*

The **Custom Balanced Index** comprises the S&P 500 and Bloomberg Barclays U.S. Aggregate Bond Indexes. The weightings of each index are 65% and 35%, respectively. The Index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.

*Effective on or about November 18, 2020, the information related to the **MSCI EAFE Index** found in the section titled **Index Descriptions** on page 132 is hereby removed.*

PLEASE RETAIN THIS SUPPLEMENT FOR FUTURE REFERENCE

B3000M-20-04

MASSMUTUAL PREMIER FUNDS
MassMutual Premier U.S. Government Money Market Fund
MassMutual Premier Short-Duration Bond Fund
MassMutual Premier Inflation-Protected and Income Fund
MassMutual Premier Core Bond Fund
MassMutual Premier Diversified Bond Fund
MassMutual Premier High Yield Fund
MassMutual Premier Balanced Fund
MassMutual Premier Disciplined Value Fund
MassMutual Premier Main Street Fund
MassMutual Premier Disciplined Growth Fund
MassMutual Premier Small Cap Opportunities Fund
MassMutual Premier Global Fund
MassMutual Premier International Equity Fund
MassMutual Premier Strategic Emerging Markets Fund
Supplement dated July 1, 2020 to the
Prospectus dated February 1, 2020 and the
MassMutual Premier International Equity Fund
Summary Prospectus dated February 1, 2020

This supplement provides new and additional information beyond that contained in the Prospectus and Summary Prospectus, and any previous supplements. It should be retained and read in conjunction with the Prospectus and Summary Prospectus, and any previous supplements.

*Effective July 1, 2020, the following information replaces similar information for the **Premier International Equity Fund** under the heading **Annual Fund Operating Expenses** in the section titled **Fees and Expenses of the Fund** (page 69 of the Prospectus):*

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Management Fees ⁽¹⁾83%	.83%	.83%	.83%	.83%	.83%	.83%
Distribution and Service (Rule 12b-1) Fees . . .	None	None	None	None	.25%	.25%	.50%
Other Expenses . . . . .	.08%	.18%	.28%	.38%	.38%	.28%	.28%
Total Annual Fund Operating Expenses . . . . .	.91%	1.01%	1.11%	1.21%	1.46%	1.36%	1.61%
Fee Waiver	(.02%)	(.02%)	(.02%)	(.02%)	(.02%)	(.02%)	(.02%)
Total Annual Fund Operating Expenses after Fee Waiver ⁽²⁾89%	.99%	1.09%	1.19%	1.44%	1.34%	1.59%

(1) Management Fees have been restated to reflect current fees.

(2) MML Advisers has agreed to waive .02% of its management fees through January 31, 2021. This Agreement can only be terminated by mutual consent of the Board of Trustees on behalf of the Fund and MML Advisers.

Example

This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. It assumes that you invest \$10,000 in each share class of the Fund for the time periods indicated and then redeem all of your shares at the end of those periods. For Class A shares, the example includes the initial sales charge. The example also assumes that your investment earns a 5% return each year and that the Fund's operating expenses are exactly as described in the preceding table. Although your actual costs may be higher or lower, based on these assumptions your costs would be:

	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>	<u>10 Years</u>
Class I	\$ 91	\$288	\$ 502	\$1,118
Class R5	\$101	\$320	\$ 556	\$1,234
Service Class	\$111	\$351	\$ 610	\$1,350
Administrative Class	\$121	\$382	\$ 663	\$1,464
Class A	\$689	\$984	\$1,302	\$2,199
Class R4	\$136	\$429	\$ 743	\$1,633
Class R3	\$162	\$506	\$ 874	\$1,909

*The following information replaces similar information found on pages 91-92 of the Prospectus in the first paragraph under the heading **Market Risk** in the section titled **Additional Information Regarding Principal Risks**:*

Market Risk

The values of a Fund’s portfolio securities may decline, at times sharply and unpredictably, as a result of unfavorable broad market developments, which may affect securities markets generally or particular industries, sectors, or issuers. The values of a Fund’s investments may decline as a result of a number of such factors, including actual or perceived changes in general economic and market conditions, industry, political, regulatory, geopolitical and other developments, including the imposition of tariffs or other protectionist actions, changes in interest rates, currency rates, or other rates of exchange, and changes in economic and competitive industry conditions. Likewise, terrorism, war, natural and environmental disasters, and epidemics or pandemics may be highly disruptive to economies and markets. For example, the global pandemic outbreak of the novel coronavirus known as COVID-19 has produced, and will likely continue to produce, substantial market volatility, severe market dislocations and liquidity constraints in many markets, and global business disruption, and it may result in future significant adverse effects, such as exchange trading suspensions and closures, declines in global financial markets, higher default rates, and a substantial economic downturn or recession throughout the world. Such factors may have a significant adverse effect on a Fund’s performance and have the potential to impair the ability of a Fund’s investment adviser, subadviser, or other service providers to serve the Fund and could lead to disruptions that negatively impact the Fund. Different parts of the market and different types of securities can react differently to these conditions. The possibility that security prices in general will decline over short or even extended periods subjects a Fund to unpredictable declines in the value of its shares, as well as potentially extended periods of poor performance. In addition, the increasing popularity of passive index-based investing may have the potential to increase security price correlations and volatility. As passive strategies generally buy or sell securities based simply on inclusion and representation in an index, securities’ prices will have an increasing tendency to rise or fall based on whether money is flowing into or out of passive strategies rather than based on an analysis of the prospects and valuation of individual securities. This may result in increased market volatility as more money is invested through passive strategies.

PLEASE RETAIN THIS SUPPLEMENT FOR FUTURE REFERENCE

**B3000M-20-03
IE-20-02**

MASSMUTUAL PREMIER FUNDS
MassMutual Premier International Equity Fund
(the “Fund”)
Supplement dated June 26, 2020 to the
Prospectus dated February 1, 2020 and the
Summary Prospectus dated February 1, 2020

This supplement provides new and additional information beyond that contained in the Prospectus and Summary Prospectus, and any previous supplements. It should be retained and read in conjunction with the Prospectus and Summary Prospectus, and any previous supplements.

Effective on or about August 4, 2020, Wellington Management Company LLP (“Wellington Management”) and Thompson, Siegel & Walmsley LLC (“TSW”) will replace Invesco Advisers, Inc. (“Invesco”) as subadvisers of the Fund.

*Effective on or about August 4, 2020, the following information replaces the information for the Fund found under the heading **Principal Investment Strategies** in the section titled **Investments, Risks, and Performance** (beginning on page 69 of the Prospectus):*

The Fund invests primarily in the common stock of companies that are domiciled or that have their primary operations outside of the United States. The Fund is managed by two subadvisers, *Wellington Management Company LLP* (“Wellington Management”) and *Thompson, Siegel & Walmsley LLC* (“TSW”), each being responsible for a portion of the portfolio, although they may manage different amounts of the Fund’s assets. Under normal circumstances, the Fund invests at least 80% of its net assets (plus the amount of any borrowings for investment purposes) in securities of foreign companies. The Fund may invest up to 100% of its total assets in such securities. The Fund may invest in emerging markets as well as in developed markets throughout the world. From time to time, the Fund may place greater emphasis on investing in one or more particular regions (such as Asia, Europe, or Latin America). Under normal market conditions, the Fund will:

- invest at least 65% of its total assets in common and preferred stocks of issuers in at least three different countries outside of the United States, and
- emphasize investments in common stock of issuers that a subadviser believes to have good prospects for growth and/or to be undervalued.

The Fund does not limit its investments to companies in a particular market capitalization range, but currently focuses on common stocks of mid- and large-cap companies. Equity securities in which the Fund invests may include common stocks, depositary receipts, preferred stocks, securities convertible into common or preferred stock, rights, and warrants. The Fund may but will not necessarily engage in foreign currency forward contracts to take long or short positions in foreign currencies in order to seek to enhance the Fund’s investment return or to seek to hedge or to attempt to protect against adverse changes in currency exchange rates. The Fund may use equity index futures contracts for hedging or investment purposes as a substitute for investing directly in securities. Use of derivatives by the Fund may create investment leverage. The Fund may invest in real estate investment trusts (“REITs”) and exchange-traded funds. The Fund may at times have significant exposure to one or more industries or sectors or to one or more countries or geographic regions. The Fund may hold a portion of its assets in cash or cash equivalents.

Wellington Management seeks long-term total returns in excess of the broad market with lower volatility by investing principally in a select number of high quality, large-cap companies that have the potential to sustainably compound returns over time and a willingness to consistently return value to shareholders in the form of a growing dividend. The investment process stresses security selection based on bottom-up fundamental research to identify high-quality companies that are reasonably valued relative to their longterm return potentials. Wellington Management’s investment philosophy is based on the premise that sustainable growth in dividends is an effective and often overlooked indicator of high-quality, shareholder-oriented companies that are able to produce and compound consistent, above-average returns over the long term. Wellington Management typically sells a security when the underlying business no longer exhibits superior upside return potential versus downside risk, when the sustainability of long term returns is put in question, or to redeploy assets into more promising opportunities.

TSW currently anticipates investing in at least 12 countries other than the United States. TSW will emphasize established companies in individual foreign markets and will attempt to stress companies and markets that it believes are undervalued. TSW expects capital growth to be the predominant component of the Fund's total return.

In selecting investments for the Fund, TSW employs a relative value process utilizing a combination of quantitative and qualitative methods based on a four factor valuation screen designed to outperform the MSCI EAFE Index. TSW's analysts also perform rigorous fundamental analysis. A portfolio composed of approximately 80-110 stocks is selected as a result of this process. TSW generally limits its investment universe to companies with a minimum of three years of operating history. TSW employs a consistent sell discipline which includes a significant negative earnings revision, a stock being sold when the catalyst is no longer valid or another stock presents a more attractive opportunity.

*Effective on or about August 4, 2020, the following information supplements the information for the Fund found under the heading **Principal Risks** in the section titled **Investments, Risks, and Performance** (beginning on page 70 of the Prospectus):*

Value Company Risk The value investment approach entails the risk that the market will not recognize a security's intrinsic value for a long time, or that a stock the investment adviser or subadviser judges to be undervalued may actually be appropriately priced.

Quantitative Models Risk The portfolio managers use quantitative models as part of the idea generation process. Quantitative models are based upon many factors that measure individual securities relative to each other. Such models may not produce the intended results and can be adversely affected by errors or imperfections in the factors or the data on which measurements are based, changing sources of market return or market risk, or any technical issues with the design, construction, implementation, or maintenance of the models.

REIT Risk Investments in REITs may be subject to risks similar to those associated with direct investment in real estate, as well as additional risks associated with equity investments. As a shareholder in a REIT, the Fund, and indirectly the Fund's shareholders, would bear its ratable share of the REIT's expenses and would at the same time continue to pay its own fees and expenses.

Risk of Investment in Other Funds or Pools The Fund is indirectly exposed to all of the risks of the underlying funds, including ETFs, in which it invests, including the risk that the underlying funds will not perform as expected. The Fund indirectly pays a portion of the expenses incurred by the underlying funds.

*Effective on or about August 4, 2020, the following information replaces the information for the Fund found under the headings **Subadviser** and **Portfolio Managers** in the section titled **Management** (page 73 of the Prospectus):*

Subadviser(s): Wellington Management Company LLP ("Wellington Management")

Thompson, Siegel & Walmsley LLC ("TSW")

Portfolio Manager(s):

Peter C. Fisher is a Senior Managing Director and Equity Portfolio Manager at Wellington Management. He has managed the Fund since August 2020.

Brandon H. Harrell, CFA is a Portfolio Manager at TSW. He has managed the Fund since August 2020.

*Effective on or about August 4, 2020, the following information supplements the information found beginning on page 82 of the Prospectus in the section titled **Additional Information Regarding Principal Risks**:*

- **REIT Risk**

An investment in a REIT may be subject to risks similar to those associated with direct ownership of real estate, including losses from casualty, condemnation or natural disasters, and changes in local and general economic conditions, supply and demand, interest rates, zoning laws, environmental regulations and other governmental action, regulatory limitations on rents, property taxes, and operating expenses.

In addition, an investment in a REIT may be subject to additional risks, such as poor performance by the manager of the REIT, adverse changes to the tax laws or failure by the REIT to qualify for favorable tax treatment under the Internal Revenue Code of 1986, as amended (the “Code”), and to the risk of general declines in stock prices. In addition, some REITs have limited diversification because they invest in a limited number of properties, a narrow geographic area, or a single type of property. A “mortgage” REIT that invests most or all of its assets in mortgages will be subject to many of the risks described above in respect of mortgage-backed securities. Also, the organizational documents of a REIT may contain provisions that make changes in control of the REIT difficult and time-consuming. As a shareholder in a REIT a Fund, and indirectly the Fund’s shareholders, would bear its ratable share of the REIT’s expenses and would at the same time continue to pay its own fees and expenses. Real estate-related investments may entail leverage and may be highly volatile. The securities of small real-estate issuers can be more volatile and less liquid than securities of larger issuers and their issuers can have more limited financial resources.

*Effective on or about August 4, 2020, the following information replaces similar information found on page 100 of the Prospectus under the heading **Subadvisers and Portfolio Managers** in the section titled **Management of the Funds**:*

Invesco Advisers, Inc. (“Invesco”), located at 1555 Peachtree Street, N.E., Atlanta, Georgia 30309, manages the investments of the **Main Street Fund**, **Small Cap Opportunities Fund**, **Global Fund**, and **Strategic Emerging Markets Fund**. Invesco is an indirect wholly-owned subsidiary of Invesco Ltd., a publicly traded company that, through its subsidiaries, engages in the business of investment management on an international basis. As of September 30, 2019, Invesco had approximately \$1.2 trillion in assets under management.

Invesco replaced OFI Global Institutional, Inc. as the subadviser of the Main Street Fund, Small Cap Opportunities Fund, and Strategic Emerging Markets Fund, and replaced OppenheimerFunds, Inc. as the subadviser of the Global Fund at the close of business on May 24, 2019.

*Effective on or about August 4, 2020, information related to **Robert B. Dunphy, CFA** and **George R. Evans, CFA** of Invesco, found on page 100 and 101 of the Prospectus under the heading **Subadvisers and Portfolio Managers** in the section titled **Management of the Funds** is hereby deleted.*

*Effective on or about August 4, 2020, the following information supplements the information for the Fund found beginning on page 98 of the Prospectus under the heading **Subadvisers and Portfolio Managers** in the section titled **Management of the Funds**:*

Thompson, Siegel & Walmsley LLC (“TSW”), a Delaware limited liability company located at 6641 West Broad Street, Suite 600, Richmond, Virginia 23230, manages the investments of the **International Equity Fund**. TSW is an indirect subsidiary of BrightSphere Investment Group Inc. Since 1970, TSW has provided investment management services to corporations, pensions and profit-sharing plans, 401(k) and thrift plans, trusts, estates, and other institutions and individuals. As of May 31, 2020, TSW managed approximately \$17.4 billion in assets.

TSW replaced Invesco as a subadviser of the International Equity Fund on or about August 4, 2020.

Brandon H. Harrell, CFA

_____ is the portfolio manager of a portion of the **International Equity Fund**. Mr. Harrell has been a portfolio manager with TSW since he joined the firm in 1996.

Wellington Management Company LLP (“Wellington Management”), a Delaware limited liability partnership with principal offices located at 280 Congress Street, Boston, Massachusetts 02210 manages a portion of the portfolio of the **International Equity Fund**. Wellington Management is a professional investment counseling firm which provides investment services to investment companies, employee benefit plans, endowments, foundations, and other institutions. Wellington Management and its predecessor organizations have provided investment advisory services for over 80 years. Wellington Management is owned by the partners of Wellington Management Group LLP, a Massachusetts limited liability partnership. As of May 31, 2020, Wellington Management and its investment advisory affiliates had investment management authority with respect to approximately \$1,105 billion in assets.

Wellington Management replaced Invesco as a subadviser of the International Equity Fund on or about August 4, 2020.

Peter C. Fisher

has served as a portfolio manager of a portion of the *International Equity Fund* since August 2020. Mr. Fisher is a Senior Managing Director and Equity Portfolio Manager of Wellington Management and joined the firm as an investment professional in 2005.

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**B3000M-20-02
IE-20-01**

MASSMUTUAL PREMIER FUNDS
MassMutual Premier U.S. Government Money Market Fund
(the “Fund”)
Supplement dated March 18, 2020 to the
Prospectus dated February 1, 2020

This supplement provides new and additional information beyond that contained in the Prospectus. It should be retained and read in conjunction with the Prospectus.

*The following information replaces similar information for the Fund found on page 81 in the section titled **Additional Information Regarding Investment Objectives and Principal Investment Strategies**:*

U.S. Government Money Market Fund. The Fund’s 7-day yield on December 31, 2019 was 1.14%. To obtain the Fund’s current 7-day yield information, please call 1-888-309-3539. MML Advisers has agreed to voluntarily waive some or all of its fees in an attempt to allow the Fund to avoid a negative yield. There is no guarantee that the Fund will be able to avoid a negative yield. Payments made to intermediaries will be unaffected. MML Advisers may amend or discontinue this waiver at any time without advance notice.

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B3000M-20-01

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MassMutual Premier U.S. Government Money Market Fund

INVESTMENT OBJECTIVE

This Fund seeks current income consistent with preservation of capital and liquidity.

FEES AND EXPENSES OF THE FUND

This table describes the fees and expenses that you may pay if you buy and hold shares of the Fund.

Shareholder Fees (fees paid directly from your investment)

	Class R5
Maximum Sales Charge (Load) Imposed on Purchases (as a % of offering price)	None
Maximum Deferred Sales Charge (Load) (as a % of the lower of the original offering price or redemption proceeds)	None

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	Class R5
Management Fees	.35%
Distribution and Service (Rule 12b-1) Fees	None
Other Expenses	.17%
Total Annual Fund Operating Expenses	.52%

Example

This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. It assumes that you invest \$10,000 in Class R5 shares of the Fund for the time periods indicated and then redeem all of your shares at the end of those periods. The example also assumes that your investment earns a 5% return each year and that the Fund's operating expenses are exactly as described in the preceding table. Although your actual costs may be higher or lower, based on these assumptions your costs would be:

	1 Year	3 Years	5 Years	10 Years
Class R5	\$53	\$167	\$291	\$653

INVESTMENTS, RISKS, AND PERFORMANCE

Principal Investment Strategies

The Fund normally invests at least 99.5% of its total assets in cash, U.S. Government securities, and/or repurchase agreements fully collateralized by cash or U.S. Government securities.

In managing the Fund, the Fund's subadviser, *Barings LLC* ("Barings"), intends to comply with Rule 2a-7 under the Investment Company Act

of 1940, as amended (the "1940 Act"), which sets forth the requirements for money market funds regarding credit quality, diversification, liquidity, and maturity. The Fund seeks to maintain, but does not guarantee, a stable \$1.00 share price.

Under normal circumstances, the Fund invests at least 80% of its net assets in U.S. Government securities and repurchase agreements that are fully collateralized by U.S. Government securities. U.S. Government securities are high-quality securities issued or guaranteed by the U.S. Treasury or by an agency or instrumentality of the U.S. Government. U.S. Government securities may be backed by the full faith and credit of the U.S. Treasury, the right to borrow from the U.S. Treasury, or the agency or instrumentality issuing or guaranteeing the security. Certain issuers of U.S. Government securities, including Fannie Mae, Freddie Mac, and the Federal Home Loan Banks, are sponsored or chartered by Congress but their securities are neither issued nor guaranteed by the U.S. Treasury.

Principal Risks

You could lose money by investing in the Fund. Although the Fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. An investment in the Fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The Fund's sponsor has no legal obligation to provide financial support to the Fund, and you should not expect that the sponsor will provide financial support to the Fund at any time.

Certain risks relating to instruments and strategies used in the management of the Fund are placed first. The significance of any specific risk to an investment in the Fund will vary over time, depending on the composition of the Fund's portfolio, market conditions, and other factors. You should read all of the risk information presented below carefully, because any one or more of these risks may result in losses to the Fund.

Money Market Instruments Risk The value of a money market instrument typically will decline during periods of rising interest rates, and can also decline in response to changes in the financial condition of the issuer, borrower, counterparty, or underlying collateral assets, or changes in market, economic, industry, political, and regulatory conditions affecting a particular type of security or

issuer or fixed income securities generally. Certain events, such as changes in the financial condition of the issuer or borrower, specific market or economic developments, regulatory or government actions, natural disasters, terrorist attacks, war, and other geopolitical events can have a dramatic adverse effect on the debt market and the overall liquidity of the market for money market instruments.

U.S. Government Securities Risk Obligations of certain U.S. Government agencies and instrumentalities are not backed by the full faith and credit of the U.S. Government, and there can be no assurance that the U.S. Government would provide financial support to such agencies and instrumentalities.

Repurchase Agreement Risk These transactions must be fully collateralized at all times, but involve some risk to a Fund if the other party should default on its obligation and the Fund is delayed or prevented from recovering the collateral.

Credit Risk Credit risk is the risk that an issuer, guarantor, or liquidity provider of a fixed income security held by the Fund may be unable or unwilling, or may be perceived (whether by market participants, ratings agencies, pricing services or otherwise) as unable or unwilling, to make timely principal and/or interest payments, or to otherwise honor its obligations. The Fund may also be exposed to the credit risk of its counterparty to repurchase agreements, reverse repurchase agreements, swap transactions, and other derivatives transactions, and to the counterparty's ability or willingness to perform in accordance with the terms of the transaction. The value of such transactions to the Fund will depend on the willingness and ability of the counterparty to perform its obligations, including among other things the obligation to return collateral or margin to the Fund.

Inflation Risk The value of assets or income from the Fund's investments will be less in the future as inflation decreases the value of money. As inflation increases, the value of the Fund's assets can decline as can the value of the Fund's distributions.

Liquidity Risk Certain securities may be difficult (or impossible) to sell or certain positions may be difficult to close out at a desirable time and price, and the Fund may be required to hold an illiquid investment that is declining in value, or it may be required to sell certain illiquid investments at a

price or time that is not advantageous in order to meet redemptions or other cash needs. Some securities may be subject to restrictions on resale. There can be no assurance that there will be a liquid market for instruments held by the Fund at any time. The Fund may not receive the proceeds from the sale of certain investments for an extended period.

Management Risk The Fund relies on the manager's investment analysis and its selection of investments to achieve its investment objective. There can be no assurance that the Fund will achieve the intended results and the Fund may incur significant losses.

Market Risk The value of the Fund's portfolio securities may decline, at times sharply and unpredictably, as a result of unfavorable market-induced changes affecting particular industries, sectors, or issuers. Stock markets can decline significantly in response to issuer, market, economic, industry, political, regulatory, geopolitical and other conditions, as well as investor perceptions of these conditions. The Fund is subject to risks affecting issuers, such as management performance, financial leverage, industry problems, and reduced demand for goods or services.

Prepayment Risk Prepayment risk is the risk that principal of a debt obligation will be repaid at a faster rate than anticipated. In such a case, a Fund may lose the benefit of a favorable interest rate for the remainder of the term of the security in question, and may only be able to reinvest the amount of the prepayment at a less favorable rate.

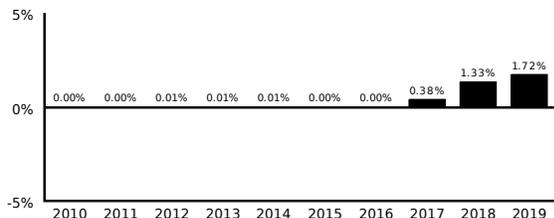
Valuation Risk The Fund is subject to the risk of mispricing or improper valuation of its investments, in particular to the extent that its securities are fair valued.

Performance Information

The following bar chart and table provide some indication of the risks of investing in the Fund. The bar chart shows changes in the Fund's performance from year to year for Class R5 shares. The table shows how the Fund's average annual returns for 1, 5, and 10 years compare with those of a broad measure of market performance. The Fund's name, investment objective, and investment strategy changed on May 1, 2016 when the Fund changed from a money market fund to a government money market fund. Performance results shown were achieved when the Fund could invest in types of securities that it is no longer able to hold.

Future performance of the Fund may be lower as a result. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future. More up-to-date performance information is available at <http://www.massmutual.com/funds> or by calling 1-888-309-3539.

Annual Performance
Class R5 Shares



Highest Quarter: 2Q '19, 0.49% Lowest Quarter: 3Q '12; 1Q '13 thru 3Q '14; 1Q '15 thru 4Q '16, 0.00%

Average Annual Total Returns
(for the periods ended December 31, 2019)

	One Year	Five Years	Ten Years	
Class R5	Return Before Taxes	1.72%	0.69%	0.35%
FTSE 3-Month Treasury Bill Index (reflects no deduction for fees, expenses, or taxes)				
		2.25%	1.05%	0.56%

MANAGEMENT

Investment Adviser: MML Investment Advisers, LLC (“MML Advisers”)

Subadviser(s): Barings LLC (“Barings”)

Portfolio Manager(s):

Scott Simler is a Director and portfolio manager for Barings’ Investment Grade Fixed Income Group. He has managed the Fund since July 2009.

PURCHASE AND SALE OF FUND SHARES

Shares of the Fund are generally available to retirement plans, other institutional investors, and individual retirement accounts. Fund shares are redeemable on any business day by written request, telephone, or internet (available to certain customers).

TAX INFORMATION

The Fund intends to make distributions that may be taxed as ordinary income, qualified dividend income, or capital gains, unless you are an investor eligible for preferential tax treatment.

PAYMENTS TO BROKER-DEALERS AND OTHER FINANCIAL INTERMEDIARIES

If you purchase the Fund through a broker-dealer or other financial intermediary, the intermediary may receive a one-time or continuing payments from the Fund, MML Advisers or its affiliates, or others for the sale of Fund shares or continuing shareholder services provided by the intermediary. These payments may create a conflict of interest by influencing the broker-dealer or other intermediary to recommend the Fund over another investment. You should contact your intermediary to obtain more information about the compensation it may receive in connection with your investment.

MassMutual Premier Short-Duration Bond Fund

INVESTMENT OBJECTIVE

This Fund seeks to achieve a high total rate of return primarily from current income while minimizing fluctuations in capital values by investing primarily in a diversified portfolio of short-term investment grade fixed income securities.

FEES AND EXPENSES OF THE FUND

This table describes the fees and expenses that you may pay if you buy and hold shares of the Fund. For Class A shares, you may qualify for sales charge discounts if you invest, or agree to invest in the future, at least \$25,000 in MassMutual funds. More information about these and other discounts is available in the section titled *Sales Charges by Class* beginning on page 105 of the Fund's Prospectus or from your financial professional.

Shareholder Fees (fees paid directly from your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Maximum Sales Charge (Load) Imposed on Purchases (as a % of offering price)	None	None	None	None	2.50%	None	None
Maximum Deferred Sales Charge (Load) (as a % of the lower of the original offering price or redemption proceeds)	None	None	None	None	None	None	None

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Management Fees	.35%	.35%	.35%	.35%	.35%	.35%	.35%
Distribution and Service (Rule 12b-1) Fees	None	None	None	None	.25%	.25%	.50%
Other Expenses	.08%	.18%	.28%	.38%	.38%	.28%	.28%
Total Annual Fund Operating Expenses	.43%	.53%	.63%	.73%	.98%	.88%	1.13%

Example

This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. It assumes that you invest \$10,000 in each share class of the Fund for the time periods indicated and then redeem all of your shares at the end of those periods. For Class A shares, the example includes the initial sales charge. The example also assumes that your investment earns a 5% return each year and that

the Fund's operating expenses are exactly as described in the preceding table. Although your actual costs may be higher or lower, based on these assumptions your costs would be:

	1 Year	3 Years	5 Years	10 Years
Class I	\$ 44	\$138	\$241	\$ 542
Class R5	\$ 54	\$170	\$296	\$ 665
Service Class	\$ 64	\$202	\$351	\$ 786
Administrative Class	\$ 75	\$233	\$406	\$ 906
Class A	\$347	\$554	\$778	\$1,421
Class R4	\$ 90	\$281	\$488	\$1,084
Class R3	\$115	\$359	\$622	\$1,375

Portfolio Turnover

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when Fund shares are held in a taxable account. These costs, which are not reflected in annual fund operating expenses or in the example, affect the Fund's performance. During the most recent fiscal year, the Fund's portfolio turnover rate was 55% of the average value of its portfolio.

INVESTMENTS, RISKS, AND PERFORMANCE

Principal Investment Strategies

Under normal circumstances, the Fund invests at least 80% of its net assets (plus the amount of any borrowings for investment purposes) in investment grade fixed income securities (rated Baa3 or higher by Moody's, BBB- or higher by Standard & Poor's or the equivalent by any NRSRO, or, if unrated, determined to be of comparable quality by the subadviser). These typically include U.S. dollar-denominated corporate obligations, securities issued or guaranteed by the U.S. Government or its agencies or instrumentalities, U.S. and foreign issuer dollar-denominated bonds including, but not limited to, corporate obligations, government and agency issues, private placement bonds, securities subject to resale pursuant to Rule 144A, and mortgage-backed and other asset-backed securities, including collateralized bond and loan obligations.

The Fund may also invest in below investment grade debt securities ("junk" or "high yield" bonds), including securities in default, and including bank loans; normally, 10% or less of the

Fund's total assets will be invested in below investment grade debt securities. In the event that a security is downgraded after its purchase by the Fund, the Fund may continue to hold the security if the Fund's subadviser, *Barings LLC* ("Barings"), considers that doing so would be consistent with the Fund's investment objective.

The Fund may invest up to 15% of its total assets in securities that are not denominated in U.S. dollars including, but not limited to, corporate obligations, government and agency issues, private placement bonds, and mortgage-backed and other asset-backed securities, including collateralized bond and loan obligations. The Fund may also invest in non-dollar denominated high yield bonds, including bank loans, and may invest in securities subject to legal restrictions on resale, some of which may be subject to resale pursuant to Rule 144A.

In pursuing its investment objective, the Fund may (but is not obligated to) use a wide variety of exchange-traded and over-the-counter derivatives, including, but not limited to, futures contracts, foreign currency futures and forward contracts, including derivatives thereof (for hedging purposes, to adjust various portfolio characteristics, including the duration (interest rate volatility) of the Fund's portfolio, or as a substitute for direct investments); interest rate swaps (for hedging purposes or as a substitute for direct investments or to gain market exposure); total return swaps (for hedging purposes or as a substitute for direct investments); and credit default swaps (for hedging purposes or as a substitute for direct investments). The Fund may invest in common stocks, exchange-traded funds ("ETFs"), or other equity securities and derivatives thereof for hedging purposes or to enhance total return. Use of derivatives by the Fund may create investment leverage.

The Fund may invest in money market securities, including commercial paper. The Fund may enter into repurchase agreement transactions. The Fund may at times have significant exposure to one or more industries or sectors. The Fund may hold a portion of its assets in cash or cash equivalents. The Fund may enter into dollar roll and reverse repurchase agreement transactions.

The Fund may invest in (i) securities denominated in currencies of emerging market countries, (ii) fixed income securities or debt instruments issued by emerging market entities or sovereign nations and/or (iii) debt instruments denominated in or based on the currencies, interest rates, or issues of emerging market countries. Emerging market

countries are defined to include any country that did not become a member of the Organization for Economic Cooperation and Development (O.E.C.D.) prior to 1975 and Turkey.

The Fund may invest in other investment companies, including investment companies that are advised by the Fund's investment adviser, subadviser or its affiliates, or by unaffiliated parties.

The Fund seeks to maintain a dollar-weighted average duration of less than three years; Barings may increase or decrease its duration in response to changes in interest rates and other factors. Duration measures the price sensitivity of a bond to changes in interest rates. Duration is the dollar weighted average time to maturity of a bond utilizing the present value of all future cash flows.

Barings generally selects the Fund's investments based on its analysis of opportunities and risks of various securities and market sectors. Barings may choose to sell securities with deteriorating credit or limited upside potential compared to other available securities.

The Fund expects that it will engage in active and frequent trading and so will typically have a relatively high portfolio turnover rate.

Principal Risks

The following are the Principal Risks of the Fund. The value of your investment in the Fund could go down as well as up. You can lose money by investing in the Fund. Certain risks relating to instruments and strategies used in the management of the Fund are placed first. The significance of any specific risk to an investment in the Fund will vary over time, depending on the composition of the Fund's portfolio, market conditions, and other factors. You should read all of the risk information presented below carefully, because any one or more of these risks may result in losses to the Fund.

Fixed Income Securities Risk The values of fixed income securities typically will decline during periods of rising interest rates, and can also decline in response to changes in the financial condition of the issuer, borrower, counterparty, or underlying collateral assets, or changes in market, economic, industry, political, and regulatory conditions affecting a particular type of security or issuer or fixed income securities generally. Certain events, such as market or economic developments, regulatory or government actions, natural disasters, terrorist attacks, war, and other geopolitical events can have a dramatic adverse effect on the debt

market and the overall liquidity of the market for fixed income securities. During those periods, the Fund may experience high levels of shareholder redemptions, and may have to sell securities at times when the Fund would otherwise not do so, and potentially at unfavorable prices. Certain securities may be difficult to value during such periods. Fixed income securities are subject to interest rate risk (the risk that the value of a fixed income security will fall when interest rates rise), extension risk (the risk that the average life of a security will be extended through a slowing of principal payments), prepayment risk (the risk that a security will be prepaid and the Fund will be required to reinvest at a less favorable rate), and credit risk.

Mortgage- and Asset-Backed Securities

Risk Investments in mortgage- and asset-backed securities subject the Fund to credit risk, interest rate risk, extension risk, and prepayment risk, among other risks. Mortgage-backed and asset-backed securities not issued by a government agency generally involve greater credit risk than securities issued by government agencies. Payment of principal and interest generally depends on the cash flows generated by the underlying assets and the terms of the security. The types of mortgages (for example, residential or commercial mortgages) underlying securities held by the Fund may differ and be affected differently by market factors. Investments that receive only the interest portion or the principal portion of payments on the underlying assets may be highly volatile. Litigation with respect to the representations and warranties given in connection with the issuance of mortgage-backed securities can be an important consideration in investing in such securities, and the outcome of any such litigation could significantly impact the value of the Fund's mortgage-backed investments.

Bank Loans Risk Many of the risks associated with bank loans are similar to the risks of investing in below investment grade debt securities. Changes in the financial condition of the borrower or economic conditions or other circumstances may reduce the capacity of the borrower to make principal and interest payments on such instruments and may lead to defaults. Senior secured bank loans are typically supported by collateral; however the value of the collateral may be insufficient to cover the amount owed to the Fund, or the Fund may be prevented or delayed from realizing on the collateral. Some loans may be unsecured; unsecured loans generally present a

greater risk of loss to the Fund if the issuer defaults. If the Fund relies on a third party to administer a loan, the Fund is subject to the risk that the third party will fail to perform its obligations. In addition, if the Fund holds only a participation interest in a loan made by a third party, the Fund's receipt of payments on the loan will depend on the third party's willingness and ability to make those payments to the Fund. The settlement time for certain loans is longer than the settlement time for many other types of investments, and the Fund may not receive the payment for a loan sold by it until well after the sale; that cash would be unavailable for payment of redemption proceeds or for reinvestment. Interests in some bank loans may not be readily marketable and may be subject to restrictions on resale. In some cases, negotiations involved in disposing of indebtedness may require weeks to complete. Consequently, some indebtedness may be difficult or impossible to dispose of readily at what the Fund believes to be a fair price.

Below Investment Grade Debt Securities Risk Below investment grade debt securities, commonly known as "junk" or "high yield" bonds, have speculative characteristics and involve greater volatility of price and yield, greater risk of loss of principal and interest, and generally reflect a greater possibility of an adverse change in financial condition that could affect an issuer's ability to honor its obligations.

Credit Risk Credit risk is the risk that an issuer, guarantor, or liquidity provider of a fixed income security held by the Fund may be unable or unwilling, or may be perceived (whether by market participants, ratings agencies, pricing services or otherwise) as unable or unwilling, to make timely principal and/or interest payments, or to otherwise honor its obligations. The Fund may also be exposed to the credit risk of its counterparty to repurchase agreements, reverse repurchase agreements, swap transactions, and other derivatives transactions, and to the counterparty's ability or willingness to perform in accordance with the terms of the transaction. The value of such transactions to the Fund will depend on the willingness and ability of the counterparty to perform its obligations, including among other things the obligation to return collateral or margin to the Fund.

Derivatives Risk Derivatives can be highly volatile and involve risks different from, and potentially greater than, direct investments, including risks of imperfect correlation between the value of

derivatives and underlying assets, counterparty default, potential losses that partially or completely offset gains, and illiquidity. Derivatives can create investment leverage. Losses from derivatives can be substantially greater than the derivatives' original cost and can sometimes be unlimited. If the value of a derivative does not correlate well with the particular market or asset class the derivative is designed to provide exposure to, the derivative may not have the effect or benefit anticipated. Derivatives can also reduce the opportunity for gains or result in losses by offsetting positive returns in other investments. Many derivatives are traded in the over-the-counter market and not on exchanges.

Foreign Investment Risk; Emerging Markets Risk; Currency Risk Investments in securities of foreign issuers, securities of companies with significant foreign exposure, and foreign currencies can involve additional risks relating to market, industry, political, regulatory, and other conditions. Political, social, diplomatic, and economic developments, U.S. and foreign government action such as the imposition of currency or capital blockages, controls, or tariffs, economic and trade sanctions or embargoes, security suspensions, entering or exiting trade or other intergovernmental agreements, or the expropriation or nationalization of assets in a particular country, can cause dramatic declines in certain or all securities with exposure to that country and other countries. In the event of nationalization, expropriation, or other confiscation, the Fund could lose its entire foreign investment in a particular country. There may be quotas or other limits on the ability of the Fund (or clients of the Fund's investment adviser or subadviser) to invest or maintain investments in securities of issuers in certain countries. Enforcing legal rights can be more difficult, costly, and limited in certain foreign countries, and can be particularly difficult against foreign governments. Because non-U.S. securities are normally denominated and traded in currencies other than the U.S. dollar, the value of the Fund's assets may be affected favorably or unfavorably by changes in currency exchange rates, exchange control regulations, and restrictions or prohibitions on the repatriation of non-U.S. currencies. Income and gains with respect to investments in certain countries may be subject to withholding and other taxes. There may be less information publicly available about a non-U.S. company than about a U.S. company, and many non-U.S. companies are not subject to accounting, auditing, and financial reporting standards, regulatory

framework and practices comparable to those in the U.S. The securities of some non-U.S. companies, especially those in emerging markets, are less liquid and at times more volatile than securities of comparable U.S. companies. Emerging markets securities are subject to greater risks than securities issued in developed foreign markets, including less liquidity, greater price volatility, higher relative rates of inflation, greater political, economic, and social instability, greater custody and operational risks, and greater volatility in currency exchange rates. Frontier markets, a subset of emerging markets, generally have smaller economies and less mature capital markets than emerging markets. As a result, the risks of investing in emerging market countries are magnified in frontier market countries. Frontier markets are more susceptible to having abrupt changes in currency values, less mature markets and settlement practices, and lower trading volumes that could lead to greater price volatility and illiquidity. Non-U.S. transaction costs, such as brokerage commissions and custody costs may be higher than in the United States. In addition, foreign markets can react differently to market, economic, industry, political, regulatory, and other conditions than the U.S. market.

Cash Position Risk If the Fund holds a significant portion of its assets in cash or cash equivalents, its investment returns may be adversely affected and the Fund may not achieve its investment objective.

Defaulted and Distressed Securities Risk Because the issuer of such securities is in default and is likely to be in distressed financial condition, repayment of defaulted securities and obligations of distressed issuers (including insolvent issuers or issuers in payment or covenant default, in workout or restructuring, or in bankruptcy or insolvency proceedings) is uncertain.

Dollar Roll and Reverse Repurchase Agreement Transaction Risk These transactions generally create leverage and subject the Fund to the credit risk of the counterparty.

Frequent Trading/Portfolio Turnover Risk Portfolio turnover generally involves some expense to the Fund and may result in the realization of taxable capital gains (including short-term gains). The trading costs and tax effects associated with portfolio turnover may adversely affect the Fund's performance.

Inflation Risk The value of assets or income from the Fund's investments will be less in the future

as inflation decreases the value of money. As inflation increases, the value of the Fund's assets can decline as can the value of the Fund's distributions.

Leveraging Risk Instruments and transactions, including derivatives, dollar roll, and reverse repurchase agreement transactions, that create leverage may cause the value of an investment in the Fund to be more volatile, could result in larger losses than if they were not used, and tend to compound the effects of other risks.

Liquidity Risk Certain securities may be difficult (or impossible) to sell or certain positions may be difficult to close out at a desirable time and price, and the Fund may be required to hold an illiquid investment that is declining in value, or it may be required to sell certain illiquid investments at a price or time that is not advantageous in order to meet redemptions or other cash needs. Some securities may be subject to restrictions on resale. There can be no assurance that there will be a liquid market for instruments held by the Fund at any time. The Fund may not receive the proceeds from the sale of certain investments for an extended period.

Management Risk The Fund relies on the manager's investment analysis and its selection of investments to achieve its investment objective. There can be no assurance that the Fund will achieve the intended results and the Fund may incur significant losses.

Market Risk The value of the Fund's portfolio securities may decline, at times sharply and unpredictably, as a result of unfavorable market-induced changes affecting particular industries, sectors, or issuers. Stock markets can decline significantly in response to issuer, market, economic, industry, political, regulatory, geopolitical and other conditions, as well as investor perceptions of these conditions. The Fund is subject to risks affecting issuers, such as management performance, financial leverage, industry problems, and reduced demand for goods or services.

Repurchase Agreement Risk These transactions must be fully collateralized at all times, but involve some risk to a Fund if the other party should default on its obligation and the Fund is delayed or prevented from recovering the collateral.

Restricted Securities Risk The Fund may hold securities that are restricted as to resale under the

U.S. federal securities laws, such as securities in certain privately held companies. Such securities may be highly illiquid and their values may experience significant volatility. Restricted securities may be difficult to value.

Risk of Investment in Other Funds or Pools The Fund is indirectly exposed to all of the risks of the underlying funds, including ETFs, in which it invests, including the risk that the underlying funds will not perform as expected. The Fund indirectly pays a portion of the expenses incurred by the underlying funds.

Sector Risk The Fund may allocate more of its assets to particular industries or to particular economic, market, or industry sectors than to others. This could increase the volatility of the Fund's portfolio, and the Fund's performance may be more susceptible to developments affecting issuers in those industries or sectors than if the Fund invested more broadly.

Sovereign Debt Obligations Risk Investments in debt securities issued by governments or by government agencies and instrumentalities involve the risk that the governmental entities responsible for repayment may be unable or unwilling to pay interest and repay principal when due. Many sovereign debt obligations may be rated below investment grade ("junk" or "high yield" bonds). Any restructuring of a sovereign debt obligation held by the Fund will likely have a significant adverse effect on the value of the obligation. In the event of default of sovereign debt, the Fund may be unable to pursue legal action against the sovereign issuer or to realize on collateral securing the debt.

U.S. Government Securities Risk Obligations of certain U.S. Government agencies and instrumentalities are not backed by the full faith and credit of the U.S. Government, and there can be no assurance that the U.S. Government would provide financial support to such agencies and instrumentalities.

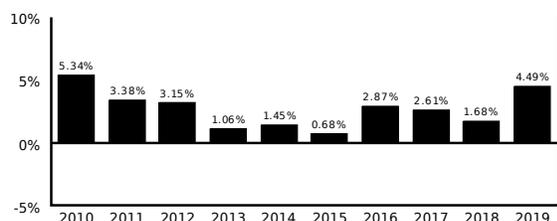
Valuation Risk The Fund is subject to the risk of mispricing or improper valuation of its investments, in particular to the extent that its securities are fair valued.

When-Issued, Delayed Delivery, TBA, and Forward Commitment Transaction Risk These transactions may create leverage and involve a risk of loss if the value of the securities declines prior to settlement.

Performance Information

The following bar chart and table provide some indication of the risks of investing in the Fund. The bar chart shows changes in the Fund's performance from year to year for Class R5 shares. The table shows how the Fund's average annual returns for 1, 5, and 10 years compare with those of a broad measure of market performance. Performance for Class I shares of the Fund for periods prior to its inception date (12/03/10) is based on the performance of Class R5 shares. Performance for Class R4 shares of the Fund for periods prior to its inception date (04/01/14) is based on the performance of Class R5 shares, adjusted for Class R4 expenses. Performance for Class A shares of the Fund reflects any applicable sales charge. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future. More up-to-date performance information is available at <http://www.massmutual.com/funds> or by calling 1-888-309-3539.

Annual Performance
Class R5 Shares



Highest Quarter: 2Q '10, 2.10% Lowest Quarter: 4Q '15, -0.95%

After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes. Actual after-tax returns depend on an investor's tax situation and may differ from those shown. After-tax returns are not relevant to investors who hold Fund shares through tax-advantaged arrangements, such as 401(k) plans or individual retirement accounts. After-tax returns are shown for Class R5 only. After-tax returns for other classes will vary.

Average Annual Total Returns (for the periods ended December 31, 2019)

		One Year	Five Years	Ten Years
Class R5	Return Before Taxes	4.49%	2.46%	2.66%
	Return After Taxes on Distributions	3.11%	1.23%	1.56%
	Return After Taxes on Distributions and sales of Fund Shares	2.66%	1.34%	1.61%
Class I	Return Before Taxes	4.61%	2.55%	2.77%
Service Class	Return Before Taxes	4.36%	2.34%	2.57%
Administrative Class	Return Before Taxes	4.31%	2.23%	2.48%
Class A	Return Before Taxes	1.39%	1.47%	1.97%
Class R4	Return Before Taxes	4.13%	2.11%	2.30%
Class R3	Return Before Taxes	3.89%	1.80%	2.00%
	Bloomberg Barclays U.S. 1-3 Year Government Bond Index (reflects no deduction for fees, expenses, or taxes)	3.59%	1.40%	1.25%

MANAGEMENT

Investment Adviser: MML Investment Advisers, LLC ("MML Advisers")

Subadviser(s): Barings LLC ("Barings")

Portfolio Manager(s):

Stephen Ehrenberg, CFA is a Managing Director and portfolio manager for Barings' Investment Grade Fixed Income Group. He has managed the Fund since November 2019.

David L. Nagle, CFA is a Managing Director and portfolio manager for Barings' Investment Grade Fixed Income Group. He has managed the Fund since its inception (October 1994).

Douglas M. Trevallion, II, CFA is a Managing Director, the Head of Global Securitized and Liquid Products, and a portfolio manager for Barings' Investment Grade Fixed Income Group. He has managed the Fund since June 2018. He previously managed the Fund from October 2008 to October 2017.

PURCHASE AND SALE OF FUND SHARES

Shares of the Fund are generally available to retirement plans, other institutional investors, and individual retirement accounts. Fund shares are redeemable on any business day by written request, telephone, or internet (available to certain customers).

TAX INFORMATION

The Fund intends to make distributions that may be taxed as ordinary income, qualified dividend income, or capital gains, unless you are an investor eligible for preferential tax treatment.

PAYMENTS TO BROKER-DEALERS AND OTHER FINANCIAL INTERMEDIARIES

If you purchase the Fund through a broker-dealer or other financial intermediary, the intermediary may receive a one-time or continuing payments

from the Fund, MML Advisers or its affiliates, or others for the sale of Fund shares or continuing shareholder services provided by the intermediary. These payments may create a conflict of interest by influencing the broker-dealer or other intermediary to recommend the Fund over another investment. You should contact your intermediary to obtain more information about the compensation it may receive in connection with your investment.

MassMutual Premier Inflation-Protected and Income Fund

INVESTMENT OBJECTIVE

This Fund seeks to achieve as high a total rate of real return on an annual basis as is considered consistent with prudent investment risk and the preservation of capital.

FEES AND EXPENSES OF THE FUND

This table describes the fees and expenses that you may pay if you buy and hold shares of the Fund. For Class A shares, you may qualify for sales charge discounts if you invest, or agree to invest in the future, at least \$25,000 in MassMutual funds. More information about these and other discounts is available in the section titled *Sales Charges by Class* beginning on page 105 of the Fund's Prospectus or from your financial professional.

Shareholder Fees (fees paid directly from your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Maximum Sales Charge (Load) Imposed on Purchases (as a % of offering price)	None	None	None	None	4.25%	None	None
Maximum Deferred Sales Charge (Load) (as a % of the lower of the original offering price or redemption proceeds)	None	None	None	None	None	None	None

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Management Fees	.38%	.38%	.38%	.38%	.38%	.38%	.38%
Distribution and Service (Rule 12b-1) Fees	None	None	None	None	.25%	.25%	.50%
Other Expenses	.10%	.20%	.30%	.40%	.40%	.30%	.30%
Total Annual Fund Operating Expenses	.48%	.58%	.68%	.78%	1.03%	.93%	1.18%

Example

This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. It assumes that you invest \$10,000 in each share class of the Fund for the time periods indicated and then redeem all of your shares at the end of those periods. For Class A shares, the example includes the initial sales charge. The example also assumes that your investment earns a 5% return each year and that the Fund's operating expenses are exactly as described in the preceding table. Although your

actual costs may be higher or lower, based on these assumptions your costs would be:

	1 Year	3 Years	5 Years	10 Years
Class I	\$ 49	\$154	\$269	\$ 604
Class R5	\$ 59	\$186	\$324	\$ 726
Service Class	\$ 69	\$218	\$379	\$ 847
Administrative Class	\$ 80	\$249	\$433	\$ 966
Class A	\$526	\$739	\$969	\$1,631
Class R4	\$ 95	\$296	\$515	\$1,143
Class R3	\$120	\$375	\$649	\$1,432

Portfolio Turnover

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when Fund shares are held in a taxable account. These costs, which are not reflected in annual fund operating expenses or in the example, affect the Fund's performance. During the most recent fiscal year, the Fund's portfolio turnover rate was 42% of the average value of its portfolio.

INVESTMENTS, RISKS, AND PERFORMANCE

Principal Investment Strategies

Under normal circumstances, the Fund invests at least 80% of its net assets (plus the amount of any borrowings for investment purposes) in inflation-indexed bonds and other income-producing securities. Inflation-indexed bonds are instruments indexed or otherwise linked to general measures of inflation because their principal is typically adjusted to reflect general movements of inflation in the country of issue. The Fund may invest in securities of any maturity. The Fund may invest in inflation-indexed bonds issued by the U.S. and non-U.S. governments or their agencies or instrumentalities, by government-sponsored enterprises, or by corporations. The Fund expects to enter into total return swaps based on one or more inflation indexes or on inflation-indexed bonds or other inflation derivatives, as a substitute for purchasing certain inflation-indexed bonds or otherwise to adjust the inflation-sensitivity of the portfolio. Use of total return swaps will create leverage in the Fund.

The Fund may also invest in other income-producing securities of any kind (including, but not limited to, corporate bonds and notes,

Rule 144A securities, U.S. and non-U.S. government and agency or instrumentality bonds, money market instruments, and mortgage-related and asset-backed securities, including collateralized bond and loan obligations). The Fund may enter into repurchase agreement transactions. The Fund may at times have significant exposure to one or more industries or sectors. The Fund may hold a portion of its assets in cash or cash equivalents. The Fund may invest up to 15% of its total assets in securities that are not denominated in U.S. dollars.

The Fund may invest in (i) securities denominated in currencies of emerging market countries, (ii) fixed income securities or debt instruments issued by emerging market entities or sovereign nations and/or (iii) debt instruments denominated in or based on the currencies, interest rates, or issues of emerging market countries. Emerging market countries are defined to include any country that did not become a member of the Organization for Economic Cooperation and Development (O.E.C.D.) prior to 1975 and Turkey.

The Fund may invest in other investment companies, including investment companies that are advised by the Fund's investment adviser, subadviser or its affiliates, or by unaffiliated parties.

The Fund generally intends to maintain a dollar-weighted average credit quality of A or better (determined on the basis of the highest credit rating of the Fund's investments at the time of their purchase or, if unrated, determined to be of comparable quality by the subadviser). The Fund will invest primarily in assets rated investment grade at the time of purchase (rated Baa3 or higher by Moody's, BBB- or higher by Standard & Poor's or the equivalent by any NRSRO, or, if unrated, determined to be of comparable quality by the subadviser) but not in assets rated below Ba3 by Moody's, below BB- by Standard & Poor's and the equivalent by any NRSRO. In the event that a security is downgraded after its purchase by the Fund, the Fund may continue to hold the security if the Fund's subadviser, *Barings LLC* ("Barings"), considers that doing so would be consistent with the Fund's investment objective. The Fund invests in a portfolio of securities that Barings expects to provide an attractive rate of real return. Barings defines "real return" as the portfolio's total return (before expenses) less the estimated rate of inflation, measured using the Consumer Price Index for All Urban Consumers (the "CPI-U").

In addition to the total return swaps and other derivatives referred to above, the Fund may (but is not obligated to) use a wide variety of

exchange-traded and over-the-counter derivative transactions, including, but not limited to, total return swaps (for hedging purposes or to adjust various portfolio characteristics, including the duration (interest rate volatility) of the Fund's portfolio, or as a substitute for direct investments), interest rate swaps (for hedging purposes, to adjust various portfolio characteristics, including the duration (interest rate volatility) of the Fund's portfolio, or as a substitute for direct investments), credit default swaps (for hedging purposes or as a substitute for direct investments), and futures contracts, foreign currency futures and forward contracts, including derivatives thereof (for hedging purposes, to adjust various portfolio characteristics, including the duration (interest rate volatility) of the Fund's portfolio, or as a substitute for direct investments or to gain market exposure). The Fund may also enter into forward commitment transactions. The Fund may invest in common stocks, exchange-traded funds ("ETFs"), or other equity securities and derivatives thereof for hedging purposes or to enhance total return. The use of such techniques may have the effect of creating investment leverage in the Fund.

In selecting investments for the Fund, Barings seeks to construct a portfolio of inflation-indexed and other income-producing securities and other financial instruments, including derivatives, designed to meet the real return objective of the Fund. Barings may choose to sell securities with deteriorating credit or limited upside potential compared to other securities.

Principal Risks

The following are the Principal Risks of the Fund. The value of your investment in the Fund could go down as well as up. You can lose money by investing in the Fund. Certain risks relating to instruments and strategies used in the management of the Fund are placed first. The significance of any specific risk to an investment in the Fund will vary over time, depending on the composition of the Fund's portfolio, market conditions, and other factors. You should read all of the risk information presented below carefully, because any one or more of these risks may result in losses to the Fund.

Fixed Income Securities Risk The values of fixed income securities typically will decline during periods of rising interest rates, and can also decline in response to changes in the financial condition of the issuer, borrower, counterparty, or underlying collateral assets, or changes in market, economic,

industry, political, and regulatory conditions affecting a particular type of security or issuer or fixed income securities generally. Certain events, such as market or economic developments, regulatory or government actions, natural disasters, terrorist attacks, war, and other geopolitical events can have a dramatic adverse effect on the debt market and the overall liquidity of the market for fixed income securities. During those periods, the Fund may experience high levels of shareholder redemptions, and may have to sell securities at times when the Fund would otherwise not do so, and potentially at unfavorable prices. Certain securities may be difficult to value during such periods. Fixed income securities are subject to interest rate risk (the risk that the value of a fixed income security will fall when interest rates rise), extension risk (the risk that the average life of a security will be extended through a slowing of principal payments), prepayment risk (the risk that a security will be prepaid and the Fund will be required to reinvest at a less favorable rate), and credit risk.

Inflation-Linked Securities Risk Such securities may change in value in response to actual or anticipated changes in inflation rates in a manner unanticipated by the Fund's portfolio manager or investors generally. Inflation-linked securities are subject to fixed income securities risks. When inflation is low, declining, or negative, the Fund's performance could lag the performance of more conventional bond funds.

Credit Risk Credit risk is the risk that an issuer, guarantor, or liquidity provider of a fixed income security held by the Fund may be unable or unwilling, or may be perceived (whether by market participants, ratings agencies, pricing services or otherwise) as unable or unwilling, to make timely principal and/or interest payments, or to otherwise honor its obligations. The Fund may also be exposed to the credit risk of its counterparty to repurchase agreements, reverse repurchase agreements, swap transactions, and other derivatives transactions, and to the counterparty's ability or willingness to perform in accordance with the terms of the transaction. The value of such transactions to the Fund will depend on the willingness and ability of the counterparty to perform its obligations, including among other things the obligation to return collateral or margin to the Fund.

Derivatives Risk Derivatives can be highly volatile and involve risks different from, and potentially greater than, direct investments, including risks of imperfect correlation between the value of

derivatives and underlying assets, counterparty default, potential losses that partially or completely offset gains, and illiquidity. Derivatives can create investment leverage. Losses from derivatives can be substantially greater than the derivatives' original cost and can sometimes be unlimited. If the value of a derivative does not correlate well with the particular market or asset class the derivative is designed to provide exposure to, the derivative may not have the effect or benefit anticipated. Derivatives can also reduce the opportunity for gains or result in losses by offsetting positive returns in other investments. Many derivatives are traded in the over-the-counter market and not on exchanges.

Foreign Investment Risk; Emerging Markets Risk; Currency Risk Investments in securities of foreign issuers, securities of companies with significant foreign exposure, and foreign currencies can involve additional risks relating to market, industry, political, regulatory, and other conditions. Political, social, diplomatic, and economic developments, U.S. and foreign government action such as the imposition of currency or capital blockages, controls, or tariffs, economic and trade sanctions or embargoes, security suspensions, entering or exiting trade or other intergovernmental agreements, or the expropriation or nationalization of assets in a particular country, can cause dramatic declines in certain or all securities with exposure to that country and other countries. In the event of nationalization, expropriation, or other confiscation, the Fund could lose its entire foreign investment in a particular country. There may be quotas or other limits on the ability of the Fund (or clients of the Fund's investment adviser or subadviser) to invest or maintain investments in securities of issuers in certain countries. Enforcing legal rights can be more difficult, costly, and limited in certain foreign countries, and can be particularly difficult against foreign governments. Because non-U.S. securities are normally denominated and traded in currencies other than the U.S. dollar, the value of the Fund's assets may be affected favorably or unfavorably by changes in currency exchange rates, exchange control regulations, and restrictions or prohibitions on the repatriation of non-U.S. currencies. Income and gains with respect to investments in certain countries may be subject to withholding and other taxes. There may be less information publicly available about a non-U.S. company than about a U.S. company, and many non-U.S. companies are not subject to accounting, auditing, and financial reporting standards, regulatory

framework and practices comparable to those in the U.S. The securities of some non-U.S. companies, especially those in emerging markets, are less liquid and at times more volatile than securities of comparable U.S. companies. Emerging markets securities are subject to greater risks than securities issued in developed foreign markets, including less liquidity, greater price volatility, higher relative rates of inflation, greater political, economic, and social instability, greater custody and operational risks, and greater volatility in currency exchange rates. Frontier markets, a subset of emerging markets, generally have smaller economies and less mature capital markets than emerging markets. As a result, the risks of investing in emerging market countries are magnified in frontier market countries. Frontier markets are more susceptible to having abrupt changes in currency values, less mature markets and settlement practices, and lower trading volumes that could lead to greater price volatility and illiquidity. Non-U.S. transaction costs, such as brokerage commissions and custody costs may be higher than in the United States. In addition, foreign markets can react differently to market, economic, industry, political, regulatory, and other conditions than the U.S. market.

Mortgage- and Asset-Backed Securities

Risk Investments in mortgage- and asset-backed securities subject the Fund to credit risk, interest rate risk, extension risk, and prepayment risk, among other risks. Mortgage-backed and asset-backed securities not issued by a government agency generally involve greater credit risk than securities issued by government agencies. Payment of principal and interest generally depends on the cash flows generated by the underlying assets and the terms of the security. The types of mortgages (for example, residential or commercial mortgages) underlying securities held by the Fund may differ and be affected differently by market factors. Investments that receive only the interest portion or the principal portion of payments on the underlying assets may be highly volatile. Litigation with respect to the representations and warranties given in connection with the issuance of mortgage-backed securities can be an important consideration in investing in such securities, and the outcome of any such litigation could significantly impact the value of the Fund's mortgage-backed investments.

Cash Position Risk If the Fund holds a significant portion of its assets in cash or cash equivalents, its investment returns may be adversely affected and the Fund may not achieve its investment objective.

Leveraging Risk Instruments and transactions, including derivatives transactions, that create leverage may cause the value of an investment in the Fund to be more volatile, could result in larger losses than if they were not used, and tend to compound the effects of other risks.

Liquidity Risk Certain securities may be difficult (or impossible) to sell or certain positions may be difficult to close out at a desirable time and price, and the Fund may be required to hold an illiquid investment that is declining in value, or it may be required to sell certain illiquid investments at a price or time that is not advantageous in order to meet redemptions or other cash needs. Some securities may be subject to restrictions on resale. There can be no assurance that there will be a liquid market for instruments held by the Fund at any time. The Fund may not receive the proceeds from the sale of certain investments for an extended period.

Management Risk The Fund relies on the manager's investment analysis and its selection of investments to achieve its investment objective. There can be no assurance that the Fund will achieve the intended results and the Fund may incur significant losses.

Market Risk The value of the Fund's portfolio securities may decline, at times sharply and unpredictably, as a result of unfavorable market-induced changes affecting particular industries, sectors, or issuers. Stock markets can decline significantly in response to issuer, market, economic, industry, political, regulatory, geopolitical and other conditions, as well as investor perceptions of these conditions. The Fund is subject to risks affecting issuers, such as management performance, financial leverage, industry problems, and reduced demand for goods or services.

Repurchase Agreement Risk These transactions must be fully collateralized at all times, but involve some risk to a Fund if the other party should default on its obligation and the Fund is delayed or prevented from recovering the collateral.

Risk of Investment in Other Funds or Pools The Fund is indirectly exposed to all of the risks of the underlying funds, including ETFs, in which it invests, including the risk that the underlying funds will not perform as expected. The Fund indirectly pays a portion of the expenses incurred by the underlying funds.

Sector Risk The Fund may allocate more of its assets to particular industries or to particular

economic, market, or industry sectors than to others. This could increase the volatility of the Fund's portfolio, and the Fund's performance may be more susceptible to developments affecting issuers in those industries or sectors than if the Fund invested more broadly.

Sovereign Debt Obligations Risk Investments in debt securities issued by governments or by government agencies and instrumentalities involve the risk that the governmental entities responsible for repayment may be unable or unwilling to pay interest and repay principal when due. Many sovereign debt obligations may be rated below investment grade ("junk" or "high yield" bonds). Any restructuring of a sovereign debt obligation held by the Fund will likely have a significant adverse effect on the value of the obligation. In the event of default of sovereign debt, the Fund may be unable to pursue legal action against the sovereign issuer or to realize on collateral securing the debt.

U.S. Government Securities Risk Obligations of certain U.S. Government agencies and instrumentalities are not backed by the full faith and credit of the U.S. Government, and there can be no assurance that the U.S. Government would provide financial support to such agencies and instrumentalities.

Valuation Risk The Fund is subject to the risk of mispricing or improper valuation of its investments, in particular to the extent that its securities are fair valued.

When-Issued, Delayed Delivery, TBA, and Forward Commitment Transaction Risk These transactions may create leverage and involve a risk of loss if the value of the securities declines prior to settlement.

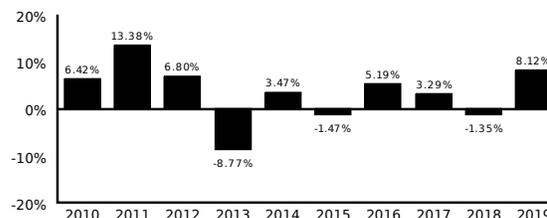
Performance Information

The following bar chart and table provide some indication of the risks of investing in the Fund. The bar chart shows changes in the Fund's performance from year to year for Class R5 shares. The table shows how the Fund's average annual returns for 1, 5, and 10 years compare with those of a broad measure of market performance. Performance for Class I shares of the Fund for periods prior to its inception date (03/01/11) is based on the performance of Class R5 shares. Performance for Class R4 shares of the Fund for periods prior to its inception date (04/01/14) is based on the performance of Class R5 shares, adjusted for Class R4 expenses. Performance for Class A shares of

the Fund reflects any applicable sales charge. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future. More up-to-date performance information is available at <http://www.massmutual.com/funds> or by calling 1-888-309-3539.

Annual Performance

Class R5 Shares



Highest Quarter: 3Q '11, 4.56% Lowest Quarter: 2Q '13, -7.15%

After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes. Actual after-tax returns depend on an investor's tax situation and may differ from those shown. After-tax returns are not relevant to investors who hold Fund shares through tax-advantaged arrangements, such as 401(k) plans or individual retirement accounts. After-tax returns are shown for Class R5 only. After-tax returns for other classes will vary.

Average Annual Total Returns

(for the periods ended December 31, 2019)

		One Year	Five Years	Ten Years
Class R5	Return Before Taxes	8.12%	2.69%	3.34%
	Return After Taxes on Distributions	7.25%	1.69%	2.16%
	Return After Taxes on Distributions and sales of Fund Shares	4.81%	1.61%	2.14%
Class I	Return Before Taxes	8.13%	2.78%	3.42%
Service Class	Return Before Taxes	8.02%	2.58%	3.24%
Administrative Class	Return Before Taxes	7.93%	2.47%	3.10%
Class A	Return Before Taxes	3.10%	1.34%	2.45%
Class R4	Return Before Taxes	7.75%	2.36%	2.99%

		One Year	Five Years	Ten Years
Class R3	Return Before Taxes	7.43%	2.07%	2.67%
Bloomberg Barclays U.S. Treasury Inflation Protected Securities (TIPS) Index (Series – L) (reflects no deduction for fees, expenses, or taxes)				
		8.43%	2.62%	3.36%

MANAGEMENT

Investment Adviser: MML Investment Advisers, LLC (“MML Advisers”)

Subadviser(s): Barings LLC (“Barings”)

Portfolio Manager(s):

Yulia Alekseeva, CFA is a Managing Director, the Head of Securitized Credit Research, and a portfolio manager for Barings’ Investment Grade Fixed Income Group. She has managed the Fund since February 2020.

Douglas M. Trevallion, II, CFA is a Managing Director, the Head of Global Securitized and Liquid Products, and a portfolio manager for Barings’ Investment Grade Fixed Income Group. He has managed the Fund since October 2008.

PURCHASE AND SALE OF FUND SHARES

Shares of the Fund are generally available to retirement plans, other institutional investors, and individual retirement accounts. Fund shares are redeemable on any business day by written request, telephone, or internet (available to certain customers).

TAX INFORMATION

The Fund intends to make distributions that may be taxed as ordinary income, qualified dividend income, or capital gains, unless you are an investor eligible for preferential tax treatment.

PAYMENTS TO BROKER-DEALERS AND OTHER FINANCIAL INTERMEDIARIES

If you purchase the Fund through a broker-dealer or other financial intermediary, the intermediary may receive a one-time or continuing payments from the Fund, MML Advisers or its affiliates, or others for the sale of Fund shares or continuing shareholder services provided by the intermediary. These payments may create a conflict of interest by influencing the broker-dealer or other intermediary to recommend the Fund over another investment. You should contact your intermediary to obtain more information about the compensation it may receive in connection with your investment.

MassMutual Premier Core Bond Fund

INVESTMENT OBJECTIVE

This Fund seeks to achieve a high total rate of return consistent with prudent investment risk and the preservation of capital by investing primarily in a diversified portfolio of investment grade fixed income securities.

FEES AND EXPENSES OF THE FUND

This table describes the fees and expenses that you may pay if you buy and hold shares of the Fund. For Class A shares, you may qualify for sales charge discounts if you invest, or agree to invest in the future, at least \$25,000 in MassMutual funds. More information about these and other discounts is available in the section titled *Sales Charges by Class* beginning on page 105 of the Fund's Prospectus or from your financial professional.

Shareholder Fees (fees paid directly from your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Maximum Sales Charge (Load) Imposed on Purchases (as a % of offering price)	None	None	None	None	4.25%	None	None
Maximum Deferred Sales Charge (Load) (as a % of the lower of the original offering price or redemption proceeds)	None	None	None	None	None	None	None

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Management Fees	.38%	.38%	.38%	.38%	.38%	.38%	.38%
Distribution and Service (Rule 12b-1) Fees	None	None	None	None	.25%	.25%	.50%
Other Expenses	.05%	.15%	.25%	.35%	.35%	.25%	.25%
Total Annual Fund Operating Expenses	.43%	.53%	.63%	.73%	.98%	.88%	1.13%

Example

This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. It assumes that you invest \$10,000 in each share class of the Fund for the time periods indicated and then redeem all of your shares at the end of those periods. For Class A shares, the example includes the initial sales charge. The example also assumes that your investment earns a 5% return each year and that the Fund's operating expenses are exactly as

described in the preceding table. Although your actual costs may be higher or lower, based on these assumptions your costs would be:

	1 Year	3 Years	5 Years	10 Years
Class I	\$ 44	\$138	\$241	\$ 542
Class R5	\$ 54	\$170	\$296	\$ 665
Service Class	\$ 64	\$202	\$351	\$ 786
Administrative Class	\$ 75	\$233	\$406	\$ 906
Class A	\$521	\$724	\$944	\$1,575
Class R4	\$ 90	\$281	\$488	\$1,084
Class R3	\$115	\$359	\$622	\$1,375

Portfolio Turnover

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when Fund shares are held in a taxable account. These costs, which are not reflected in annual fund operating expenses or in the example, affect the Fund's performance. During the most recent fiscal year, the Fund's portfolio turnover rate was 261% of the average value of its portfolio.

INVESTMENTS, RISKS, AND PERFORMANCE

Principal Investment Strategies

Under normal circumstances, the Fund invests at least 80% of its net assets (plus the amount of any borrowings for investment purposes) in investment grade fixed income securities (rated Baa3 or higher by Moody's, BBB- or higher by Standard & Poor's or the equivalent by any NRSRO, or, if unrated, determined to be of comparable quality by the subadviser, *Barings LLC* ("Barings")). These typically include U.S. dollar-denominated corporate obligations, securities issued or guaranteed by the U.S. Government or its agencies or instrumentalities, U.S. and foreign issuer dollar-denominated bonds including, but not limited to, corporate obligations, government and agency issues, private placement bonds, securities subject to resale pursuant to Rule 144A, and mortgage-backed and other asset-backed securities, including collateralized bond and loan obligations.

In pursuing its investment objective, the Fund may (but is not obligated to) use a wide variety of exchange-traded and over-the-counter derivatives, including, but not limited to, futures contracts

and forward contracts, including derivatives thereof (for hedging purposes, to adjust various portfolio characteristics, including the duration (interest rate volatility) of the Fund's portfolio, or as a substitute for direct investments); interest rate swaps (for hedging purposes or as a substitute for direct investments); total return swaps (for hedging purposes or to gain exposure to securities or markets in which it might not be able to invest directly); and credit default swaps (for hedging purposes or as a substitute for direct investments). The Fund may invest in common stocks, exchange-traded funds ("ETFs"), or other equity securities and derivatives thereof for hedging purposes or to enhance total return. Use of derivatives by the Fund may create investment leverage.

The Fund may invest in money market securities, including commercial paper. The Fund may enter into repurchase agreement transactions. The Fund may at times have significant exposure to one or more industries or sectors. The Fund may hold a portion of its assets in cash or cash equivalents. The Fund may enter into dollar roll or reverse repurchase agreement transactions.

The Fund may invest in other investment companies, including investment companies that are advised by the Fund's investment adviser, subadviser or its affiliates, or by unaffiliated parties.

Barings intends for the Fund's portfolio dollar-weighted average duration generally to match (within 10%) the average duration of the Bloomberg Barclays U.S. Aggregate Bond Index (as of December 31, 2019, the average duration of the Index was 5.80 years). Duration measures the price sensitivity of a bond to changes in interest rates. Duration is the dollar weighted average time to maturity of a bond utilizing the present value of all future cash flows.

Barings selects the Fund's investments based on its analysis of opportunities and risks of various fixed income securities and market sectors. Currently, Barings may consider the following factors (which may change over time and in particular cases): the perceived potential for high income offered by different types of corporate and government obligations (including mortgage-backed and other asset-backed securities); diversification among industries and issuers, credit ratings, and sectors; and the relative values offered by different securities. Barings may choose to sell securities with deteriorating credit or limited upside potential compared to other securities.

The Fund expects that it will engage in active and frequent trading and so will typically have a relatively high portfolio turnover rate.

Principal Risks

The following are the Principal Risks of the Fund. The value of your investment in the Fund could go down as well as up. You can lose money by investing in the Fund. Certain risks relating to instruments and strategies used in the management of the Fund are placed first. The significance of any specific risk to an investment in the Fund will vary over time, depending on the composition of the Fund's portfolio, market conditions, and other factors. You should read all of the risk information presented below carefully, because any one or more of these risks may result in losses to the Fund.

Fixed Income Securities Risk The values of fixed income securities typically will decline during periods of rising interest rates, and can also decline in response to changes in the financial condition of the issuer, borrower, counterparty, or underlying collateral assets, or changes in market, economic, industry, political, and regulatory conditions affecting a particular type of security or issuer or fixed income securities generally. Certain events, such as market or economic developments, regulatory or government actions, natural disasters, terrorist attacks, war, and other geopolitical events can have a dramatic adverse effect on the debt market and the overall liquidity of the market for fixed income securities. During those periods, the Fund may experience high levels of shareholder redemptions, and may have to sell securities at times when the Fund would otherwise not do so, and potentially at unfavorable prices. Certain securities may be difficult to value during such periods. Fixed income securities are subject to interest rate risk (the risk that the value of a fixed income security will fall when interest rates rise), extension risk (the risk that the average life of a security will be extended through a slowing of principal payments), prepayment risk (the risk that a security will be prepaid and the Fund will be required to reinvest at a less favorable rate), and credit risk.

Mortgage- and Asset-Backed Securities Risk Investments in mortgage- and asset-backed securities subject the Fund to credit risk, interest rate risk, extension risk, and prepayment risk, among other risks. Mortgage-backed and asset-backed securities not issued by a government agency generally involve greater credit risk than

securities issued by government agencies. Payment of principal and interest generally depends on the cash flows generated by the underlying assets and the terms of the security. The types of mortgages (for example, residential or commercial mortgages) underlying securities held by the Fund may differ and be affected differently by market factors. Investments that receive only the interest portion or the principal portion of payments on the underlying assets may be highly volatile. Litigation with respect to the representations and warranties given in connection with the issuance of mortgage-backed securities can be an important consideration in investing in such securities, and the outcome of any such litigation could significantly impact the value of the Fund's mortgage-backed investments.

Bank Loans Risk Many of the risks associated with bank loans are similar to the risks of investing in below investment grade debt securities. Changes in the financial condition of the borrower or economic conditions or other circumstances may reduce the capacity of the borrower to make principal and interest payments on such instruments and may lead to defaults. Senior secured bank loans are typically supported by collateral; however the value of the collateral may be insufficient to cover the amount owed to the Fund, or the Fund may be prevented or delayed from realizing on the collateral. Some loans may be unsecured; unsecured loans generally present a greater risk of loss to the Fund if the issuer defaults. If the Fund relies on a third party to administer a loan, the Fund is subject to the risk that the third party will fail to perform its obligations. In addition, if the Fund holds only a participation interest in a loan made by a third party, the Fund's receipt of payments on the loan will depend on the third party's willingness and ability to make those payments to the Fund. The settlement time for certain loans is longer than the settlement time for many other types of investments, and the Fund may not receive the payment for a loan sold by it until well after the sale; that cash would be unavailable for payment of redemption proceeds or for reinvestment. Interests in some bank loans may not be readily marketable and may be subject to restrictions on resale. In some cases, negotiations involved in disposing of indebtedness may require weeks to complete. Consequently, some indebtedness may be difficult or impossible to dispose of readily at what the Fund believes to be a fair price.

Credit Risk Credit risk is the risk that an issuer, guarantor, or liquidity provider of a fixed income

security held by the Fund may be unable or unwilling, or may be perceived (whether by market participants, ratings agencies, pricing services or otherwise) as unable or unwilling, to make timely principal and/or interest payments, or to otherwise honor its obligations. The Fund may also be exposed to the credit risk of its counterparty to repurchase agreements, reverse repurchase agreements, swap transactions, and other derivatives transactions, and to the counterparty's ability or willingness to perform in accordance with the terms of the transaction. The value of such transactions to the Fund will depend on the willingness and ability of the counterparty to perform its obligations, including among other things the obligation to return collateral or margin to the Fund.

Derivatives Risk Derivatives can be highly volatile and involve risks different from, and potentially greater than, direct investments, including risks of imperfect correlation between the value of derivatives and underlying assets, counterparty default, potential losses that partially or completely offset gains, and illiquidity. Derivatives can create investment leverage. Losses from derivatives can be substantially greater than the derivatives' original cost and can sometimes be unlimited. If the value of a derivative does not correlate well with the particular market or asset class the derivative is designed to provide exposure to, the derivative may not have the effect or benefit anticipated. Derivatives can also reduce the opportunity for gains or result in losses by offsetting positive returns in other investments. Many derivatives are traded in the over-the-counter market and not on exchanges.

Foreign Investment Risk; Emerging Markets Risk; Currency Risk Investments in securities of foreign issuers, securities of companies with significant foreign exposure, and foreign currencies can involve additional risks relating to market, industry, political, regulatory, and other conditions. Political, social, diplomatic, and economic developments, U.S. and foreign government action such as the imposition of currency or capital blockages, controls, or tariffs, economic and trade sanctions or embargoes, security suspensions, entering or exiting trade or other intergovernmental agreements, or the expropriation or nationalization of assets in a particular country, can cause dramatic declines in certain or all securities with exposure to that country and other countries. In the event of nationalization, expropriation, or other confiscation, the Fund could lose its entire foreign

investment in a particular country. There may be quotas or other limits on the ability of the Fund (or clients of the Fund's investment adviser or subadviser) to invest or maintain investments in securities of issuers in certain countries. Enforcing legal rights can be more difficult, costly, and limited in certain foreign countries, and can be particularly difficult against foreign governments. Because non-U.S. securities are normally denominated and traded in currencies other than the U.S. dollar, the value of the Fund's assets may be affected favorably or unfavorably by changes in currency exchange rates, exchange control regulations, and restrictions or prohibitions on the repatriation of non-U.S. currencies. Income and gains with respect to investments in certain countries may be subject to withholding and other taxes. There may be less information publicly available about a non-U.S. company than about a U.S. company, and many non-U.S. companies are not subject to accounting, auditing, and financial reporting standards, regulatory framework and practices comparable to those in the U.S. The securities of some non-U.S. companies, especially those in emerging markets, are less liquid and at times more volatile than securities of comparable U.S. companies. Emerging markets securities are subject to greater risks than securities issued in developed foreign markets, including less liquidity, greater price volatility, higher relative rates of inflation, greater political, economic, and social instability, greater custody and operational risks, and greater volatility in currency exchange rates. Frontier markets, a subset of emerging markets, generally have smaller economies and less mature capital markets than emerging markets. As a result, the risks of investing in emerging market countries are magnified in frontier market countries. Frontier markets are more susceptible to having abrupt changes in currency values, less mature markets and settlement practices, and lower trading volumes that could lead to greater price volatility and illiquidity. Non-U.S. transaction costs, such as brokerage commissions and custody costs may be higher than in the United States. In addition, foreign markets can react differently to market, economic, industry, political, regulatory, and other conditions than the U.S. market.

Cash Position Risk If the Fund holds a significant portion of its assets in cash or cash equivalents, its investment returns may be adversely affected and the Fund may not achieve its investment objective.

Defaulted and Distressed Securities Risk Because the issuer of such securities is in default and is

likely to be in distressed financial condition, repayment of defaulted securities and obligations of distressed issuers (including insolvent issuers or issuers in payment or covenant default, in workout or restructuring, or in bankruptcy or insolvency proceedings) is uncertain.

Dollar Roll and Reverse Repurchase Agreement Transaction Risk These transactions generally create leverage and subject the Fund to the credit risk of the counterparty.

Frequent Trading/Portfolio Turnover Risk Portfolio turnover generally involves some expense to the Fund and may result in the realization of taxable capital gains (including short-term gains). The trading costs and tax effects associated with portfolio turnover may adversely affect the Fund's performance.

Inflation Risk The value of assets or income from the Fund's investments will be less in the future as inflation decreases the value of money. As inflation increases, the value of the Fund's assets can decline as can the value of the Fund's distributions.

Leveraging Risk Instruments and transactions, including derivatives, dollar roll, and reverse repurchase agreement transactions, that create leverage may cause the value of an investment in the Fund to be more volatile, could result in larger losses than if they were not used, and tend to compound the effects of other risks.

Liquidity Risk Certain securities may be difficult (or impossible) to sell or certain positions may be difficult to close out at a desirable time and price, and the Fund may be required to hold an illiquid investment that is declining in value, or it may be required to sell certain illiquid investments at a price or time that is not advantageous in order to meet redemptions or other cash needs. Some securities may be subject to restrictions on resale. There can be no assurance that there will be a liquid market for instruments held by the Fund at any time. The Fund may not receive the proceeds from the sale of certain investments for an extended period.

Management Risk The Fund relies on the manager's investment analysis and its selection of investments to achieve its investment objective. There can be no assurance that the Fund will achieve the intended results and the Fund may incur significant losses.

Market Risk The value of the Fund's portfolio securities may decline, at times sharply and

unpredictably, as a result of unfavorable market-induced changes affecting particular industries, sectors, or issuers. Stock markets can decline significantly in response to issuer, market, economic, industry, political, regulatory, geopolitical and other conditions, as well as investor perceptions of these conditions. The Fund is subject to risks affecting issuers, such as management performance, financial leverage, industry problems, and reduced demand for goods or services.

Repurchase Agreement Risk These transactions must be fully collateralized at all times, but involve some risk to a Fund if the other party should default on its obligation and the Fund is delayed or prevented from recovering the collateral.

Restricted Securities Risk The Fund may hold securities that are restricted as to resale under the U.S. federal securities laws, such as securities in certain privately held companies. Such securities may be highly illiquid and their values may experience significant volatility. Restricted securities may be difficult to value.

Risk of Investment in Other Funds or Pools The Fund is indirectly exposed to all of the risks of the underlying funds, including ETFs, in which it invests, including the risk that the underlying funds will not perform as expected. The Fund indirectly pays a portion of the expenses incurred by the underlying funds.

Sector Risk The Fund may allocate more of its assets to particular industries or to particular economic, market, or industry sectors than to others. This could increase the volatility of the Fund's portfolio, and the Fund's performance may be more susceptible to developments affecting issuers in those industries or sectors than if the Fund invested more broadly.

U.S. Government Securities Risk Obligations of certain U.S. Government agencies and instrumentalities are not backed by the full faith and credit of the U.S. Government, and there can be no assurance that the U.S. Government would provide financial support to such agencies and instrumentalities.

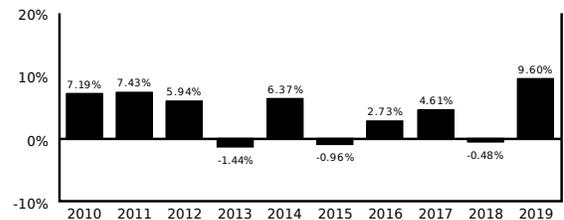
Valuation Risk The Fund is subject to the risk of mispricing or improper valuation of its investments, in particular to the extent that its securities are fair valued.

When-Issued, Delayed Delivery, TBA, and Forward Commitment Transaction Risk These transactions may create leverage and involve a risk of loss if the value of the securities declines prior to settlement.

Performance Information

The following bar chart and table provide some indication of the risks of investing in the Fund. The bar chart shows changes in the Fund's performance from year to year for Class R5 shares. The table shows how the Fund's average annual returns for 1, 5, and 10 years compare with those of a broad measure of market performance. Performance for Class I shares of the Fund for periods prior to its inception date (12/03/10) is based on the performance of Class R5 shares. Performance for Class R4 shares of the Fund for periods prior to its inception date (04/01/14) is based on the performance of Class R5 shares, adjusted for Class R4 expenses. Performance for Class A shares of the Fund reflects any applicable sales charge. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future. More up-to-date performance information is available at <http://www.massmutual.com/funds> or by calling 1-888-309-3539.

Annual Performance
Class R5 Shares



Highest Quarter: 3Q '09, 5.37% Lowest Quarter: 4Q '16, -2.72%

After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes. Actual after-tax returns depend on an investor's tax situation and may differ from those shown. After-tax returns are not relevant to investors who hold Fund shares through tax-advantaged arrangements, such as 401(k) plans or individual retirement accounts. After-tax returns are shown for Class R5 only. After-tax returns for other classes will vary.

Average Annual Total Returns
(for the periods ended December 31, 2019)

		One Year	Five Years	Ten Years
Class R5	Return Before Taxes	9.60%	3.03%	4.03%
	Return After Taxes on Distributions	8.16%	1.59%	2.55%
	Return After Taxes on Distributions and sales of Fund Shares	5.69%	1.67%	2.52%
Class I	Return Before Taxes	9.64%	3.11%	4.15%
Service Class	Return Before Taxes	9.51%	2.93%	3.96%
Administrative Class	Return Before Taxes	9.30%	2.81%	3.86%
Class A	Return Before Taxes	4.44%	1.68%	3.15%
Class R4	Return Before Taxes	9.19%	2.68%	3.68%
Class R3	Return Before Taxes	8.93%	2.43%	3.38%
Bloomberg Barclays U.S. Aggregate Bond Index (reflects no deduction for fees, expenses, or taxes)		8.72%	3.05%	3.75%

MANAGEMENT

Investment Adviser: MML Investment Advisers, LLC (“MML Advisers”)

Subadviser(s): Barings LLC (“Barings”)

Portfolio Manager(s):

Stephen Ehrenberg, CFA is a Managing Director and portfolio manager for Barings’ Investment Grade Fixed Income Group. He has managed the Fund since February 2019.

David L. Nagle, CFA is a Managing Director and portfolio manager for Barings’ Investment Grade Fixed Income Group. He has managed the Fund since its inception (October 1994).

Douglas M. Trevallion, II, CFA is a Managing Director, the Head of Global Securitized and Liquid Products, and a portfolio manager for Barings’ Investment Grade Fixed Income Group. He has managed the Fund since October 2008.

PURCHASE AND SALE OF FUND SHARES

Shares of the Fund are generally available to retirement plans, other institutional investors, and individual retirement accounts. Fund shares are redeemable on any business day by written request, telephone, or internet (available to certain customers).

TAX INFORMATION

The Fund intends to make distributions that may be taxed as ordinary income, qualified dividend income, or capital gains, unless you are an investor eligible for preferential tax treatment.

PAYMENTS TO BROKER-DEALERS AND OTHER FINANCIAL INTERMEDIARIES

If you purchase the Fund through a broker-dealer or other financial intermediary, the intermediary may receive a one-time or continuing payments from the Fund, MML Advisers or its affiliates, or others for the sale of Fund shares or continuing shareholder services provided by the intermediary. These payments may create a conflict of interest by influencing the broker-dealer or other intermediary to recommend the Fund over another investment. You should contact your intermediary to obtain more information about the compensation it may receive in connection with your investment.

MassMutual Premier Diversified Bond Fund

INVESTMENT OBJECTIVE

This Fund seeks a superior total rate of return by investing in fixed income instruments.

FEES AND EXPENSES OF THE FUND

This table describes the fees and expenses that you may pay if you buy and hold shares of the Fund. For Class A shares, you may qualify for sales charge discounts if you invest, or agree to invest in the future, at least \$25,000 in MassMutual funds. More information about these and other discounts is available in the section titled *Sales Charges by Class* beginning on page 105 of the Fund's Prospectus or from your financial professional.

Shareholder Fees (fees paid directly from your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Maximum Sales Charge (Load) Imposed on Purchases (as a % of offering price)	None	None	None	None	4.25%	None	None
Maximum Deferred Sales Charge (Load) (as a % of the lower of the original offering price or redemption proceeds)	None	None	None	None	None	None	None

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Management Fees	.37%	.37%	.37%	.37%	.37%	.37%	.37%
Distribution and Service (Rule 12b-1) Fees	None	None	None	None	.25%	.25%	.50%
Other Expenses	.18%	.28%	.38%	.48%	.48%	.38%	.38%
Total Annual Fund Operating Expenses	.55%	.65%	.75%	.85%	1.10%	1.00%	1.25%

Example

This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. It assumes that you invest \$10,000 in each share class of the Fund for the time periods indicated and then redeem all of your shares at the end of those periods. For Class A shares, the example includes the initial sales charge. The example also assumes that your investment earns a 5% return each year and that the Fund's operating expenses are exactly as described in the preceding table. Although your

actual costs may be higher or lower, based on these assumptions your costs would be:

	1 Year	3 Years	5 Years	10 Years
Class I	\$ 56	\$176	\$ 307	\$ 689
Class R5	\$ 66	\$208	\$ 362	\$ 810
Service Class	\$ 77	\$240	\$ 417	\$ 930
Administrative Class	\$ 87	\$271	\$ 471	\$1,049
Class A	\$532	\$760	\$1,005	\$1,708
Class R4	\$102	\$318	\$ 552	\$1,225
Class R3	\$127	\$397	\$ 686	\$1,511

Portfolio Turnover

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when Fund shares are held in a taxable account. These costs, which are not reflected in annual fund operating expenses or in the example, affect the Fund's performance. During the most recent fiscal year, the Fund's portfolio turnover rate was 236% of the average value of its portfolio.

INVESTMENTS, RISKS, AND PERFORMANCE

Principal Investment Strategies

Under normal circumstances, the Fund invests at least 80% of its net assets (plus the amount of any borrowings for investment purposes) in fixed income securities. These typically include: U.S. dollar-denominated corporate obligations and bank loans, securities issued or guaranteed by the U.S. Government or its agencies or instrumentalities, U.S. and foreign issuer dollar-denominated bonds including, but not limited to, corporate obligations, government and agency issues, private placement bonds, securities subject to resale pursuant to Rule 144A, convertible bonds, and mortgage-backed and other asset-backed securities, including collateralized bond and loan obligations.

The Fund may invest up to 25% of its total assets in securities that are not denominated in U.S. dollars including, but not limited to, corporate obligations, government and agency issues, private placement bonds, convertible bonds, and mortgage-backed and other asset-backed securities, including collateralized bond and loan obligations. The Fund may also invest in non-dollar

denominated high yield bonds, including bank loans, and may invest in securities subject to legal restrictions on resale, some of which may be subject to resale pursuant to Rule 144A.

The Fund may, but will not necessarily, engage in foreign currency futures and forward contracts, including derivatives thereof, for hedging purposes or to gain market exposure. In pursuing its investment objective, the Fund may (but is not obligated to) use a wide variety of exchange-traded and over-the-counter derivatives, including, but not limited to, futures contracts (for hedging purposes, to adjust various portfolio characteristics, including the duration (interest rate volatility) of the Fund's portfolio, or as a substitute for direct investments); interest rate swaps (for hedging purposes or as a substitute for direct investments); total return swaps (for hedging purposes or to gain exposure to securities or markets in which it might not be able to invest directly); and credit default swaps (for hedging purposes or as a substitute for direct investments). The Fund may invest in common stocks, exchange-traded funds ("ETFs"), or other equity securities and derivatives thereof for hedging purposes or to enhance total return. Use of derivatives by the Fund may create investment leverage.

The Fund may invest in money market securities, including commercial paper. The Fund may enter into repurchase agreement transactions. The Fund may at times have significant exposure to one or more industries or sectors. The Fund may hold a portion of its assets in cash or cash equivalents. The Fund may enter into dollar roll or reverse repurchase agreement transactions.

The Fund may invest in (i) securities denominated in currencies of emerging market countries, (ii) fixed income securities or debt instruments issued by emerging market entities or sovereign nations and/or (iii) debt instruments denominated in or based on the currencies, interest rates, or issues of emerging market countries. Emerging market countries are defined to include any country that did not become a member of the Organization for Economic Cooperation and Development (O.E.C.D.) prior to 1975 and Turkey.

The Fund may invest in other investment companies, including investment companies that are advised by the Fund's investment adviser, subadviser or its affiliates, or by unaffiliated parties.

The dollar-weighted average credit quality of the Fund is generally not expected to be less than BBB-/Baa3. The Fund may, however, invest up to 25% of its net assets in below investment grade

debt securities ("junk" or "high yield" bonds), including securities in default, and including bank loans, or their unrated equivalent, as determined by the subadviser. Investments in such securities will vary based upon the subadviser's assessment of market conditions and the amount of additional yield offered in relation to the risk of the instruments. The Fund's subadviser, *Barings LLC* ("Barings"), expects for the Fund's portfolio dollar-weighted average duration generally to match (plus or minus 2.5 years) the average duration of the Bloomberg Barclays U.S. Aggregate Bond Index (as of December 31, 2019, the average duration of the Index was 5.80 years). Duration measures the price sensitivity of a bond to changes in interest rates. Duration is the dollar weighted average time to maturity of a bond utilizing the present value of all future cash flows.

Barings selects the Fund's investments based on its analysis of opportunities and risks of various fixed income securities and market sectors. Currently, Barings may consider the following factors (which may change over time and in particular cases): the perceived potential for high income offered by different types of corporate and government obligations (including mortgage-backed and other asset-backed securities); diversification among industries and issuers, credit ratings, and sectors; and the relative values offered by different securities. Barings may choose to sell securities with deteriorating credit or limited upside potential compared to other securities.

The Fund expects that it will engage in active and frequent trading and so will typically have a relatively high portfolio turnover rate.

Principal Risks

The following are the Principal Risks of the Fund. The value of your investment in the Fund could go down as well as up. You can lose money by investing in the Fund. Certain risks relating to instruments and strategies used in the management of the Fund are placed first. The significance of any specific risk to an investment in the Fund will vary over time, depending on the composition of the Fund's portfolio, market conditions, and other factors. You should read all of the risk information presented below carefully, because any one or more of these risks may result in losses to the Fund.

Fixed Income Securities Risk The values of fixed income securities typically will decline during periods of rising interest rates, and can also decline in response to changes in the financial condition

of the issuer, borrower, counterparty, or underlying collateral assets, or changes in market, economic, industry, political, and regulatory conditions affecting a particular type of security or issuer or fixed income securities generally. Certain events, such as market or economic developments, regulatory or government actions, natural disasters, terrorist attacks, war, and other geopolitical events can have a dramatic adverse effect on the debt market and the overall liquidity of the market for fixed income securities. During those periods, the Fund may experience high levels of shareholder redemptions, and may have to sell securities at times when the Fund would otherwise not do so, and potentially at unfavorable prices. Certain securities may be difficult to value during such periods. Fixed income securities are subject to interest rate risk (the risk that the value of a fixed income security will fall when interest rates rise), extension risk (the risk that the average life of a security will be extended through a slowing of principal payments), prepayment risk (the risk that a security will be prepaid and the Fund will be required to reinvest at a less favorable rate), and credit risk.

Mortgage- and Asset-Backed Securities

Risk Investments in mortgage- and asset-backed securities subject the Fund to credit risk, interest rate risk, extension risk, and prepayment risk, among other risks. Mortgage-backed and asset-backed securities not issued by a government agency generally involve greater credit risk than securities issued by government agencies. Payment of principal and interest generally depends on the cash flows generated by the underlying assets and the terms of the security. The types of mortgages (for example, residential or commercial mortgages) underlying securities held by the Fund may differ and be affected differently by market factors. Investments that receive only the interest portion or the principal portion of payments on the underlying assets may be highly volatile. Litigation with respect to the representations and warranties given in connection with the issuance of mortgage-backed securities can be an important consideration in investing in such securities, and the outcome of any such litigation could significantly impact the value of the Fund's mortgage-backed investments.

Bank Loans Risk Many of the risks associated with bank loans are similar to the risks of investing in below investment grade debt securities. Changes in the financial condition of the borrower or economic conditions or other circumstances may

reduce the capacity of the borrower to make principal and interest payments on such instruments and may lead to defaults. Senior secured bank loans are typically supported by collateral; however the value of the collateral may be insufficient to cover the amount owed to the Fund, or the Fund may be prevented or delayed from realizing on the collateral. Some loans may be unsecured; unsecured loans generally present a greater risk of loss to the Fund if the issuer defaults. If the Fund relies on a third party to administer a loan, the Fund is subject to the risk that the third party will fail to perform its obligations. In addition, if the Fund holds only a participation interest in a loan made by a third party, the Fund's receipt of payments on the loan will depend on the third party's willingness and ability to make those payments to the Fund. The settlement time for certain loans is longer than the settlement time for many other types of investments, and the Fund may not receive the payment for a loan sold by it until well after the sale; that cash would be unavailable for payment of redemption proceeds or for reinvestment. Interests in some bank loans may not be readily marketable and may be subject to restrictions on resale. In some cases, negotiations involved in disposing of indebtedness may require weeks to complete. Consequently, some indebtedness may be difficult or impossible to dispose of readily at what the Fund believes to be a fair price.

Below Investment Grade Debt Securities Risk Below investment grade debt securities, commonly known as "junk" or "high yield" bonds, have speculative characteristics and involve greater volatility of price and yield, greater risk of loss of principal and interest, and generally reflect a greater possibility of an adverse change in financial condition that could affect an issuer's ability to honor its obligations.

Credit Risk Credit risk is the risk that an issuer, guarantor, or liquidity provider of a fixed income security held by the Fund may be unable or unwilling, or may be perceived (whether by market participants, ratings agencies, pricing services or otherwise) as unable or unwilling, to make timely principal and/or interest payments, or to otherwise honor its obligations. The Fund may also be exposed to the credit risk of its counterparty to repurchase agreements, reverse repurchase agreements, swap transactions, and other derivatives transactions, and to the counterparty's ability or willingness to perform in accordance with the terms of the transaction. The value of

such transactions to the Fund will depend on the willingness and ability of the counterparty to perform its obligations, including among other things the obligation to return collateral or margin to the Fund.

Derivatives Risk Derivatives can be highly volatile and involve risks different from, and potentially greater than, direct investments, including risks of imperfect correlation between the value of derivatives and underlying assets, counterparty default, potential losses that partially or completely offset gains, and illiquidity. Derivatives can create investment leverage. Losses from derivatives can be substantially greater than the derivatives' original cost and can sometimes be unlimited. If the value of a derivative does not correlate well with the particular market or asset class the derivative is designed to provide exposure to, the derivative may not have the effect or benefit anticipated. Derivatives can also reduce the opportunity for gains or result in losses by offsetting positive returns in other investments. Many derivatives are traded in the over-the-counter market and not on exchanges.

Foreign Investment Risk; Emerging Markets Risk; Currency Risk Investments in securities of foreign issuers, securities of companies with significant foreign exposure, and foreign currencies can involve additional risks relating to market, industry, political, regulatory, and other conditions. Political, social, diplomatic, and economic developments, U.S. and foreign government action such as the imposition of currency or capital blockages, controls, or tariffs, economic and trade sanctions or embargoes, security suspensions, entering or exiting trade or other intergovernmental agreements, or the expropriation or nationalization of assets in a particular country, can cause dramatic declines in certain or all securities with exposure to that country and other countries. In the event of nationalization, expropriation, or other confiscation, the Fund could lose its entire foreign investment in a particular country. There may be quotas or other limits on the ability of the Fund (or clients of the Fund's investment adviser or subadviser) to invest or maintain investments in securities of issuers in certain countries. Enforcing legal rights can be more difficult, costly, and limited in certain foreign countries, and can be particularly difficult against foreign governments. Because non-U.S. securities are normally denominated and traded in currencies other than the U.S. dollar, the value of the Fund's assets may be affected favorably or unfavorably by

changes in currency exchange rates, exchange control regulations, and restrictions or prohibitions on the repatriation of non-U.S. currencies. Income and gains with respect to investments in certain countries may be subject to withholding and other taxes. There may be less information publicly available about a non-U.S. company than about a U.S. company, and many non-U.S. companies are not subject to accounting, auditing, and financial reporting standards, regulatory framework and practices comparable to those in the U.S. The securities of some non-U.S. companies, especially those in emerging markets, are less liquid and at times more volatile than securities of comparable U.S. companies. Emerging markets securities are subject to greater risks than securities issued in developed foreign markets, including less liquidity, greater price volatility, higher relative rates of inflation, greater political, economic, and social instability, greater custody and operational risks, and greater volatility in currency exchange rates. Frontier markets, a subset of emerging markets, generally have smaller economies and less mature capital markets than emerging markets. As a result, the risks of investing in emerging market countries are magnified in frontier market countries. Frontier markets are more susceptible to having abrupt changes in currency values, less mature markets and settlement practices, and lower trading volumes that could lead to greater price volatility and illiquidity. Non-U.S. transaction costs, such as brokerage commissions and custody costs may be higher than in the United States. In addition, foreign markets can react differently to market, economic, industry, political, regulatory, and other conditions than the U.S. market.

Cash Position Risk If the Fund holds a significant portion of its assets in cash or cash equivalents, its investment returns may be adversely affected and the Fund may not achieve its investment objective.

Convertible Securities Risk Convertible securities are subject to the risks of both debt instruments and equity securities. The price of a convertible security may change in response to changes in price of the underlying equity security, the credit quality of the issuer, and interest rates. In general, the values of convertible securities tend to decline as interest rates rise and to rise when interest rates fall. A convertible security generally has less potential for gain or loss than the underlying equity security.

Defaulted and Distressed Securities Risk Because the issuer of such securities is in default and is

likely to be in distressed financial condition, repayment of defaulted securities and obligations of distressed issuers (including insolvent issuers or issuers in payment or covenant default, in workout or restructuring, or in bankruptcy or insolvency proceedings) is uncertain.

Dollar Roll and Reverse Repurchase Agreement Transaction Risk These transactions generally create leverage and subject the Fund to the credit risk of the counterparty.

Frequent Trading/Portfolio Turnover Risk Portfolio turnover generally involves some expense to the Fund and may result in the realization of taxable capital gains (including short-term gains). The trading costs and tax effects associated with portfolio turnover may adversely affect the Fund's performance.

Inflation Risk The value of assets or income from the Fund's investments will be less in the future as inflation decreases the value of money. As inflation increases, the value of the Fund's assets can decline as can the value of the Fund's distributions.

Leveraging Risk Instruments and transactions, including derivatives, dollar roll, and reverse repurchase agreement transactions, that create leverage may cause the value of an investment in the Fund to be more volatile, could result in larger losses than if they were not used, and tend to compound the effects of other risks.

Liquidity Risk Certain securities may be difficult (or impossible) to sell or certain positions may be difficult to close out at a desirable time and price, and the Fund may be required to hold an illiquid investment that is declining in value, or it may be required to sell certain illiquid investments at a price or time that is not advantageous in order to meet redemptions or other cash needs. Some securities may be subject to restrictions on resale. There can be no assurance that there will be a liquid market for instruments held by the Fund at any time. The Fund may not receive the proceeds from the sale of certain investments for an extended period.

Management Risk The Fund relies on the manager's investment analysis and its selection of investments to achieve its investment objective. There can be no assurance that the Fund will achieve the intended results and the Fund may incur significant losses.

Market Risk The value of the Fund's portfolio securities may decline, at times sharply and

unpredictably, as a result of unfavorable market-induced changes affecting particular industries, sectors, or issuers. Stock markets can decline significantly in response to issuer, market, economic, industry, political, regulatory, geopolitical and other conditions, as well as investor perceptions of these conditions. The Fund is subject to risks affecting issuers, such as management performance, financial leverage, industry problems, and reduced demand for goods or services.

Repurchase Agreement Risk These transactions must be fully collateralized at all times, but involve some risk to a Fund if the other party should default on its obligation and the Fund is delayed or prevented from recovering the collateral.

Restricted Securities Risk The Fund may hold securities that are restricted as to resale under the U.S. federal securities laws, such as securities in certain privately held companies. Such securities may be highly illiquid and their values may experience significant volatility. Restricted securities may be difficult to value.

Risk of Investment in Other Funds or Pools The Fund is indirectly exposed to all of the risks of the underlying funds, including ETFs, in which it invests, including the risk that the underlying funds will not perform as expected. The Fund indirectly pays a portion of the expenses incurred by the underlying funds.

Sector Risk The Fund may allocate more of its assets to particular industries or to particular economic, market, or industry sectors than to others. This could increase the volatility of the Fund's portfolio, and the Fund's performance may be more susceptible to developments affecting issuers in those industries or sectors than if the Fund invested more broadly.

Sovereign Debt Obligations Risk Investments in debt securities issued by governments or by government agencies and instrumentalities involve the risk that the governmental entities responsible for repayment may be unable or unwilling to pay interest and repay principal when due. Many sovereign debt obligations may be rated below investment grade ("junk" or "high yield" bonds). Any restructuring of a sovereign debt obligation held by the Fund will likely have a significant adverse effect on the value of the obligation. In the event of default of sovereign debt, the Fund may be unable to pursue legal action against the sovereign issuer or to realize on collateral securing the debt.

U.S. Government Securities Risk Obligations of certain U.S. Government agencies and instrumentalities are not backed by the full faith and credit of the U.S. Government, and there can be no assurance that the U.S. Government would provide financial support to such agencies and instrumentalities.

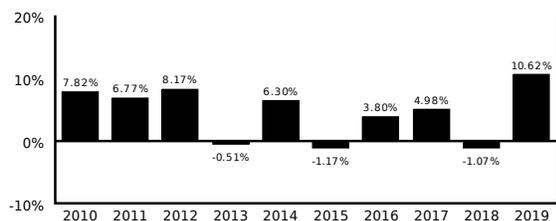
Valuation Risk The Fund is subject to the risk of mispricing or improper valuation of its investments, in particular to the extent that its securities are fair valued.

When-Issued, Delayed Delivery, TBA, and Forward Commitment Transaction Risk These transactions may create leverage and involve a risk of loss if the value of the securities declines prior to settlement.

Performance Information

The following bar chart and table provide some indication of the risks of investing in the Fund. The bar chart shows changes in the Fund’s performance from year to year for Class R5 shares. The table shows how the Fund’s average annual returns for 1, 5, and 10 years compare with those of a broad measure of market performance. Performance for Class I shares of the Fund for periods prior to its inception date (12/03/10) is based on the performance of Class R5 shares. Performance for Class R4 and Class R3 shares of the Fund for periods prior to their inception date (04/01/14) is based on the performance of Class R5 shares, adjusted to reflect Class R4 and Class R3 expenses, respectively. Performance for Class A shares of the Fund reflects any applicable sales charge. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future. More up-to-date performance information is available at <http://www.massmutual.com/funds> or by calling 1-888-309-3539.

Annual Performance
Class R5 Shares



Highest Quarter: 1Q '19, 4.02% Lowest Quarter: 4Q '16, -2.39%

After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes. Actual after-tax returns depend on an investor’s tax situation and may differ from those shown. After-tax returns are not relevant to investors who hold Fund shares through tax-advantaged arrangements, such as 401(k) plans or individual retirement accounts. After-tax returns are shown for Class R5 only. After-tax returns for other classes will vary.

Average Annual Total Returns
(for the periods ended December 31, 2019)

		One Year	Five Years	Ten Years
Class R5	Return Before Taxes	10.62%	3.34%	4.49%
	Return After Taxes on Distributions	9.10%	2.00%	2.87%
	Return After Taxes on Distributions and sales of Fund Shares	6.30%	1.95%	2.87%
Class I	Return Before Taxes	10.67%	3.47%	4.83%
Service Class	Return Before Taxes	10.44%	3.23%	4.42%
Administrative Class	Return Before Taxes	10.45%	3.15%	4.35%
Class A	Return Before Taxes	5.43%	2.00%	3.63%
Class R4	Return Before Taxes	10.24%	2.99%	4.14%
Class R3	Return Before Taxes	10.02%	2.73%	3.88%
Bloomberg Barclays U.S. Aggregate Bond Index (reflects no deduction for fees, expenses, or taxes)		8.72%	3.05%	3.75%

MANAGEMENT

Investment Adviser: MML Investment Advisers, LLC (“MML Advisers”)

Subadviser(s): Barings LLC (“Barings”)

Portfolio Manager(s):

Stephen Ehrenberg, CFA is a Managing Director and portfolio manager for Barings’ Investment Grade Fixed Income Group. He has managed the Fund since November 2017.

David L. Nagle, CFA is a Managing Director and portfolio manager for Barings’ Investment Grade Fixed Income Group. He has managed the Fund since its inception (May 1999).

Douglas M. Trevallion, II, CFA is a Managing Director, the Head of Global Securitized and Liquid Products, and a portfolio manager for Barings' Investment Grade Fixed Income Group. He has managed the Fund since June 2018.

PURCHASE AND SALE OF FUND SHARES

Shares of the Fund are generally available to retirement plans, other institutional investors, and individual retirement accounts. Fund shares are redeemable on any business day by written request, telephone, or internet (available to certain customers).

TAX INFORMATION

The Fund intends to make distributions that may be taxed as ordinary income, qualified dividend income, or capital gains, unless you are an investor eligible for preferential tax treatment.

PAYMENTS TO BROKER-DEALERS AND OTHER FINANCIAL INTERMEDIARIES

If you purchase the Fund through a broker-dealer or other financial intermediary, the intermediary may receive a one-time or continuing payments from the Fund, MML Advisers or its affiliates, or others for the sale of Fund shares or continuing shareholder services provided by the intermediary. These payments may create a conflict of interest by influencing the broker-dealer or other intermediary to recommend the Fund over another investment. You should contact your intermediary to obtain more information about the compensation it may receive in connection with your investment.

MassMutual Premier High Yield Fund

INVESTMENT OBJECTIVE

This Fund seeks to achieve a high level of total return, with an emphasis on current income, by investing primarily in high yield debt and related securities.

FEES AND EXPENSES OF THE FUND

This table describes the fees and expenses that you may pay if you buy and hold shares of the Fund. For Class A shares, you may qualify for sales charge discounts if you invest, or agree to invest in the future, at least \$25,000 in MassMutual funds. More information about these and other discounts is available in the section titled *Sales Charges by Class* beginning on page 105 of the Fund's Prospectus or from your financial professional.

Shareholder Fees (fees paid directly from your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Maximum Sales Charge (Load) Imposed on Purchases (as a % of offering price)	None	None	None	None	5.50%	None	None
Maximum Deferred Sales Charge (Load) (as a % of the lower of the original offering price or redemption proceeds)	None	None	None	None	None	None	None

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Management Fees	.47%	.47%	.47%	.47%	.47%	.47%	.47%
Distribution and Service (Rule 12b-1) Fees	None	None	None	None	.25%	.25%	.50%
Other Expenses	.07%	.17%	.27%	.37%	.37%	.27%	.27%
Total Annual Fund Operating Expenses	.54%	.64%	.74%	.84%	1.09%	.99%	1.24%

Example

This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. It assumes that you invest \$10,000 in each share class of the Fund for the time periods indicated and then redeem all of your shares at the end of those periods. For Class A shares, the example includes the initial sales charge. The example also assumes that your investment earns a 5% return each year and that the Fund's operating expenses are exactly as described in the preceding table. Although your

actual costs may be higher or lower, based on these assumptions your costs would be:

	1 Year	3 Years	5 Years	10 Years
Class I	\$ 55	\$173	\$ 302	\$ 677
Class R5	\$ 65	\$205	\$ 357	\$ 798
Service Class	\$ 76	\$237	\$ 411	\$ 918
Administrative Class	\$ 86	\$268	\$ 466	\$1,037
Class A	\$655	\$878	\$1,118	\$1,806
Class R4	\$101	\$315	\$ 547	\$1,213
Class R3	\$126	\$393	\$ 681	\$1,500

Portfolio Turnover

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when Fund shares are held in a taxable account. These costs, which are not reflected in annual fund operating expenses or in the example, affect the Fund's performance. During the most recent fiscal year, the Fund's portfolio turnover rate was 54% of the average value of its portfolio.

INVESTMENTS, RISKS, AND PERFORMANCE

Principal Investment Strategies

The Fund invests primarily in lower rated U.S. debt securities ("junk" or "high yield" bonds), including securities in default. Debt securities may include, for example, corporate bonds, mortgage-backed and asset-backed securities, and obligations of the U.S. Government or its agencies or instrumentalities. Under normal circumstances, the Fund invests at least 80% of its net assets (plus the amount of any borrowings for investment purposes) in lower rated fixed income securities (rated below Baa3 by Moody's, below BBB- by Standard & Poor's or the equivalent by any NRSRO (using the lower rating) or, if unrated, determined to be of below investment grade quality by the Fund's subadviser, *Barings LLC* ("Barings")). The Fund may also invest in convertible securities, preferred stocks, warrants, bank loans, and other fixed income securities, including Rule 144A securities, of both U.S. and foreign issuers. Currently, Barings does not expect that the Fund will invest more than 20% of its total assets in bank loans. The Fund may invest up to 15% of its total assets in securities that are not denominated in U.S. dollars including, but not

limited to, corporate bonds, government and agency issues, Rule 144A securities, convertible securities, bank loans, mortgage-backed, and asset-backed securities.

In pursuing its investment objective, the Fund may (but is not obligated to) use a wide variety of exchange-traded and over-the-counter derivatives, including futures contracts (for hedging purposes, to adjust various portfolio characteristics, including the duration (interest rate volatility) of the Fund's portfolio, or as a substitute for direct investments); interest rate swaps (for hedging purposes or as a substitute for direct investments); total return swaps (for hedging purposes); and credit default swaps (for hedging purposes, to adjust various portfolio characteristics, including the duration (interest rate volatility) of the Fund's portfolio, or as a substitute for direct investments). Use of derivatives by the Fund may create investment leverage.

The Fund may enter into repurchase agreement transactions. The Fund may at times have significant exposure to one or more industries or sectors. The Fund may hold a portion of its assets in cash or cash equivalents. The Fund may enter into reverse repurchase agreement transactions. Under normal market conditions, the Fund expects to have a dollar-weighted average portfolio maturity ranging from 4 to 10 years. The Fund's portfolio may include securities with maturities outside this range, and the range may change from time to time.

In selecting the Fund's investments, Barings employs a bottom-up, fundamental approach to its credit analysis, which focuses first on a specific issuer's financial strength, among other things, before considering trends or macro economic factors. Barings prefers companies that it believes possess one or more of the following characteristics: strong business position, ability to generate free cash flow to repay debt, favorable capital structure, high level of fixed assets, conservative accounting, and respected management or equity sponsor(s) (such management and sponsors would have a good reputation and/or have had prior positive relations with Barings).

The Fund expects that it will engage in active and frequent trading and so will typically have a relatively high portfolio turnover rate.

Principal Risks

The following are the Principal Risks of the Fund. The value of your investment in the Fund could go down as well as up. You can lose money by investing in the Fund. Certain risks relating to instruments and strategies used in the management of the Fund are placed first. The significance of any specific risk to an investment in the Fund will vary over time, depending on the composition of the Fund's portfolio, market conditions, and other factors. You should read all of the risk information presented below carefully, because any one or more of these risks may result in losses to the Fund.

Fixed Income Securities Risk The values of fixed income securities typically will decline during periods of rising interest rates, and can also decline in response to changes in the financial condition of the issuer, borrower, counterparty, or underlying collateral assets, or changes in market, economic, industry, political, and regulatory conditions affecting a particular type of security or issuer or fixed income securities generally. Certain events, such as market or economic developments, regulatory or government actions, natural disasters, terrorist attacks, war, and other geopolitical events can have a dramatic adverse effect on the debt market and the overall liquidity of the market for fixed income securities. During those periods, the Fund may experience high levels of shareholder redemptions, and may have to sell securities at times when the Fund would otherwise not do so, and potentially at unfavorable prices. Certain securities may be difficult to value during such periods. Fixed income securities are subject to interest rate risk (the risk that the value of a fixed income security will fall when interest rates rise), extension risk (the risk that the average life of a security will be extended through a slowing of principal payments), prepayment risk (the risk that a security will be prepaid and the Fund will be required to reinvest at a less favorable rate), and credit risk.

Below Investment Grade Debt Securities Risk Below investment grade debt securities, commonly known as "junk" or "high yield" bonds, have speculative characteristics and involve greater volatility of price and yield, greater risk of loss of principal and interest, and generally reflect a greater possibility of an adverse change in financial condition that could affect an issuer's ability to honor its obligations.

Bank Loans Risk Many of the risks associated with bank loans are similar to the risks of investing

in below investment grade debt securities. Changes in the financial condition of the borrower or economic conditions or other circumstances may reduce the capacity of the borrower to make principal and interest payments on such instruments and may lead to defaults. Senior secured bank loans are typically supported by collateral; however the value of the collateral may be insufficient to cover the amount owed to the Fund, or the Fund may be prevented or delayed from realizing on the collateral. Some loans may be unsecured; unsecured loans generally present a greater risk of loss to the Fund if the issuer defaults. If the Fund relies on a third party to administer a loan, the Fund is subject to the risk that the third party will fail to perform its obligations. In addition, if the Fund holds only a participation interest in a loan made by a third party, the Fund's receipt of payments on the loan will depend on the third party's willingness and ability to make those payments to the Fund. The settlement time for certain loans is longer than the settlement time for many other types of investments, and the Fund may not receive the payment for a loan sold by it until well after the sale; that cash would be unavailable for payment of redemption proceeds or for reinvestment. Interests in some bank loans may not be readily marketable and may be subject to restrictions on resale. In some cases, negotiations involved in disposing of indebtedness may require weeks to complete. Consequently, some indebtedness may be difficult or impossible to dispose of readily at what the Fund believes to be a fair price.

Credit Risk Credit risk is the risk that an issuer, guarantor, or liquidity provider of a fixed income security held by the Fund may be unable or unwilling, or may be perceived (whether by market participants, ratings agencies, pricing services or otherwise) as unable or unwilling, to make timely principal and/or interest payments, or to otherwise honor its obligations. The Fund may also be exposed to the credit risk of its counterparty to repurchase agreements, reverse repurchase agreements, swap transactions, and other derivatives transactions, and to the counterparty's ability or willingness to perform in accordance with the terms of the transaction. The value of such transactions to the Fund will depend on the willingness and ability of the counterparty to perform its obligations, including among other things the obligation to return collateral or margin to the Fund.

Derivatives Risk Derivatives can be highly volatile and involve risks different from, and potentially

greater than, direct investments, including risks of imperfect correlation between the value of derivatives and underlying assets, counterparty default, potential losses that partially or completely offset gains, and illiquidity. Derivatives can create investment leverage. Losses from derivatives can be substantially greater than the derivatives' original cost and can sometimes be unlimited. If the value of a derivative does not correlate well with the particular market or asset class the derivative is designed to provide exposure to, the derivative may not have the effect or benefit anticipated. Derivatives can also reduce the opportunity for gains or result in losses by offsetting positive returns in other investments. Many derivatives are traded in the over-the-counter market and not on exchanges.

Foreign Investment Risk; Emerging Markets Risk; Currency Risk Investments in securities of foreign issuers, securities of companies with significant foreign exposure, and foreign currencies can involve additional risks relating to market, industry, political, regulatory, and other conditions. Political, social, diplomatic, and economic developments, U.S. and foreign government action such as the imposition of currency or capital blockages, controls, or tariffs, economic and trade sanctions or embargoes, security suspensions, entering or exiting trade or other intergovernmental agreements, or the expropriation or nationalization of assets in a particular country, can cause dramatic declines in certain or all securities with exposure to that country and other countries. In the event of nationalization, expropriation, or other confiscation, the Fund could lose its entire foreign investment in a particular country. There may be quotas or other limits on the ability of the Fund (or clients of the Fund's investment adviser or subadviser) to invest or maintain investments in securities of issuers in certain countries. Enforcing legal rights can be more difficult, costly, and limited in certain foreign countries, and can be particularly difficult against foreign governments. Because non-U.S. securities are normally denominated and traded in currencies other than the U.S. dollar, the value of the Fund's assets may be affected favorably or unfavorably by changes in currency exchange rates, exchange control regulations, and restrictions or prohibitions on the repatriation of non-U.S. currencies. Income and gains with respect to investments in certain countries may be subject to withholding and other taxes. There may be less information publicly available about a non-U.S. company than about a U.S. company, and many non-U.S. companies

are not subject to accounting, auditing, and financial reporting standards, regulatory framework and practices comparable to those in the U.S. The securities of some non-U.S. companies, especially those in emerging markets, are less liquid and at times more volatile than securities of comparable U.S. companies. Emerging markets securities are subject to greater risks than securities issued in developed foreign markets, including less liquidity, greater price volatility, higher relative rates of inflation, greater political, economic, and social instability, greater custody and operational risks, and greater volatility in currency exchange rates. Frontier markets, a subset of emerging markets, generally have smaller economies and less mature capital markets than emerging markets. As a result, the risks of investing in emerging market countries are magnified in frontier market countries. Frontier markets are more susceptible to having abrupt changes in currency values, less mature markets and settlement practices, and lower trading volumes that could lead to greater price volatility and illiquidity. Non-U.S. transaction costs, such as brokerage commissions and custody costs may be higher than in the United States. In addition, foreign markets can react differently to market, economic, industry, political, regulatory, and other conditions than the U.S. market.

Mortgage- and Asset-Backed Securities

Risk Investments in mortgage- and asset-backed securities subject the Fund to credit risk, interest rate risk, extension risk, and prepayment risk, among other risks. Mortgage-backed and asset-backed securities not issued by a government agency generally involve greater credit risk than securities issued by government agencies. Payment of principal and interest generally depends on the cash flows generated by the underlying assets and the terms of the security. The types of mortgages (for example, residential or commercial mortgages) underlying securities held by the Fund may differ and be affected differently by market factors. Investments that receive only the interest portion or the principal portion of payments on the underlying assets may be highly volatile. Litigation with respect to the representations and warranties given in connection with the issuance of mortgage-backed securities can be an important consideration in investing in such securities, and the outcome of any such litigation could significantly impact the value of the Fund's mortgage-backed investments.

Cash Position Risk If the Fund holds a significant portion of its assets in cash or cash equivalents,

its investment returns may be adversely affected and the Fund may not achieve its investment objective.

Convertible Securities Risk Convertible securities are subject to the risks of both debt instruments and equity securities. The price of a convertible security may change in response to changes in price of the underlying equity security, the credit quality of the issuer, and interest rates. In general, the values of convertible securities tend to decline as interest rates rise and to rise when interest rates fall. A convertible security generally has less potential for gain or loss than the underlying equity security.

Defaulted and Distressed Securities Risk Because the issuer of such securities is in default and is likely to be in distressed financial condition, repayment of defaulted securities and obligations of distressed issuers (including insolvent issuers or issuers in payment or covenant default, in workout or restructuring, or in bankruptcy or insolvency proceedings) is uncertain.

Frequent Trading/Portfolio Turnover Risk Portfolio turnover generally involves some expense to the Fund and may result in the realization of taxable capital gains (including short-term gains). The trading costs and tax effects associated with portfolio turnover may adversely affect the Fund's performance.

Inflation Risk The value of assets or income from the Fund's investments will be less in the future as inflation decreases the value of money. As inflation increases, the value of the Fund's assets can decline as can the value of the Fund's distributions.

Leveraging Risk Instruments and transactions, including derivatives and reverse repurchase agreement transactions, that create leverage may cause the value of an investment in the Fund to be more volatile, could result in larger losses than if they were not used, and tend to compound the effects of other risks.

Liquidity Risk Certain securities may be difficult (or impossible) to sell or certain positions may be difficult to close out at a desirable time and price, and the Fund may be required to hold an illiquid investment that is declining in value, or it may be required to sell certain illiquid investments at a price or time that is not advantageous in order to meet redemptions or other cash needs. Some securities may be subject to restrictions on resale. There can be no assurance that there will be a

liquid market for instruments held by the Fund at any time. The Fund may not receive the proceeds from the sale of certain investments for an extended period.

Management Risk The Fund relies on the manager’s investment analysis and its selection of investments to achieve its investment objective. There can be no assurance that the Fund will achieve the intended results and the Fund may incur significant losses.

Market Risk The value of the Fund’s portfolio securities may decline, at times sharply and unpredictably, as a result of unfavorable market-induced changes affecting particular industries, sectors, or issuers. Stock markets can decline significantly in response to issuer, market, economic, industry, political, regulatory, geopolitical and other conditions, as well as investor perceptions of these conditions. The Fund is subject to risks affecting issuers, such as management performance, financial leverage, industry problems, and reduced demand for goods or services.

Preferred Stock Risk Like other equity securities, preferred stock is subject to the risk that its value may decrease based on actual or perceived changes in the business or financial condition of the issuer. In addition, changes in interest rates may adversely affect the value of a preferred stock that pays a fixed dividend.

Repurchase Agreement Risk These transactions must be fully collateralized at all times, but involve some risk to a Fund if the other party should default on its obligation and the Fund is delayed or prevented from recovering the collateral.

Reverse Repurchase Agreement Transaction Risk These transactions typically create leverage and subject the Fund to the credit risk of the counterparty.

Sector Risk The Fund may allocate more of its assets to particular industries or to particular economic, market, or industry sectors than to others. This could increase the volatility of the Fund’s portfolio, and the Fund’s performance may be more susceptible to developments affecting issuers in those industries or sectors than if the Fund invested more broadly.

U.S. Government Securities Risk Obligations of certain U.S. Government agencies and instrumentalities are not backed by the full faith and credit of the U.S. Government, and there can

be no assurance that the U.S. Government would provide financial support to such agencies and instrumentalities.

Valuation Risk The Fund is subject to the risk of mispricing or improper valuation of its investments, in particular to the extent that its securities are fair valued.

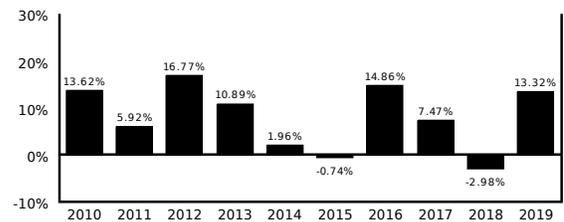
Performance Information

The following bar chart and table provide some indication of the risks of investing in the Fund. The bar chart shows changes in the Fund’s performance from year to year for Service Class shares. The table shows how the Fund’s average annual returns for 1, 5, and 10 years compare with those of a broad measure of market performance.

Performance for Class I shares of the Fund for periods prior to its inception date (03/01/11) is based on the performance of Class R5 shares. Performance for Class R4 shares of the Fund for periods prior to its inception date (04/01/14) is based on the performance of Class R5 shares, adjusted for Class R4 expenses. Performance for Class A shares of the Fund reflects any applicable sales charge. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future. More up-to-date performance information is available at <http://www.massmutual.com/funds> or by calling 1-888-309-3539.

Annual Performance

Service Class Shares



Highest Quarter: 3Q '10, 7.15% Lowest Quarter: 4Q '18, -5.38%

After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes. Actual after-tax returns depend on an investor’s tax situation and may differ from those shown. After-tax returns are not relevant to investors who hold Fund shares through tax-advantaged arrangements, such as 401(k) plans or individual retirement accounts. After-tax returns are shown for Service Class only. After-tax returns for other classes will vary.

Average Annual Total Returns
(for the periods ended December 31, 2019)

Service Class	Return Before Taxes	One Year	Five Years	Ten Years
		13.32%	6.14%	7.91%
	Return After Taxes on Distributions	10.63%	3.47%	4.98%
	Return After Taxes on Distributions and sales of Fund Shares	7.88%	3.49%	4.91%
Class I	Return Before Taxes	13.50%	6.35%	8.14%
Class R5	Return Before Taxes	13.42%	6.25%	7.99%
Administrative Class	Return Before Taxes	13.22%	6.05%	7.77%
Class A	Return Before Taxes	6.75%	4.61%	6.91%
Class R4	Return Before Taxes	13.07%	5.88%	7.62%
Class R3	Return Before Taxes	12.89%	5.63%	7.29%
Bloomberg Barclays U.S. Corporate High-Yield Bond Index (reflects no deduction for fees, expenses, or taxes)		14.32%	6.13%	7.57%

MANAGEMENT

Investment Adviser: MML Investment Advisers, LLC (“MML Advisers”)

Subadviser(s): Barings LLC (“Barings”)

Portfolio Manager(s):

Sean M. Feeley, CFA, CPA is a Managing Director and portfolio manager for Barings’ U.S. High Yield Investments Group. He has managed the Fund since December 2010.

Scott D. Roth, CFA is a Managing Director and portfolio manager for Barings’ U.S. High Yield Investments Group. He has managed the Fund since December 2010.

PURCHASE AND SALE OF FUND SHARES

Shares of the Fund are generally available to retirement plans, other institutional investors, and individual retirement accounts. Fund shares are redeemable on any business day by written request, telephone, or internet (available to certain customers).

TAX INFORMATION

The Fund intends to make distributions that may be taxed as ordinary income, qualified dividend income, or capital gains, unless you are an investor eligible for preferential tax treatment.

PAYMENTS TO BROKER-DEALERS AND OTHER FINANCIAL INTERMEDIARIES

If you purchase the Fund through a broker-dealer or other financial intermediary, the intermediary may receive a one-time or continuing payments from the Fund, MML Advisers or its affiliates, or others for the sale of Fund shares or continuing shareholder services provided by the intermediary. These payments may create a conflict of interest by influencing the broker-dealer or other intermediary to recommend the Fund over another investment. You should contact your intermediary to obtain more information about the compensation it may receive in connection with your investment.

MassMutual Premier Balanced Fund

INVESTMENT OBJECTIVE

This Fund seeks to achieve a high total rate of return over an extended period of time consistent with the preservation of capital by investing in a diversified portfolio of equity securities, fixed income securities, and money market instruments.

FEES AND EXPENSES OF THE FUND

This table describes the fees and expenses that you may pay if you buy and hold shares of the Fund. For Class A shares, you may qualify for sales charge discounts if you invest, or agree to invest in the future, at least \$25,000 in MassMutual funds. More information about these and other discounts is available in the section titled *Sales Charges by Class* beginning on page 105 of the Fund's Prospectus or from your financial professional.

Shareholder Fees (fees paid directly from your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Maximum Sales Charge (Load) Imposed on Purchases (as a % of offering price)	None	None	None	None	5.50%	None	None
Maximum Deferred Sales Charge (Load) (as a % of the lower of the original offering price or redemption proceeds)	None	None	None	None	None	None	None

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Management Fees	.48%	.48%	.48%	.48%	.48%	.48%	.48%
Distribution and Service (Rule 12b-1) Fees	None	None	None	None	.25%	.25%	.50%
Other Expenses	.28%	.38%	.48%	.58%	.58%	.48%	.48%
Acquired Fund Fees and Expenses	.02%	.02%	.02%	.02%	.02%	.02%	.02%
Total Annual Fund Operating Expenses⁽¹⁾	.78%	.88%	.98%	1.08%	1.33%	1.23%	1.48%

(1) Because Total Annual Fund Operating Expenses include Acquired Fund Fees and Expenses, they may not correspond to the ratios of expenses to average daily net assets shown in the "Financial Highlights" tables in the Prospectus, which reflect the operating expenses of the Fund and do not include Acquired Fund Fees and Expenses.

Example

This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. It assumes that you invest \$10,000 in each share class of the Fund

for the time periods indicated and then redeem all of your shares at the end of those periods. For Class A shares, the example includes the initial sales charge. The example also assumes that your investment earns a 5% return each year and that the Fund's operating expenses are exactly as described in the preceding table. Although your actual costs may be higher or lower, based on these assumptions your costs would be:

	1 Year	3 Years	5 Years	10 Years
Class I	\$ 80	\$249	\$ 433	\$ 966
Class R5	\$ 90	\$281	\$ 488	\$1,084
Service Class	\$100	\$312	\$ 542	\$1,201
Administrative Class	\$110	\$343	\$ 595	\$1,317
Class A	\$678	\$948	\$1,239	\$2,063
Class R4	\$125	\$390	\$ 676	\$1,489
Class R3	\$151	\$468	\$ 808	\$1,768

Portfolio Turnover

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when Fund shares are held in a taxable account. These costs, which are not reflected in annual fund operating expenses or in the example, affect the Fund's performance. During the most recent fiscal year, the Fund's portfolio turnover rate was 161% of the average value of its portfolio.

INVESTMENTS, RISKS, AND PERFORMANCE

Principal Investment Strategies

The Fund seeks its investment objective by investing across different asset classes (U.S. equity securities, international equity securities, fixed income securities, including bank loans and Rule 144A securities, and money market instruments), each represented by a different segment of the Fund's portfolio. Under normal market conditions, the Fund's subadviser, *Barings LLC* ("Barings"), expects that 40%-70% of the Fund's net assets will be invested in U.S. equity securities (the U.S. Equity Segment), 1%-15% of the Fund's net assets will be invested in international equity securities (the International Equity Segment), 30%-50% of the Fund's net assets will be invested in fixed income securities (the Bond Segment), and up to 30% of the Fund's net assets will be invested in money market instruments

(the Money Market Segment). Barings typically adjusts the allocation among the four segments, based on its judgment about each segment's potential for returns in comparison with those of other segments and corresponding risk. The Fund may at times have significant exposure to one or more industries or sectors. The Fund may hold a portion of its assets in cash or cash equivalents. In unusual circumstances the Fund may, for temporary defensive purposes, invest up to 100% of its total assets in money market instruments or cash. The Fund may enter into repurchase agreement transactions.

The equity securities in which the Fund invests may include common stock (both growth and value stocks), preferred stock, securities convertible into common or preferred stock, rights, and warrants of issuers of any size, exchange-traded funds ("ETFs"), and American Depositary Receipts ("ADRs"). The Fund expects normally to invest most of its equity assets in common stocks of large capitalization U.S. and international companies (generally common stocks of companies whose market capitalizations at the time of purchase are within the market capitalization range of companies included in the S&P 500[®] Index (as of December 31, 2019, \$4.58 billion to \$1,304.76 billion)), although it may invest in companies of any size.

Fixed income securities in which the Fund invests primarily include U.S. dollar-denominated corporate obligations, securities issued or guaranteed by the U.S. Government or its agencies or instrumentalities, U.S. and foreign issuer (including issuers in emerging markets) dollar-denominated bonds including, but not limited to, corporate obligations, government and agency issues, private placement bonds, securities subject to resale pursuant to Rule 144A, convertible bonds, and mortgage-backed and other asset-backed securities, including collateralized bond and loan obligations. The Fund expects that most of its fixed income investments will be of investment grade, meaning that they will be rated Baa3 or higher by Moody's, BBB- or higher by Standard & Poor's or the equivalent by any NRSRO, or, if unrated, determined to be of comparable quality by the subadviser, although the Fund may invest any portion of its assets in securities below investment grade ("junk" or "high yield" bonds), including securities in default. In the event that a security is downgraded after its purchase by the Fund, the Fund may continue to hold the security if Barings considers that doing so would be

consistent with the Fund's investment objective. The Fund may invest in securities that are not denominated in U.S. dollars. The duration of the Bond Segment of the Fund will normally be maintained within +/-10% of the benchmark index, the Bloomberg Barclays U.S. Aggregate Bond Index (as of December 31, 2019, the average duration of the Index was 5.80 years). The Fund may but will not necessarily engage in foreign currency forward contracts to take long or short positions in foreign currencies in order to seek to enhance the Fund's investment return or to seek to hedge or to attempt to protect against adverse changes in currency exchange rates.

The Fund may invest in (i) securities denominated in currencies of emerging market countries, (ii) fixed income securities or debt instruments issued by emerging market entities or sovereign nations and/or (iii) debt instruments denominated in or based on the currencies, interest rates, or issues of emerging market countries. Emerging market countries are defined to include any country that did not become a member of the Organization for Economic Cooperation and Development (O.E.C.D.) prior to 1975 and Turkey.

The Fund may invest in other investment companies, including investment companies that are advised by the Fund's investment adviser, subadviser or its affiliates, or by unaffiliated parties.

In pursuing its investment objective, the Fund may (but is not obligated to) use a wide variety of exchange-traded and over-the-counter derivatives, including, but not limited to, futures contracts, foreign currency futures and forward contracts, including derivatives thereof (for hedging purposes, to adjust various portfolio characteristics, including the duration (interest rate volatility) of the Fund's portfolio of debt securities, or as a substitute for direct investments or to gain market exposure); interest rate swaps (for hedging purposes or as a substitute for direct investments); total return swaps (for hedging purposes or to gain exposure to securities or markets in which it might not be able to invest directly); and credit default swaps (for hedging purposes or as a substitute for direct investments). The Fund may invest in common stocks, ETFs, or other equity securities and derivatives thereof for hedging purposes or to enhance total return. Use of derivatives by the Fund may create investment leverage. The Fund may enter into dollar roll and reverse repurchase agreement transactions.

For the U.S. Equity and International Equity Segments, Barings attempts to identify stocks that it believes may have the potential to outperform

the S&P 500 Index over time. Based on its view of these securities, Barings seeks to construct a broadly diversified portfolio that it believes may have the potential to produce higher returns than the S&P 500 Index. Barings will typically build portfolios by analyzing the underlying merits of each issue. Barings may also consider stocks not included in the S&P 500 Index but with similar market capitalizations. Barings uses the same investment process to identify those securities that it believes may no longer have the potential to produce higher returns than the S&P 500 Index and may choose to sell some or all of such securities.

In addition, for the International Equity Segment, Barings may choose to buy or sell investments based on a relative value analysis of the prospects offered by international equities compared to those offered by domestic stock markets. Exposure to international equities is frequently gained through exposure to ETFs that represent the international equity markets in the MSCI EAFE Index.

Barings selects investments for the Bond Segment based on its analysis of opportunities and risks of various fixed income securities and market sectors. Currently, Barings may consider the following factors (which may change over time and in particular cases): the perceived potential for high income offered by different types of corporate and government obligations (including mortgage-backed and other asset-backed securities); diversification among industries and issuers, credit ratings, and sectors; and the relative values offered by different securities. Barings may choose to sell securities with deteriorating credit or limited upside potential compared to other securities.

Barings regularly evaluates the relative value and performance expectations of the U.S. Equity, International Equity, Bond, and Money Market Segments in determining the Fund's overall segment allocations.

The Fund expects that it will engage in active and frequent trading and so will typically have a relatively high portfolio turnover rate.

Principal Risks

The following are the Principal Risks of the Fund. The value of your investment in the Fund could go down as well as up. You can lose money by investing in the Fund. Certain risks relating to instruments and strategies used in the management of the Fund are placed first. The significance of

any specific risk to an investment in the Fund will vary over time, depending on the composition of the Fund's portfolio, market conditions, and other factors. You should read all of the risk information presented below carefully, because any one or more of these risks may result in losses to the Fund.

Equity Securities Risk Although stocks may have the potential to outperform other asset classes over the long term, their prices tend to fluctuate more dramatically over the shorter term. These movements may result from factors affecting individual companies, or from broader influences like changes in interest rates, market conditions, or investor confidence, or announcements of economic, political, or financial information.

Fixed Income Securities Risk The values of fixed income securities typically will decline during periods of rising interest rates, and can also decline in response to changes in the financial condition of the issuer, borrower, counterparty, or underlying collateral assets, or changes in market, economic, industry, political, and regulatory conditions affecting a particular type of security or issuer or fixed income securities generally. Certain events, such as market or economic developments, regulatory or government actions, natural disasters, terrorist attacks, war, and other geopolitical events can have a dramatic adverse effect on the debt market and the overall liquidity of the market for fixed income securities. During those periods, the Fund may experience high levels of shareholder redemptions, and may have to sell securities at times when the Fund would otherwise not do so, and potentially at unfavorable prices. Certain securities may be difficult to value during such periods. Fixed income securities are subject to interest rate risk (the risk that the value of a fixed income security will fall when interest rates rise), extension risk (the risk that the average life of a security will be extended through a slowing of principal payments), prepayment risk (the risk that a security will be prepaid and the Fund will be required to reinvest at a less favorable rate), and credit risk.

Derivatives Risk Derivatives can be highly volatile and involve risks different from, and potentially greater than, direct investments, including risks of imperfect correlation between the value of derivatives and underlying assets, counterparty default, potential losses that partially or completely offset gains, and illiquidity. Derivatives can create investment leverage. Losses from derivatives can

be substantially greater than the derivatives' original cost and can sometimes be unlimited. If the value of a derivative does not correlate well with the particular market or asset class the derivative is designed to provide exposure to, the derivative may not have the effect or benefit anticipated. Derivatives can also reduce the opportunity for gains or result in losses by offsetting positive returns in other investments. Many derivatives are traded in the over-the-counter market and not on exchanges.

Foreign Investment Risk; Emerging Markets Risk; Currency Risk Investments in securities of foreign issuers, securities of companies with significant foreign exposure, and foreign currencies can involve additional risks relating to market, industry, political, regulatory, and other conditions. Political, social, diplomatic, and economic developments, U.S. and foreign government action such as the imposition of currency or capital blockages, controls, or tariffs, economic and trade sanctions or embargoes, security suspensions, entering or exiting trade or other intergovernmental agreements, or the expropriation or nationalization of assets in a particular country, can cause dramatic declines in certain or all securities with exposure to that country and other countries. In the event of nationalization, expropriation, or other confiscation, the Fund could lose its entire foreign investment in a particular country. There may be quotas or other limits on the ability of the Fund (or clients of the Fund's investment adviser or subadviser) to invest or maintain investments in securities of issuers in certain countries. Enforcing legal rights can be more difficult, costly, and limited in certain foreign countries, and can be particularly difficult against foreign governments. Because non-U.S. securities are normally denominated and traded in currencies other than the U.S. dollar, the value of the Fund's assets may be affected favorably or unfavorably by changes in currency exchange rates, exchange control regulations, and restrictions or prohibitions on the repatriation of non-U.S. currencies. Income and gains with respect to investments in certain countries may be subject to withholding and other taxes. There may be less information publicly available about a non-U.S. company than about a U.S. company, and many non-U.S. companies are not subject to accounting, auditing, and financial reporting standards, regulatory framework and practices comparable to those in the U.S. The securities of some non-U.S. companies, especially those in emerging markets, are less liquid and at times more volatile than

securities of comparable U.S. companies. Emerging markets securities are subject to greater risks than securities issued in developed foreign markets, including less liquidity, greater price volatility, higher relative rates of inflation, greater political, economic, and social instability, greater custody and operational risks, and greater volatility in currency exchange rates. Frontier markets, a subset of emerging markets, generally have smaller economies and less mature capital markets than emerging markets. As a result, the risks of investing in emerging market countries are magnified in frontier market countries. Frontier markets are more susceptible to having abrupt changes in currency values, less mature markets and settlement practices, and lower trading volumes that could lead to greater price volatility and illiquidity. Non-U.S. transaction costs, such as brokerage commissions and custody costs may be higher than in the United States. In addition, foreign markets can react differently to market, economic, industry, political, regulatory, and other conditions than the U.S. market.

Bank Loans Risk Many of the risks associated with bank loans are similar to the risks of investing in below investment grade debt securities. Changes in the financial condition of the borrower or economic conditions or other circumstances may reduce the capacity of the borrower to make principal and interest payments on such instruments and may lead to defaults. Senior secured bank loans are typically supported by collateral; however the value of the collateral may be insufficient to cover the amount owed to the Fund, or the Fund may be prevented or delayed from realizing on the collateral. Some loans may be unsecured; unsecured loans generally present a greater risk of loss to the Fund if the issuer defaults. If the Fund relies on a third party to administer a loan, the Fund is subject to the risk that the third party will fail to perform its obligations. In addition, if the Fund holds only a participation interest in a loan made by a third party, the Fund's receipt of payments on the loan will depend on the third party's willingness and ability to make those payments to the Fund. The settlement time for certain loans is longer than the settlement time for many other types of investments, and the Fund may not receive the payment for a loan sold by it until well after the sale; that cash would be unavailable for payment of redemption proceeds or for reinvestment. Interests in some bank loans may not be readily marketable and may be subject to restrictions on resale. In some cases, negotiations involved in disposing of

indebtedness may require weeks to complete. Consequently, some indebtedness may be difficult or impossible to dispose of readily at what the Fund believes to be a fair price.

Below Investment Grade Debt Securities Risk Below investment grade debt securities, commonly known as “junk” or “high yield” bonds, have speculative characteristics and involve greater volatility of price and yield, greater risk of loss of principal and interest, and generally reflect a greater possibility of an adverse change in financial condition that could affect an issuer’s ability to honor its obligations.

Cash Position Risk If the Fund holds a significant portion of its assets in cash or cash equivalents, its investment returns may be adversely affected and the Fund may not achieve its investment objective.

Convertible Securities Risk Convertible securities are subject to the risks of both debt instruments and equity securities. The price of a convertible security may change in response to changes in price of the underlying equity security, the credit quality of the issuer, and interest rates. In general, the values of convertible securities tend to decline as interest rates rise and to rise when interest rates fall. A convertible security generally has less potential for gain or loss than the underlying equity security.

Credit Risk Credit risk is the risk that an issuer, guarantor, or liquidity provider of a fixed income security held by the Fund may be unable or unwilling, or may be perceived (whether by market participants, ratings agencies, pricing services or otherwise) as unable or unwilling, to make timely principal and/or interest payments, or to otherwise honor its obligations. The Fund may also be exposed to the credit risk of its counterparty to repurchase agreements, reverse repurchase agreements, swap transactions, and other derivatives transactions, and to the counterparty’s ability or willingness to perform in accordance with the terms of the transaction. The value of such transactions to the Fund will depend on the willingness and ability of the counterparty to perform its obligations, including among other things the obligation to return collateral or margin to the Fund.

Defaulted and Distressed Securities Risk Because the issuer of such securities is in default and is likely to be in distressed financial condition, repayment of defaulted securities and obligations of distressed issuers (including insolvent issuers

or issuers in payment or covenant default, in workout or restructuring, or in bankruptcy or insolvency proceedings) is uncertain.

Dollar Roll and Reverse Repurchase Agreement Transaction Risk These transactions generally create leverage and subject the Fund to the credit risk of the counterparty.

Frequent Trading/Portfolio Turnover Risk Portfolio turnover generally involves some expense to the Fund and may result in the realization of taxable capital gains (including short-term gains). The trading costs and tax effects associated with portfolio turnover may adversely affect the Fund’s performance.

Growth Company Risk The prices of growth securities are often highly sensitive to market fluctuations because of their heavy dependence on future earnings or cash flow expectations, and can be more volatile than the market in general.

Large Company Risk Large-capitalization stocks as a group could fall out of favor with the market, causing the Fund’s investments in large-capitalization stocks to underperform investments that focus on small- or medium-capitalization stocks. Larger, more established companies may be slow to respond to challenges and may grow more slowly than smaller companies.

Leveraging Risk Instruments and transactions, including derivatives, dollar roll, and reverse repurchase agreement transactions, that create leverage may cause the value of an investment in the Fund to be more volatile, could result in larger losses than if they were not used, and tend to compound the effects of other risks.

Liquidity Risk Certain securities may be difficult (or impossible) to sell or certain positions may be difficult to close out at a desirable time and price, and the Fund may be required to hold an illiquid investment that is declining in value, or it may be required to sell certain illiquid investments at a price or time that is not advantageous in order to meet redemptions or other cash needs. Some securities may be subject to restrictions on resale. There can be no assurance that there will be a liquid market for instruments held by the Fund at any time. The Fund may not receive the proceeds from the sale of certain investments for an extended period.

Management Risk The Fund relies on the manager’s investment analysis and its selection of investments to achieve its investment objective.

There can be no assurance that the Fund will achieve the intended results and the Fund may incur significant losses.

Market Risk The value of the Fund's portfolio securities may decline, at times sharply and unpredictably, as a result of unfavorable market-induced changes affecting particular industries, sectors, or issuers. Stock markets can decline significantly in response to issuer, market, economic, industry, political, regulatory, geopolitical and other conditions, as well as investor perceptions of these conditions. The Fund is subject to risks affecting issuers, such as management performance, financial leverage, industry problems, and reduced demand for goods or services.

Mortgage- and Asset-Backed Securities

Risk Investments in mortgage- and asset-backed securities subject the Fund to credit risk, interest rate risk, extension risk, and prepayment risk, among other risks. Mortgage-backed and asset-backed securities not issued by a government agency generally involve greater credit risk than securities issued by government agencies. Payment of principal and interest generally depends on the cash flows generated by the underlying assets and the terms of the security. The types of mortgages (for example, residential or commercial mortgages) underlying securities held by the Fund may differ and be affected differently by market factors. Investments that receive only the interest portion or the principal portion of payments on the underlying assets may be highly volatile. Litigation with respect to the representations and warranties given in connection with the issuance of mortgage-backed securities can be an important consideration in investing in such securities, and the outcome of any such litigation could significantly impact the value of the Fund's mortgage-backed investments.

Preferred Stock Risk Like other equity securities, preferred stock is subject to the risk that its value may decrease based on actual or perceived changes in the business or financial condition of the issuer. In addition, changes in interest rates may adversely affect the value of a preferred stock that pays a fixed dividend.

Quantitative Models Risk The portfolio managers use quantitative models as part of the idea generation process. Quantitative models are based upon many factors that measure individual securities relative to each other. Such models may not produce the intended results and can be

adversely affected by errors or imperfections in the factors or the data on which measurements are based, changing sources of market return or market risk, or any technical issues with the design, construction, implementation, or maintenance of the models.

Repurchase Agreement Risk These transactions must be fully collateralized at all times, but involve some risk to a Fund if the other party should default on its obligation and the Fund is delayed or prevented from recovering the collateral.

Restricted Securities Risk The Fund may hold securities that are restricted as to resale under the U.S. federal securities laws, such as securities in certain privately held companies. Such securities may be highly illiquid and their values may experience significant volatility. Restricted securities may be difficult to value.

Risk of Investment in Other Funds or Pools The Fund is indirectly exposed to all of the risks of the underlying funds, including ETFs, in which it invests, including the risk that the underlying funds will not perform as expected. The Fund indirectly pays a portion of the expenses incurred by the underlying funds.

Sector Risk The Fund may allocate more of its assets to particular industries or to particular economic, market, or industry sectors than to others. This could increase the volatility of the Fund's portfolio, and the Fund's performance may be more susceptible to developments affecting issuers in those industries or sectors than if the Fund invested more broadly.

Small and Mid-Cap Company Risk Market risk and liquidity risk are particularly pronounced for securities of small and medium-sized companies, which may trade less frequently and in smaller volumes than more widely-held securities, and may fluctuate in price more than other securities. Their shares can be less liquid than those of larger companies, especially during market declines. Small and medium-sized companies may have limited product lines, markets, or financial resources and may be dependent on a limited management group; they may have been recently organized and have little or no track record of success.

Sovereign Debt Obligations Risk Investments in debt securities issued by governments or by government agencies and instrumentalities involve the risk that the governmental entities responsible for repayment may be unable or unwilling to pay

interest and repay principal when due. Many sovereign debt obligations may be rated below investment grade (“junk” or “high yield” bonds). Any restructuring of a sovereign debt obligation held by the Fund will likely have a significant adverse effect on the value of the obligation. In the event of default of sovereign debt, the Fund may be unable to pursue legal action against the sovereign issuer or to realize on collateral securing the debt.

U.S. Government Securities Risk Obligations of certain U.S. Government agencies and instrumentalities are not backed by the full faith and credit of the U.S. Government, and there can be no assurance that the U.S. Government would provide financial support to such agencies and instrumentalities.

Valuation Risk The Fund is subject to the risk of mispricing or improper valuation of its investments, in particular to the extent that its securities are fair valued.

Value Company Risk The value investment approach entails the risk that the market will not recognize a security’s intrinsic value for a long time, or that a stock the investment adviser or subadviser judges to be undervalued may actually be appropriately priced.

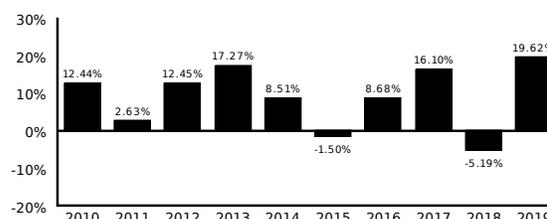
When-Issued, Delayed Delivery, TBA, and Forward Commitment Transaction Risk These transactions may create leverage and involve a risk of loss if the value of the securities declines prior to settlement.

Performance Information

The following bar chart and table provide some indication of the risks of investing in the Fund. The bar chart shows changes in the Fund’s performance from year to year for Class R5 shares. The table shows how the Fund’s average annual returns for 1, 5, and 10 years compare with those of a broad measure of market performance and four additional indexes, including an index that provides a comparison relevant to the Fund’s allocation to international investments (MSCI EAFE Index), an index that provides a comparison relevant to the Fund’s allocation to fixed income investments (Bloomberg Barclays U.S. Aggregate Bond Index), an index of funds with similar investment objectives (Lipper Balanced Fund Index), and a hypothetical custom index which comprises the S&P 500 (50%), MSCI EAFE (10%), and Bloomberg Barclays U.S. Aggregate Bond (40%) Indexes (Custom Balanced Index). Performance for

Class I, Class R4, and Class R3 shares of the Fund for periods prior to their inception date (04/01/14) is based on the performance of Class R5 shares, adjusted for Class R4 and Class R3 shares to reflect Class R4 and Class R3 expenses, respectively. Performance for Class A shares of the Fund reflects any applicable sales charge. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future. More up-to-date performance information is available at <http://www.massmutual.com/funds> or by calling 1-888-309-3539.

Annual Performance
Class R5 Shares



Highest Quarter: 1Q '19, 11.34% Lowest Quarter: 4Q '18, -9.77%

After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes. Actual after-tax returns depend on an investor’s tax situation and may differ from those shown. After-tax returns are not relevant to investors who hold Fund shares through tax-advantaged arrangements, such as 401(k) plans or individual retirement accounts. After-tax returns are shown for Class R5 only. After-tax returns for other classes will vary.

Average Annual Total Returns
(for the periods ended December 31, 2019)

		One Year	Five Years	Ten Years
Class R5	Return Before Taxes	19.62%	7.11%	8.82%
	Return After Taxes on Distributions	17.64%	5.16%	7.12%
	Return After Taxes on Distributions and sales of Fund Shares	12.57%	5.10%	6.67%
Class I	Return Before Taxes	19.64%	7.22%	8.88%
Service Class	Return Before Taxes	19.40%	6.98%	8.68%

		One Year	Five Years	Ten Years
Administrative Class	Return Before Taxes	19.39%	6.89%	8.54%
Class A	Return Before Taxes	12.55%	5.43%	7.66%
Class R4	Return Before Taxes	19.13%	6.71%	8.43%
Class R3	Return Before Taxes	18.88%	6.45%	8.17%
S&P 500 Index (reflects no deduction for fees, expenses, or taxes)		31.49%	11.70%	13.56%
MSCI EAFE Index (reflects no deduction for fees or expenses)		22.01%	5.67%	5.50%
Bloomberg Barclays U.S. Aggregate Bond Index (reflects no deduction for fees, expenses, or taxes)		8.72%	3.05%	3.75%
Lipper Balanced Fund Index (reflects no deduction for taxes)		19.44%	6.76%	8.12%
Custom Balanced Index (reflects no deduction for fees or expenses)		21.19%	7.76%	9.03%

MANAGEMENT

Investment Adviser: MML Investment Advisers, LLC (“MML Advisers”)

Subadviser(s): Barings LLC (“Barings”)

Portfolio Manager(s):

Chris C. Cao, CFA is a Managing Director and portfolio manager for Barings’ Global Portfolio Solutions Group. He manages the *U.S. Equity Segment* and *International Equity Segment* of the Fund. He has managed the Fund since June 2001.

Stephen Ehrenberg, CFA is a Managing Director and portfolio manager for Barings’ Investment Grade Fixed Income Group. He manages the *Bond Segment* of the Fund. He has managed the Fund since February 2019.

Michael F. Farrell is a Managing Director and Head of Barings’ U.S. Quantitative Strategies. He manages the *U.S. Equity Segment* and *International Equity Segment* of the Fund, and as lead manager of the Fund is responsible for the Fund’s asset allocation. He has managed the Fund since October 2000.

David L. Nagle, CFA is a Managing Director and portfolio manager for Barings’ Investment Grade Fixed Income Group. He manages the *Bond Segment* of the Fund. He has managed the Fund since its inception (October 1994).

Scott Simler is a Director and portfolio manager for Barings’ Investment Grade Fixed Income Group. He manages the *Money Market Segment* of the Fund. He has managed the Fund since July 2009.

Douglas M. Trevallion, II, CFA is a Managing Director, the Head of Global Securitized and Liquid Products, and a portfolio manager for Barings’ Investment Grade Fixed Income Group. He manages the *Bond Segment* of the Fund. He has managed the Fund since October 2008.

PURCHASE AND SALE OF FUND SHARES

Shares of the Fund are generally available to retirement plans, other institutional investors, and individual retirement accounts. Fund shares are redeemable on any business day by written request, telephone, or internet (available to certain customers).

TAX INFORMATION

The Fund intends to make distributions that may be taxed as ordinary income, qualified dividend income, or capital gains, unless you are an investor eligible for preferential tax treatment.

PAYMENTS TO BROKER-DEALERS AND OTHER FINANCIAL INTERMEDIARIES

If you purchase the Fund through a broker-dealer or other financial intermediary, the intermediary may receive a one-time or continuing payments from the Fund, MML Advisers or its affiliates, or others for the sale of Fund shares or continuing shareholder services provided by the intermediary. These payments may create a conflict of interest by influencing the broker-dealer or other intermediary to recommend the Fund over another investment. You should contact your intermediary to obtain more information about the compensation it may receive in connection with your investment.

MassMutual Premier Disciplined Value Fund

INVESTMENT OBJECTIVE

This Fund seeks to create a diversified portfolio of equity securities in order to outperform the total return performance of its benchmark, the Russell 1000[®] Value Index*.

FEES AND EXPENSES OF THE FUND

This table describes the fees and expenses that you may pay if you buy and hold shares of the Fund. For Class A shares, you may qualify for sales charge discounts if you invest, or agree to invest in the future, at least \$25,000 in MassMutual funds. More information about these and other discounts is available in the section titled *Sales Charges by Class* beginning on page 105 of the Fund's Prospectus or from your financial professional.

Shareholder Fees (fees paid directly from your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Maximum Sales Charge (Load) Imposed on Purchases (as a % of offering price)	None	None	None	None	5.50%	None	None
Maximum Deferred Sales Charge (Load) (as a % of the lower of the original offering price or redemption proceeds)	None	None	None	None	None	None	None

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Management Fees	.45%	.45%	.45%	.45%	.45%	.45%	.45%
Distribution and Service (Rule 12b-1) Fees	None	None	None	None	.25%	.25%	.50%
Other Expenses	.19%	.29%	.39%	.49%	.49%	.39%	.39%
Total Annual Fund Operating Expenses	.64%	.74%	.84%	.94%	1.19%	1.09%	1.34%

Example

This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. It assumes that you invest \$10,000 in each share class of the Fund for the time periods indicated and then redeem

* The Fund is not promoted, sponsored, or endorsed by, nor in any way affiliated with Russell Investment Group ("Russell"). Russell is not responsible for and has not reviewed the Fund nor any associated literature or publications and Russell makes no representation or warranty, express or implied, as to their accuracy, or completeness, or otherwise. The Russell 1000[®] Value Index and Russell[®] are trademarks of the Frank Russell Company.

all of your shares at the end of those periods. For Class A shares, the example includes the initial sales charge. The example also assumes that your investment earns a 5% return each year and that the Fund's operating expenses are exactly as described in the preceding table. Although your actual costs may be higher or lower, based on these assumptions your costs would be:

	1 Year	3 Years	5 Years	10 Years
Class I	\$ 65	\$ 205	\$ 357	\$ 798
Class R5	\$ 76	\$ 237	\$ 411	\$ 918
Service Class	\$ 86	\$ 268	\$ 466	\$ 1,037
Administrative Class	\$ 96	\$ 300	\$ 520	\$ 1,155
Class A	\$665	\$907	\$1,168	\$1,914
Class R4	\$111	\$347	\$ 601	\$1,329
Class R3	\$136	\$425	\$ 734	\$1,613

Portfolio Turnover

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when Fund shares are held in a taxable account. These costs, which are not reflected in annual fund operating expenses or in the example, affect the Fund's performance. During the most recent fiscal year, the Fund's portfolio turnover rate was 53% of the average value of its portfolio.

INVESTMENTS, RISKS, AND PERFORMANCE

Principal Investment Strategies

Under normal circumstances, the Fund invests mainly in common stocks of companies that the Fund's subadviser, *Barings LLC* ("Barings"), considers to be undervalued. The Fund will normally invest in common stocks of companies with market capitalizations of at least \$200 million at the time of purchase. The Fund may use futures contracts as a substitute for direct investments in order to help manage cash flows. Use of derivatives by the Fund may create investment leverage. The Fund may at times have significant exposure to one or more industries or sectors.

Barings attempts to identify stocks that it believes have the potential to outperform the benchmark over time. Based on its view of these securities, Barings seeks to construct a broadly diversified portfolio that it believes may have the potential to

produce higher returns than the benchmark. Barings will typically build portfolios by analyzing the underlying merits of each issue to build a portfolio. Barings may also consider stocks not included in the benchmark but with similar market capitalizations. Barings uses the same investment process to identify those securities that it believes may no longer have the potential to produce higher returns than the benchmark and may choose to sell some or all of such securities.

The Fund expects that it will engage in active and frequent trading and so will typically have a relatively high portfolio turnover rate.

Principal Risks

The following are the Principal Risks of the Fund. The value of your investment in the Fund could go down as well as up. You can lose money by investing in the Fund. Certain risks relating to instruments and strategies used in the management of the Fund are placed first. The significance of any specific risk to an investment in the Fund will vary over time, depending on the composition of the Fund's portfolio, market conditions, and other factors. You should read all of the risk information presented below carefully, because any one or more of these risks may result in losses to the Fund.

Equity Securities Risk Although stocks may have the potential to outperform other asset classes over the long term, their prices tend to fluctuate more dramatically over the shorter term. These movements may result from factors affecting individual companies, or from broader influences like changes in interest rates, market conditions, or investor confidence, or announcements of economic, political, or financial information.

Derivatives Risk Derivatives can be highly volatile and involve risks different from, and potentially greater than, direct investments, including risks of imperfect correlation between the value of derivatives and underlying assets, counterparty default, potential losses that partially or completely offset gains, and illiquidity. Derivatives can create investment leverage. Losses from derivatives can be substantially greater than the derivatives' original cost and can sometimes be unlimited. If the value of a derivative does not correlate well with the particular market or asset class the derivative is designed to provide exposure to, the derivative may not have the effect or benefit anticipated. Derivatives can also reduce the opportunity for gains or result in losses by offsetting positive

returns in other investments. Many derivatives are traded in the over-the-counter market and not on exchanges.

Indexing Risk The Fund's performance may not track the performance of the index exactly due to a number of factors, including fees and expenses of the Fund, the Fund's cash positions, and differences between securities held by the Fund and the securities comprising the index.

Value Company Risk The value investment approach entails the risk that the market will not recognize a security's intrinsic value for a long time, or that a stock the investment adviser or subadviser judges to be undervalued may actually be appropriately priced.

Large Company Risk Large-capitalization stocks as a group could fall out of favor with the market, causing the Fund's investments in large-capitalization stocks to underperform investments that focus on small- or medium-capitalization stocks. Larger, more established companies may be slow to respond to challenges and may grow more slowly than smaller companies.

Cash Position Risk If the Fund holds a significant portion of its assets in cash or cash equivalents, its investment returns may be adversely affected and the Fund may not achieve its investment objective.

Frequent Trading/Portfolio Turnover Risk Portfolio turnover generally involves some expense to the Fund and may result in the realization of taxable capital gains (including short-term gains). The trading costs and tax effects associated with portfolio turnover may adversely affect the Fund's performance.

Liquidity Risk Certain securities may be difficult (or impossible) to sell or certain positions may be difficult to close out at a desirable time and price, and the Fund may be required to hold an illiquid investment that is declining in value, or it may be required to sell certain illiquid investments at a price or time that is not advantageous in order to meet redemptions or other cash needs. Some securities may be subject to restrictions on resale. There can be no assurance that there will be a liquid market for instruments held by the Fund at any time. The Fund may not receive the proceeds from the sale of certain investments for an extended period.

Management Risk The Fund relies on the manager's investment analysis and its selection of

investments to achieve its investment objective. There can be no assurance that the Fund will achieve the intended results and the Fund may incur significant losses.

Market Risk The value of the Fund’s portfolio securities may decline, at times sharply and unpredictably, as a result of unfavorable market-induced changes affecting particular industries, sectors, or issuers. Stock markets can decline significantly in response to issuer, market, economic, industry, political, regulatory, geopolitical and other conditions, as well as investor perceptions of these conditions. The Fund is subject to risks affecting issuers, such as management performance, financial leverage, industry problems, and reduced demand for goods or services.

Quantitative Models Risk The portfolio managers use quantitative models as part of the idea generation process. Quantitative models are based upon many factors that measure individual securities relative to each other. Such models may not produce the intended results and can be adversely affected by errors or imperfections in the factors or the data on which measurements are based, changing sources of market return or market risk, or any technical issues with the design, construction, implementation, or maintenance of the models.

Sector Risk The Fund may allocate more of its assets to particular industries or to particular economic, market, or industry sectors than to others. This could increase the volatility of the Fund’s portfolio, and the Fund’s performance may be more susceptible to developments affecting issuers in those industries or sectors than if the Fund invested more broadly.

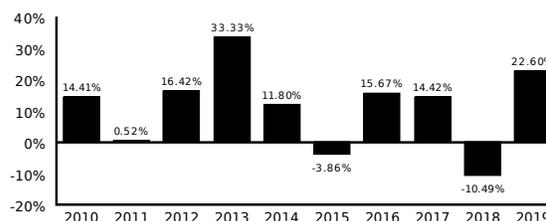
Valuation Risk The Fund is subject to the risk of mispricing or improper valuation of its investments, in particular to the extent that its securities are fair valued.

Performance Information

The following bar chart and table provide some indication of the risks of investing in the Fund. The bar chart shows changes in the Fund’s performance from year to year for Service Class shares. The table shows how the Fund’s average annual returns for 1, 5, and 10 years compare with those of a broad measure of market performance. Performance for Class I and Class R4 shares of the Fund for periods prior to their inception date (04/01/14) is based on the performance of Class R5

shares, adjusted for Class R4 shares to reflect Class R4 expenses. Performance for Class A shares of the Fund reflects any applicable sales charge. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future. More up-to-date performance information is available at <http://www.massmutual.com/funds> or by calling 1-888-309-3539.

**Annual Performance
Service Class Shares**



Highest Quarter: 1Q '13, 13.08% Lowest Quarter: 3Q '11, -15.68%

After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes. Actual after-tax returns depend on an investor’s tax situation and may differ from those shown. After-tax returns are not relevant to investors who hold Fund shares through tax-advantaged arrangements, such as 401(k) plans or individual retirement accounts. After-tax returns are shown for Service Class only. After-tax returns for other classes will vary.

**Average Annual Total Returns
(for the periods ended December 31, 2019)**

		One Year	Five Years	Ten Years
Service Class	Return Before Taxes	22.60%	6.90%	10.79%
	Return After Taxes on Distributions	20.68%	4.36%	9.29%
	Return After Taxes on Distributions and sales of Fund Shares	14.71%	4.93%	8.65%
Class I	Return Before Taxes	22.94%	7.11%	10.96%
Class R5	Return Before Taxes	22.74%	7.01%	10.91%
Administrative Class	Return Before Taxes	22.60%	6.81%	10.68%
Class A	Return Before Taxes	15.45%	5.34%	9.76%

		One Year	Five Years	Ten Years
Class R4	Return Before Taxes	22.33%	6.63%	10.52%
Class R3	Return Before Taxes	22.05%	6.38%	10.16%
Russell 1000 Value Index (reflects no deduction for fees, expenses, or taxes)		26.54%	8.29%	11.80%

MANAGEMENT

Investment Adviser: MML Investment Advisers, LLC (“MML Advisers”)

Subadviser(s): Barings LLC (“Barings”)

Portfolio Manager(s):

Chris C. Cao, CFA is a Managing Director and portfolio manager for Barings’ Global Portfolio Solutions Group. He has managed the Fund since June 2001.

Michael F. Farrell is a Managing Director and Head of Barings’ U.S. Quantitative Strategies. He has managed the Fund since its inception (December 2000).

PURCHASE AND SALE OF FUND SHARES

Shares of the Fund are generally available to retirement plans, other institutional investors, and individual retirement accounts. Fund shares are

redeemable on any business day by written request, telephone, or internet (available to certain customers).

TAX INFORMATION

The Fund intends to make distributions that may be taxed as ordinary income, qualified dividend income, or capital gains, unless you are an investor eligible for preferential tax treatment.

PAYMENTS TO BROKER-DEALERS AND OTHER FINANCIAL INTERMEDIARIES

If you purchase the Fund through a broker-dealer or other financial intermediary, the intermediary may receive a one-time or continuing payments from the Fund, MML Advisers or its affiliates, or others for the sale of Fund shares or continuing shareholder services provided by the intermediary. These payments may create a conflict of interest by influencing the broker-dealer or other intermediary to recommend the Fund over another investment. You should contact your intermediary to obtain more information about the compensation it may receive in connection with your investment.

MassMutual Premier Main Street Fund

INVESTMENT OBJECTIVE

The Fund seeks a high total return.

FEES AND EXPENSES OF THE FUND

This table describes the fees and expenses that you may pay if you buy and hold shares of the Fund. For Class A shares, you may qualify for sales charge discounts if you invest, or agree to invest in the future, at least \$25,000 in MassMutual funds. More information about these and other discounts is available in the section titled *Sales Charges by Class* beginning on page 105 of the Fund's Prospectus or from your financial professional.

Shareholder Fees (fees paid directly from your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Maximum Sales Charge (Load) Imposed on Purchases (as a % of offering price)	None	None	None	None	5.50%	None	None
Maximum Deferred Sales Charge (Load) (as a % of the lower of the original offering price or redemption proceeds)	None	None	None	None	None	None	None

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Management Fees	.55%	.55%	.55%	.55%	.55%	.55%	.55%
Distribution and Service (Rule 12b-1) Fees	None	None	None	None	.25%	.25%	.50%
Other Expenses	.18%	.28%	.38%	.48%	.48%	.38%	.38%
Total Annual Fund Operating Expenses	.73%	.83%	.93%	1.03%	1.28%	1.18%	1.43%

Example

This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. It assumes that you invest \$10,000 in each share class of the Fund for the time periods indicated and then redeem all of your shares at the end of those periods. For Class A shares, the example includes the initial sales charge. The example also assumes that your investment earns a 5% return each year and that the Fund's operating expenses are exactly as described in the preceding table. Although your

actual costs may be higher or lower, based on these assumptions your costs would be:

	1 Year	3 Years	5 Years	10 Years
Class I	\$ 75	\$233	\$ 406	\$ 906
Class R5	\$ 85	\$265	\$ 460	\$1,025
Service Class	\$ 95	\$296	\$ 515	\$1,143
Administrative Class	\$105	\$328	\$ 569	\$1,259
Class A	\$673	\$934	\$1,214	\$2,010
Class R4	\$120	\$375	\$ 649	\$1,432
Class R3	\$146	\$452	\$ 782	\$1,713

Portfolio Turnover

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when Fund shares are held in a taxable account. These costs, which are not reflected in annual fund operating expenses or in the example, affect the Fund's performance. During the most recent fiscal year, the Fund's portfolio turnover rate was 55% of the average value of its portfolio.

INVESTMENTS, RISKS, AND PERFORMANCE

Principal Investment Strategies

The Fund invests primarily in common stocks of U.S. companies of different capitalization ranges. The Fund's subadviser, *Invesco Advisers, Inc.* ("Invesco"), currently focuses on "large capitalization" issuers, which are considered to be companies with market capitalizations at the time of purchase within the market capitalization range of companies included within the Russell 1000[®] Index (as of December 31, 2019, \$824 million to \$1,304.76 billion), although it may purchase stocks of companies with any market capitalization. The Fund typically invests most of its assets in equity securities of U.S. companies, but may invest in foreign securities. The Fund generally will not invest more than 15% of its total assets in foreign securities. The Fund may at times have significant exposure to one or more industries or sectors. The Fund may hold a portion of its assets in cash or cash equivalents.

Invesco uses fundamental research to select securities for the Fund's portfolio, which is comprised of both growth and value stocks. While the process may change over time or vary in

particular cases, in general the selection process currently uses a fundamental approach in analyzing issuers on factors such as a company's financial performance, company strength and prospects, industry position, and business model and management strength. Industry outlook, market trends, and general economic conditions may also be considered. The portfolio is constructed and regularly monitored based upon several analytical tools, including quantitative investment models. Quantitative models are used as part of the idea generation process to rank securities within each sector to identify potential buy and sell candidates for further fundamental analysis.

The Fund aims to maintain a broadly diversified portfolio across major economic sectors by applying investment parameters for both sector and position size. Invesco uses the following sell criteria: the stock price is approaching its target, deterioration in the company's competitive position, poor execution by the company's management, or identification of more attractive alternative investment ideas.

Principal Risks

The following are the Principal Risks of the Fund. The value of your investment in the Fund could go down as well as up. You can lose money by investing in the Fund. Certain risks relating to instruments and strategies used in the management of the Fund are placed first. The significance of any specific risk to an investment in the Fund will vary over time, depending on the composition of the Fund's portfolio, market conditions, and other factors. You should read all of the risk information presented below carefully, because any one or more of these risks may result in losses to the Fund.

Equity Securities Risk Although stocks may have the potential to outperform other asset classes over the long term, their prices tend to fluctuate more dramatically over the shorter term. These movements may result from factors affecting individual companies, or from broader influences like changes in interest rates, market conditions, or investor confidence, or announcements of economic, political, or financial information.

Foreign Investment Risk; Emerging Markets Risk; Currency Risk Investments in securities of foreign issuers, securities of companies with significant foreign exposure, and foreign currencies can involve additional risks relating to market, industry, political, regulatory, and other conditions. Political,

social, diplomatic, and economic developments, U.S. and foreign government action such as the imposition of currency or capital blockages, controls, or tariffs, economic and trade sanctions or embargoes, security suspensions, entering or exiting trade or other intergovernmental agreements, or the expropriation or nationalization of assets in a particular country, can cause dramatic declines in certain or all securities with exposure to that country and other countries. In the event of nationalization, expropriation, or other confiscation, the Fund could lose its entire foreign investment in a particular country. There may be quotas or other limits on the ability of the Fund (or clients of the Fund's investment adviser or subadviser) to invest or maintain investments in securities of issuers in certain countries. Enforcing legal rights can be more difficult, costly, and limited in certain foreign countries, and can be particularly difficult against foreign governments. Because non-U.S. securities are normally denominated and traded in currencies other than the U.S. dollar, the value of the Fund's assets may be affected favorably or unfavorably by changes in currency exchange rates, exchange control regulations, and restrictions or prohibitions on the repatriation of non-U.S. currencies. Income and gains with respect to investments in certain countries may be subject to withholding and other taxes. There may be less information publicly available about a non-U.S. company than about a U.S. company, and many non-U.S. companies are not subject to accounting, auditing, and financial reporting standards, regulatory framework and practices comparable to those in the U.S. The securities of some non-U.S. companies, especially those in emerging markets, are less liquid and at times more volatile than securities of comparable U.S. companies. Emerging markets securities are subject to greater risks than securities issued in developed foreign markets, including less liquidity, greater price volatility, higher relative rates of inflation, greater political, economic, and social instability, greater custody and operational risks, and greater volatility in currency exchange rates. Frontier markets, a subset of emerging markets, generally have smaller economies and less mature capital markets than emerging markets. As a result, the risks of investing in emerging market countries are magnified in frontier market countries. Frontier markets are more susceptible to having abrupt changes in currency values, less mature markets and settlement practices, and lower trading volumes that could lead to greater price volatility and illiquidity.

Non-U.S. transaction costs, such as brokerage commissions and custody costs may be higher than in the United States. In addition, foreign markets can react differently to market, economic, industry, political, regulatory, and other conditions than the U.S. market.

Growth Company Risk The prices of growth securities are often highly sensitive to market fluctuations because of their heavy dependence on future earnings or cash flow expectations, and can be more volatile than the market in general.

Large Company Risk Large-capitalization stocks as a group could fall out of favor with the market, causing the Fund's investments in large-capitalization stocks to underperform investments that focus on small- or medium-capitalization stocks. Larger, more established companies may be slow to respond to challenges and may grow more slowly than smaller companies.

Small and Mid-Cap Company Risk Market risk and liquidity risk are particularly pronounced for securities of small and medium-sized companies, which may trade less frequently and in smaller volumes than more widely-held securities, and may fluctuate in price more than other securities. Their shares can be less liquid than those of larger companies, especially during market declines. Small and medium-sized companies may have limited product lines, markets, or financial resources and may be dependent on a limited management group; they may have been recently organized and have little or no track record of success.

Value Company Risk The value investment approach entails the risk that the market will not recognize a security's intrinsic value for a long time, or that a stock the investment adviser or subadviser judges to be undervalued may actually be appropriately priced.

Cash Position Risk If the Fund holds a significant portion of its assets in cash or cash equivalents, its investment returns may be adversely affected and the Fund may not achieve its investment objective.

Liquidity Risk Certain securities may be difficult (or impossible) to sell or certain positions may be difficult to close out at a desirable time and price, and the Fund may be required to hold an illiquid investment that is declining in value, or it may be required to sell certain illiquid investments at a price or time that is not advantageous in order to meet redemptions or other cash needs. Some

securities may be subject to restrictions on resale. There can be no assurance that there will be a liquid market for instruments held by the Fund at any time. The Fund may not receive the proceeds from the sale of certain investments for an extended period.

Management Risk The Fund relies on the manager's investment analysis and its selection of investments to achieve its investment objective. There can be no assurance that the Fund will achieve the intended results and the Fund may incur significant losses.

Market Risk The value of the Fund's portfolio securities may decline, at times sharply and unpredictably, as a result of unfavorable market-induced changes affecting particular industries, sectors, or issuers. Stock markets can decline significantly in response to issuer, market, economic, industry, political, regulatory, geopolitical and other conditions, as well as investor perceptions of these conditions. The Fund is subject to risks affecting issuers, such as management performance, financial leverage, industry problems, and reduced demand for goods or services.

Quantitative Models Risk The portfolio managers use quantitative models as part of the idea generation process. Quantitative models are based upon many factors that measure individual securities relative to each other. Such models may not produce the intended results and can be adversely affected by errors or imperfections in the factors or the data on which measurements are based, changing sources of market return or market risk, or any technical issues with the design, construction, implementation, or maintenance of the models.

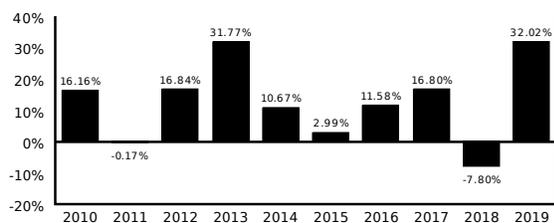
Sector Risk The Fund may allocate more of its assets to particular industries or to particular economic, market, or industry sectors than to others. This could increase the volatility of the Fund's portfolio, and the Fund's performance may be more susceptible to developments affecting issuers in those industries or sectors than if the Fund invested more broadly.

Valuation Risk The Fund is subject to the risk of mispricing or improper valuation of its investments, in particular to the extent that its securities are fair valued.

Performance Information

The following bar chart and table provide some indication of the risks of investing in the Fund. The bar chart shows changes in the Fund's performance from year to year for Class R5 shares. The table shows how the Fund's average annual returns for 1, 5, and 10 years compare with those of a broad measure of market performance. Performance for Class I and Class R4 shares of the Fund for periods prior to their inception date (04/01/14) is based on the performance of Class R5 shares, adjusted for Class R4 shares to reflect Class R4 expenses. Performance for Class A shares of the Fund reflects any applicable sales charge. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future. More up-to-date performance information is available at <http://www.massmutual.com/funds> or by calling 1-888-309-3539.

Annual Performance
Class R5 Shares



Highest Quarter: 1Q '12, 15.23% Lowest Quarter: 4Q '18, -13.70%

After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes. Actual after-tax returns depend on an investor's tax situation and may differ from those shown. After-tax returns are not relevant to investors who hold Fund shares through tax-advantaged arrangements, such as 401(k) plans or individual retirement accounts. After-tax returns are shown for Class R5 only. After-tax returns for other classes will vary.

Average Annual Total Returns (for the periods ended December 31, 2019)

	One Year	Five Years	Ten Years	
Class R5	Return Before Taxes	32.02%	10.32%	12.43%
	Return After Taxes on Distributions	29.16%	6.69%	10.42%
	Return After Taxes on Distributions and sales of Fund Shares	20.94%	7.38%	9.93%
Class I	Return Before Taxes	32.31%	10.43%	12.50%
Service Class	Return Before Taxes	31.96%	10.22%	12.35%
Administrative Class	Return Before Taxes	31.76%	10.11%	12.21%
Class A	Return Before Taxes	24.27%	8.59%	11.30%
Class R4	Return Before Taxes	31.73%	9.95%	12.05%
Class R3	Return Before Taxes	31.45%	9.69%	11.70%
S&P 500 [®] Index (reflects no deduction for fees, expenses, or taxes)	31.49%	11.70%	13.56%	

MANAGEMENT

Investment Adviser: MML Investment Advisers, LLC ("MML Advisers")

Subadviser(s): Invesco Advisers, Inc. ("Invesco")

Portfolio Manager(s):

Manind Govil, CFA is a Portfolio Manager at Invesco. He has managed the Fund since May 2009.

Paul Larson is a Portfolio Manager at Invesco. He has managed the Fund since February 2014.

Benjamin Ram is a Portfolio Manager at Invesco. He has managed the Fund since May 2009.

PURCHASE AND SALE OF FUND SHARES

Shares of the Fund are generally available to retirement plans, other institutional investors, and individual retirement accounts. Fund shares are redeemable on any business day by written request, telephone, or internet (available to certain customers).

TAX INFORMATION

The Fund intends to make distributions that may be taxed as ordinary income, qualified dividend income, or capital gains, unless you are an investor eligible for preferential tax treatment.

PAYMENTS TO BROKER-DEALERS AND OTHER FINANCIAL INTERMEDIARIES

If you purchase the Fund through a broker-dealer or other financial intermediary, the intermediary may receive a one-time or continuing payments

from the Fund, MML Advisers or its affiliates, or others for the sale of Fund shares or continuing shareholder services provided by the intermediary. These payments may create a conflict of interest by influencing the broker-dealer or other intermediary to recommend the Fund over another investment. You should contact your intermediary to obtain more information about the compensation it may receive in connection with your investment.

MassMutual Premier Disciplined Growth Fund

INVESTMENT OBJECTIVE

This Fund seeks to create a diversified portfolio of equity securities in order to outperform the total return performance of its benchmark, the Russell 1000[®] Growth Index*.

FEES AND EXPENSES OF THE FUND

This table describes the fees and expenses that you may pay if you buy and hold shares of the Fund. For Class A shares, you may qualify for sales charge discounts if you invest, or agree to invest in the future, at least \$25,000 in MassMutual funds. More information about these and other discounts is available in the section titled *Sales Charges by Class* beginning on page 105 of the Fund's Prospectus or from your financial professional.

Shareholder Fees (fees paid directly from your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Maximum Sales Charge (Load) Imposed on Purchases (as a % of offering price)	None	None	None	None	5.50%	None	None
Maximum Deferred Sales Charge (Load) (as a % of the lower of the original offering price or redemption proceeds)	None	None	None	None	None	None	None

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Management Fees	.45%	.45%	.45%	.45%	.45%	.45%	.45%
Distribution and Service (Rule 12b-1) Fees	None	None	None	None	.25%	.25%	.50%
Other Expenses	.10%	.20%	.30%	.40%	.40%	.30%	.30%
Total Annual Fund Operating Expenses	.55%	.65%	.75%	.85%	1.10%	1.00%	1.25%

Example

This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. It assumes that you invest \$10,000 in each share class of the Fund for the time periods indicated and then redeem

* The Fund is not promoted, sponsored, or endorsed by, nor in any way affiliated with Russell Investment Group ("Russell"). Russell is not responsible for and has not reviewed the Fund nor any associated literature or publications and Russell makes no representation or warranty, express or implied, as to their accuracy, or completeness, or otherwise. The Russell 1000[®] Growth Index and Russell[®] are trademarks of the Frank Russell Company.

all of your shares at the end of those periods. For Class A shares, the example includes the initial sales charge. The example also assumes that your investment earns a 5% return each year and that the Fund's operating expenses are exactly as described in the preceding table. Although your actual costs may be higher or lower, based on these assumptions your costs would be:

	1 Year	3 Years	5 Years	10 Years
Class I	\$ 56	\$176	\$ 307	\$ 689
Class R5	\$ 66	\$208	\$ 362	\$ 810
Service Class	\$ 77	\$240	\$ 417	\$ 930
Administrative Class	\$ 87	\$271	\$ 471	\$1,049
Class A	\$656	\$880	\$1,123	\$1,816
Class R4	\$102	\$318	\$ 552	\$1,225
Class R3	\$127	\$397	\$ 686	\$1,511

Portfolio Turnover

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when Fund shares are held in a taxable account. These costs, which are not reflected in annual fund operating expenses or in the example, affect the Fund's performance. During the most recent fiscal year, the Fund's portfolio turnover rate was 49% of the average value of its portfolio.

INVESTMENTS, RISKS, AND PERFORMANCE

Principal Investment Strategies

Under normal circumstances, the Fund invests mainly in common stocks of companies that the Fund's subadviser, *Barings LLC* ("Barings"), believes offer the potential for long-term growth. The Fund will normally invest in common stocks of companies with market capitalizations of at least \$200 million at the time of purchase. The Fund may use futures contracts as a substitute for direct investments in order to help manage cash flows. Use of derivatives by the Fund may create investment leverage. The Fund may at times have significant exposure to one or more industries or sectors.

Barings attempts to identify stocks that it believes may have the potential to outperform the benchmark over time. Based on its view of these securities, Barings seeks to construct a broadly

diversified portfolio that it believes may have the potential to produce higher returns than the benchmark. Barings will typically build portfolios by analyzing the underlying merits of each issue to build a portfolio. Barings may also consider stocks not included in the benchmark but with similar market capitalizations. Barings uses the same investment process to identify those securities that it believes may no longer have the potential to produce higher returns than the benchmark and may choose to sell some or all of such securities.

The Fund expects that it will engage in active and frequent trading and so will typically have a relatively high portfolio turnover rate.

Principal Risks

The following are the Principal Risks of the Fund. The value of your investment in the Fund could go down as well as up. You can lose money by investing in the Fund. Certain risks relating to instruments and strategies used in the management of the Fund are placed first. The significance of any specific risk to an investment in the Fund will vary over time, depending on the composition of the Fund's portfolio, market conditions, and other factors. You should read all of the risk information presented below carefully, because any one or more of these risks may result in losses to the Fund.

Equity Securities Risk Although stocks may have the potential to outperform other asset classes over the long term, their prices tend to fluctuate more dramatically over the shorter term. These movements may result from factors affecting individual companies, or from broader influences like changes in interest rates, market conditions, or investor confidence, or announcements of economic, political, or financial information.

Derivatives Risk Derivatives can be highly volatile and involve risks different from, and potentially greater than, direct investments, including risks of imperfect correlation between the value of derivatives and underlying assets, counterparty default, potential losses that partially or completely offset gains, and illiquidity. Derivatives can create investment leverage. Losses from derivatives can be substantially greater than the derivatives' original cost and can sometimes be unlimited. If the value of a derivative does not correlate well with the particular market or asset class the derivative is designed to provide exposure to, the derivative may not have the effect or benefit anticipated. Derivatives can also reduce the opportunity for

gains or result in losses by offsetting positive returns in other investments. Many derivatives are traded in the over-the-counter market and not on exchanges.

Growth Company Risk The prices of growth securities are often highly sensitive to market fluctuations because of their heavy dependence on future earnings or cash flow expectations, and can be more volatile than the market in general.

Indexing Risk The Fund's performance may not track the performance of the index exactly due to a number of factors, including fees and expenses of the Fund, the Fund's cash positions, and differences between securities held by the Fund and the securities comprising the index.

Large Company Risk Large-capitalization stocks as a group could fall out of favor with the market, causing the Fund's investments in large-capitalization stocks to underperform investments that focus on small- or medium-capitalization stocks. Larger, more established companies may be slow to respond to challenges and may grow more slowly than smaller companies.

Cash Position Risk If the Fund holds a significant portion of its assets in cash or cash equivalents, its investment returns may be adversely affected and the Fund may not achieve its investment objective.

Frequent Trading/Portfolio Turnover Risk Portfolio turnover generally involves some expense to the Fund and may result in the realization of taxable capital gains (including short-term gains). The trading costs and tax effects associated with portfolio turnover may adversely affect the Fund's performance.

Liquidity Risk Certain securities may be difficult (or impossible) to sell or certain positions may be difficult to close out at a desirable time and price, and the Fund may be required to hold an illiquid investment that is declining in value, or it may be required to sell certain illiquid investments at a price or time that is not advantageous in order to meet redemptions or other cash needs. Some securities may be subject to restrictions on resale. There can be no assurance that there will be a liquid market for instruments held by the Fund at any time. The Fund may not receive the proceeds from the sale of certain investments for an extended period.

Management Risk The Fund relies on the manager's investment analysis and its selection of

investments to achieve its investment objective. There can be no assurance that the Fund will achieve the intended results and the Fund may incur significant losses.

Market Risk The value of the Fund’s portfolio securities may decline, at times sharply and unpredictably, as a result of unfavorable market-induced changes affecting particular industries, sectors, or issuers. Stock markets can decline significantly in response to issuer, market, economic, industry, political, regulatory, geopolitical and other conditions, as well as investor perceptions of these conditions. The Fund is subject to risks affecting issuers, such as management performance, financial leverage, industry problems, and reduced demand for goods or services.

Quantitative Models Risk The portfolio managers use quantitative models as part of the idea generation process. Quantitative models are based upon many factors that measure individual securities relative to each other. Such models may not produce the intended results and can be adversely affected by errors or imperfections in the factors or the data on which measurements are based, changing sources of market return or market risk, or any technical issues with the design, construction, implementation, or maintenance of the models.

Sector Risk The Fund may allocate more of its assets to particular industries or to particular economic, market, or industry sectors than to others. This could increase the volatility of the Fund’s portfolio, and the Fund’s performance may be more susceptible to developments affecting issuers in those industries or sectors than if the Fund invested more broadly.

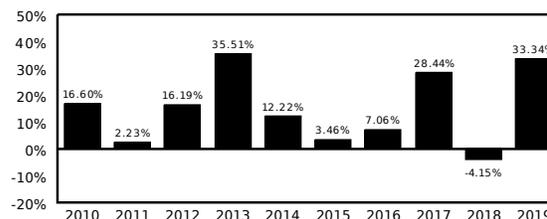
Valuation Risk The Fund is subject to the risk of mispricing or improper valuation of its investments, in particular to the extent that its securities are fair valued.

Performance Information

The following bar chart and table provide some indication of the risks of investing in the Fund. The bar chart shows changes in the Fund’s performance from year to year for Service Class shares. The table shows how the Fund’s average annual returns for 1, 5, and 10 years compare with those of a broad measure of market performance. Performance for Class I, Class R4, and Class R3 shares of the Fund for periods prior to their inception date (04/01/14) is based on the

performance of Class R5 shares, adjusted for Class R4 and Class R3 shares to reflect Class R4 and Class R3 expenses, respectively. Performance for Class A shares of the Fund reflects any applicable sales charge. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future. More up-to-date performance information is available at <http://www.massmutual.com/funds> or by calling 1-888-309-3539.

**Annual Performance
Service Class Shares**



Highest Quarter: 1Q '12, 14.88% Lowest Quarter: 4Q '18, -16.47%

After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes. Actual after-tax returns depend on an investor’s tax situation and may differ from those shown. After-tax returns are not relevant to investors who hold Fund shares through tax-advantaged arrangements, such as 401(k) plans or individual retirement accounts. After-tax returns are shown for Service Class only. After-tax returns for other classes will vary.

**Average Annual Total Returns
(for the periods ended December 31, 2019)**

		One Year	Five Years	Ten Years
Service Class	Return Before Taxes	33.34%	12.70%	14.37%
	Return After Taxes on Distributions	29.67%	8.82%	11.12%
	Return After Taxes on Distributions and sales of Fund Shares	22.25%	9.05%	10.81%
Class I	Return Before Taxes	33.48%	12.95%	14.56%
	Return After Taxes	33.45%	12.81%	14.48%
Class R5	Return Before Taxes	33.45%	12.81%	14.48%
	Return After Taxes	33.23%	12.61%	14.25%
Administrative Class	Return Before Taxes	33.23%	12.61%	14.25%
	Return After Taxes	25.47%	11.05%	13.31%
Class A	Return Before Taxes	25.47%	11.05%	13.31%
	Return After Taxes			

		One Year	Five Years	Ten Years
Class R4	Return Before Taxes	32.96%	12.41%	14.08%
Class R3	Return Before Taxes	32.76%	12.15%	13.81%
Russell 1000 Growth Index (reflects no deduction for fees, expenses, or taxes)		36.39%	14.63%	15.22%

MANAGEMENT

Investment Adviser: MML Investment Advisers, LLC (“MML Advisers”)

Subadviser(s): Barings LLC (“Barings”)

Portfolio Manager(s):

Chris C. Cao, CFA is a Managing Director and portfolio manager for Barings’ Global Portfolio Solutions Group. He has managed the Fund since June 2001.

Michael F. Farrell is a Managing Director and Head of Barings’ U.S. Quantitative Strategies. He has managed the Fund since its inception (December 2000).

PURCHASE AND SALE OF FUND SHARES

Shares of the Fund are generally available to retirement plans, other institutional investors, and individual retirement accounts. Fund shares are

redeemable on any business day by written request, telephone, or internet (available to certain customers).

TAX INFORMATION

The Fund intends to make distributions that may be taxed as ordinary income, qualified dividend income, or capital gains, unless you are an investor eligible for preferential tax treatment.

PAYMENTS TO BROKER-DEALERS AND OTHER FINANCIAL INTERMEDIARIES

If you purchase the Fund through a broker-dealer or other financial intermediary, the intermediary may receive a one-time or continuing payments from the Fund, MML Advisers or its affiliates, or others for the sale of Fund shares or continuing shareholder services provided by the intermediary. These payments may create a conflict of interest by influencing the broker-dealer or other intermediary to recommend the Fund over another investment. You should contact your intermediary to obtain more information about the compensation it may receive in connection with your investment.

MassMutual Premier Small Cap Opportunities Fund

INVESTMENT OBJECTIVE

This Fund seeks capital appreciation.

FEES AND EXPENSES OF THE FUND

This table describes the fees and expenses that you may pay if you buy and hold shares of the Fund. For Class A shares, you may qualify for sales charge discounts if you invest, or agree to invest in the future, at least \$25,000 in MassMutual funds. More information about these and other discounts is available in the section titled *Sales Charges by Class* beginning on page 105 of the Fund's Prospectus or from your financial professional.

Shareholder Fees (fees paid directly from your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Maximum Sales Charge (Load) Imposed on Purchases (as a % of offering price)	None	None	None	None	5.50%	None	None
Maximum Deferred Sales Charge (Load) (as a % of the lower of the original offering price or redemption proceeds)	None	None	None	None	None	None	None

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Management Fees	.58%	.58%	.58%	.58%	.58%	.58%	.58%
Distribution and Service (Rule 12b-1) Fees	None	None	None	None	.25%	.25%	.50%
Other Expenses	.12%	.22%	.32%	.42%	.42%	.32%	.32%
Total Annual Fund Operating Expenses	.70%	.80%	.90%	1.00%	1.25%	1.15%	1.40%

Example

This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. It assumes that you invest \$10,000 in each share class of the Fund for the time periods indicated and then redeem all of your shares at the end of those periods. For Class A shares, the example includes the initial sales charge. The example also assumes that your investment earns a 5% return each year and that the Fund's operating expenses are exactly as described in the preceding table. Although your

actual costs may be higher or lower, based on these assumptions your costs would be at the end of each period:

	1 Year	3 Years	5 Years	10 Years
Class I	\$ 72	\$224	\$ 390	\$ 871
Class R5	\$ 82	\$255	\$ 444	\$ 990
Service Class	\$ 92	\$287	\$ 498	\$1,108
Administrative Class	\$102	\$318	\$ 552	\$1,225
Class A	\$670	\$925	\$1,199	\$1,978
Class R4	\$117	\$365	\$ 633	\$1,398
Class R3	\$143	\$443	\$ 766	\$1,680

Portfolio Turnover

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when Fund shares are held in a taxable account. These costs, which are not reflected in annual fund operating expenses or in the example, affect the Fund's performance. During the most recent fiscal year, the Fund's portfolio turnover rate was 34% of the average value of its portfolio.

INVESTMENTS, RISKS, AND PERFORMANCE

Principal Investment Strategies

The Fund invests primarily in common stocks of small-capitalization U.S. companies that the Fund's subadviser, *Invesco Advisers, Inc.* ("Invesco"), believes have favorable business trends or prospects based on fundamental analysis. Under normal circumstances, the Fund invests at least 80% of its net assets (plus the amount of any borrowings for investment purposes) in securities of small-cap companies. The subadviser currently considers "small-cap" companies to be those whose market capitalizations at the time of purchase are within the market capitalization range of companies included in the Russell 2000[®] Index (as of December 31, 2019, between \$13 million and \$8.34 billion). The Fund typically invests most of its assets in equity securities of U.S. companies, but may invest in foreign securities, including emerging market securities. The Fund generally will not invest more than 15% of its total assets in foreign securities. The Fund may at times have significant exposure to one or more industries or sectors. The Fund may hold a portion of its assets in cash or cash equivalents.

The portfolio is constructed and regularly monitored based upon several analytical tools, including quantitative investment models. Quantitative models are used as part of the idea generation process to rank securities within each sector to identify potential buy and sell candidates for further fundamental analysis. The Fund aims to maintain a broadly diversified portfolio across major economic sectors by applying investment parameters for both sector and position size.

In constructing the portfolio, the Fund seeks to limit exposure to so-called “top-down” or “macro” risks, such as overall stock market movements, economic cycles, and interest rate or currency fluctuations. Instead, Invesco seeks to add value by selecting individual securities with superior company-specific fundamental attributes or relative valuations that they expect to outperform their industry and sector peers. This is commonly referred to as a “bottom-up” approach to portfolio construction. Invesco considers stock rankings, benchmark weightings, and capitalization outlooks in determining security weightings for individual issuers.

Invesco may consider selling a security if, for example, in its judgment, a stock’s price is approaching its target, a company’s competitive position deteriorates, a company’s management is executing strategy poorly, or more attractive alternative investment ideas have been identified.

Principal Risks

The following are the Principal Risks of the Fund. The value of your investment in the Fund could go down as well as up. You can lose money by investing in the Fund. Certain risks relating to instruments and strategies used in the management of the Fund are placed first. The significance of any specific risk to an investment in the Fund will vary over time, depending on the composition of the Fund’s portfolio, market conditions, and other factors. You should read all of the risk information presented below carefully, because any one or more of these risks may result in losses to the Fund.

Equity Securities Risk Although stocks may have the potential to outperform other asset classes over the long term, their prices tend to fluctuate more dramatically over the shorter term. These movements may result from factors affecting individual companies, or from broader influences like changes in interest rates, market conditions, or investor confidence, or announcements of economic, political, or financial information.

Small and Mid-Cap Company Risk Market risk and liquidity risk are particularly pronounced for securities of small and medium-sized companies, which may trade less frequently and in smaller volumes than more widely-held securities, and may fluctuate in price more than other securities. Their shares can be less liquid than those of larger companies, especially during market declines. Small and medium-sized companies may have limited product lines, markets, or financial resources and may be dependent on a limited management group; they may have been recently organized and have little or no track record of success.

Foreign Investment Risk; Emerging Markets Risk; Currency Risk Investments in securities of foreign issuers, securities of companies with significant foreign exposure, and foreign currencies can involve additional risks relating to market, industry, political, regulatory, and other conditions. Political, social, diplomatic, and economic developments, U.S. and foreign government action such as the imposition of currency or capital blockages, controls, or tariffs, economic and trade sanctions or embargoes, security suspensions, entering or exiting trade or other intergovernmental agreements, or the expropriation or nationalization of assets in a particular country, can cause dramatic declines in certain or all securities with exposure to that country and other countries. In the event of nationalization, expropriation, or other confiscation, the Fund could lose its entire foreign investment in a particular country. There may be quotas or other limits on the ability of the Fund (or clients of the Fund’s investment adviser or subadviser) to invest or maintain investments in securities of issuers in certain countries. Enforcing legal rights can be more difficult, costly, and limited in certain foreign countries, and can be particularly difficult against foreign governments. Because non-U.S. securities are normally denominated and traded in currencies other than the U.S. dollar, the value of the Fund’s assets may be affected favorably or unfavorably by changes in currency exchange rates, exchange control regulations, and restrictions or prohibitions on the repatriation of non-U.S. currencies. Income and gains with respect to investments in certain countries may be subject to withholding and other taxes. There may be less information publicly available about a non-U.S. company than about a U.S. company, and many non-U.S. companies are not subject to accounting, auditing, and financial reporting standards, regulatory framework and practices comparable to those in the U.S. The securities of some non-U.S.

companies, especially those in emerging markets, are less liquid and at times more volatile than securities of comparable U.S. companies. Emerging markets securities are subject to greater risks than securities issued in developed foreign markets, including less liquidity, greater price volatility, higher relative rates of inflation, greater political, economic, and social instability, greater custody and operational risks, and greater volatility in currency exchange rates. Frontier markets, a subset of emerging markets, generally have smaller economies and less mature capital markets than emerging markets. As a result, the risks of investing in emerging market countries are magnified in frontier market countries. Frontier markets are more susceptible to having abrupt changes in currency values, less mature markets and settlement practices, and lower trading volumes that could lead to greater price volatility and illiquidity. Non-U.S. transaction costs, such as brokerage commissions and custody costs may be higher than in the United States. In addition, foreign markets can react differently to market, economic, industry, political, regulatory, and other conditions than the U.S. market.

Growth Company Risk The prices of growth securities are often highly sensitive to market fluctuations because of their heavy dependence on future earnings or cash flow expectations, and can be more volatile than the market in general.

Value Company Risk The value investment approach entails the risk that the market will not recognize a security's intrinsic value for a long time, or that a stock the investment adviser or subadviser judges to be undervalued may actually be appropriately priced.

Cash Position Risk If the Fund holds a significant portion of its assets in cash or cash equivalents, its investment returns may be adversely affected and the Fund may not achieve its investment objective.

Liquidity Risk Certain securities may be difficult (or impossible) to sell or certain positions may be difficult to close out at a desirable time and price, and the Fund may be required to hold an illiquid investment that is declining in value, or it may be required to sell certain illiquid investments at a price or time that is not advantageous in order to meet redemptions or other cash needs. Some securities may be subject to restrictions on resale. There can be no assurance that there will be a liquid market for instruments held by the Fund at

any time. The Fund may not receive the proceeds from the sale of certain investments for an extended period.

Management Risk The Fund relies on the manager's investment analysis and its selection of investments to achieve its investment objective. There can be no assurance that the Fund will achieve the intended results and the Fund may incur significant losses.

Market Risk The value of the Fund's portfolio securities may decline, at times sharply and unpredictably, as a result of unfavorable market-induced changes affecting particular industries, sectors, or issuers. Stock markets can decline significantly in response to issuer, market, economic, industry, political, regulatory, geopolitical and other conditions, as well as investor perceptions of these conditions. The Fund is subject to risks affecting issuers, such as management performance, financial leverage, industry problems, and reduced demand for goods or services.

Quantitative Models Risk The portfolio managers use quantitative models as part of the idea generation process. Quantitative models are based upon many factors that measure individual securities relative to each other. Such models may not produce the intended results and can be adversely affected by errors or imperfections in the factors or the data on which measurements are based, changing sources of market return or market risk, or any technical issues with the design, construction, implementation, or maintenance of the models.

Sector Risk The Fund may allocate more of its assets to particular industries or to particular economic, market, or industry sectors than to others. This could increase the volatility of the Fund's portfolio, and the Fund's performance may be more susceptible to developments affecting issuers in those industries or sectors than if the Fund invested more broadly.

Valuation Risk The Fund is subject to the risk of mispricing or improper valuation of its investments, in particular to the extent that its securities are fair valued.

Performance Information

The following bar chart and table provide some indication of the risks of investing in the Fund. The bar chart shows changes in the Fund's performance from year to year for Class A shares. The returns in the bar chart do not reflect the deduction of any applicable Class A sales charge. If these charges were reflected, returns would be lower than those shown. The table shows how the Fund's average annual returns for 1, 5, and 10 years compare with those of a broad measure of market performance. The Fund expanded its investment universe to include investing in mid cap companies in May of 2011. In April of 2013 the Fund returned to focusing on small cap companies. The performance results shown would not necessarily have been achieved had the Fund's current investment strategy been in effect for the entire period for which performance results are presented. Performance for Class I, Class R4, and Class R3 shares of the Fund for periods prior to their inception date (04/01/14) is based on the performance of Class R5 shares, adjusted for Class R4 and Class R3 shares to reflect Class R4 and Class R3 expenses, respectively. Performance for Class A shares of the Fund reflects any applicable sales charge. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future. More up-to-date performance information is available at <http://www.massmutual.com/funds> or by calling 1-888-309-3539.

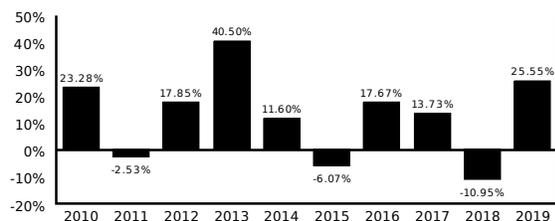
are shown for Class A only. After-tax returns for other classes will vary.

Average Annual Total Returns (for the periods ended December 31, 2019)

		One Year	Five Years	Ten Years
Class A	Return Before Taxes	18.64%	5.84%	11.42%
	Return After Taxes on Distributions	18.51%	3.89%	9.93%
	Return After Taxes on Distributions and sales of Fund Shares	11.13%	4.16%	9.14%
Class I	Return Before Taxes	26.31%	7.65%	12.62%
Class R5	Return Before Taxes	26.27%	7.53%	12.55%
Service Class	Return Before Taxes	26.08%	7.42%	12.45%
Administrative Class	Return Before Taxes	25.93%	7.30%	12.33%
Class R4	Return Before Taxes	25.75%	7.16%	12.17%
Class R3	Return Before Taxes	25.40%	6.88%	11.88%
Russell 2000 Index (reflects no deduction for fees, expenses, or taxes)		25.52%	8.23%	11.83%

Annual Performance

Class A Shares



Highest Quarter: 2Q '09, 31.59% Lowest Quarter: 3Q '11, -21.50%

After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes. Actual after-tax returns depend on an investor's tax situation and may differ from those shown. After-tax returns are not relevant to investors who hold Fund shares through tax-advantaged arrangements, such as 401(k) plans or individual retirement accounts. After-tax returns

MANAGEMENT

Investment Adviser: MML Investment Advisers, LLC (“MML Advisers”)

Subadviser(s): Invesco Advisers, Inc. (“Invesco”)

Portfolio Manager(s):

Raymond Anello, CFA is a Portfolio Manager at Invesco. He has managed the Fund since April 2011.

Joy Budzinski is a Portfolio Manager at Invesco. She has managed the Fund since April 2013.

Kristin Ketner is a Portfolio Manager at Invesco. She has managed the Fund since April 2013.

Magnus Krantz is a Portfolio Manager at Invesco. He has managed the Fund since April 2013.

Raman Vardharaj, CFA is a Portfolio Manager at Invesco. He has managed the Fund since May 2009.

Adam Weiner is a Portfolio Manager at Invesco. He has managed the Fund since April 2013.

Matthew P. Ziehl, CFA is a Portfolio Manager at Invesco. He has managed the Fund since May 2009.

PURCHASE AND SALE OF FUND SHARES

Shares of the Fund are generally available to retirement plans, other institutional investors, and individual retirement accounts. Fund shares are redeemable on any business day by written request, telephone, or internet (available to certain customers).

TAX INFORMATION

The Fund intends to make distributions that may be taxed as ordinary income, qualified dividend income, or capital gains, unless you are an investor eligible for preferential tax treatment.

PAYMENTS TO BROKER-DEALERS AND OTHER FINANCIAL INTERMEDIARIES

If you purchase the Fund through a broker-dealer or other financial intermediary, the intermediary may receive a one-time or continuing payments from the Fund, MML Advisers or its affiliates, or others for related to the sale of Fund shares or continuing shareholder services provided by the intermediary. These payments may create a conflict of interest by influencing the broker-dealer or other intermediary to recommend the Fund over another investment. You should contact your intermediary to obtain more information about the compensation it may receive in connection with your investment.

MassMutual Premier Global Fund

INVESTMENT OBJECTIVE

The Fund seeks long-term capital appreciation.

FEES AND EXPENSES OF THE FUND

This table describes the fees and expenses that you may pay if you buy and hold shares of the Fund. For Class A shares, you may qualify for sales charge discounts if you invest, or agree to invest in the future, at least \$25,000 in MassMutual funds. More information about these and other discounts is available in the section titled *Sales Charges by Class* beginning on page 105 of the Fund's Prospectus or from your financial professional.

Shareholder Fees (fees paid directly from your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Maximum Sales Charge (Load) Imposed on Purchases (as a % of offering price)	None	None	None	None	5.50%	None	None
Maximum Deferred Sales Charge (Load) (as a % of the lower of the original offering price or redemption proceeds)	None	None	None	None	None	None	None

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Management Fees	.75%	.75%	.75%	.75%	.75%	.75%	.75%
Distribution and Service (Rule 12b-1) Fees	None	None	None	None	.25%	.25%	.50%
Other Expenses	.09%	.19%	.29%	.39%	.39%	.29%	.29%
Total Annual Fund Operating Expenses	.84%	.94%	1.04%	1.14%	1.39%	1.29%	1.54%

Example

This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. It assumes that you invest \$10,000 in each share class of the Fund for the time periods indicated and then redeem all of your shares at the end of those periods. For Class A shares, the example includes the initial sales charge. The example also assumes that your investment earns a 5% return each year and that the Fund's operating expenses are exactly as described in the preceding table. Although your

actual costs may be higher or lower, based on these assumptions your costs would be:

	1 Year	3 Years	5 Years	10 Years
Class I	\$ 86	\$268	\$ 466	\$1,037
Class R5	\$ 96	\$300	\$ 520	\$1,155
Service Class	\$106	\$331	\$ 574	\$1,271
Administrative Class	\$116	\$362	\$ 628	\$1,386
Class A	\$684	\$966	\$1,269	\$2,127
Class R4	\$131	\$409	\$ 708	\$1,556
Class R3	\$157	\$486	\$ 839	\$1,834

Portfolio Turnover

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when Fund shares are held in a taxable account. These costs, which are not reflected in annual fund operating expenses or in the example, affect the Fund's performance. During the most recent fiscal year, the Fund's portfolio turnover rate was 32% of the average value of its portfolio.

INVESTMENTS, RISKS, AND PERFORMANCE

Principal Investment Strategies

The Fund invests primarily in common stocks of companies in the U.S. and foreign countries. The Fund can invest without limit in foreign securities, including American Depositary Receipts ("ADRs"), and can invest in any country, including developing or emerging market countries. However, the Fund currently emphasizes investments in developed markets such as the United States, Western European countries, and Japan. The Fund is not required to allocate its investments in any set percentages to any particular countries. As a fundamental policy, the Fund normally will invest in at least three countries (one of which may be the United States). Typically, the Fund invests in a number of different countries. The Fund does not limit its investments to companies in a particular market capitalization range, but currently focuses on common stocks of mid- and large-cap companies. The Fund may purchase exchange-traded options for hedging purposes or to take long or short positions on equity securities or indexes of equity securities. Use of derivatives by the Fund may create investment leverage. The Fund may at times have significant exposure to

one or more industries or sectors. The Fund may hold a portion of its assets in cash or cash equivalents.

The Fund's subadviser, *Invesco Advisers, Inc.* ("Invesco"), primarily looks for quality companies, regardless of domicile, that have sustainable growth. Invesco's investment approach combines a thematic approach to idea generation with bottom-up, fundamental company analysis. Invesco seeks to identify secular changes in the world and looks for pockets of durable change that it believes will drive global growth for the next decade. These large scale structural themes are referred to collectively as MANTRA[®]: Mass Affluence, New Technology, Restructuring, and Aging. Invesco does not target a fixed allocation with regard to any particular theme, and may choose to focus on various sub-themes within each theme. Within each sub-theme, Invesco employs fundamental company analysis to select investments for the Fund's portfolio. The economic characteristics Invesco seeks include a combination of high return on invested capital, good cash flow characteristics, high barriers to entry, dominant market share, a strong competitive position, talented management, and balance sheet strength that Invesco believes will enable the company to fund its own growth. These criteria may vary. Invesco also considers how industry dynamics, market trends, and general economic conditions may affect a company's earnings outlook.

Invesco has a long-term investment horizon of typically three to five years. Invesco also has a contrarian buy discipline; Invesco buys high quality companies that fit its investment criteria when their valuations underestimate their long-term earnings potential. For example, a company's stock price may dislocate from its fundamental outlook due to a short-term earnings glitch or negative, short-term market sentiment, which can give rise to an investment opportunity. Invesco monitors individual issuers for changes in earnings potential or other effects of changing market conditions that may trigger a decision to sell a security, but do not require a decision to do so.

Principal Risks

The following are the Principal Risks of the Fund. The value of your investment in the Fund could go down as well as up. You can lose money by investing in the Fund. Certain risks relating to instruments and strategies used in the management of the Fund are placed first. The significance of any specific risk to an investment in the Fund will

vary over time, depending on the composition of the Fund's portfolio, market conditions, and other factors. You should read all of the risk information presented below carefully, because any one or more of these risks may result in losses to the Fund.

Equity Securities Risk Although stocks may have the potential to outperform other asset classes over the long term, their prices tend to fluctuate more dramatically over the shorter term. These movements may result from factors affecting individual companies, or from broader influences like changes in interest rates, market conditions, or investor confidence, or announcements of economic, political, or financial information.

Derivatives Risk Derivatives can be highly volatile and involve risks different from, and potentially greater than, direct investments, including risks of imperfect correlation between the value of derivatives and underlying assets, counterparty default, potential losses that partially or completely offset gains, and illiquidity. Derivatives can create investment leverage. Losses from derivatives can be substantially greater than the derivatives' original cost and can sometimes be unlimited. If the value of a derivative does not correlate well with the particular market or asset class the derivative is designed to provide exposure to, the derivative may not have the effect or benefit anticipated. Derivatives can also reduce the opportunity for gains or result in losses by offsetting positive returns in other investments. Many derivatives are traded in the over-the-counter market and not on exchanges.

Foreign Investment Risk; Emerging Markets Risk; Currency Risk Investments in securities of foreign issuers, securities of companies with significant foreign exposure, and foreign currencies can involve additional risks relating to market, industry, political, regulatory, and other conditions. Political, social, diplomatic, and economic developments, U.S. and foreign government action such as the imposition of currency or capital blockages, controls, or tariffs, economic and trade sanctions or embargoes, security suspensions, entering or exiting trade or other intergovernmental agreements, or the expropriation or nationalization of assets in a particular country, can cause dramatic declines in certain or all securities with exposure to that country and other countries. In the event of nationalization, expropriation, or other confiscation, the Fund could lose its entire foreign investment in a particular country. There may be

quotas or other limits on the ability of the Fund (or clients of the Fund's investment adviser or subadviser) to invest or maintain investments in securities of issuers in certain countries. Enforcing legal rights can be more difficult, costly, and limited in certain foreign countries, and can be particularly difficult against foreign governments. Because non-U.S. securities are normally denominated and traded in currencies other than the U.S. dollar, the value of the Fund's assets may be affected favorably or unfavorably by changes in currency exchange rates, exchange control regulations, and restrictions or prohibitions on the repatriation of non-U.S. currencies. Income and gains with respect to investments in certain countries may be subject to withholding and other taxes. There may be less information publicly available about a non-U.S. company than about a U.S. company, and many non-U.S. companies are not subject to accounting, auditing, and financial reporting standards, regulatory framework and practices comparable to those in the U.S. The securities of some non-U.S. companies, especially those in emerging markets, are less liquid and at times more volatile than securities of comparable U.S. companies. Emerging markets securities are subject to greater risks than securities issued in developed foreign markets, including less liquidity, greater price volatility, higher relative rates of inflation, greater political, economic, and social instability, greater custody and operational risks, and greater volatility in currency exchange rates. Frontier markets, a subset of emerging markets, generally have smaller economies and less mature capital markets than emerging markets. As a result, the risks of investing in emerging market countries are magnified in frontier market countries. Frontier markets are more susceptible to having abrupt changes in currency values, less mature markets and settlement practices, and lower trading volumes that could lead to greater price volatility and illiquidity. Non-U.S. transaction costs, such as brokerage commissions and custody costs may be higher than in the United States. In addition, foreign markets can react differently to market, economic, industry, political, regulatory, and other conditions than the U.S. market.

Growth Company Risk The prices of growth securities are often highly sensitive to market fluctuations because of their heavy dependence on future earnings or cash flow expectations, and can be more volatile than the market in general.

Large Company Risk Large-capitalization stocks as a group could fall out of favor with the market,

causing the Fund's investments in large-capitalization stocks to underperform investments that focus on small- or medium-capitalization stocks. Larger, more established companies may be slow to respond to challenges and may grow more slowly than smaller companies.

Small and Mid-Cap Company Risk Market risk and liquidity risk are particularly pronounced for securities of small and medium-sized companies, which may trade less frequently and in smaller volumes than more widely-held securities, and may fluctuate in price more than other securities. Their shares can be less liquid than those of larger companies, especially during market declines. Small and medium-sized companies may have limited product lines, markets, or financial resources and may be dependent on a limited management group; they may have been recently organized and have little or no track record of success.

Cash Position Risk If the Fund holds a significant portion of its assets in cash or cash equivalents, its investment returns may be adversely affected and the Fund may not achieve its investment objective.

Liquidity Risk Certain securities may be difficult (or impossible) to sell or certain positions may be difficult to close out at a desirable time and price, and the Fund may be required to hold an illiquid investment that is declining in value, or it may be required to sell certain illiquid investments at a price or time that is not advantageous in order to meet redemptions or other cash needs. Some securities may be subject to restrictions on resale. There can be no assurance that there will be a liquid market for instruments held by the Fund at any time. The Fund may not receive the proceeds from the sale of certain investments for an extended period.

Management Risk The Fund relies on the manager's investment analysis and its selection of investments to achieve its investment objective. There can be no assurance that the Fund will achieve the intended results and the Fund may incur significant losses.

Market Risk The value of the Fund's portfolio securities may decline, at times sharply and unpredictably, as a result of unfavorable market-induced changes affecting particular industries, sectors, or issuers. Stock markets can decline significantly in response to issuer, market, economic, industry, political, regulatory, geopolitical and other conditions, as well as

investor perceptions of these conditions. The Fund is subject to risks affecting issuers, such as management performance, financial leverage, industry problems, and reduced demand for goods or services.

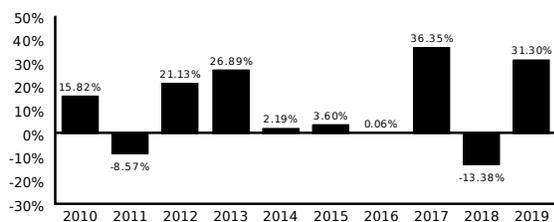
Sector Risk The Fund may allocate more of its assets to particular industries or to particular economic, market, or industry sectors than to others. This could increase the volatility of the Fund's portfolio, and the Fund's performance may be more susceptible to developments affecting issuers in those industries or sectors than if the Fund invested more broadly.

Valuation Risk The Fund is subject to the risk of mispricing or improper valuation of its investments, in particular to the extent that its securities are fair valued.

Performance Information

The following bar chart and table provide some indication of the risks of investing in the Fund. The bar chart shows changes in the Fund's performance from year to year for Class R5 shares. The table shows how the Fund's average annual returns for 1, 5, and 10 years compare with those of a broad measure of market performance. Performance for Class I and Class R4 shares of the Fund for periods prior to their inception date (04/01/14) is based on the performance of Class R5 shares, adjusted for Class R4 shares to reflect Class R4 expenses. Performance for Class A shares of the Fund reflects any applicable sales charge. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future. More up-to-date performance information is available at <http://www.massmutual.com/funds> or by calling 1-888-309-3539.

Annual Performance
Class R5 Shares



Highest Quarter: 1Q '19, 16.76% Lowest Quarter: 3Q '11, -20.03%

After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and

local taxes. Actual after-tax returns depend on an investor's tax situation and may differ from those shown. After-tax returns are not relevant to investors who hold Fund shares through tax-advantaged arrangements, such as 401(k) plans or individual retirement accounts. After-tax returns are shown for Class R5 only. After-tax returns for other classes will vary.

Average Annual Total Returns (for the periods ended December 31, 2019)

	One Year	Five Years	Ten Years	
Class R5	Return Before Taxes	31.30%	9.96%	10.33%
	Return After Taxes on Distributions	31.04%	7.59%	8.93%
	Return After Taxes on Distributions and sales of Fund Shares	18.71%	7.53%	8.35%
Class I	Return Before Taxes	31.36%	10.07%	10.39%
Service Class	Return Before Taxes	31.10%	9.86%	10.20%
Administrative Class	Return Before Taxes	31.01%	9.76%	10.09%
Class A	Return Before Taxes	23.48%	8.24%	9.17%
Class R4	Return Before Taxes	30.81%	9.59%	9.95%
Class R3	Return Before Taxes	30.51%	9.33%	9.67%
MSCI ACWI (reflects no deduction for fees or expenses)	26.60%	8.41%	8.79%	

MANAGEMENT

Investment Adviser: MML Investment Advisers, LLC ("MML Advisers")

Subadviser(s): Invesco Advisers, Inc. ("Invesco")

Portfolio Manager(s):

John Delano, CFA is a Senior Portfolio Manager at Invesco. He has managed the Fund since March 2017.

PURCHASE AND SALE OF FUND SHARES

Shares of the Fund are generally available to retirement plans, other institutional investors, and individual retirement accounts. Fund shares are redeemable on any business day by written request, telephone, or internet (available to certain customers).

TAX INFORMATION

The Fund intends to make distributions that may be taxed as ordinary income, qualified dividend income, or capital gains, unless you are an investor eligible for preferential tax treatment.

PAYMENTS TO BROKER-DEALERS AND OTHER FINANCIAL INTERMEDIARIES

If you purchase the Fund through a broker-dealer or other financial intermediary, the intermediary may receive a one-time or continuing payments

from the Fund, MML Advisers or its affiliates, or others for the sale of Fund shares or continuing shareholder services provided by the intermediary. These payments may create a conflict of interest by influencing the broker-dealer or other intermediary to recommend the Fund over another investment. You should contact your intermediary to obtain more information about the compensation it may receive in connection with your investment.

MassMutual Premier International Equity Fund

INVESTMENT OBJECTIVE

This Fund seeks to achieve long-term capital appreciation by investing primarily in common stock of foreign companies.

FEES AND EXPENSES OF THE FUND

This table describes the fees and expenses that you may pay if you buy and hold shares of the Fund. For Class A shares, you may qualify for sales charge discounts if you invest, or agree to invest in the future, at least \$25,000 in MassMutual funds. More information about these and other discounts is available in the section titled *Sales Charges by Class* beginning on page 105 of the Fund's Prospectus or from your financial professional.

Shareholder Fees (fees paid directly from your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Maximum Sales Charge (Load) Imposed on Purchases (as a % of offering price)	None	None	None	None	5.50%	None	None
Maximum Deferred Sales Charge (Load) (as a % of the lower of the original offering price or redemption proceeds)	None	None	None	None	None	None	None

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Management Fees	.85%	.85%	.85%	.85%	.85%	.85%	.85%
Distribution and Service (Rule 12b-1) Fees	None	None	None	None	.25%	.25%	.50%
Other Expenses	.08%	.18%	.28%	.38%	.38%	.28%	.28%
Total Annual Fund Operating Expenses	.93%	1.03%	1.13%	1.23%	1.48%	1.38%	1.63%
Fee Waiver	(0.02%)	(0.02%)	(0.02%)	(0.02%)	(0.02%)	(0.02%)	(0.02%)
Total Annual Fund Operating Expenses after Fee Waiver ⁽¹⁾	0.91%	1.01%	1.11%	1.21%	1.46%	1.36%	1.61%

(1) MML Advisers has agreed to waive .02% of its management fees through January 31, 2021. This agreement can only be terminated by mutual consent of the Board of Trustees on behalf of the Fund and MML Advisers.

Example

This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. It assumes that you invest \$10,000 in each share class of the Fund for the time periods indicated and then redeem

all of your shares at the end of those periods. For Class A shares, the example includes the initial sales charge. The example also assumes that your investment earns a 5% return each year and that the Fund's operating expenses are exactly as described in the preceding table. Although your actual costs may be higher or lower, based on these assumptions your costs would be:

	1 Year	3 Years	5 Years	10 Years
Class I	\$ 93	\$294	\$ 513	\$1,141
Class R5	\$103	\$326	\$ 567	\$1,258
Service Class	\$113	\$357	\$ 620	\$1,373
Administrative Class	\$123	\$388	\$ 674	\$1,487
Class A	\$690	\$990	\$1,312	\$2,220
Class R4	\$138	\$435	\$ 753	\$1,656
Class R3	\$164	\$512	\$ 885	\$1,931

Portfolio Turnover

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when Fund shares are held in a taxable account. These costs, which are not reflected in annual fund operating expenses or in the example, affect the Fund's performance. During the most recent fiscal year, the Fund's portfolio turnover rate was 52% of the average value of its portfolio.

INVESTMENTS, RISKS, AND PERFORMANCE

Principal Investment Strategies

The Fund invests primarily in the common stock of growth companies that are domiciled or that have their primary operations outside of the United States. Under normal circumstances, the Fund invests at least 80% of its net assets (plus the amount of any borrowings for investment purposes) in securities of foreign companies. The Fund may invest 100% of its total assets in such securities. The Fund may invest in emerging markets as well as in developed markets throughout the world. From time to time, the Fund may place greater emphasis on investing in one or more particular regions (such as Asia, Europe, or Latin America). Under normal market conditions, the Fund will:

- invest at least 65% of its total assets in common and preferred stocks of issuers in at least three different countries outside of the United States, and

- emphasize investments in common stock of issuers that the Fund's subadviser, *Invesco Advisers, Inc.* ("Invesco"), considers to be "growth" companies.

The Fund does not limit its investments to issuers within a specific market capitalization range and at times may invest a substantial portion of its assets in one or more particular capitalization ranges. Equity securities in which the Fund invests may include common stocks, depositary receipts, preferred stocks, securities convertible into common or preferred stock, rights, and warrants. The Fund may but will not necessarily engage in foreign currency forward contracts to take long or short positions in foreign currencies in order to seek to enhance the Fund's investment return or to seek to hedge or to attempt to protect against adverse changes in currency exchange rates. Use of derivatives by the Fund may create investment leverage. The Fund may at times have significant exposure to one or more industries or sectors. The Fund may hold a portion of its assets in cash or cash equivalents.

In selecting investments for the Fund, Invesco evaluates investment opportunities on a company-by-company basis. Invesco looks primarily for foreign companies with high growth potential using a "bottom up" investment approach, that is, by looking at the investment performance of individual stocks before considering the impact of general or industry-specific economic trends. This approach includes fundamental analysis of a company's financial statements and management structure and consideration of the company's operations, product development, and industry position.

Invesco currently focuses on the following factors, which may vary in particular cases and may change over time:

- companies that enjoy a strong competitive position and high demand for their products or services;
- companies with accelerating earnings growth and cash flow; and
- diversity among companies, industries, and countries to help reduce the risks of foreign investing, such as currency fluctuations and stock market volatility.

Invesco also considers the effect of worldwide trends on the growth of particular business sectors and looks for companies that may benefit from those trends. The trends currently considered include: mass affluence, new technologies,

restructuring, and aging. Invesco does not invest any fixed amount of the Fund's assets according to these criteria and the trends that are considered may change over time. Invesco monitors individual issuers for changes in the factors above, which may trigger a decision to sell a security, but does not require a decision to do so.

Principal Risks

The following are the Principal Risks of the Fund. The value of your investment in the Fund could go down as well as up. You can lose money by investing in the Fund. Certain risks relating to instruments and strategies used in the management of the Fund are placed first. The significance of any specific risk to an investment in the Fund will vary over time, depending on the composition of the Fund's portfolio, market conditions, and other factors. You should read all of the risk information presented below carefully, because any one or more of these risks may result in losses to the Fund.

Equity Securities Risk Although stocks may have the potential to outperform other asset classes over the long term, their prices tend to fluctuate more dramatically over the shorter term. These movements may result from factors affecting individual companies, or from broader influences like changes in interest rates, market conditions, or investor confidence, or announcements of economic, political, or financial information.

Foreign Investment Risk; Emerging Markets Risk; Currency Risk Investments in securities of foreign issuers, securities of companies with significant foreign exposure, and foreign currencies can involve additional risks relating to market, industry, political, regulatory, and other conditions. Political, social, diplomatic, and economic developments, U.S. and foreign government action such as the imposition of currency or capital blockages, controls, or tariffs, economic and trade sanctions or embargoes, security suspensions, entering or exiting trade or other intergovernmental agreements, or the expropriation or nationalization of assets in a particular country, can cause dramatic declines in certain or all securities with exposure to that country and other countries. In the event of nationalization, expropriation, or other confiscation, the Fund could lose its entire foreign investment in a particular country. There may be quotas or other limits on the ability of the Fund (or clients of the Fund's investment adviser or subadviser) to invest or maintain investments in securities of issuers in certain countries. Enforcing

legal rights can be more difficult, costly, and limited in certain foreign countries, and can be particularly difficult against foreign governments. Because non-U.S. securities are normally denominated and traded in currencies other than the U.S. dollar, the value of the Fund's assets may be affected favorably or unfavorably by changes in currency exchange rates, exchange control regulations, and restrictions or prohibitions on the repatriation of non-U.S. currencies. Income and gains with respect to investments in certain countries may be subject to withholding and other taxes. There may be less information publicly available about a non-U.S. company than about a U.S. company, and many non-U.S. companies are not subject to accounting, auditing, and financial reporting standards, regulatory framework and practices comparable to those in the U.S. The securities of some non-U.S. companies, especially those in emerging markets, are less liquid and at times more volatile than securities of comparable U.S. companies. Emerging markets securities are subject to greater risks than securities issued in developed foreign markets, including less liquidity, greater price volatility, higher relative rates of inflation, greater political, economic, and social instability, greater custody and operational risks, and greater volatility in currency exchange rates. Frontier markets, a subset of emerging markets, generally have smaller economies and less mature capital markets than emerging markets. As a result, the risks of investing in emerging market countries are magnified in frontier market countries. Frontier markets are more susceptible to having abrupt changes in currency values, less mature markets and settlement practices, and lower trading volumes that could lead to greater price volatility and illiquidity. Non-U.S. transaction costs, such as brokerage commissions and custody costs may be higher than in the United States. In addition, foreign markets can react differently to market, economic, industry, political, regulatory, and other conditions than the U.S. market.

Derivatives Risk Derivatives can be highly volatile and involve risks different from, and potentially greater than, direct investments, including risks of imperfect correlation between the value of derivatives and underlying assets, counterparty default, potential losses that partially or completely offset gains, and illiquidity. Derivatives can create investment leverage. Losses from derivatives can be substantially greater than the derivatives' original cost and can sometimes be unlimited. If the value of a derivative does not correlate well with the particular market or asset class the derivative

is designed to provide exposure to, the derivative may not have the effect or benefit anticipated. Derivatives can also reduce the opportunity for gains or result in losses by offsetting positive returns in other investments. Many derivatives are traded in the over-the-counter market and not on exchanges.

Growth Company Risk The prices of growth securities are often highly sensitive to market fluctuations because of their heavy dependence on future earnings or cash flow expectations, and can be more volatile than the market in general.

Large Company Risk Large-capitalization stocks as a group could fall out of favor with the market, causing the Fund's investments in large-capitalization stocks to underperform investments that focus on small- or medium-capitalization stocks. Larger, more established companies may be slow to respond to challenges and may grow more slowly than smaller companies.

Small and Mid-Cap Company Risk Market risk and liquidity risk are particularly pronounced for securities of small and medium-sized companies, which may trade less frequently and in smaller volumes than more widely-held securities, and may fluctuate in price more than other securities. Their shares can be less liquid than those of larger companies, especially during market declines. Small and medium-sized companies may have limited product lines, markets, or financial resources and may be dependent on a limited management group; they may have been recently organized and have little or no track record of success.

Cash Position Risk If the Fund holds a significant portion of its assets in cash or cash equivalents, its investment returns may be adversely affected and the Fund may not achieve its investment objective.

Convertible Securities Risk Convertible securities are subject to the risks of both debt instruments and equity securities. The price of a convertible security may change in response to changes in price of the underlying equity security, the credit quality of the issuer, and interest rates. In general, the values of convertible securities tend to decline as interest rates rise and to rise when interest rates fall. A convertible security generally has less potential for gain or loss than the underlying equity security.

Geographic Focus Risk When the Fund focuses investments on a particular country, group of countries, or geographic region, its performance will be closely tied to the market, currency,

economic, political, or regulatory conditions and developments in those countries or that region, and could be more volatile than the performance of more geographically diversified funds.

Liquidity Risk Certain securities may be difficult (or impossible) to sell or certain positions may be difficult to close out at a desirable time and price, and the Fund may be required to hold an illiquid investment that is declining in value, or it may be required to sell certain illiquid investments at a price or time that is not advantageous in order to meet redemptions or other cash needs. Some securities may be subject to restrictions on resale. There can be no assurance that there will be a liquid market for instruments held by the Fund at any time. The Fund may not receive the proceeds from the sale of certain investments for an extended period.

Management Risk The Fund relies on the manager's investment analysis and its selection of investments to achieve its investment objective. There can be no assurance that the Fund will achieve the intended results and the Fund may incur significant losses.

Market Risk The value of the Fund's portfolio securities may decline, at times sharply and unpredictably, as a result of unfavorable market-induced changes affecting particular industries, sectors, or issuers. Stock markets can decline significantly in response to issuer, market, economic, industry, political, regulatory, geopolitical and other conditions, as well as investor perceptions of these conditions. The Fund is subject to risks affecting issuers, such as management performance, financial leverage, industry problems, and reduced demand for goods or services.

Preferred Stock Risk Like other equity securities, preferred stock is subject to the risk that its value may decrease based on actual or perceived changes in the business or financial condition of the issuer. In addition, changes in interest rates may adversely affect the value of a preferred stock that pays a fixed dividend.

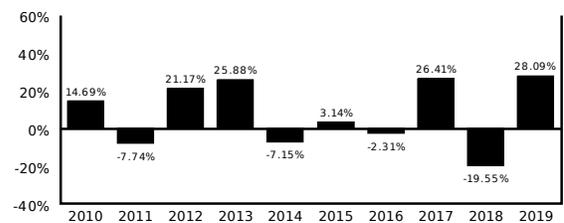
Sector Risk The Fund may allocate more of its assets to particular industries or to particular economic, market, or industry sectors than to others. This could increase the volatility of the Fund's portfolio, and the Fund's performance may be more susceptible to developments affecting issuers in those industries or sectors than if the Fund invested more broadly.

Valuation Risk The Fund is subject to the risk of mispricing or improper valuation of its investments, in particular to the extent that its securities are fair valued.

Performance Information

The following bar chart and table provide some indication of the risks of investing in the Fund. The bar chart shows changes in the Fund's performance from year to year for Class R5 shares. The table shows how the Fund's average annual returns for 1, 5, and 10 years compare with those of a broad measure of market performance. Performance for Class I, Class R4, and Class R3 shares of the Fund for periods prior to their inception date (04/01/14) is based on the performance of Class R5 shares, adjusted for Class R4 and Class R3 shares to reflect Class R4 and Class R3 expenses, respectively. Performance for Class A shares of the Fund reflects any applicable sales charge. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future. More up-to-date performance information is available at <http://www.massmutual.com/funds> or by calling 1-888-309-3539.

**Annual Performance
Class R5 Shares**



Highest Quarter: 3Q '10, 15.52% Lowest Quarter: 3Q '11, -18.12%

After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes. Actual after-tax returns depend on an investor's tax situation and may differ from those shown. After-tax returns are not relevant to investors who hold Fund shares through tax-advantaged arrangements, such as 401(k) plans or individual retirement accounts. After-tax returns are shown for Class R5 only. After-tax returns for other classes will vary.

Average Annual Total Returns
(for the periods ended December 31, 2019)

		One Year	Five Years	Ten Years
Class R5	Return Before Taxes	28.09%	5.59%	7.00%
	Return After Taxes on Distributions	27.14%	4.84%	5.70%
	Return After Taxes on Distributions and sales of Fund Shares	17.57%	4.37%	5.59%
Class I	Return Before Taxes	28.26%	5.71%	7.13%
Service Class	Return Before Taxes	27.89%	5.48%	6.92%
Administrative Class	Return Before Taxes	27.80%	5.37%	6.79%
Class A	Return Before Taxes	20.44%	3.92%	5.92%
Class R4	Return Before Taxes	27.61%	5.21%	6.61%
Class R3	Return Before Taxes	27.29%	4.96%	6.35%
MSCI ACWI ex USA (reflects no deduction for fees or expenses)		21.51%	5.51%	4.97%

MANAGEMENT

Investment Adviser: MML Investment Advisers, LLC (“MML Advisers”)

Subadviser(s): Invesco Advisers, Inc. (“Invesco”)

Portfolio Manager(s):

Robert B. Dunphy, CFA is a Portfolio Manager at Invesco. He has managed the Fund since March 2012.

George R. Evans, CFA is a Portfolio Manager at Invesco. He has managed the Fund since its inception (October 1994).

PURCHASE AND SALE OF FUND SHARES

Shares of the Fund are generally available to retirement plans, other institutional investors, and individual retirement accounts. Fund shares are redeemable on any business day by written request, telephone, or internet (available to certain customers).

TAX INFORMATION

The Fund intends to make distributions that may be taxed as ordinary income, qualified dividend income, or capital gains, unless you are an investor eligible for preferential tax treatment.

PAYMENTS TO BROKER-DEALERS AND OTHER FINANCIAL INTERMEDIARIES

If you purchase the Fund through a broker-dealer or other financial intermediary, the intermediary may receive a one-time or continuing payments from the Fund, MML Advisers or its affiliates, or others for the sale of Fund shares or continuing shareholder services provided by the intermediary. These payments may create a conflict of interest by influencing the broker-dealer or other intermediary to recommend the Fund over another investment. You should contact your intermediary to obtain more information about the compensation it may receive in connection with your investment.

MassMutual Premier Strategic Emerging Markets Fund

INVESTMENT OBJECTIVE

The Fund seeks long-term capital growth.

FEES AND EXPENSES OF THE FUND

This table describes the fees and expenses that you may pay if you buy and hold shares of the Fund. For Class A shares, you may qualify for sales charge discounts if you invest, or agree to invest in the future, at least \$25,000 in MassMutual funds. More information about these and other discounts is available in the section titled *Sales Charges by Class* beginning on page 105 of the Fund's Prospectus or from your financial professional.

Shareholder Fees (fees paid directly from your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Maximum Sales Charge (Load) Imposed on Purchases (as a % of offering price)	None	None	None	None	5.50%	None	None
Maximum Deferred Sales Charge (Load) (as a % of the lower of the original offering price or redemption proceeds)	None	None	None	None	None	None	None

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	Class I	Class R5	Service Class	Administrative Class	Class A	Class R4	Class R3
Management Fees	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Distribution and Service (Rule 12b-1) Fees	None	None	None	None	.25%	.25%	.50%
Other Expenses	.21%	.31%	.41%	.51%	.51%	.41%	.41%
Total Annual Fund Operating Expenses	1.21%	1.31%	1.41%	1.51%	1.76%	1.66%	1.91%
Expense Reimbursement	(0.06%)	(0.06%)	(0.06%)	(0.06%)	(0.06%)	(0.06%)	(0.06%)
Total Annual Fund Operating Expenses after Expense Reimbursement ⁽¹⁾	1.15%	1.25%	1.35%	1.45%	1.70%	1.60%	1.85%

- (1) The expenses in the above table reflect a written agreement by MML Advisers to cap the fees and expenses of the Fund (other than extraordinary litigation and legal expenses, Acquired Fund Fees and Expenses, interest expense, short sale dividend and loan expense, or other non-recurring or unusual expenses such as organizational expenses and shareholder meeting expenses, as applicable) through January 31, 2021, to the extent that Total Annual Fund Operating Expenses after Expense Reimbursement would otherwise exceed 1.15%, 1.25%, 1.35%, 1.45%, 1.70%, 1.60%, and 1.85% for Classes I, R5, Service, Administrative, A, R4, and R3, respectively. The Total Annual Fund Operating Expenses after Expense Reimbursement shown in the above table may exceed these amounts, because, as noted in the previous

sentence, certain fees and expenses are excluded from the cap. The agreement can only be terminated by mutual consent of the Board of Trustees on behalf of the Fund and MML Advisers.

Example

This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds. It assumes that you invest \$10,000 in each share class of the Fund for the time periods indicated and then redeem all of your shares at the end of those periods. For Class A shares, the example includes the initial sales charge. The example also assumes that your investment earns a 5% return each year and that the Fund's operating expenses are exactly as described in the preceding table. Although your actual costs may be higher or lower, based on these assumptions your costs would be:

	1 Year	3 Years	5 Years	10 Years
Class I	\$117	\$ 378	\$ 659	\$1,461
Class R5	\$127	\$ 409	\$ 712	\$1,574
Service Class	\$137	\$ 440	\$ 765	\$1,686
Administrative Class	\$148	\$ 471	\$ 818	\$1,796
Class A	\$713	\$1,068	\$1,446	\$2,504
Class R4	\$163	\$ 518	\$ 897	\$1,960
Class R3	\$188	\$ 594	\$1,026	\$2,228

Portfolio Turnover

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when Fund shares are held in a taxable account. These costs, which are not reflected in annual fund operating expenses or in the example, affect the Fund's performance. During the most recent fiscal year, the Fund's portfolio turnover rate was 32% of the average value of its portfolio.

INVESTMENTS, RISKS, AND PERFORMANCE

Principal Investment Strategies

The Fund mainly invests in common stocks of issuers in developing and emerging markets throughout the world and at times it may invest up to 100% of its total assets in foreign securities. Under normal market conditions, the Fund will invest at least 80% of its net assets (plus the amount of any borrowings for investment purposes) in equity securities of issuers whose principal activities

are in a developing (or emerging) market, i.e. are in a developing market or are economically tied to a developing market country. The Fund will invest in at least three developing markets. The Fund focuses on companies with above-average earnings growth. The Fund may at times have significant exposure to one or more industries or sectors. The Fund may hold a portion of its assets in cash or cash equivalents.

In general, countries may be considered developing or emerging markets if they are included in any one of the MSCI emerging markets indexes, classified as a developing or emerging market, or classified under a similar or corresponding classification, by organizations such as the World Bank and the International Monetary Fund, or have economies, industries, and stock markets with similar characteristics. For purposes of the Fund's investments, a determination that an issuer is economically tied to a developing market country is based on factors including, but not limited to, geographic location of its primary trading markets, location of its assets, its domicile or its principal offices, or whether it receives revenues from a developing market. Such a determination can also be based, in whole or in part, on inclusion of an issuer or its securities in an index representative of developing or emerging markets.

The Fund may purchase American Depositary Shares ("ADS") as part of American Depositary Receipt ("ADR") issuances, which are negotiable certificates issued by a U.S. bank representing a specified number of shares in a foreign stock traded on a U.S. exchange. In addition to common stocks, the Fund can invest in other equity or "equity equivalents" securities such as preferred stocks or convertible securities. The Fund may use derivatives, including futures contracts, forward contracts, and options, to seek to enhance the Fund's investment return or for hedging purposes. The Fund is not required to use derivatives in seeking its investment objective or for hedging and might not do so. Use of derivatives by the Fund may create investment leverage.

The Fund may invest directly in certain eligible China A Shares through Stock Connect (a securities trading and clearing program designed to achieve mutual stock market access between the People's Republic of China ("PRC") and Hong Kong).

In selecting investments for the Fund, the Fund's subadviser, *Invesco Advisers, Inc.* ("Invesco"), evaluates investment opportunities on a company-by-company basis. This approach includes

fundamental analysis of a company's financial statements, management record, capital structure, operations, product development, and competitive position in its industry. Invesco also looks for newer or established businesses that are entering into a growth cycle, have the potential for accelerating earnings growth or cash flow, and possess reasonable valuations. Invesco considers the effect of worldwide trends on the growth of particular business sectors and looks for companies that may benefit from those trends and seeks a diverse mix of industries and countries to help reduce the risks of foreign investing, such as currency fluctuations and stock market volatility. Invesco may invest in growth companies of different capitalization ranges in any developing market country. Invesco monitors individual issuers for changes in the factors above, which may trigger a decision to sell a security.

Principal Risks

The following are the Principal Risks of the Fund. The value of your investment in the Fund could go down as well as up. You can lose money by investing in the Fund. Certain risks relating to instruments and strategies used in the management of the Fund are placed first. The significance of any specific risk to an investment in the Fund will vary over time, depending on the composition of the Fund's portfolio, market conditions, and other factors. You should read all of the risk information presented below carefully, because any one or more of these risks may result in losses to the Fund.

Equity Securities Risk Although stocks may have the potential to outperform other asset classes over the long term, their prices tend to fluctuate more dramatically over the shorter term. These movements may result from factors affecting individual companies, or from broader influences like changes in interest rates, market conditions, or investor confidence, or announcements of economic, political, or financial information.

Foreign Investment Risk; Emerging Markets Risk; Currency Risk Investments in securities of foreign issuers, securities of companies with significant foreign exposure, and foreign currencies can involve additional risks relating to market, industry, political, regulatory, and other conditions. Political, social, diplomatic, and economic developments, U.S. and foreign government action such as the imposition of currency or capital blockages, controls, or tariffs, economic and trade sanctions or embargoes, security suspensions, entering or

exiting trade or other intergovernmental agreements, or the expropriation or nationalization of assets in a particular country, can cause dramatic declines in certain or all securities with exposure to that country and other countries. In the event of nationalization, expropriation, or other confiscation, the Fund could lose its entire foreign investment in a particular country. There may be quotas or other limits on the ability of the Fund (or clients of the Fund's investment adviser or subadviser) to invest or maintain investments in securities of issuers in certain countries. Enforcing legal rights can be more difficult, costly, and limited in certain foreign countries, and can be particularly difficult against foreign governments. Because non-U.S. securities are normally denominated and traded in currencies other than the U.S. dollar, the value of the Fund's assets may be affected favorably or unfavorably by changes in currency exchange rates, exchange control regulations, and restrictions or prohibitions on the repatriation of non-U.S. currencies. Income and gains with respect to investments in certain countries may be subject to withholding and other taxes. There may be less information publicly available about a non-U.S. company than about a U.S. company, and many non-U.S. companies are not subject to accounting, auditing, and financial reporting standards, regulatory framework and practices comparable to those in the U.S. The securities of some non-U.S. companies, especially those in emerging markets, are less liquid and at times more volatile than securities of comparable U.S. companies. Emerging markets securities are subject to greater risks than securities issued in developed foreign markets, including less liquidity, greater price volatility, higher relative rates of inflation, greater political, economic, and social instability, greater custody and operational risks, and greater volatility in currency exchange rates. Frontier markets, a subset of emerging markets, generally have smaller economies and less mature capital markets than emerging markets. As a result, the risks of investing in emerging market countries are magnified in frontier market countries. Frontier markets are more susceptible to having abrupt changes in currency values, less mature markets and settlement practices, and lower trading volumes that could lead to greater price volatility and illiquidity. Non-U.S. transaction costs, such as brokerage commissions and custody costs may be higher than in the United States. In addition, foreign markets can react differently to market, economic, industry, political, regulatory, and other conditions than the U.S. market.

China Investment Risk Investments in Class A Shares of Chinese companies involve certain risks and considerations not typically associated with investments in U.S. companies, such as greater government control over the economy, political and legal uncertainty, currency fluctuations or blockages, the risk that the Chinese government may decide not to continue to support economic reform programs, and the risk of nationalization or expropriation of assets. Additionally, the Chinese securities markets are emerging markets subject to the special risks applicable to emerging market countries.

Derivatives Risk Derivatives can be highly volatile and involve risks different from, and potentially greater than, direct investments, including risks of imperfect correlation between the value of derivatives and underlying assets, counterparty default, potential losses that partially or completely offset gains, and illiquidity. Derivatives can create investment leverage. Losses from derivatives can be substantially greater than the derivatives' original cost and can sometimes be unlimited. If the value of a derivative does not correlate well with the particular market or asset class the derivative is designed to provide exposure to, the derivative may not have the effect or benefit anticipated. Derivatives can also reduce the opportunity for gains or result in losses by offsetting positive returns in other investments. Many derivatives are traded in the over-the-counter market and not on exchanges.

Growth Company Risk The prices of growth securities are often highly sensitive to market fluctuations because of their heavy dependence on future earnings or cash flow expectations, and can be more volatile than the market in general.

Large Company Risk Large-capitalization stocks as a group could fall out of favor with the market, causing the Fund's investments in large-capitalization stocks to underperform investments that focus on small- or medium-capitalization stocks. Larger, more established companies may be slow to respond to challenges and may grow more slowly than smaller companies.

Small and Mid-Cap Company Risk Market risk and liquidity risk are particularly pronounced for securities of small and medium-sized companies, which may trade less frequently and in smaller volumes than more widely-held securities, and may fluctuate in price more than other securities. Their shares can be less liquid than those of larger companies, especially during market declines. Small

and medium-sized companies may have limited product lines, markets, or financial resources and may be dependent on a limited management group; they may have been recently organized and have little or no track record of success.

Stock Connect Risk The Fund may invest in China A Shares through Stock Connect, which is subject to sudden changes in quota limitations, application of trading suspensions, price fluctuations during times when Stock Connect is not trading, operational risk, clearing and settlement risk, and regulatory and taxation risk.

Cash Position Risk If the Fund holds a significant portion of its assets in cash or cash equivalents, its investment returns may be adversely affected and the Fund may not achieve its investment objective.

Convertible Securities Risk Convertible securities are subject to the risks of both debt instruments and equity securities. The price of a convertible security may change in response to changes in price of the underlying equity security, the credit quality of the issuer, and interest rates. In general, the values of convertible securities tend to decline as interest rates rise and to rise when interest rates fall. A convertible security generally has less potential for gain or loss than the underlying equity security.

Geographic Focus Risk When the Fund focuses investments on a particular country, group of countries, or geographic region, its performance will be closely tied to the market, currency, economic, political, or regulatory conditions and developments in those countries or that region, and could be more volatile than the performance of more geographically diversified funds.

Liquidity Risk Certain securities may be difficult (or impossible) to sell or certain positions may be difficult to close out at a desirable time and price, and the Fund may be required to hold an illiquid investment that is declining in value, or it may be required to sell certain illiquid investments at a price or time that is not advantageous in order to meet redemptions or other cash needs. Some securities may be subject to restrictions on resale. There can be no assurance that there will be a liquid market for instruments held by the Fund at any time. The Fund may not receive the proceeds from the sale of certain investments for an extended period.

Management Risk The Fund relies on the manager's investment analysis and its selection of

investments to achieve its investment objective. There can be no assurance that the Fund will achieve the intended results and the Fund may incur significant losses.

Market Risk The value of the Fund's portfolio securities may decline, at times sharply and unpredictably, as a result of unfavorable market-induced changes affecting particular industries, sectors, or issuers. Stock markets can decline significantly in response to issuer, market, economic, industry, political, regulatory, geopolitical and other conditions, as well as investor perceptions of these conditions. The Fund is subject to risks affecting issuers, such as management performance, financial leverage, industry problems, and reduced demand for goods or services.

Preferred Stock Risk Like other equity securities, preferred stock is subject to the risk that its value may decrease based on actual or perceived changes in the business or financial condition of the issuer. In addition, changes in interest rates may adversely affect the value of a preferred stock that pays a fixed dividend.

Sector Risk The Fund may allocate more of its assets to particular industries or to particular economic, market, or industry sectors than to others. This could increase the volatility of the Fund's portfolio, and the Fund's performance may be more susceptible to developments affecting issuers in those industries or sectors than if the Fund invested more broadly.

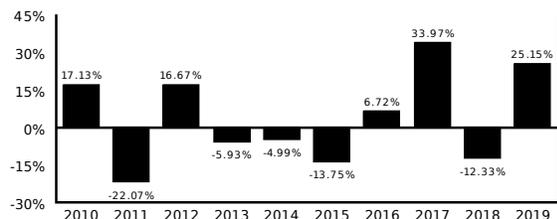
Valuation Risk The Fund is subject to the risk of mispricing or improper valuation of its investments, in particular to the extent that its securities are fair valued.

Performance Information

The following bar chart and table provide some indication of the risks of investing in the Fund. The bar chart shows changes in the Fund's performance from year to year for Class R5 shares. The table shows how the Fund's average annual returns for 1, 5, and 10 years compare with those of a broad measure of market performance. Performance for Class I, Class R4, and Class R3 shares of the Fund for periods prior to their inception date (04/01/14) is based on the performance of Class R5 shares, adjusted for Class R4 and Class R3 shares to reflect Class R4 and Class R3 expenses, respectively. Performance for Class A shares of the Fund reflects any applicable sales charge. Past performance (before and after taxes) is not

necessarily an indication of how the Fund will perform in the future. More up-to-date performance information is available at <http://www.massmutual.com/funds> or by calling 1-888-309-3539.

Annual Performance
Class R5 Shares



Highest Quarter: 3Q '10, 17.61% Lowest Quarter: 3Q '11, -23.70%

After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes. Actual after-tax returns depend on an investor's tax situation and may differ from those shown. After-tax returns are not relevant to investors who hold Fund shares through tax-advantaged arrangements, such as 401(k) plans or individual retirement accounts. After-tax returns are shown for Class R5 only. After-tax returns for other classes will vary.

Average Annual Total Returns
(for the periods ended December 31, 2019)

		One Year	Five Years	Ten Years
Class R5	Return Before Taxes	25.15%	6.23%	2.56%
	Return After Taxes on Distributions	22.99%	5.76%	1.98%
	Return After Taxes on Distributions and sales of Fund Shares	16.62%	4.92%	2.18%
Class I	Return Before Taxes	25.29%	6.36%	2.68%
Service Class	Return Before Taxes	25.09%	6.14%	2.47%
Administrative Class	Return Before Taxes	24.97%	6.04%	2.35%
Class A	Return Before Taxes	17.76%	4.59%	1.52%

		One Year	Five Years	Ten Years
Class R4	Return Before Taxes	24.73%	5.88%	2.22%
	Return Before Taxes	24.43%	5.60%	1.95%
MSCI Emerging Markets Index (reflects no deduction for fees or expenses)		18.42%	5.61%	3.68%

MANAGEMENT

Investment Adviser: MML Investment Advisers, LLC ("MML Advisers")

Subadviser(s): Invesco Advisers, Inc. ("Invesco")

Portfolio Manager(s):

Justin Leverenz, CFA is a Portfolio Manager at Invesco. He has managed the Fund since October 2013.

PURCHASE AND SALE OF FUND SHARES

Shares of the Fund are generally available to retirement plans, other institutional investors, and individual retirement accounts. Fund shares are redeemable on any business day by written request, telephone, or internet (available to certain customers).

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Additional Information Regarding Investment Objectives and Principal Investment Strategies

Changes to Investment Objectives and Strategies. Each Fund's investment objective and strategies are non-fundamental and may be changed by the Board of Trustees (the "Trustees") of the MassMutual Premier Funds (the "Trust") without shareholder approval.

Note Regarding Percentage Limitations. All percentage limitations on investments in this Prospectus will apply at the time of investment, and will not be considered violated unless an excess or deficiency occurs or exists immediately after and as a result of the investment. (As a result, the actual investments making up a Fund's portfolio may not at a particular time comport with any such limitation due to increases or decreases in the values of securities held by the Fund.) However, if, through a change in values, net assets, or other circumstances, a Fund were in a position where more than 15% of its net assets was invested in illiquid securities, the Fund would take appropriate orderly steps, as deemed necessary, to protect liquidity. With respect to a Fund whose name suggests that the Fund focuses its investments in a particular type of investment or investments, or in investments in a particular industry or group of industries, and that has adopted a policy under Rule 35d-1 under the 1940 Act, such Fund's policy to invest at least 80% of its net assets in certain investments may be changed by the Trustees upon at least 60 days' prior written notice to shareholders.

Credit Ratings. Security ratings are determined at the time of investment based on ratings published by nationally recognized statistical rating organizations; if a security is not rated, it will be deemed to have the same rating as a security determined by the investment adviser or subadviser to be of comparable quality. Unless otherwise stated, if a security is rated by more than one nationally recognized statistical rating organization, the highest rating is used. The Fund may retain any security whose rating has been downgraded after purchase.

Duration. Duration is a measure of the expected life of a debt security that is used to determine the sensitivity of the security's value to changes in interest rates. The longer a security's duration, the more sensitive it will be to changes in interest rates. Unlike the maturity of a debt security, which

measures only the time until final payment is due, duration takes into account the time until all payments of interest and principal on a security are expected to be made, including how these payments are affected by prepayments and by changes in interest rates.

Leverage. Leverage generally has the effect of increasing the amount of loss or gain a Fund might realize, and may increase volatility in the value of a Fund's investments. Adverse changes in the value or level of the underlying asset, rate, or index may result in a loss substantially greater than the amount invested in the derivative itself.

Temporary Defensive Positions. At times, a Fund's investment adviser or subadviser may determine that market conditions make pursuing a Fund's basic investment strategy inconsistent with the best interests of its shareholders. At such times, the investment adviser or subadviser may (but will not necessarily), without notice, temporarily use alternative strategies primarily designed to reduce fluctuations in the values of a Fund's assets. In implementing these defensive strategies, a Fund may hold assets without limit in cash and cash equivalents and in other investments that the investment adviser or subadviser believes to be consistent with the Fund's best interests. If such a temporary defensive strategy is implemented, a Fund may not achieve its investment objective.

Portfolio Turnover. Changes are made in a Fund's portfolio whenever the investment adviser or subadviser believes such changes are desirable. Portfolio turnover rates are generally not a factor in making buy and sell decisions. A high portfolio turnover rate will result in higher costs from brokerage commissions, dealer-mark-ups, bid-ask spreads, and other transaction costs and may also result in a higher percentage of short-term capital gains and a lower percentage of long-term capital gains as compared to a fund that trades less frequently (short-term capital gains generally receive less favorable tax treatment in the hands of shareholders than do long-term capital gains). Such costs are not reflected in the Funds' Total Annual Fund Operating Expenses set forth in the fee tables but do have the effect of reducing a Fund's investment return.

Non-Principal Investments; Use of Derivatives; Securities Loans; Repurchase Agreements. A Fund may hold investments that are not included in its

principal investment strategies. These non-principal investments are described in the Statement of Additional Information (“SAI”) or below under “Additional Information Regarding Principal Risks.” A Fund also may choose not to invest in certain securities described in this Prospectus and in the SAI, even though it has the ability to do so. Certain Funds may engage in transactions involving derivatives as part of their principal investment strategies; the disclosures of the principal investment strategies of those Funds include specific references to those derivatives transactions. Any of the other Funds may engage in derivatives transactions not as part of their principal investment strategies, and Funds that may use certain derivatives as part of their principal investment strategies may use other derivatives (not as part of their principal investment strategies), as well. A Fund may use derivatives for hedging purposes, as a substitute for direct investment, to earn additional income, to adjust portfolio characteristics, including duration (interest rate volatility), to gain exposure to securities or markets in which it might not be able to invest directly, to provide asset/liability management, or to take long or short positions on one or more indexes, securities, or foreign currencies. If a Fund takes a short position with respect to a particular index, security, or currency, it will lose money if the index, security, or currency appreciates in value, or an expected credit or other event that might affect the value of the index, security, or currency fails to occur. Losses could be significant. Derivatives transactions may include, but are not limited to, foreign currency exchange transactions, options, futures contracts, interest rate swaps, interest rate futures contracts, forward contracts, total return swaps, credit default swaps, and hybrid instruments. A Fund may use derivatives to create investment leverage. See “Additional Information Regarding Principal Risks,” below, and the SAI for more information regarding those transactions.

A Fund, with the exception of the U.S. Government Money Market Fund, may make loans of portfolio securities to broker-dealers and other financial intermediaries of up to 33% of its total assets, and may enter into repurchase agreements. These transactions must be fully collateralized at all times, but involve some risk to a Fund if the other party should default on its obligation and the Fund is delayed or prevented from recovering the collateral, or if the Fund is required to return collateral to a borrower at a time when it may realize a loss on the investment of that collateral. Any losses from the investment of

cash collateral received by the Fund will be for the Fund’s account and may exceed any income the Fund receives from its securities lending activities. A repurchase agreement is a transaction in which a Fund purchases a security from a seller, subject to the obligation of the seller to repurchase that security from the Fund at a higher price. A Fund may enter into securities loans and repurchase agreements as a non-principal investment strategy.

Foreign Securities. The globalization and integration of the world economic system and related financial markets have made it increasingly difficult to define issuers geographically. Accordingly, the Funds intend to construe geographic terms such as “foreign,” “non-U.S.,” “European,” “Latin American,” “Asian,” and “emerging markets” in the manner that affords to the Funds the greatest flexibility in seeking to achieve the investment objective(s) of the relevant Fund. Specifically, unless otherwise stated, in circumstances where the investment objective and/or strategy is to invest (a) exclusively in “foreign securities,” “non-U.S. securities,” “European securities,” “Latin American securities,” “Asian securities,” or “emerging markets” (or similar directions) or (b) at least some percentage of the Fund’s assets in foreign securities, etc., the Fund will take the view that a security meets this description so long as the issuer of a security is tied economically to the particular country or geographic region indicated by words of the relevant investment objective and/or strategy (the “Relevant Language”). For these purposes the issuer of a security is deemed to have that tie if:

- (i) the issuer is organized under the laws of the country or a country within the geographic region suggested by the Relevant Language or maintains its principal place of business in that country or region; or
- (ii) the securities are traded principally in the country or region suggested by the Relevant Language; or
- (iii) the issuer, during its most recent fiscal year, derived at least 50% of its revenues or profits from goods produced or sold, investments made, or services performed in the country or region suggested by the Relevant Language or has at least 50% of its assets in that country or region.

In addition, the Funds intend to treat derivative securities (e.g., call options) for this purpose by reference to the underlying security. Conversely, if the investment objective and/or strategy of a

Fund limits the percentage of assets that may be invested in “foreign securities,” etc. or prohibits such investments altogether, a Fund intends to categorize securities as “foreign,” etc. only if the security possesses all of the attributes described above in clauses (i), (ii), and (iii).

Inflation-Protected and Income Fund. MML Advisers has agreed to cap the fees and expenses of the Fund (other than extraordinary litigation and legal expenses, Acquired Fund Fees and Expenses, interest expense, short sale dividend and loan expense, or other non-recurring or unusual expenses such as organizational expenses and shareholder meeting expenses, as applicable)

through January 31, 2021, to the extent that Total Annual Fund Operating Expenses after Expense Reimbursement would otherwise exceed .48%, .58%, .68%, .78%, 1.03%, .93%, and 1.18% for Classes I, R5, Service, Administrative, A, R4, and R3, respectively. The agreement can only be terminated by mutual consent of the Board of Trustees on behalf of the Fund and MML Advisers.

U.S. Government Money Market Fund. The Fund’s 7-day yield on December 31, 2019 was 1.14%. To obtain the Fund’s current 7-day yield information, please call 1-888-309-3539.

Disclosure of Portfolio Holdings

A description of the Funds' policies and procedures with respect to the disclosure of each Fund's portfolio securities is available in the Funds' SAI.

Additional Information Regarding Principal Risks

A Fund, by itself, generally is not intended to provide a complete investment program. Investment in the Funds is intended to serve as part of a diversified portfolio of investments. An investment in a Fund is not a bank deposit and is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency.

The value of your investment in a Fund changes with the values of the investments in the Fund's portfolio. Many things can affect those values. Factors that may have an important or significant effect on a particular Fund's portfolio as a whole are called "Principal Risks." The Principal Risks of each Fund are identified in the foregoing Fund Summaries and are described in this section. Certain Funds may be more susceptible to some risks than others. Although the Funds strive to reach their stated goals, they cannot offer guaranteed results. The value of your investment in a Fund could go down as well as up. You can lose money by investing in the Funds.

The SAI contains further information about the Funds, their investments and their related risks.

- **Bank Loans Risk**

Many of the risks associated with bank loans are similar to the risks of investing in below investment grade debt securities, although bank loans are typically (though not always) senior and secured, while below investment grade debt securities or investments are often subordinated and unsecured. Changes in the financial condition of the borrower or economic conditions or other circumstances may reduce the capacity of the borrower to make principal and interest payments on such instruments and may lead to defaults. The value of any collateral securing a bank loan may decline after a Fund invests, and there is a risk that the value of the collateral may not be sufficient to cover the amount owed to the Fund. In addition, collateral securing a loan may be found invalid, may be used to pay other outstanding obligations of the borrower under

applicable law, or may be difficult to sell. In the event that a borrower defaults, a Fund's access to the collateral may be limited by bankruptcy and other insolvency laws. There is also the risk that the collateral may be difficult to liquidate, or that a majority of the collateral may be illiquid. In addition, some loans may be unsecured. Unsecured loans generally present a greater risk of loss to the Fund if the issuer defaults. In some cases, the Fund may rely on a third party to administer its interest in a loan, and so is subject to the risk that the third party will be unwilling or unable to perform its obligations. The Fund may invest in a loan by purchasing an indirect interest in the loan held by a third party. In that case, the Fund will be subject to both the credit risk of the borrower and of the third party, and the Fund may be unable to realize some or all of the value of its interest in the loan in the event of the insolvency of the third party. The settlement time for certain loans is longer than the settlement time for many other types of investments, and the Fund may not receive the payment for a loan sold by it until well after the sale; that cash would be unavailable for payment of redemption proceeds or for reinvestment. Interests in some bank loans may not be readily marketable and may be subject to restrictions on resale. In some cases, negotiations involved in disposing of indebtedness may require weeks to complete. Consequently, some indebtedness may be difficult or impossible to dispose of readily at what the Fund believes to be a fair price. Some bank loans may be illiquid, and bank loans generally tend to be less liquid than many other debt securities. The lack of a liquid secondary market may make it more difficult for the Fund to assign a value to such instruments for purposes of valuing the Fund's portfolio and calculating its net asset value ("NAV").

- **Below Investment Grade Debt Securities Risk**

Below investment grade debt securities, which are also known as "junk" or "high yield" bonds, and comparable unrated securities in which a Fund may invest, have speculative characteristics, and changes in economic conditions, the financial condition of the issuer, and/or an unanticipated rise in interest rates or other circumstances are more likely to lead to a weakened capacity to make principal and interest payment than in the case

of higher grade securities. Below investment grade debt securities involve greater volatility of price and yield and greater risk of loss of principal and interest than do higher quality securities. In the past, economic downturns or increases in interest rates have, under certain circumstances, resulted in a higher incidence of default by the issuers of these instruments and are likely to do so in the future, especially in the case of highly leveraged issuers. The prices for these instruments may be affected by legislative and regulatory developments. Some below investment grade debt securities are issued in connection with management buy-outs and other highly leveraged transactions, and may entail substantial risk of delays in payments of principal or interest or of defaults. The inability (or perceived inability) of issuers to make timely payment of interest and principal would likely make the values of securities held by the Fund more volatile and could limit the Fund's ability to sell its securities at prices approximating the values the Fund has placed on such securities. In the absence of a liquid trading market for securities held by it, a Fund at times may be unable to establish the fair value of such securities. To the extent a Fund invests in securities in the lower rating categories, the achievement of the Fund's goals is more dependent on the Fund investment adviser's or subadviser's investment analysis than would be the case if the Fund were investing in securities in the higher rating categories. Securities that are rated CCC or below by Standard & Poor's or Caa or below by Moody's Investors Service, Inc. are generally regarded by the rating agencies as having extremely poor prospects of ever attaining any real investment standing.

- **Cash Position Risk**

A Fund may hold a significant portion of its assets in cash or cash equivalents at the sole discretion of the Fund's investment adviser or subadviser, based on such factors as it may consider appropriate under the circumstances. The portion of a Fund's assets invested in cash and cash equivalents may at times exceed 25% of the Funds' net assets. To the extent a Fund holds a significant portion of its assets in cash or cash equivalents, its investments returns may be adversely affected and the Fund may not achieve its investment objective.

- **China Investment Risk**

Investments in Class A Shares of Chinese companies involve certain risks and considerations not typically associated with investments in U.S. companies, including, among others, greater government control over the economy, political and legal uncertainty, currency fluctuations or blockages, the risk that the Chinese government may decide not to continue to support economic reform programs, the risk of nationalization or expropriation of assets, more frequent trading suspensions and government interventions, limits on the use of brokers and on foreign ownership, higher dependence on exports and international trade, potential for increased trade tariffs, embargoes and other trade limitations, and custody risks associated with programs used to access Chinese securities. Additionally, the Chinese securities markets are emerging markets subject to the special risks applicable to emerging market countries. Significant portions of the Chinese securities markets may become rapidly illiquid, as Chinese issuers have the ability to suspend the trading of their equity securities, and have shown a willingness to exercise that option in response to market volatility and other events.

- **Convertible Securities Risk**

Convertible securities are bonds, debentures, notes or other debt securities that may be converted at either a stated price or stated rate into shares of common or preferred stock (or cash or other securities of equivalent value), and so are subject to the risks of investments in both debt securities and equity securities. The price of a convertible security may change in response to changes in price of the underlying equity security, the credit quality of the issuer, and interest rates. Due to the conversion feature, convertible debt securities generally yield less than non-convertible securities of similar credit quality and maturity. The values of convertible securities may be interest-rate sensitive and tend to decline as interest rates rise and to rise when interest rates fall. A Fund may invest at times in securities that have a mandatory conversion feature, pursuant to which the securities convert automatically into stock at a specified date and conversion ratio, or that are convertible at the option of the issuer. When conversion is not at the option of the holder, a Fund may be required to convert the security into the

underlying stock even at times when the value of the underlying common stock has declined substantially or it would otherwise be disadvantageous to do so.

- **Credit Risk**

Credit risk is the risk that an issuer, guarantor, or liquidity provider of a fixed income security held by a Fund may be unable or unwilling, or may be perceived (whether by market participants, ratings agencies, pricing services or otherwise) as unable or unwilling, to make timely principal and/or interest payments, or to otherwise honor its obligations. It includes the risk that the security will be downgraded by a credit rating agency; generally, lower credit quality issuers present higher credit risks. An actual or perceived decline in creditworthiness of an issuer of a fixed income security held by the Fund may result in a decrease in the value of the security. It is possible that the ability of an issuer to meet its obligations will decline substantially during the period when the Fund owns securities of the issuer or that the issuer will default on its obligations or that the obligations of the issuer will be limited or restructured. The credit rating assigned to any particular investment does not necessarily reflect the issuer's current financial condition and does not reflect an assessment of an investment's volatility or liquidity. Securities rated in the lowest category of investment grade are considered to have speculative characteristics. In addition, below investment grade debt securities (i.e., "junk" or "high yield" bonds) involve greater credit risk, are more volatile, involve greater risk of price declines and may be more susceptible to economic downturn than investment grade securities. If a security held by the Fund loses its rating or its rating is downgraded, the Fund may nonetheless continue to hold the security in the discretion of the investment adviser or subadviser. In the case of asset-backed or mortgage-related securities, changes in the actual or perceived ability of the obligors on the underlying assets or mortgages may affect the values of those securities.

The Fund may also be exposed to the credit risk of its counterparty to repurchase agreements, reverse repurchase agreements, swap transactions, and other derivatives transactions, and to the counterparty's ability or willingness to perform in accordance with the terms of the transaction. The value of such

transactions to the Fund will depend on the willingness and ability of the counterparty to perform its obligations, including among other things the obligation to return collateral or margin to the Fund.

- **Currency Risk**

Because foreign securities normally are denominated and traded in foreign currencies, the value of a Fund's assets may be affected favorably or unfavorably by changes in currency exchange rates, currency exchange control regulations, intervention (or failure to intervene) by the U.S. or foreign governments in currency markets, foreign withholding taxes, and restrictions or prohibitions on the repatriation of foreign currencies. A Fund may, but will not necessarily, engage in foreign currency transactions in order to protect against fluctuations in the values of holdings denominated in or exposed to other currencies, or, for certain Funds, to generate additional returns. Derivatives transactions providing exposure to foreign currencies create investment leverage. A Fund's investment in foreign currencies may increase the amount of ordinary income recognized by the Fund.

Officials in foreign countries may from time to time take actions in respect of their currencies which could significantly affect the value of a Fund's assets denominated in those currencies or the liquidity of such investments. For example, a foreign government may unilaterally devalue its currency against other currencies, which would typically have the effect of reducing the U.S. dollar value of investments denominated in that currency. A foreign government may also limit the convertibility or repatriation of its currency or assets denominated in its currency, which would adversely affect the U.S. dollar value and liquidity of investments denominated in that currency. In addition, although at times most of a Fund's income may be received or realized in foreign currencies, the Fund will be required to compute and distribute its income in U.S. dollars. As a result, if the exchange rate for any such currency declines after the Fund's income has been earned and translated into U.S. dollars but before payment to shareholders, the Fund could be required to sell portfolio investments to make such distributions. Similarly, if a Fund incurs an expense in a foreign currency and the exchange rate changes adversely to the Fund before the

expense is paid, the Fund would have to convert a greater amount of U.S. dollars to pay for the expense at that time than it would have had to convert at the time the Fund incurred the expense. Investments in foreign currencies themselves (directly or through derivatives transactions) may be highly volatile and may create investment leverage.

- **Cyber Security and Technology Risk**

The Funds and their service providers (including the Funds' investment adviser, subadvisers, custodian, and transfer agent) are subject to operational and information security risks, including those resulting from cyber-attacks and other technological issues. Technological issues or failures, or interference or attacks by "hackers" or others, may have the effect of disabling or hindering the Funds' operations or the operations of a service provider to the Funds. There are inherent limitations in business continuity plans and technology systems designed to prevent cyber-attacks and avoid operational incidents, including the possibility that certain risks have not been identified. The Funds' investment adviser does not control the cyber security plans and systems put in place by third-party service providers, and such third-party service providers may have limited indemnification obligations to the Funds' investment adviser or the Funds, each of whom could be negatively impacted as a result. Similar risks also are present for issuers of securities in which the Funds invest, which could result in material adverse consequences for such issuers, and may cause a Fund's investment in such securities to lose value.

- **Defaulted and Distressed Securities Risk**

Defaulted securities risk refers to the uncertainty of repayment of defaulted securities and obligations of distressed issuers. Because the issuer of such securities is in default and is likely to be in distressed financial condition, repayment of defaulted securities and obligations of distressed issuers (including insolvent issuers or issuers in payment or covenant default, in workout or restructuring, or in bankruptcy or insolvency proceedings) is subject to significant uncertainties. The market will likely be less liquid for distressed or defaulted securities than for other types of securities. Reduced liquidity can affect the valuations of distressed or defaulted securities,

make their valuation and sale more difficult, and result in greater volatility. Insolvency laws and practices in foreign countries are different than those in the U.S. and the effect of these laws and practices cannot be predicted with certainty. Investments in defaulted securities and obligations of distressed issuers are considered speculative.

- **Derivatives Risk**

Derivatives are financial contracts whose values depend upon, or are derived from, the value of an underlying asset, reference rate, or index. Derivatives may relate to stocks, bonds, interest rates, currencies, credit exposures, currency exchange rates, commodities, related indexes, or other assets. The use of derivative instruments may involve risks different from, or greater than, the risks associated with investing directly in securities and other more traditional investments. Derivatives can be highly volatile and are subject to a number of potential risks described in this Prospectus, including market risk, credit risk, management risk, liquidity risk, and leveraging risk. Derivative products are highly specialized instruments that may require investment techniques and risk analyses different from those associated with stocks and bonds. The use of a derivative requires an understanding not only of the underlying instrument or index but also of the derivative itself, often without the benefit of observing the performance of the derivative under all possible market conditions. (For example, successful use of a credit default swap may require, among other things, an understanding of both the credit of the company to which it relates and of the way the swap is likely to respond to changes in various market conditions and to factors specifically affecting the company.) The use of derivatives involves the risk that a loss may be sustained as a result of the failure of another party to the contract (typically referred to as a "counterparty") to make required payments or otherwise to comply with the contract's terms. Derivative transactions can create investment leverage. Losses from derivatives can be substantially greater than the derivatives' original cost and can sometimes be unlimited. Since the values of derivatives are calculated and derived from the values of other assets, reference rates, or indexes, there is greater risk that derivatives will be improperly valued. Derivatives also involve

the risk that changes in the value of a derivative may not correlate perfectly with changes in the value of its underlying asset, rate, or index, and the risk that a derivative transaction may not have the effect or benefit the Fund's investment adviser or subadviser anticipated. Also, suitable derivative transactions may not be available in all circumstances, and there can be no assurance that a Fund will engage in these transactions when that would be beneficial. A liquid secondary market may not always exist for a Fund's derivative positions at any time. If a derivative transaction is particularly large or if the relevant market is illiquid (as is the case with many privately negotiated derivatives), it may not be possible to initiate a transaction or liquidate a position at an advantageous price or at all. Although the use of derivatives is intended to enhance a Fund's performance, it may instead reduce returns and increase volatility.

Recent U.S. and non-U.S. legislative and regulatory reforms, including those related to the Dodd-Frank Wall Street Reform and Consumer Protection Act, have resulted in, and may in the future result in, new regulation of derivative instruments and the Funds' use of such instruments. New regulations could, among other things, restrict a Fund's ability to engage in derivative transactions (for example, by making certain types of derivative instruments or transactions no longer available to a Fund), establish new margin requirements and/or increase the costs of derivatives transactions, and a Fund may as a result be unable to execute its investment strategies in a manner its subadviser might otherwise choose. Counterparty risk with respect to derivatives has been and may continue to be affected by new rules and regulations concerning the derivatives market. Some derivatives transactions are required to be centrally cleared, and a party to a cleared derivatives transaction is subject to the credit risk of the clearing house and the clearing member through which it holds the position, rather than the credit risk of its original counterparty to the derivatives transaction. Credit risk of market participants with respect to derivatives that are centrally cleared is concentrated in a few clearing houses and clearing members, and it is not clear how an insolvency proceeding of a clearing house or clearing member would be conducted, what effect the

insolvency proceeding would have on any recovery by a Fund, and what impact an insolvency of a clearing house or clearing member would have on the financial system more generally.

- **Futures Contract Risk.** A Fund may enter into futures contracts, in which the Fund agrees to buy or sell certain financial instruments or index units or other assets on a specified future date at a specified price or rate. A Fund may also enter into contracts to deliver in the future an amount of one currency in return for an amount of another currency. If a Fund's investment adviser or subadviser misjudges the direction of interest rates, markets, or foreign exchange rates, a Fund's overall performance could suffer. The risk of loss could be far greater than the investment made because a futures contract requires only a small deposit to take a large position. A small change in a financial futures contract could have a substantial impact on a Fund, favorable or unfavorable. An investor could also suffer losses if it is unable to close out a futures contract because of an illiquid secondary market. Futures are subject to the creditworthiness of the futures commission merchants or brokers and clearing organizations involved in the transactions. In the event of the insolvency of its futures commission merchant or broker, a Fund may be delayed or prevented from recovering some or all of the margin it has deposited with the merchant or broker, or any increase in the value of its futures positions held through that merchant or broker.
- **Dollar Roll and Reverse Repurchase Agreement Transaction Risk**
In a dollar roll transaction, a Fund sells mortgage-backed securities for delivery to the buyer in the current month and simultaneously contracts to purchase similar securities on a specified future date from the same party. In a reverse repurchase agreement transaction, a Fund sells securities to a bank or securities dealer and agrees to repurchase them at an agreed time and price; a reverse repurchase agreement is similar to a secured borrowing by a Fund. Both types of transactions generally create leverage (see "Leveraging Risk" below). It may be difficult or impossible for a Fund to exercise its rights under a dollar roll transaction or reverse repurchase agreement in the event of the insolvency or bankruptcy of

the counterparty, and the Fund may not be able to purchase the securities or other assets subject to the transaction and may be required to return any collateral it holds.

- **Emerging Markets Risk**

Investing in emerging market securities poses risks different from, and/or greater than, risks of investing in domestic securities or in the securities of foreign, developed countries. These risks may include, for example, smaller market-capitalizations of securities markets; significant price volatility; illiquidity; limits on foreign investment; and possible limits on repatriation of investment income and capital. Future economic or political events or crises could lead to price controls, forced mergers, expropriation or confiscatory taxation, seizure, nationalization, or the creation of government monopolies. The currencies of emerging market countries may experience significant declines against the U.S. dollar, and devaluation may occur subsequent to investments in those currencies by a Fund. Inflation and rapid fluctuations in inflation rates have had, and may continue to have, negative effects on the economies and securities markets of certain emerging market countries. Although many of the emerging market securities in which a Fund may invest are traded on securities exchanges, they may trade in limited volume, and the exchanges may not provide all of the conveniences or protections provided by securities exchanges in more developed markets.

Additional risks of emerging market securities may include greater social, economic, and political uncertainty and instability; more substantial governmental involvement in the economy; less governmental supervision and regulation; greater custody and operational risks; unavailability of currency hedging techniques; companies that are newly organized and small; differences in auditing and financial reporting standards, which may result in unavailability of material information about issuers; and less developed legal, regulatory, and accounting systems. In addition, emerging securities markets may have different clearance and settlement procedures, which may be unable to keep pace with the volume of securities transactions or otherwise make it difficult to engage in such transactions. Settlement problems may cause a Fund to miss attractive investment opportunities, hold

a portion of its assets in cash pending settlement, or be delayed in disposing of a portfolio security. It may be more difficult to obtain and/or enforce a judgment in a court outside the U.S., and a judgment against a foreign government may be unenforceable.

Frontier markets, a subset of emerging markets, generally have smaller economies and less mature capital markets than emerging markets. As a result, the risks of investing in emerging market countries are magnified in frontier market countries. Frontier markets are more susceptible to having abrupt changes in currency values, less mature markets and settlement practices, and lower trading volumes that could lead to greater price volatility and illiquidity.

- **Equity Securities Risk**

Although stocks may have the potential to outperform other asset classes over the long term, their prices tend to fluctuate more dramatically over the shorter term. These movements may result from factors affecting individual companies, or from broader influences like changes in interest rates, market conditions, or investor confidence, or announcements of economic, political, or financial information.

- **Fixed Income Securities Risk**

The values of debt securities change in response to interest rate changes. In general, as interest rates rise, the value of a debt security is likely to fall. This risk is generally greater for obligations with longer maturities or for debt securities that do not pay current interest (such as zero-coupon securities). Debt securities with variable and floating interest rates can be less sensitive to interest rate changes, although, to the extent a Fund's income is based on short-term interest rates that fluctuate over short periods of time, income received by the Fund may decrease as a result of a decline in interest rates. In response to an interest rate decline, debt securities that provide the issuer with the right to call or redeem the security prior to maturity may be called or redeemed, which may result in the Fund having to reinvest proceeds in other investments at a lower interest rate and therefore the Fund might not benefit from any increase in value as a result of declining interest rates. The value of a debt security also depends on the issuer's actual or perceived

credit quality or ability to pay principal and interest when due. The value of a debt security is likely to fall if an issuer or the guarantor of a security is unable or unwilling (or is perceived to be unable or unwilling) to make timely principal and/or interest payments or otherwise to honor its obligations or if the debt security's rating is downgraded by a credit rating agency. The value of a debt security can also decline in response to changes in market, economic, industry, political, and regulatory conditions that affect a particular type of debt security or issuer or debt securities generally. Certain events, such as market or economic developments, regulatory or government actions, natural disasters, terrorist attacks, war, and other geopolitical events can have a dramatic adverse effect on the debt market and the overall liquidity of the market for fixed income securities.

- *Extension Risk.* During periods of rising interest rates, the average life of certain types of securities may be extended because of slower than expected principal payments. This may lock in a below-market interest rate, increase the security's duration, and reduce the value of the security.
- *Prepayment Risk.* Prepayment risk is the risk that principal of a debt obligation will be repaid at a faster rate than anticipated. In such a case, a Fund may lose the benefit of a favorable interest rate for the remainder of the term of the security in question, and may only be able to reinvest the amount of the prepayment at a less favorable rate.
- *Interest Rate Risk.* The values of bonds and other debt instruments usually rise and fall in response to changes in interest rates. The values of debt instruments generally increase in response to declines in interest rates and rise in response to increases in interest rates. Interest rate risk is generally greater for investments with longer durations or maturities. Some investments give the issuer the option to call or redeem an investment before its maturity date. If an issuer calls or redeems an investment during a time of declining interest rates, a Fund might have to reinvest the proceeds in an investment offering a lower yield, and therefore might not benefit from any increase in value as a result of declining interest rates.

- **Foreign Investment Risk**

Investments in securities of foreign issuers, securities of companies with significant foreign exposure, and foreign currencies can involve additional risks relating to market, industry, political, regulatory, and other conditions. Political, social, diplomatic, and economic developments, U.S. and foreign government action such as the imposition of currency or capital blockages, controls, or tariffs, economic and trade sanctions or embargoes, security suspensions, entering or exiting trade or other intergovernmental agreements, or the expropriation or nationalization of assets in a particular country, can cause dramatic declines in certain or all securities with exposure to that country and other countries. In the event of nationalization, expropriation, or other confiscation, a Fund could lose its entire foreign investment in a particular country. There may be quotas or other limits on the ability of a Fund (or clients of a Fund's investment adviser or subadviser) to invest or maintain investments in securities of issuers in certain countries. Enforcing legal rights can be more difficult, costly, and limited in certain foreign countries, and can be particularly difficult against foreign governments. Because non-U.S. securities are normally denominated and traded in currencies other than the U.S. dollar, the value of a Fund's assets may be affected favorably or unfavorably by changes in currency exchange rates, exchange control regulations, and restrictions or prohibitions on the repatriation of non-U.S. currencies. Income and gains with respect to investments in certain countries may be subject to withholding and other taxes. There may be less information publicly available about a non-U.S. company than about a U.S. company, and many non-U.S. companies are not subject to accounting, auditing, and financial reporting standards, regulatory framework and practices comparable to those in the United States. The securities of some non-U.S. companies are less liquid and at times more volatile than securities of comparable U.S. companies. Non-U.S. transaction costs, such as brokerage commissions and custody costs may be higher than in the United States. In addition, foreign markets can perform differently from U.S. markets and can react differently to market,

economic, industry, political, regulatory, geopolitical, and other conditions than the U.S. market.

The willingness and ability of foreign governmental entities to pay principal and interest on government securities depends on various economic factors, including for example the issuer's balance of payments, overall debt level, and cash-flow considerations related to the availability of tax or other revenues to satisfy the issuer's obligations. If a foreign governmental entity defaults on its obligations on the securities, a Fund may have limited recourse available to it. The laws of some foreign countries may limit a Fund's ability to invest in securities of certain issuers located in those countries. Special tax considerations apply to a Fund's investments in foreign securities. A Fund's investments in foreign securities or foreign currencies may increase or accelerate the Fund's recognition of ordinary income and may affect the amount, timing, or character of the Fund's distributions.

A Fund may invest in foreign securities known as depositary receipts, in the form of American Depositary Receipts ("ADRs"), European Depositary Receipts ("EDRs"), Global Depositary Receipts ("GDRs"), or other similar securities. An ADR is a U.S. dollar-denominated security issued by a U.S. bank or trust company that represents, and may be converted into, a foreign security. An EDR or a GDR is generally similar but is issued by a non-U.S. bank. Depositary receipts are subject to the same risks as direct investment in foreign securities. Depositary receipts may not necessarily be denominated in the same currency as the underlying securities into which they may be converted, and changes in currency exchange rates may affect the value of an ADR investment in ways different from direct investments in foreign securities. Funds may invest in both sponsored and unsponsored depositary receipts. Unsponsored depositary receipts are organized independently and without the cooperation of the issuer of the underlying securities. As a result, available information concerning the issuers may not be as current for unsponsored depositary receipts and the prices of unsponsored depositary receipts may be more volatile than if such instruments were sponsored by the issuer. An investment in an ADR is subject to the credit risk of the issuer of the ADR.

- **Frequent Trading/Portfolio Turnover Risk**

The length of time a Fund has held a particular security is not generally a consideration in investment decisions. The investment policies of a Fund may lead to frequent changes in the Fund's investments, particularly in periods of volatile market movements, in order to take advantage of what the Fund's investment adviser or subadviser believes to be temporary investment opportunities. A change in the securities held by a Fund is known as "portfolio turnover." Portfolio turnover generally involves some expense to a Fund, including brokerage commissions, bid-asked spreads, dealer mark-ups, and other transaction costs on the sale of securities and reinvestments in other securities, and may result in the realization of taxable capital gains (including short-term gains, which are generally treated as ordinary income when distributed to shareholders). The trading costs and tax effects associated with portfolio turnover may adversely affect a Fund's performance. Consult your tax adviser regarding the effect of a Fund's portfolio turnover rate on your investments.

- **Geographic Focus Risk**

When a Fund invests a relatively large percentage of its assets in issuers located in a single country, a small number of countries, or a particular geographic region, the Fund's performance could be closely tied to the market, currency, economic, political, or regulatory conditions and developments in those countries or that region, and could be more volatile than the performance of more geographically diversified funds.

- **Growth Company Risk**

Growth company securities tend to be more volatile in terms of price swings and trading volume than many other types of equity securities. Growth companies, especially technology related companies, have seen dramatic rises and falls in stock valuations. Funds that invest in growth companies are subject to the risk that the market may deem these companies' stock prices over-valued, which could cause steep and/or volatile price swings. Also, since investors buy these stocks because of their expected superior earnings growth, earnings disappointments often result in sharp price declines.

- **Indexing Risk**

There are several reasons why an index Fund's performance may not track the performance of the relevant index exactly. For example, the Fund incurs a number of operating expenses not applicable to the index, and incurs costs in buying and selling securities. A Fund may not be fully invested at times, either as a result of cash flows into the Fund or reserves of cash held by the Fund to meet redemptions. The return on the sample of securities purchased by the investment adviser or subadviser, or futures or other derivative positions taken by the investment adviser or subadviser, to replicate the performance of the index may not correlate precisely with the return on the index.

- **Inflation Risk**

The value of assets or income from a Fund's investments will be less in the future as inflation decreases the value of money. As inflation increases, the value of a Fund's assets can decline as can the value of the Fund's distributions. The market prices of debt securities generally fall as inflation increases because the purchasing power of the future income and repaid principal is expected to be worth less when received by the Fund. Debt securities that pay a fixed rather than variable interest rate are especially vulnerable to inflation risk because variable-rate debt securities may be able to participate, over the long term, in rising interest rates which have historically accompanied long-term inflationary trends.

- **Inflation-Linked Securities Risk**

Inflation-linked securities are typically fixed income securities whose principal values are periodically adjusted according to a measure of inflation. If the index measuring inflation falls, the principal value of an inflation-linked security will be adjusted downward, and consequently the interest payable on the security (calculated with respect to a smaller principal amount) will be reduced. Repayment of the original principal of the security upon maturity (as adjusted for inflation) is guaranteed in the case of U.S. Treasury inflation-linked securities. For securities that do not provide a similar guarantee, the adjusted principal value of the security repaid at maturity may be less than the original principal.

Alternatively, the interest rates payable on certain inflation-linked securities may be adjusted according to a measure of inflation. As a result, the principal values of such securities do not adjust according to the rate of inflation, although the interest payable on such securities may decline during times of falling inflation.

The values of inflation-linked securities are expected to change in response to changes in real interest rates. Real interest rates are tied to the relationship between nominal interest rates and the rate of inflation. If nominal interest rates increase at a faster rate than inflation, real interest rates may rise, leading to a decrease in value of inflation-linked securities. Inflation-linked securities may cause a potential cash flow mismatch to investors, because an increase in the principal amount of an inflation-linked security will be treated as interest income currently subject to tax at ordinary income rates even though investors will not receive repayment of principal until maturity. If a Fund invests in such securities, it will be required to distribute such interest income in order to qualify for treatment as a regulated investment company and eliminate the Fund-level tax, without a corresponding receipt of cash, and therefore may be required to dispose of portfolio securities at a time when it may not be advantageous to do so in order to make such distributions.

- **Large Company Risk**

Large-capitalization stocks as a group could fall out of favor with the market, causing a Fund's investments in large-capitalization stocks to underperform investments that focus on small- or medium-capitalization stocks. Larger, more established companies may be slow to respond to challenges, including changes to technology or consumer tastes, and may grow more slowly than smaller companies, especially during market cycles corresponding to periods of economic expansion. Market capitalizations of companies change over time.

- **Leveraging Risk**

The use of leverage has the potential to increase returns to shareholders, but also involves additional risks. A Fund may create leverage by borrowing money (through traditional borrowings or by means of so-called reverse repurchase agreements); certain transactions, including, for example,

when-issued, delayed-delivery, to-be-announced, and forward commitment purchases, loans of portfolio securities, dollar roll transactions, and the use of some derivatives, can also result in leverage. Leverage will increase the volatility of the Fund's investment portfolio and could result in larger losses than if it were not used. The use of leverage is considered to be a speculative investment practice and may result in losses to a Fund. Certain derivatives have the potential for unlimited loss, regardless of the size of the initial investment. A Fund will typically pay interest or incur other borrowing costs in connection with leverage transactions.

- **Liquidity Risk**

Liquidity risk is the risk that particular investments may be difficult to sell or terminate at approximately the price at which the Fund is carrying the investments. The ability of a Fund to dispose of illiquid positions at advantageous prices may be greatly limited, and a Fund may have to continue to hold such positions during periods when the investment adviser or subadviser otherwise would have sold them. Some securities held by a Fund may be restricted as to resale, may trade in the over-the-counter ("OTC") market, or may not have an active trading market due to adverse market, economic, industry, political, regulatory, geopolitical or other conditions. In addition, a Fund, by itself or together with other accounts managed by the investment adviser or subadviser, may hold a position in a security that is large relative to the typical trading volume for that security, which can make it difficult for the Fund to dispose of the position at an advantageous time or price.

Market values for illiquid securities may not be readily available, and there can be no assurance that any fair value assigned to an illiquid security at any time will accurately reflect the price a Fund might receive upon the sale of that security. It is possible that, during periods of extreme market volatility or unusually high and unanticipated levels of redemptions, a Fund may be forced to sell large amounts of securities or terminate outstanding transactions at a price or time that is not advantageous in order to meet redemptions or other cash needs. In such a case, the sale proceeds received by a Fund may be substantially less than if the Fund had been able to sell the securities or terminate the

transactions in more orderly transactions, and the sale price may be substantially lower than the price previously used by the Fund to value the securities for purposes of determining the Fund's NAV. To the extent a Fund holds illiquid securities, it may be more likely to pay redemption proceeds in kind.

- **Management Risk**

Each Fund is subject to management risk because it relies on the investment adviser's and/or subadviser's investment analysis and its selection of investments to achieve its investment objective. A Fund's investment adviser or subadviser manages the Fund based on its assessment of economic, financial, and market factors and its investment judgment. The investment adviser or subadviser may fail to ascertain properly the appropriate mix of securities for any particular economic cycle. A Fund's investment adviser or subadviser applies its investment techniques and risk analyses in making investment decisions for the Fund, but there can be no guarantee that they will produce the intended result. Management risk includes the risk that poor security selection will cause a Fund to underperform relative to other funds with similar investment objectives, or that the timing of movements from one type of security to another could have a negative effect on the overall investment performance of the Fund. There can be no assurance that there will be a liquid market for instruments held by the Fund at any time.

- **Market Risk**

The values of a Fund's portfolio securities may decline, at times sharply and unpredictably, as a result of unfavorable broad market developments, which may affect securities markets generally or particular industries, sectors, or issuers. The values of a Fund's investments may decline as a result of a number of such factors, including actual or perceived changes in general economic and market conditions, industry, political, regulatory, geopolitical and other developments, including the imposition of tariffs or other protectionist actions, changes in interest rates, currency rates, or other rates of exchange, and changes in economic and competitive industry conditions. Different parts of the market and different types of securities can react differently to these conditions. The possibility that security prices

in general will decline over short or even extended periods subjects a Fund to unpredictable declines in the value of its shares, as well as potentially extended periods of poor performance. In addition, the increasing popularity of passive index-based investing may have the potential to increase security price correlations and volatility. As passive strategies generally buy or sell securities based simply on inclusion and representation in an index, securities' prices will have an increasing tendency to rise or fall based on whether money is flowing into or out of passive strategies rather than based on an analysis of the prospects and valuation of individual securities. This may result in increased market volatility as more money is invested through passive strategies.

Federal, state, and other governments, their regulatory agencies, or self-regulatory organizations may take actions that affect the regulation of the securities in which a Fund invests or the issuers of such securities in ways that are unforeseeable. The uncertainty surrounding the sovereign debt of a significant number of European Union countries, as well as the status of the Euro, the European Monetary Union, and the European Union itself, has disrupted and may continue to disrupt markets in the U.S. and around the world. The risks associated with investments in Europe may be heightened due to the approval by citizens of the United Kingdom, in June 2016, of a referendum to leave the European Union. The United Kingdom is working towards withdrawal from the European Union at a yet to be determined date. Significant uncertainty remains in the market regarding the ramifications of that development and the arrangements that will apply to the United Kingdom's relationship with the European Union and other countries following its withdrawal; the range and potential implications of possible political, regulatory, economic, and market outcomes are difficult to predict. There is the potential for decreased trade, capital outflows from the United Kingdom, devaluation of the pound sterling, decreased business and consumer spending and decreased foreign investment in the United Kingdom, and negative effects on the value of a Fund's investments and/or on a Fund's ability to enter into certain transactions or value certain investments. If one or more additional

countries leave the European Union, or the European Union partially or completely dissolves, the world's economies and securities markets may be significantly disrupted and adversely affected. Legislation or regulation also may change the way in which a Fund, the investment adviser, or subadviser is regulated. Such legislation, regulation, or other government action could limit or preclude a Fund's ability to achieve its investment objective and affect the Fund's performance.

- **Mortgage- and Asset-Backed Securities Risk**

Investments in mortgage-related and other asset-backed securities are subject to the risk of severe credit downgrades, illiquidity and defaults to a greater extent than many other types of fixed income investments. Mortgage-backed securities, including collateralized mortgage obligations and certain stripped mortgage-backed securities, represent a participation in, or are secured by, mortgage loans. Asset-backed securities are generally structured like mortgage-backed securities, but instead of mortgage loans or interests in mortgage loans, the underlying assets may include such items as motor vehicle installment sale or installment loan contracts, leases of various types of real and personal property, receivables from credit card agreements, and student loan payments. Asset-backed securities also may be backed by pools of corporate or sovereign bonds, loans made to corporations, or a combination of these bonds and loans, commonly referred to as "collateralized debt obligations," including collateralized bond obligations ("CBOs") and collateralized loan obligations ("CLOs"). The assets backing collateralized debt obligations may consist in part or entirely of high risk, below investment grade debt obligations (or comparable unrated obligations). In the case of CBOs and certain other collateralized debt obligations, those may include, by way of example, high yield debt, residential privately issued mortgage-related securities, commercial privately issued mortgage-related securities, trust preferred securities, and emerging market debt. In the case of CLOs, they may include, among other things, domestic and foreign senior secured loans, senior unsecured loans, and subordinate corporate loans, any or all of which may be rated below investment grade or may be comparable unrated obligations.

Traditional debt investments typically pay a fixed rate of interest until maturity, when the

entire principal amount is due. By contrast, payments on mortgage-backed and many asset-backed investments typically include both interest and partial payment of principal. Principal may also be prepaid voluntarily, or as a result of refinancing or foreclosure. The Fund may have to invest the proceeds from prepaid investments in other investments with less attractive terms and yields. As a result, these securities may have less potential for capital appreciation during periods of declining interest rates than other securities of comparable maturities, although they may have a similar risk of decline in market value during periods of rising interest rates. Because the prepayment rate generally declines as interest rates rise, an increase in interest rates will likely increase the duration, and thus the volatility, of mortgage-backed and asset-backed securities. (Duration is a measure of the expected life of a fixed income security that is used to determine the sensitivity of the security's price to changes in interest rates. Unlike the maturity of a fixed income security, which measures only the time until final payment is due, duration takes into account the time until all payments of interest and principal on a security are expected to be made, including how these payments are affected by prepayments and by changes in interest rates.) Prepayment rates are difficult to predict and the potential impact of prepayments on the value of a mortgage-related or other asset-backed security depends on the terms of the instrument and can result in significant volatility. In addition to interest rate risk (as described under "Interest Rate Risk"), investments in mortgage-backed securities composed of subprime mortgages and investments in CDOs and CLOs backed by pools of high-risk, below investment grade debt securities may be subject to a higher degree of credit risk, valuation risk, and liquidity risk (as described under "Credit Risk," "Valuation Risk," and "Liquidity Risk"). Litigation with respect to the representations and warranties given in connection with the issuance of mortgage-backed securities can be an important consideration in investing in such securities, and the outcome of any such litigation could significantly impact the value of the Fund's mortgage-backed investments.

The types of mortgages underlying securities held by the Fund may differ and may be affected differently by market factors. For example, the Fund's investments in residential

mortgage-backed securities will likely be affected significantly by factors affecting residential real estate markets and mortgages generally; similarly, investments in commercial mortgage-backed securities will likely be affected significantly by factors affecting commercial real estate markets and mortgages generally.

Some mortgage-backed and asset-backed investments receive only the interest portion ("IOs") or the principal portion ("POs") of payments on the underlying assets. The yields and values of these investments are extremely sensitive to changes in interest rates and in the rate of principal payments on the underlying assets. IOs tend to decrease in value if interest rates decline and rates of repayment (including prepayment) on the underlying mortgages or assets increase; it is possible that the Fund may lose the entire amount of its investment in an IO due to a decrease in interest rates. Conversely, POs tend to decrease in value if interest rates rise and rates of repayment decrease. Moreover, the market for IOs and POs may be volatile and limited, which may make them difficult for the Fund to buy or sell. The values of mortgage-related and other asset-backed securities may be substantially dependent on the servicing of the underlying asset pools, and are therefore subject to risks associated with the negligence or malfeasance by their servicers and to the credit risk of their servicers. In certain situations, the mishandling of related documentation may also affect the rights of securities holders in and to the benefits of the underlying collateral. There may be legal and practical limitations on the enforceability of any security interest granted with respect to underlying assets, or the value of the underlying assets, if any, may be insufficient if the issuer defaults.

The Fund may gain investment exposure to mortgage-backed and asset-backed investments by entering into agreements with financial institutions to buy the investments at a fixed price at a future date. The Fund may or may not take delivery of the investments at the termination date of such an agreement, but will nonetheless be exposed to changes in value of the underlying investments during the term of the agreement. These transactions may create investment leverage.

- **Preferred Stock Risk**
Like other equity securities, preferred stock is subject to the risk that its value may decrease based on actual or perceived changes in the business or financial condition of the issuer. In addition, if interest rates rise, the dividends on preferred stocks may be less attractive, causing the prices of preferred stocks to decline. Preferred stock may have mandatory sinking fund provisions or call/redemption provisions that can negatively affect its value. In addition, in the event of liquidation of a corporation's assets, the rights of preferred stock generally are subordinate to the rights associated with a corporation's debt securities.
- **Quantitative Models Risk**
Certain portfolio managers use quantitative models as part of the idea generation process. Quantitative models are based upon many factors that measure individual securities relative to each other. Such models may not produce the intended results and can be adversely affected by errors or imperfections in the factors or the data on which measurements are based, changing sources of market return or market risk, or any technical issues with or errors in the design, construction, implementation, or maintenance of the models.
- **Redemptions by Affiliated Funds and by Other Significant Investors**
A Fund may be an investment option for other MassMutual Funds that are managed as "funds of funds" and for other investors who may make substantial investments in the Fund. As a result, from time to time, a Fund may experience a relatively large redemption and could be required to liquidate assets at inopportune times or at a loss or depressed value, which could cause the value of your investment to decline. Similarly, large Fund share purchases may adversely affect a Fund's performance to the extent that the Fund is delayed in investing new cash and is required to maintain a larger cash position than it ordinarily would, or if the Fund is unable to invest the cash in portfolio securities that it considers as desirable as the Fund's portfolio securities.
- **Repurchase Agreement Risk**
A Fund may enter into repurchase agreements. These transactions must be fully collateralized at all times, but involve some risk to a Fund if the other party should default on its obligation and the Fund is delayed or prevented from recovering the collateral, or if the Fund is required to return collateral to a borrower at a time when it may realize a loss on the investment of that collateral.
- **Restricted Securities Risk**
A Fund may hold securities that are restricted as to resale under the U.S. federal securities laws, such as securities in certain privately held companies. There can be no assurance that a trading market will exist at any time for any particular restricted security. Limitations on the resale of these securities may prevent the Fund from disposing of them promptly at reasonable prices or at all. Restricted securities may be highly illiquid. A Fund may have to bear the expense of registering the securities for resale and the risk of substantial delays in effecting the registration. Restricted securities may be difficult to value because market quotations may not be readily available, and there may be little publicly available information about the securities or their issuers. The values of restricted securities may be highly volatile.
- **Risk of Investment in other Funds or Pools**
A Fund may invest in other investment companies or pooled vehicles, including closed-end funds, trusts, and exchange-traded funds ("ETFs"), that are advised by the Fund's investment adviser or subadviser, as applicable, their affiliates, or by unaffiliated parties, to the extent permitted by applicable law. As a shareholder in an investment company or other pool, the Fund, and indirectly that Fund's shareholders, bear a ratable share of the investment company's or pool's expenses, including, but not limited to, advisory and administrative fees, and the Fund at the same time continues to pay its own fees and expenses. Investment companies or pools in which the Funds may invest may change their investment objectives or policies without the approval of a Fund, in which case a Fund may be forced to withdraw its investment from the investment company or pool at a disadvantageous time. Private investment pools in which the Funds may

invest are not registered under the 1940 Act, and so will not offer all of the protections provided by the 1940 Act (including, among other things, independent oversight, protections against certain conflicts of interest, and custodial risks). A Fund is exposed indirectly to all of the risks applicable to any other investment company or pool in which it invests, including that the investment company or pool will not perform as expected. Investments in other investment companies or private pools may be illiquid, may be leveraged, and may be highly volatile.

Investing in other investment companies or private investment vehicles sponsored or managed by the investment adviser or subadviser, as applicable, or affiliates of the investment adviser or subadviser, as applicable, involves potential conflicts of interest. For example, the investment adviser or subadviser, as applicable, or their affiliates may receive fees based on the amount of assets invested in such other investment vehicles, which fees may be higher than the fees the investment adviser or subadviser, as applicable, receives for managing the investing Fund. Investment by a Fund in those other vehicles may be beneficial in the management of those other vehicles, by helping to achieve economies of scale or enhancing cash flows. Due to this and other factors, the investment adviser or subadviser, as applicable, will have an incentive to invest a portion of a Fund's assets in investment vehicles sponsored or managed by the investment adviser or subadviser, as applicable, or their affiliates in lieu of investments by the Fund directly in portfolio securities, and will have an incentive to invest in such investment vehicles over non-affiliated investment companies. The investment adviser or subadviser, as applicable, will have no obligation to select the least expensive or best performing funds available to serve as an underlying investment vehicle. Similarly, the investment adviser or subadviser, as applicable, will have an incentive to delay or decide against the sale of interests held by the Fund in investment vehicles sponsored or managed by the investment adviser or subadviser, as applicable, or their affiliates.

ETFs are subject to many of the same risks applicable to investments in mutual funds generally, including that an ETF will not perform as anticipated, that a Fund will bear

its proportionate share of the ETF's fees and expenses, and that the ETF will lose money. Many ETFs engage in derivatives strategies and use leverage, and as a result their values can be highly volatile. It is possible that an ETF's performance will diverge significantly from the performance of any index or indexes it seeks to replicate. Because shares of ETFs are actively traded, their values may be affected in unanticipated ways by the effects of supply and demand in the market, activities of short sellers, or unusual speculative activity in their shares. Some ETFs may experience periods of reduced liquidity due to restrictions on trading activity or due to a general lack of investor interest in the asset class represented by the ETF.

- **Sector Risk**

If a Fund allocates a substantial amount of its assets to one or more particular industries or to particular economic, market, or industry sectors, then economic, business, regulatory, or other developments affecting issuers in those industries or sectors may affect the Fund adversely to a greater extent than if the Fund had invested more broadly. Examples might include investments in the technology, health care, or financial sectors or in one or more industries within those sectors. A substantial investment in one or more such industries or sectors has the potential to increase the volatility of a Fund's portfolio, and may cause the Fund to underperform other mutual funds.

- **Small and Mid-Cap Company Risk**

Small and medium-sized companies may have limited product lines, markets, or financial resources or they may depend on a few key employees. Such companies may have been recently organized and have little or no track record of success. Also, a Fund's investment adviser or subadviser may not have had an opportunity to evaluate such newer companies' performance in adverse or fluctuating market conditions. Market risk and liquidity risk are particularly pronounced for stocks of small and medium-sized companies. The securities of small and medium-sized companies may trade less frequently and in smaller volume than more widely held securities. The prices of these securities may fluctuate more sharply than those of other securities, and a Fund may experience some difficulty in establishing or

closing out positions in these securities at prevailing market prices. There may be less publicly available information about the issuers of these securities or less market interest in such securities than in the case of larger companies, both of which can cause significant price volatility. Some securities of small and medium-sized issuers may be illiquid or may be restricted as to resale.

- **Sovereign Debt Obligations Risk**

Investments in debt securities issued by governments or by government agencies and instrumentalities involve the risk that the governmental entities responsible for repayment may be unable or unwilling to pay interest and repay principal when due. A governmental entity's willingness or ability to pay interest and repay principal in a timely manner may be affected by a variety of factors, including its cash flow, the size of its reserves, its access to foreign exchange, the relative size of its debt service burden to its economy as a whole, and political constraints. A governmental entity may default on its obligations or may require renegotiation or rescheduling of debt payments. Any restructuring of a sovereign debt obligation held by the Fund will likely have a significant adverse effect on the value of the obligation. In the event of default of sovereign debt, the Fund may be unable to pursue legal action against the sovereign issuer or to realize on collateral securing the debt. The sovereign debt of many non-U.S. governments, including their sub-divisions and instrumentalities, is rated below investment grade ("junk" or "high yield" bonds). Sovereign debt risk may be greater for debt securities issued or guaranteed by emerging and/or frontier market countries. At times, certain emerging and frontier market countries have declared moratoria on the payment of principal and interest on external debt. Certain emerging and frontier market countries have experienced difficulty in servicing their sovereign debt on a timely basis, which has led to defaults and the restructuring of certain indebtedness to the detriment of debtholders.

- **Stock Connect Risk**

A Fund may invest in China A Shares, which are equity securities of companies domiciled in China that are denominated and traded in Renminbi on the Shanghai or Shenzhen

Stock Exchanges. A Fund may invest in A Shares listed and traded on the Shanghai Stock Exchange or Shenzhen Stock Exchange through the Stock Connect program. A Fund's investments in Stock Connect A Shares are generally subject to Chinese securities regulations and listing rules, among other restrictions that may affect the Fund's investments and returns, including transfer restrictions, trading suspensions, and daily limits on net purchases, which are subject to change. Such investments are also subject to heightened operational, tax, and settlement risk and the risk of price fluctuations of A Shares during times when Stock Connect is not trading. Stock Connect is a relatively new program. Further developments are likely and there can be no assurance as to program's continued existence or whether future developments regarding the program may restrict or adversely affect the Fund's investments or returns.

- **U.S. Government Securities Risk**

U.S. Government securities include a variety of securities that differ in their interest rates, maturities, and dates of issue. While securities issued or guaranteed by some agencies or instrumentalities of the U.S. Government (such as the Government National Mortgage Association) are supported by the full faith and credit of the United States, securities issued or guaranteed by certain other agencies or instrumentalities of the U.S. Government (such as Federal Home Loan Banks) are supported only by the right of the issuer to borrow from the U.S. Government. Securities issued or guaranteed by certain other agencies and instrumentalities of the U.S. Government (such as Fannie Mae and Freddie Mac) are not supported by the full faith and credit of the U.S. Government and are supported only by the credit of the issuer itself. There is no assurance that the U.S. Government would provide financial support to its agencies and instrumentalities if not required to do so. In addition, certain governmental entities have been subject to regulatory scrutiny regarding their accounting policies and practices and other concerns that may result in legislation, changes in regulatory oversight and/or other consequences that could adversely affect the credit quality, availability, or investment character of securities issued by these entities. Investments in these securities are also subject

to, among other things, interest rate risk, prepayment risk, extension risk, and the risk that the value of the securities will fluctuate in response to political, market, or economic developments.

- **Valuation Risk**

A portion of a Fund's assets may be valued at fair value pursuant to guidelines that have been approved by the Trustees. A Fund's assets may be valued using prices provided by a pricing service or, alternatively, a broker-dealer or other market intermediary (sometimes just one broker-dealer or other market intermediary) when other reliable pricing sources may not be available. The Fund, or persons acting on its behalf, may determine a fair value of a security based on such other information as may be available to them. There can be no assurance that any fair valuation of an investment held by a Fund will in fact approximate the price at which the Fund might sell the investment at the time. Technological issues or other service disruption issues involving third-party service providers may limit the ability of the Fund to value its investment accurately or timely. To the extent a Fund sells a security at a price lower than the price it has been using to value the security, its NAV will be adversely affected. If a Fund has overvalued securities it holds, you may pay too much for the Fund's shares when you buy into the Fund. If a Fund underestimates the price of its portfolio securities, you may not receive the full market value for your Fund shares when you sell.

- **Value Company Risk**

A Fund may purchase some equity securities at prices below what the investment adviser

or subadviser considers to reflect their actual or potential fundamental values. The Fund bears the risk that the prices of these securities may not increase to reflect what the investment adviser or subadviser believes to be their fundamental value or that the investment adviser or subadviser may have overestimated the securities' fundamental value or that it may take a substantial period of time to realize that value.

- **When-Issued, Delayed Delivery, TBA, and Forward Commitment Transaction Risk**

A Fund may purchase securities on a when-issued, delayed delivery, to-be-announced, or forward commitment basis. These transactions involve a commitment by a Fund to purchase securities for a predetermined price or yield, with payments and delivery taking place more than seven days in the future, or after a period longer than the customary settlement period for that type of security. These transactions involve a risk of loss if the value of the securities declines prior to the settlement date. These transactions may create investment leverage. Recently finalized rules of the Financial Industry Regulatory Authority impose mandatory margin requirements for certain types of when-issued, TBA, or forward commitment transactions, with limited exceptions. Such transactions historically have not been required to be collateralized, and mandatory collateralization could increase the cost of such transactions and impose added operational complexity and may increase the credit risk of such transactions to a Fund.

Management of the Funds

Investment Adviser

MML Investment Advisers, LLC (“MML Advisers”), a Delaware limited liability company, located at 100 Bright Meadow Blvd., Enfield, Connecticut 06082-1981, is the Funds’ investment adviser and is responsible for providing all necessary investment management and administrative services. MML Advisers, formed in 2013, is a wholly-owned subsidiary of Massachusetts Mutual Life Insurance Company (“MassMutual”). Founded in 1851, MassMutual is a mutual life insurance company that provides a broad range of insurance, money management, retirement, and asset accumulation products and services for individuals and businesses. As of September 30, 2019, MML Advisers had assets under management of approximately \$55.7 billion.

In 2019, each Fund paid MML Advisers an investment management fee based on a percentage of each Fund’s average daily net assets as follows: .35% for the U.S. Government Money Market Fund, .35% for the Short-Duration Bond Fund, .38% for the Inflation-Protected and Income Fund, .38% for the Core Bond Fund, .37% for the Diversified Bond Fund, .47% for the High Yield Fund, .48% for the Balanced Fund, .45% for the Disciplined Value Fund, .55% for the Main Street Fund, .45% for the Disciplined Growth Fund, .58% for the Small Cap Opportunities Fund, .75% for the Global Fund, .85% for the International Equity Fund, and 1.00% for the Strategic Emerging Markets Fund.

A discussion regarding the basis for the Trustees approving any investment advisory contract of the Funds is available in the Funds’ annual report to shareholders dated September 30, 2019.

Each Fund also pays MML Advisers an administrative and shareholder services fee to compensate it for providing general administrative services to the Funds and for providing or causing to be provided ongoing shareholder servicing to direct and indirect investors in the Funds. MML Advisers pays substantially all of the fee to MassMutual in respect of shareholder servicing and investor recordkeeping services provided by it, or to another entity with which MassMutual has contracted. The fee is calculated and paid based on the average daily net assets attributable to each share class of the Fund separately, and is paid at the following annual rates: .10% for Class R5 shares; .15% for Service Class shares, Administrative Class shares, and Class A shares; and .20% for Class R4 shares and Class R3 shares. Class I shares do not pay any administrative and shareholder services fee.

Subadvisers and Portfolio Managers

MML Advisers contracts with the following subadvisers to help manage the Funds. Subject to the oversight of the Trustees, MML Advisers has the ultimate responsibility to oversee subadvisers and recommend their hiring, termination, and replacement. This responsibility includes, but is not limited to, analysis and review of subadviser performance, as well as assistance in the identification and vetting of new or replacement subadvisers. In addition, MML Advisers maintains responsibility for a number of other important obligations, including, among other things, board reporting, assistance in the annual advisory contract renewal process, and, in general, the performance of all obligations not delegated to a subadviser. MML Advisers also provides advice and recommendations to the Trustees, and performs such review and oversight functions as the Trustees may reasonably request, as to the continuing appropriateness of the investment objective, strategies, and policies of each Fund, valuations of portfolio securities, and other matters relating generally to the investment program of each Fund.

Barings LLC (“Barings”), an indirect, wholly-owned subsidiary of MassMutual, with principal offices located at 470 Atlantic Avenue, Boston, Massachusetts 02210 and at 300 South Tryon Street, Charlotte, North Carolina 28202, manages the investments of the *U.S. Government Money Market Fund, Short-Duration Bond Fund, Inflation-Protected and Income Fund, Core Bond Fund, Diversified Bond Fund, High Yield Fund, Balanced Fund, Disciplined Value Fund, and Disciplined Growth Fund*. Barings has provided investment advice to individual and institutional investors for more than 75 years and, with its subsidiaries, had assets under management as of September 30, 2019 of approximately \$335.4 billion.

Yulia Alekseeva, CFA

is a Managing Director, the Head of Securitized Credit Research, and a portfolio manager for Barings’ Investment Grade Fixed Income Group. Ms. Alekseeva shares primary responsibility for the day-to-day

management of the *Inflation-Protected and Income Fund*. Ms. Alekseeva has 14 years of industry experience. Prior to joining Barings in 2019, Ms. Alekseeva was employed at Canada Pension Plan Investment Board.

Chris C. Cao, CFA

is a Managing Director and portfolio manager for Barings' Global Portfolio Solutions Group. Mr. Cao shares primary responsibility for the day-to-day management of the *Disciplined Value Fund*, the *Disciplined Growth Fund*, and the *U.S. Equity Segment* and *International Equity Segment* of the *Balanced Fund*. Mr. Cao has more than 20 years of industry experience. Prior to joining Barings in 2001, Mr. Cao was employed by Aeltus Investment Management and more recently at Invesco.

Stephen Ehrenberg, CFA

is a Managing Director and portfolio manager for Barings' Investment Grade Fixed Income Group. Mr. Ehrenberg shares primary responsibility for the day-to-day management of the *Short-Duration Bond Fund*, the *Core Bond Fund*, the *Diversified Bond Fund*, and the *Bond Segment* of the *Balanced Fund*. Mr. Ehrenberg has more than 15 years of industry experience and his experience has encompassed portfolio management and credit analysis for both investment grade and high yield corporate credit. Prior to joining Barings in 2004, Mr. Ehrenberg worked in capital markets at MassMutual as part of the firm's executive development program.

Michael F. Farrell

is a Managing Director and Head of Barings' U.S. Quantitative Strategies. Mr. Farrell is responsible for managing Barings' Master Limited Partnership, Global Natural Resources, Special Situation, and other strategies. Mr. Farrell shares primary responsibility for the day-to-day management of the *Disciplined Value Fund*, the *Disciplined Growth Fund*, and the *U.S. Equity Segment* and *International Equity Segment* of the *Balanced Fund*. He is also responsible for asset allocation for the *Balanced Fund*. Mr. Farrell has more than 30 years of experience and was recognized as one of the nation's top 100 mutual fund managers by Barron's in 2007 and 2006. Prior to joining Barings in 2000, Mr. Farrell worked as an economist and quantitative portfolio manager at Aeltus Investment Management.

Sean M. Feeley, CFA, CPA

is a Managing Director and portfolio manager for Barings' U.S. High Yield Investments Group. Mr. Feeley shares primary responsibility for the day-to-day management of the *High Yield Fund*. Mr. Feeley is also a member of Barings' U.S. High Yield Investment Committee and Global High Yield Allocation Committee. His responsibilities include portfolio management for various high yield bond total return strategies. Mr. Feeley has more than 25 years of experience in the credit market across a variety of industries. Prior to joining Barings in 2003, he worked at Cigna Investment Management in project finance and at Credit Suisse in its leveraged finance group.

David L. Nagle, CFA

is a Managing Director and portfolio manager for Barings' Investment Grade Fixed Income Group. Mr. Nagle shares primary responsibility for the day-to-day management of the *Short-Duration Bond Fund*, the *Core Bond Fund*, the *Diversified Bond Fund*, and the *Bond Segment* of the *Balanced Fund*. Mr. Nagle joined Barings in 1986 and has more than 30 years of experience in multi-sector portfolio and risk management, as well as asset allocation.

Scott D. Roth, CFA

is a Managing Director and portfolio manager for Barings' U.S. High Yield Investments Group. Mr. Roth shares primary responsibility for the day-to-day management of the *High Yield Fund*. Mr. Roth is also a member of Barings' U.S. High Yield Investment Committee. Mr. Roth has more than 25 years of industry experience. Prior to joining Barings in 2002, Mr. Roth was employed by Webster Bank, was a high yield analyst at Times Square Capital Management, and was an underwriter at Chubb Insurance Company.

Scott Simler

is a Director and portfolio manager for Barings' Investment Grade Fixed Income Group. Mr. Simler shares primary responsibility for the day-to-day management of the *U.S. Government Money Market Fund* and the *Money Market Segment* of the *Balanced Fund*. Mr. Simler has more than 30 years of industry experience. Prior to joining Barings in 2005, Mr. Simler was employed at Citigroup Investments, CIGNA Investments, and Phoenix Equity Planning Corp.

Douglas M. Trevallion, II, CFA

is a Managing Director, the Head of Global Securitized and Liquid Products, and a portfolio manager for Barings' Investment Grade Fixed Income Group. Mr. Trevallion shares primary responsibility for the day-to-day management of the *Short-Duration Bond Fund*, the *Inflation-Protected and Income Fund*, the *Core Bond Fund*, the *Diversified Bond Fund*, and the *Bond Segment* of the *Balanced Fund*. Mr. Trevallion has more than 30 years of industry experience. Prior to joining Barings in 2000, Mr. Trevallion was employed at MassMutual.

Invesco Advisers, Inc. ("Invesco"), located at 1555 Peachtree Street, N.E., Atlanta, Georgia 30309, manages the investments of the *Main Street Fund*, *Small Cap Opportunities Fund*, *Global Fund*, *International Equity Fund*, and *Strategic Emerging Markets Fund*. Invesco is an indirect wholly-owned subsidiary of Invesco Ltd., a publicly traded company that, through its subsidiaries, engages in the business of investment management on an international basis. As of September 30, 2019, Invesco had approximately \$1.2 trillion in assets under management.

Invesco replaced OFI Global Institutional, Inc. as the subadviser of the Main Street Fund, Small Cap Opportunities Fund, International Equity Fund, and Strategic Emerging Markets Fund, and replaced OppenheimerFunds, Inc. as the subadviser of the Global Fund at the close of business on May 24, 2019.

Raymond Anello, CFA

is a co-portfolio manager of the *Small Cap Opportunities Fund*. Mr. Anello is a portfolio manager at Invesco. He has been associated with Invesco and/or its affiliates since 2019. Prior to 2019, he was a Vice President of OppenheimerFunds, Inc. ("OFI") since May 2009 and a portfolio manager of OFI Global Institutional, Inc. since April 2011. He has served as sector manager for energy and utilities for OFI's Main Street Investment Team since May 2009. Prior to joining OFI, he was a portfolio manager of the RS All Cap Dividend product from its inception in July 2007 through April 2009 and served as a sector manager for energy and utilities for various other RS Investments products. Mr. Anello joined Guardian Life Insurance Company in October 1999 and transitioned to RS Investments in October 2006 in connection with Guardian Life Insurance Company's acquisition of an interest in RS Investments.

Joy Budzinski

is a co-portfolio manager of the *Small Cap Opportunities Fund*. Ms. Budzinski is a portfolio manager at Invesco. She has been associated with Invesco and/or its affiliates since 2019. Prior to 2019, she was a Vice President of OppenheimerFunds, Inc. ("OFI") since May 2009 and a portfolio manager of OFI Global Institutional, Inc. since November 2012. She has served as sector manager for healthcare for OFI's Main Street Investment Team since May 2009. Prior to joining OFI, Ms. Budzinski was a healthcare sector manager at RS Investments and Guardian Life Insurance Company. Ms. Budzinski joined Guardian Life Insurance Company in August 2006 and transitioned to RS Investments in October 2006 in connection with Guardian Life Insurance Company's acquisition of an interest in RS Investments.

John Delano, CFA

is the portfolio manager of the *Global Fund*. Mr. Delano is a portfolio manager at Invesco. He has been associated with Invesco and/or its affiliates since 2019. Prior to 2019, he was a senior portfolio manager of OppenheimerFunds, Inc. ("OFI") since March 2017. Previously, he was a senior research analyst of OFI from May 2007 to March 2017. Prior to joining the firm, Mr. Delano worked at Putnam Investments as an analyst covering large-cap growth focusing on hardware, software, and telecommunications.

Robert B. Dunphy, CFA

is a co-portfolio manager of the *International Equity Fund*. Mr. Dunphy is a portfolio manager at Invesco. He has been associated with Invesco and/or its affiliates since 2019. Prior to 2019, he was a Vice President of OppenheimerFunds, Inc. ("OFI") since January 2011 and a portfolio manager of OFI Global Institutional, Inc. since March 2012. Previously, he was a Senior Research Analyst and Assistant Vice President at OFI from May 2009 to January 2011, and an Intermediate Research Analyst at OFI from January 2006 to May 2009.

George R. Evans, CFA

has been primarily responsible for the day-to-day management of the *International Equity Fund* since October 1994. Mr. Evans is a portfolio manager at Invesco. He has been associated with Invesco and/or its

affiliates since 2019. Prior to 2019, he was the Chief Investment Officer, Equities of OppenheimerFunds, Inc. (“OFI”) since January 2013; Senior Vice President, Director of Equities from October 2010 to December 2012; Director of International Equities since July 2004; and portfolio manager of OFI, which he joined in 1990. Prior to joining OFI, he was a Securities Analyst and Portfolio Manager at Brown Brothers Harriman & Company.

Manind Govil, CFA

is a co-portfolio manager of the *Main Street Fund*. Mr. Govil is a portfolio manager at Invesco. He has been associated with Invesco and/or its affiliates since 2019. Prior to 2019, he was the Main Street Team Leader and a portfolio manager of OFI Global Institutional, Inc. (“OFI Global”) since May 2009. Prior to joining OFI Global, Mr. Govil was a portfolio manager with RS Investment Management Co. LLC from October 2006 until March 2009. He served as the head of equity investments at The Guardian Life Insurance Company of America from August 2005 to October 2006 when Guardian Life Insurance acquired an interest in RS Investment Management Co. LLC.

Kristin Ketner

is a co-portfolio manager of the *Small Cap Opportunities Fund*. Ms. Ketner is a portfolio manager at Invesco. She has been associated with Invesco and/or its affiliates since 2019. Prior to 2019, she was a Vice President of OppenheimerFunds, Inc. (“OFI”) since May 2009 and a portfolio manager of OFI Global Institutional, Inc. since November 2012. She has served as sector manager for consumer discretionary and consumer staples for OFI’s Main Street Investment Team since May 2009. Prior to joining OFI, Ms. Ketner was a sector manager at RS Investments and Guardian Life Insurance Company. Ms. Ketner joined Guardian Life Insurance Company in February 2006 and transitioned to RS Investments in October 2006 in connection with Guardian Life Insurance Company’s acquisition of an interest in RS Investments.

Magnus Krantz

is a co-portfolio manager of the *Small Cap Opportunities Fund*. Mr. Krantz is a portfolio manager at Invesco. He has been associated with Invesco and/or its affiliates since 2019. Prior to 2019, he was a Vice President of OppenheimerFunds, Inc. (“OFI”) since May 2009 and a portfolio manager of OFI Global Institutional, Inc. since November 2012. He has served as sector manager for technology for OFI’s Main Street Investment Team since May 2009. Prior to joining OFI, Mr. Krantz was a sector manager at RS Investments and Guardian Life Insurance Company. Mr. Krantz joined Guardian Life Insurance Company in December 2005 and transitioned to RS Investments in October 2006 in connection with Guardian Life Insurance Company’s acquisition of an interest in RS Investments.

Paul Larson

is a co-portfolio manager of the *Main Street Fund*. Mr. Larson is a portfolio manager at Invesco. He has been associated with Invesco and/or its affiliates since 2019. Prior to 2019, he was a portfolio manager of OFI Global Institutional, Inc. since February 2014. Prior to joining OppenheimerFunds, Inc. in January 2013, he was a portfolio manager and Chief Equity Strategist at Morningstar. He was also editor of Morningstar’s StockInvestor newsletter, which tracked Mr. Larson’s recommendations. Mr. Larson was previously an analyst at Morningstar covering the energy sector and oversaw the firm’s natural resources analysts. Before joining Morningstar in 2002, he was an analyst with The Motley Fool.

Justin Leverenz, CFA

is the lead portfolio manager of the *Strategic Emerging Markets Fund*. Mr. Leverenz is a portfolio manager at Invesco. He has been associated with Invesco and/or its affiliates since 2019. Prior to 2019, he was Director of Emerging Markets Equities of OppenheimerFunds, Inc. (“OFI”) since January 2013. He has been a portfolio manager of OFI Global Institutional, Inc. and OFI since May 2007, a Senior Vice President of OFI since November 2009, and was a Vice President of OFI from July 2004 to October 2009. Mr. Leverenz was the Head of Research for Goldman Sachs in Taiwan and Director of Pan-Asian Technology Research from 2002 to 2004. He was an Analyst and Head of Equity Research for Barclays de Zoete Wedd from 1993 to 1995 and from 1997 to 2000, respectively. He was a Fund Manager at Martin Currie Investment Management from 1995 to 1997.

Benjamin Ram

is a co-portfolio manager of the *Main Street Fund*. Mr. Ram is a portfolio manager at Invesco. He has been associated with Invesco and/or its affiliates since 2019. Prior to 2019, he was a portfolio manager of

OFI Global Institutional, Inc. (“OFI Global”) since May 2009. Prior to joining OFI Global, Mr. Ram was sector manager for financial investments and a co-portfolio manager for mid-cap portfolios with the RS Core Equity Team of RS Investment Management Co. LLC from October 2006 to May 2009. He served as Portfolio Manager Mid Cap Strategies, Sector Manager Financials at The Guardian Life Insurance Company of America from January 2006 to October 2006 when Guardian Life Insurance acquired an interest in RS Investment Management Co. LLC.

Raman Vardharaj, CFA

is a co-portfolio manager of the *Small Cap Opportunities Fund*. Mr. Vardharaj is a portfolio manager at Invesco. He has been associated with Invesco and/or its affiliates since 2019. Prior to 2019, he was a Vice President of OppenheimerFunds, Inc. (“OFI”) and a portfolio manager of OFI Global Institutional, Inc. since May 2009. Prior to joining OFI, Mr. Vardharaj was sector manager and a senior quantitative analyst creating stock selection models, monitoring portfolio risks, and analyzing portfolio performance across the RS Core Equity Team of RS Investment Management Co. LLC from October 2006 to May 2009. He served as quantitative analyst at The Guardian Life Insurance Company of America from 1998 to October 2006 when Guardian Life Insurance acquired an interest in RS Investment Management Co. LLC.

Adam Weiner

is a co-portfolio manager of the *Small Cap Opportunities Fund*. Mr. Weiner is a portfolio manager at Invesco. He has been associated with Invesco and/or its affiliates since 2019. Prior to 2019, he was a Vice President of OppenheimerFunds, Inc. (“OFI”) since May 2009 and a portfolio manager of OFI Global Institutional, Inc. since November 2012. He has served as sector manager for industrials and materials for OFI’s Main Street Investment Team since May 2009. Prior to joining OFI, Mr. Weiner was a sector manager at RS Investments for industrials and materials. Prior to joining RS Investments in January 2007, Mr. Weiner was a Director and senior equity analyst at Credit Suisse Asset Management (CSAM).

Matthew P. Ziehl, CFA

is a co-portfolio manager of the *Small Cap Opportunities Fund*. Mr. Ziehl is a portfolio manager at Invesco. He has been associated with Invesco and/or its affiliates since 2019. Prior to 2019, he was a Vice President of OppenheimerFunds, Inc. (“OFI”) and a senior portfolio manager of OFI Global Institutional, Inc. since May 2009. Prior to joining OFI, Mr. Ziehl was a portfolio manager with RS Investment Management Co. LLC from October 2006 to May 2009 and served as a managing director at The Guardian Life Insurance Company of America from December 2001 to October 2006 when Guardian Life Insurance acquired an interest in RS Investment Management Co. LLC.

The Funds’ SAI provides additional information about each portfolio manager’s compensation, other accounts managed by the portfolio managers, and each portfolio manager’s ownership of securities in the relevant Fund.

MML Advisers has received exemptive relief from the Securities and Exchange Commission (“SEC”) to permit it to change subadvisers or hire new subadvisers for a number of the series of the Trust from time to time without obtaining shareholder approval. (In the absence of that exemptive relief, shareholder approval might otherwise be required.) Several other mutual fund companies have received similar relief. MML Advisers believes having this authority is important, because it allows MML Advisers to remove and replace a subadviser in a quick, efficient, and cost-effective fashion when, for example, the subadviser’s performance is inadequate or the subadviser no longer is able to meet a Trust series’ investment objective and strategies. Pursuant to the exemptive relief, MML Advisers will provide to a Fund’s shareholders, within 90 days of the hiring of a new subadviser, an information statement describing the new subadviser. MML Advisers will not rely on this authority for any Fund unless the Fund’s shareholders have approved this arrangement. As of the date of this Prospectus, this exemptive relief is available to each Fund.

Other Information

On December 7, 2010, the Trust was named as a defendant and putative member of the proposed defendant class of shareholders named in an adversary proceeding brought by The Official Committee of Unsecured Creditors of Tribune Company (the “Official Committee”) in the U.S. Bankruptcy Court for the District of Delaware, in connection with Tribune Company’s Chapter 11 bankruptcy proceeding (In re Tribune Company). The proceeding relates to a leveraged buyout (“LBO”) transaction by which Tribune Company converted to a privately-held company in 2007, and the putative defendant class is comprised of beneficial owners of shares

of Tribune Company who received proceeds (the “Proceeds”) of the LBO. The Official Committee seeks to recover payments of those Proceeds. On April 5, 2012, the adversary proceeding was transferred to the Southern District of New York for consolidated pretrial proceedings. The action is now being prosecuted by the litigation trustee (“Trustee”) for the Tribune Litigation Trust.

The potential amounts sought to be recovered from the Balanced Fund, Disciplined Value Fund, and Small Cap Opportunities Fund are approximately \$44,200, \$299,880, and \$414,800, respectively, plus interest and the Official Committee’s court costs.

In addition, on June 2, 2011, the Disciplined Value Fund and Small Cap Opportunities Fund were named as defendants in a closely related, parallel adversary proceeding brought in connection with the Tribune Company’s LBO by Deutsche Bank Trust Company Americas, in its capacity as successor indenture trustee for a certain series of Senior Notes, Law Debenture Trust Company of New York, in its capacity as successor indenture trustee for a certain series of Senior Notes, and Wilmington Trust Company, in its capacity as successor indenture trustee for the PHONES Notes (together, the “Plaintiffs”), in the United States District Court for the District of Massachusetts. The Plaintiffs also seek to recover payments of the Proceeds. On December 20, 2011, this action was transferred to the Southern District of New York for consolidated pretrial proceedings.

The Funds cannot predict the outcome of these proceedings. If the proceedings were to be decided in a manner adverse to the Funds, or if the Funds were to enter into a settlement agreement with the Trustee or the Plaintiffs, as applicable, the payment of such judgment or settlement could potentially have a material adverse effect on the Funds’ NAVs depending on the net assets of each applicable Fund at the time of such judgment or settlement.

About the Classes of Shares – I, R5, Service, Administrative, A, R4, and R3 Shares

Each Fund (other than the U.S. Government Money Market Fund) offers seven Classes of shares. The U.S. Government Money Market Fund only offers Class R5 shares. The only differences among the various Classes are that (a) each Class is subject to different expenses specific to that Class, including any expenses under a Rule 12b-1 Plan and administrative and shareholder service expenses; (b) each Class has a different Class designation; (c) each Class has exclusive voting rights with respect to matters solely affecting such Class; and (d) each Class has different exchange privileges. Not all of the Classes of a Fund are available in every state.

Shares of all Classes, except Class I shares, are subject to an administrative and shareholder services fee described above under “Management of the Funds – Investment Adviser.” In addition, Class A, Class R3, and Class R4 shares are subject to servicing or distribution fees paid under a Rule 12b-1 Plan. Class A, Administrative Class, and Service Class shares are subject to an additional supplemental shareholder services fee, described under “Distribution Plan, Shareholder Servicing, and Payments to Intermediaries,” below. Different fees and expenses of a Class will affect performance of that Class. For actual past expenses of each share Class, see the “Financial Highlights” tables later in this Prospectus. Investors may receive different levels of service in connection with investments in different Classes of shares, and intermediaries may receive different levels of compensation in connection with each share Class. For additional information, call us toll free at 1-888-309-3539 or contact a sales representative or financial intermediary who offers the Classes.

Class I, Class R5, Service Class, and Administrative Class shares are offered primarily to institutional investors through institutional distribution channels, such as employer-sponsored retirement plans or through broker-dealers, financial institutions, or insurance companies. Class A, Class R4, and Class R3 shares are offered primarily through other distribution channels, such as broker-dealers or financial institutions. All Classes of shares are available for purchase by insurance company separate investment accounts, qualified plans under Section 401(a) of the Code, Code Section 403(b) plans, Code Section 457 plans, non-qualified deferred compensation plans, and other institutional investors.

Mutual funds and collective trust funds may purchase Class I, Class R5, and Service Class shares. Class A, Class R3, Class R4, and Class R5 shares may be purchased by voluntary employees’ beneficiary associations described in Code Section 501(c)(9). Class A shares of any Fund, and Class R5 shares of the U.S. Government Money Market Fund, may be purchased by individual retirement accounts described in Code Section 408.

Class I and Class A shares (and Class R5 shares of the U.S. Government Money Market Fund only) may also be purchased by individual investors through a financial intermediary or through a product sponsored by a financial intermediary.

Shareholders of the Core Bond Fund who held shares of that Fund prior to October 31, 2004 may buy Class R5 shares of that Fund. Shareholders of the Disciplined Growth Fund, the Disciplined Value Fund, or the High Yield Fund who held shares of those Funds prior to October 31, 2004 may purchase Service Class shares of such Funds. Shareholders of the Small Cap Opportunities Fund who held shares of that Fund prior to October 31, 2004 may purchase Class A shares of that Fund.

Additional Information.

A plan or institutional investor will be permitted to purchase shares of a class based upon the expected size (over time), servicing needs, or distribution or servicing costs for the plan or institutional investor as determined by MML Distributors LLC (the “Distributor”) or MassMutual, as applicable. A financial intermediary may, by agreement with the Distributor or MassMutual, make available to its plan or institutional clients shares of one class or a limited number of classes of the Funds. An investor should consult its financial intermediary for information (including expense information) regarding the share class(es) the intermediary will make available for purchase by the investor.

Eligible purchasers must generally (except for certain individual investors and individual retirement accounts) have an agreement with MassMutual or a MassMutual affiliate to purchase shares. There is no minimum plan or institutional investor size to purchase Class A, Class R4, and Class R3 shares.

Class A shares may be offered to present or former officers, directors, trustees, and employees (and their spouses, parents, children, and siblings) of the

Funds, MassMutual, and its affiliates and retirement plans established by them for their employees.

Sales Charges by Class

Initial Sales Charges

Class A shares are sold at their offering price, which is normally NAV plus an initial sales charge. However, in some cases, as described below, purchases are not subject to an initial sales charge, and the offering price will be the NAV. In other cases, reduced sales charges may be available, as described below. Out of the amount you invest, the Fund receives the NAV to invest for your account.

The sales charge varies depending on the amount of your purchase. A portion of the sales charge may be retained by the Distributor or allocated to your dealer as a concession. The Distributor reserves the right to reallocate the entire sales charge as a concession to dealers. The current sales charge rates and concessions paid to dealers and brokers are as follows:

Front-End Sales Charge (As a Percentage of Offering Price)/ Front-End Sales Charge (As a Percentage of Net Amount Invested)/ Concession (As a Percentage of Offering Price) for Different Purchase Amounts:

Price Breakpoints	General Equity	General Taxable Bond	Shorter-Term Bond
Less than \$25,000	5.50%/	4.25%/	2.50%/
	5.82%/	4.44%/	2.56%/
	4.50%	3.50%	2.00%
\$25,000 – \$49,999	5.25%/	4.25%/	2.25%/
	5.54%/	4.44%/	2.30%/
	4.25%	3.50%	1.75%
\$50,000 – \$99,999	4.50%/	4.00%/	2.00%/
	4.71%/	4.17%/	2.04%/
	3.50%	3.25%	1.50%
\$100,000 – \$249,999	3.50%/	3.00%/	1.75%/
	3.63%/	3.09%/	1.78%/
	2.50%	2.25%	1.25%
\$250,000 – \$499,999	2.25%/	1.75%/	1.25%/
	2.30%/	1.78%/	1.27%/
	1.75%	1.50%	0.75%
\$500,000 – \$999,999	1.75%/	1.00%/	0.75%/
	1.78%/	1.01%/	0.76%/
	1.10%	0.75%	0.50%
\$1,000,000 or more	None/ None/ 0.75%	None/ None/ 0.50%	None/ None/ 0.50%

A reduced sales charge may be obtained for Class A shares under the Funds' "Rights of Accumulation" because of the economies of sales efforts and

reduction in expenses realized by the Distributor, dealers, and brokers making such sales.

To qualify for the lower sales charge rates that apply to larger purchases of Class A shares, you can add together:

- Current purchases of Class A shares of more than one Fund subject to an initial sales charge to reduce the sales charge rate that applies to current purchases of Class A shares; and
- Class A shares of Funds you previously purchased subject to an initial or contingent deferred sales charge to reduce the sales charge rate for current purchases of Class A shares, provided that you still hold your investment in the previously purchased Funds.

The Distributor will add the value, at current offering price, of the Class A shares you previously purchased and currently own to the value of current purchases to determine the sales charge rate that applies. The reduced sales charge will apply only to current purchases. You must request the reduced sales charge when you buy Class A shares and inform your broker-dealer or other financial intermediary of Class A shares of any other Funds that you own. Information regarding reduced sales charges can be found on the MassMutual website at <http://www.massmutual.com/funds>.

Contingent Deferred Sales Charges

There is no initial sales charge on purchases of Class A shares of any one or more of the Funds aggregating \$1 million or more. The Distributor pays dealers of record concessions in an amount equal to .75%, or .50% of purchases of \$1 million or more, as shown in the above table. The concession will not be paid on purchases of shares by exchange or that were previously subject to a front-end sales charge and dealer concession.

If you redeem any of those shares within a holding period of 18 months from the date of their purchase, a contingent deferred sales charge of 1.0% will be deducted from the redemption proceeds (unless you are eligible for a waiver of that sales charge based on the categories listed below and you advise the transfer agent, MassMutual, or another intermediary of your

eligibility for the waiver when you place your redemption request).

All contingent deferred sales charges will be based on the lesser of the NAV of the redeemed shares at the time of redemption or the original NAV. A contingent deferred sales charge is not imposed on:

- the amount of your account value represented by an increase in NAV over the initial purchase price,
- shares purchased by the reinvestment of dividends or capital gains distributions, or
- shares redeemed in the special circumstances described below.

To determine whether a contingent deferred sales charge applies to a redemption, the Fund redeems shares in the following order:

1. shares acquired by reinvestment of dividends and capital gains distributions, and

Sales Charge Waivers by Class

Waivers of Class A Initial Sales Charges

The Class A sales charges will be waived for shares purchased in the following types of transactions:

- Purchases into insurance company separate investment accounts.
- Purchases into Retirement Plans or other employee benefit plans.
- Purchases of Class A shares aggregating \$1 million or more of any one or more of the Funds.
- Purchases into accounts for which the broker-dealer of record has entered into a special agreement with the Distributor allowing this waiver.
- Purchases into accounts for which no sales concession is paid to any broker-dealer or other financial intermediary at the time of sale.
- Shares sold to MassMutual or its affiliates.
- Shares sold to registered management investment companies or separate accounts of insurance companies having an agreement with MassMutual or the Distributor for that purpose.
- Shares issued in plans of reorganization to which the Fund is a party.
- Shares sold to present or former officers, directors, trustees, or employees (and their

2. shares held the longest.

Contingent deferred sales charges are not charged when you exchange shares of the Fund for shares of any other Fund. However, if you exchange them within the applicable contingent deferred sales charge holding period, the holding period will carry over to the Fund whose shares you acquire. Similarly, if you acquire shares of a Fund by exchanging shares of another Fund that are still subject to a contingent deferred sales charge holding period, that holding period will carry over to the acquired Fund.

“immediate families⁽¹⁾”) of the Fund, MassMutual, and its affiliates.

- Shares sold to a portfolio manager of the Fund.
- Class A shares of the Small Cap Opportunities Fund sold to shareholders of the Small Cap Opportunities Fund who held shares of that Fund prior to October 31, 2004.

Waivers of Class A Contingent Deferred Sales Charges

The Class A contingent deferred sales charges will not be applied to shares purchased in certain types of transactions or redeemed in certain circumstances described below.

A. Waivers for Redemptions in Certain Cases.

The Class A contingent deferred sales charges will be waived for redemptions of shares in the following cases:

- Redemptions from insurance company separate investment accounts.
- Redemptions from Retirement Plans or other employee benefit plans.
- Redemptions from accounts other than Retirement Plans following the death or

(1) *The term “immediate family” refers to one’s spouse, children, grandchildren, grandparents, parents, parents-in-law, brothers and sisters, sons- and daughters-in-law, a sibling’s spouse, a spouse’s siblings, aunts, uncles, nieces, and nephews; relatives by virtue of a remarriage (step-children, step-parents, etc.) are included.*

disability of the last surviving shareholder, including a trustee of a grantor trust or revocable living trust for which the trustee is also the sole beneficiary. The death or disability must have occurred after the account was established, and for disability you must provide evidence of a determination of disability by the Social Security Administration.

- Redemptions from accounts for which the broker-dealer of record has entered into a special agreement with the Distributor allowing this waiver.
- Redemptions from accounts for which no sales concession was paid to any broker-dealer or other financial intermediary at the time of sale.
- Redemptions of Class A shares under an Automatic Withdrawal Plan from an account other than a Retirement Plan if the aggregate value of the redeemed shares does not exceed 10% of the account's value annually.
- In the case of an IRA, to make distributions required under a divorce or separation agreement described in Section 71(b) of the Code.
- Redemptions of Class A shares of the Small Cap Opportunities Fund by shareholders of

the Small Cap Opportunities Fund who held shares of that Fund prior to October 31, 2004.

B. Waivers for Shares Sold or Issued in Certain Transactions.

The contingent deferred sales charge is also waived on Class A shares sold or issued in the following cases:

- Shares sold to MassMutual or its affiliates.
- Shares sold to registered management investment companies or separate accounts of insurance companies having an agreement with MassMutual or the Distributor for that purpose.
- Shares issued in plans of reorganization to which the Fund is a party.
- Shares sold to present or former officers, directors, trustees, or employees (and their "immediate families⁽¹⁾") of the Fund, MassMutual, and its affiliates.
- Shares sold to a present or former portfolio manager of the Fund.

Distribution Plan, Shareholder Servicing, and Payments to Intermediaries

Shares of all classes of the Funds, other than Class A shares, are sold without a front-end sales charge, and none of the Funds' shares are subject to a deferred sales charge. Class A shares are sold at NAV per share plus an initial sales charge.

Rule 12b-1 fees. The Funds have adopted a Rule 12b-1 Plan (the "Plan") for their Class A, Class R3, and Class R4 shares. Under the Plan, a Fund may make payments at an annual rate of up to .25% of the average daily net assets attributable to its Class A shares and Class R4 shares, and up to .50% of the average daily net assets attributable to its Class R3 shares. The Plan is a compensation plan, under which the Funds make payments to the Distributor for the services it provides and for the expenses it bears in connection with the distribution of shares of those classes and for the servicing of shareholders of those classes. Because Rule 12b-1 fees are paid out of the Funds' Class A, Class R3, and Class R4 assets on an ongoing basis, they will increase the cost of your investment and may cost you more than paying other types of sales loads. All shareholders of Class A, Class R3, and Class R4 shares share in the expense of

Rule 12b-1 fees paid by those classes. A Fund may pay distribution fees and other amounts described in this Prospectus at a time when shares of that Fund are unavailable for purchase.

Shareholder servicing payments. MML Advisers pays all or a portion of the administrative and shareholder services fee it receives from each Fund, as described above under "Management of the Funds – Investment Adviser," to MassMutual as compensation for, or reimbursement of expenses relating to, services provided to shareholders of the Funds. In addition, each Fund makes payments to MassMutual under a Supplemental Shareholder Services Agreement with respect to its Class A shares, Administrative Class shares, and Service Class shares, based on the average daily net assets attributable to the share classes, at an annual rate of .15% for Class A shares and Administrative Class shares and .05% for Service Class shares.

Payments to Intermediaries

Payment for recordkeeping services provided by MassMutual. MassMutual provides recordkeeping services and other shareholder services to retirement plans and other employee benefit plans. Each plan agrees a level of service to be provided by MassMutual, and specifies the Funds and share classes of the Funds that will be offered to plan participants. Plans typically select the share classes with the intention of ensuring that MassMutual will receive a level of compensation, from the Rule 12b-1 fees and shareholder servicing payments made with respect to those share classes, sufficient to compensate MassMutual for the recordkeeping services the plans desire. All amounts retained by MassMutual from Rule 12b-1 fees and shareholder services fees paid by a Fund are intended as compensation to MassMutual for recordkeeping services provided by it.

Payments to other service providers. The Distributor and MassMutual may make payments to financial intermediaries for distribution and/or shareholder services provided by them. Financial intermediaries are firms that, for compensation, sell shares of mutual funds, including the Funds, and/or provide certain administrative and account maintenance services to mutual fund shareholders. Financial intermediaries may include, among others, brokers, financial planners or advisers, banks, and insurance companies. In some cases, a financial intermediary may hold its clients' Fund shares in nominee or street name. Shareholder services provided by a financial intermediary may (though they will not necessarily) include, among other things: processing and mailing trade confirmations, periodic statements, prospectuses, annual reports, semiannual reports, shareholder notices, and other SEC-required communications; capturing and processing tax data; issuing and mailing dividend checks to shareholders who have selected cash distributions; preparing record date shareholder lists for proxy solicitations; collecting and posting distributions to shareholder accounts; and establishing and maintaining systematic withdrawals and automated investment plans and shareholder account registrations.

The Distributor and MassMutual may retain a portion of the Rule 12b-1 payments and/or shareholder servicing payments received by them, or they may pay the full amount to intermediaries. Rule 12b-1 fees may be paid to financial intermediaries in advance for the first year after

Class A, Class R4, and Class R3 shares are sold. After the first year, those fees will be paid on a quarterly basis.

The compensation paid to a financial intermediary is typically paid continually over time, during the period when the intermediary's clients hold investments in the Funds. The amount of continuing compensation paid to different financial intermediaries for distribution and/or shareholder services varies. The compensation is typically a percentage of the value of the financial intermediary's clients' investments in the Funds or a per account fee. The variation in compensation may, but will not necessarily, reflect enhanced or additional services provided by the intermediary.

Additional information. The Distributor may directly, or through an affiliate, pay a sales concession of up to 1.00% of the purchase price of Service Class, Administrative Class, Class A, Class R4, and Class R3 shares to broker-dealers or other financial intermediaries at the time of sale. However, the total amount paid to broker-dealers or other financial intermediaries at the time of sale, including any advance of Rule 12b-1 service fees or shareholder services fees, may not be more than 1.00% of the purchase price.

In addition to the various payments described above, MML Advisers in its discretion may directly, or through an affiliate, pay up to .35% of the amount invested to MassMutual or other intermediaries who provide services on behalf of Class I, Class R5, Service Class, Administrative Class, Class A, Class R4, and Class R3 shares. This compensation is paid by MML Advisers from its own assets. The payments on account of Class I, Class R5, Service Class, Administrative Class, Class A, Class R4, and Class R3 shares will be based on criteria established by MML Advisers. In the event that amounts paid by the Funds to MML Advisers as administrative or management fees are deemed indirect financing of distribution or servicing costs for Class I, Class R5, Service Class, or Administrative Class shares, the Funds have adopted a Rule 12b-1 Plan authorizing such payments. No additional fees are paid by the Funds under this plan. Annual compensation paid on account of Class I, Class R5, Service Class, Administrative Class, Class A, Class R4, and Class R3 shares will be paid quarterly, in arrears.

The Distributor, MML Advisers, or MassMutual may also directly, or through an affiliate, make payments, out of its own assets, to intermediaries,

including broker-dealers, insurance agents, and other service providers, that relate to the sale of shares of the Funds or certain of MassMutual's variable annuity contracts for which the Funds are underlying investment options. This compensation may take the form of:

- Payments to administrative service providers that provide enrollment, recordkeeping, and other services to pension plans;
- Cash and non-cash benefits, such as bonuses and allowances or prizes and awards, for certain broker-dealers, administrative service providers, and MassMutual insurance agents;
- Payments to intermediaries for, among other things, training of sales personnel, conference support, marketing, or other services provided to promote awareness of MassMutual's products;
- Payments to broker-dealers and other intermediaries that enter into agreements providing the Distributor with access to representatives of those firms or with other marketing or administrative services; and
- Payments under agreements with MassMutual not directly related to the sale of specific variable annuity contracts or the Funds, such

as educational seminars and training or pricing services.

In some instances, compensation may be made available only to certain financial intermediaries whose representatives have sold or are expected to sell significant amounts of shares. Dealers may not use sales of the Funds' shares to qualify for this compensation to the extent prohibited by the laws or rules of any state or any self-regulatory agency, such as the Financial Industry Regulatory Authority.

These compensation arrangements are not offered to all intermediaries and the terms of the arrangements may differ among intermediaries. These arrangements may provide an intermediary with an incentive to recommend one mutual fund over another, one share class over another, or one insurance or annuity contract over another. You may want to take these compensation arrangements into account when evaluating any recommendations regarding the Funds or any contract using the Funds as investment options. You may contact your intermediary to find out more information about the compensation they may receive in connection with your investment.

Buying, Redeeming, and Exchanging Shares

The Funds sell their shares at a price equal to their NAV plus any initial sales charge that applies (see “Determining Net Asset Value” below). The Funds have authorized one or more broker-dealers or other intermediaries to receive purchase orders on their behalf. Such broker-dealers or other intermediaries may themselves designate other intermediaries to receive purchase orders on the Funds’ behalf. Your purchase order will be priced at the next NAV calculated after your order is received in good order by the transfer agent, MML Advisers, such a broker-dealer, or another intermediary authorized for this purpose. If you purchase shares through a broker-dealer or other intermediary, then, in order for your purchase to be based on a Fund’s next determined NAV, the broker-dealer or other intermediary must receive your request before the close of regular trading on the NYSE (normally, 4:00 p.m. Eastern time), and the broker-dealer or other intermediary must subsequently communicate the request properly to the Funds. Shares purchased through a broker-dealer or other intermediary may be subject to transaction and/or other fees. The Funds will suspend selling their shares during any period when the determination of NAV is suspended. The Funds can reject any purchase order and can suspend purchases if they believe it is in their best interest.

The Funds have authorized one or more broker-dealers or other intermediaries to receive redemption requests on their behalf. Such broker-dealers or other intermediaries may themselves designate other intermediaries to receive redemption requests on the Funds’ behalf. The Funds redeem their shares at their next NAV computed after your redemption request is received by the transfer agent, MML Advisers, such a broker-dealer, or another intermediary. If you redeem shares through a broker-dealer or other intermediary, then, in order for your redemption price to be based on a Fund’s next determined NAV, the broker-dealer or other intermediary must receive your request before the close of regular trading on the NYSE, and the broker-dealer or other intermediary must subsequently communicate the request properly to the Funds. Shares redeemed through a broker-dealer or other intermediary may be subject to transaction and/or other fees. You will usually receive payment for your shares within seven days after your redemption request is received in good order. If,

however, you request redemption of shares recently purchased by check, you may not receive payment until the check has been collected, which may take up to 15 days from time of purchase. Under unusual circumstances, the Funds can also suspend or postpone payment, when permitted by applicable law and regulations. The Funds’ transfer agent may temporarily delay for more than seven days the disbursement of redemption proceeds from the Fund account of a “Specified Adult” (as defined in Financial Industry Regulatory Authority Rule 2165) based on a reasonable belief that financial exploitation of the Specified Adult has occurred, is occurring, has been attempted, or will be attempted, subject to certain conditions. Under normal circumstances, each Fund expects to meet redemption requests by using cash or cash equivalents in its portfolio and/or selling portfolio assets to generate cash. Under stressed market conditions, a Fund may pay redemption proceeds using cash obtained through borrowing arrangements that may be available from time to time. To the extent consistent with applicable laws and regulations, the Funds reserve the right to satisfy all or a portion of a redemption request by distributing securities or other property in lieu of cash (“in-kind” redemptions), under both normal and stressed market conditions. Some Funds may be limited in their ability to use assets other than cash to meet redemption requests due to restrictions on ownership of their portfolio assets. The securities distributed in an in-kind redemption will be valued in the same manner as they are valued for purposes of computing the Fund’s NAV. These securities are subject to market risk until they are sold and may increase or decrease in value prior to converting them into cash. You may incur brokerage and other transaction costs, and could incur a taxable gain or loss for income tax purposes when converting the securities to cash.

Risk of Substantial Redemptions. If substantial numbers of shares in a Fund were to be redeemed at the same time or at approximately the same time, the Fund might be required to liquidate a significant portion of its investment portfolio quickly to meet the redemptions. A Fund might be forced to sell portfolio securities at prices or at times when it would otherwise not have sold them, resulting in a reduction in the Fund’s NAV; in addition, a substantial reduction in the size of a

Fund may make it difficult for the investment adviser or subadviser to execute its investment program successfully for the Fund for a period following the redemptions. Similarly, the prices of the portfolio securities of a Fund might be adversely affected if one or more other investment accounts managed by the investment adviser or subadviser in an investment style similar to that of the Fund were to experience substantial redemptions and those accounts were required to sell portfolio securities quickly or at an inopportune time.

Exchanges

Generally, you can exchange shares of one Fund for the same class of shares of another series of the Trust or the MassMutual Select Funds, except in the case of the U.S. Government Money Market Fund and except in those cases when exchanges are not permitted, as described below in **“Placing Transaction Orders—For Shareholders holding shares of the Trust prior to November 1, 2004.”** Any share class of another series may be exchanged for Class R5 shares of the U.S. Government Money Market Fund. If Class R5 shares of the U.S. Government Money Market Fund are exchanged for Class A shares of another series, any sales charge applicable to those Class A shares will typically apply. For individual retirement accounts described in Code Section 408, Class R5 shares of the U.S. Government Money Market Fund may only be exchanged for Class A shares of another series (in which case any sales charge applicable to those Class A shares will typically apply). An exchange is treated as a sale of shares in one series and a purchase of shares in another series at the NAV next determined after the exchange request is received and accepted by the transfer agent, MML Advisers, a broker-dealer, or another intermediary authorized for this purpose. You can only exchange into shares of another series if you meet any qualification requirements of the series into which you seek to exchange (for example, shares of some series are not available to purchasers through certain investment channels, and some may be available only to certain types of shareholders). In addition, in limited circumstances, such as those described above, for certain series the share class available for exchange may not be the same share class as the series from which you are exchanging. Exchange requests involving a purchase into any series (except the U.S. Government Money Market Fund, Short-Duration Bond Fund, Inflation-Protected and Income Fund, Core Bond Fund,

Diversified Bond Fund, and High Yield Fund), however, will not be accepted if you have already made a purchase followed by a redemption involving the same series within the last 60 days. This restriction does not apply to rebalancing trades executed by any of the MassMutual RetireSMARTSM by JPMorgan Funds, MassMutual Select T. Rowe Price Retirement Funds, and MassMutual Select Allocation Funds. This restriction also does not apply to exchanges made pursuant to certain asset allocation programs, systematic exchange programs, and dividend exchange programs. If you place an order to exchange shares of one series for another through a broker-dealer or other intermediary then, in order for your exchange to be effected based on the series' next determined NAVs, the broker-dealer or other intermediary must receive your request before the close of regular trading on the NYSE, and the broker-dealer or other intermediary must subsequently communicate the request properly to the Trust or the MassMutual Select Funds.

Your right to exchange shares is subject to applicable regulatory requirements or contractual obligations. The Funds may limit, restrict, or refuse exchange purchases, if, in the opinion of MML Advisers:

- you have engaged in excessive trading;
- a Fund receives or expects simultaneous orders affecting significant portions of the Fund's assets;
- a pattern of exchanges occurs which coincides with a market timing strategy; or
- the Fund would be unable to invest the funds effectively based on its investment objectives and policies or if the Fund would be adversely affected.

The Funds reserve the right to modify or terminate the exchange privilege as described above on 60 days written notice.

The Funds do not accept purchase, redemption, or exchange orders or compute their NAVs on days when the NYSE is closed. This includes: weekends, Good Friday, and all federal holidays other than Columbus Day and Veterans Day. Certain foreign markets may be open on days when the Funds do not accept orders or price their shares. As a result, the NAV of a Fund's shares may change on days when you will not be able to buy or sell shares.

How to Invest

When you buy shares of a Fund through an agreement with MML Advisers, your agreement will describe how you need to submit buy, sell, and exchange orders. Purchase orders must be accompanied by sufficient funds. You can pay by check or Federal Funds wire transfer. You must submit any buy, sell, or exchange orders in “good order” as described in your agreement.

Placing Transaction Orders—For Shareholders holding shares of the Trust prior to November 1, 2004

Shareholders of the Trust who held their shares prior to November 1, 2004 (when the Trust’s name changed from The DLB Fund Group) and who previously placed transaction orders directly with the Trust through a DLB Fund Coordinator, will place trades by telephone or in writing directly with State Street Bank and Trust Company (“State Street”), the Trust’s Transfer Agent. With respect to shares received on November 1, 2004 by former DLB Fund Group investors, transaction orders are limited to purchases and redemptions. These shares may not be exchanged for shares of another Fund of the Trust.

Transaction Orders by Telephone

Transaction orders placed by telephone will only be accepted if an *Application for Telephone Trading Privileges* has been completed and returned to State Street. You may obtain an *Application for Telephone Trading Privileges* by contacting Shareholder Servicing at 877-766-0014. Persons electing to place transaction orders by telephone are able to do so through the following dedicated telephone number: MassMutual Premier Funds Transaction Line, 800-860-2232.

Cost Basis Reporting

In the case of individuals holding shares in a Fund (other than the U.S. Government Money Market Fund) directly, upon the redemption or exchange of shares in a Fund, the Fund or, if a shareholder purchased shares through a financial intermediary, the financial intermediary generally will be required to provide the shareholder and the Internal Revenue Service (“IRS”) with cost basis and certain other related tax information about the

Transaction Orders in Writing

If you do not want to utilize telephone privileges, you may place your shareholder trades by sending written instructions to State Street. Transaction orders placed in writing should be addressed to *State Street Bank and Trust Company, Attn: Transfer Agency Operations, PO Box 5493, Boston, MA 02206* and should include the following information:

- A letter of instruction signed by an authorized signer of the account detailing the fund name, account number, and trade details; including the trade type (purchase or redemption), and the dollar or share amount. The trade will be processed upon receiving the request in good order.
- The signature on the letter of instructions must be guaranteed by an acceptable financial institution (such as a bank, broker, or savings and loan association) as defined under Rule 17Ad-15 of the Securities Exchange Act of 1934. If your financial institution belongs to one of the medallion guarantee programs, it must use the actual “Medallion Guaranteed” stamp.
- If applicable, a corporate resolution which states that the extract of the by-laws is true and complete and is in full force and effect.
- The resolution must be signed by the secretary. It must have a corporate seal or state that no seal exists. If there is no seal, the corporate resolution must be signed by an authorized signer with a medallion guaranteed stamp and must be dated within sixty (60) days of presentment to State Street.

Fund shares redeemed or exchanged. Please contact the Funds by calling 1-888-309-3539 or consult your financial intermediary, as appropriate, for more information regarding available methods for cost basis reporting and how to select or change a particular method.

Please consult your tax adviser to determine which available cost basis method is best for you.

Frequent Trading Policies

Purchases and exchanges of shares of the Funds should be made for investment purposes only. The Funds discourage, and do not accommodate, excessive trading and/or market timing activity. Excessive trading and/or market timing activity involving the Funds can disrupt the management of the Funds. These disruptions, in turn, can result in increased expenses and can have an adverse effect on Fund performance.

The Trustees, on behalf of the Funds, have approved the policies and procedures adopted by MML Advisers to help identify those individuals or entities MML Advisers determines may be engaging in excessive trading and/or market timing activities. MML Advisers monitors trading activity to uniformly enforce its procedures. However, those who engage in such activities may employ a variety of techniques to avoid detection. Therefore, despite MML Advisers' efforts to prevent excessive trading and/or market timing trading activities, there can be no assurance that MML Advisers will be able to identify all those who trade excessively or employ a market timing strategy and curtail their trading in every instance.

The monitoring process involves scrutinizing transactions in fund shares that exceed certain monetary thresholds or numerical limits within a specified period of time. Trading activity identified by either, or a combination, of these factors, or as a result of any other information actually available at the time, will be evaluated to determine whether such activity might constitute excessive trading and/or market timing activity. When trading activity is determined by a Fund or MML Advisers, in their sole discretion, to be excessive in nature, certain account-related privileges, such as the ability to place purchase, redemption, and exchange orders over the internet, may be suspended for such account.

Omnibus Account Limitations. Omnibus accounts, in which shares are held in the name of an intermediary on behalf of multiple investors, are a common form of holding shares among retirement plans and other financial intermediaries such as broker-dealers, advisers, and third-party administrators. Not all omnibus accounts apply the policies and procedures adopted by the Funds

and MML Advisers. Some omnibus accounts, including accounts traded on certain of MassMutual's retirement platforms, may have different or less restrictive policies and procedures regarding frequent trading, or no trading restrictions at all. If you hold your Fund shares through an omnibus account, including accounts traded on certain of MassMutual's retirement platforms, that financial intermediary may impose its own restrictions or limitations to discourage excessive trading and/or market timing activity. You should consult your financial intermediary to find out what trading restrictions, including limitations on exchanges, may apply. The Funds' ability to identify and deter excessive trading and/or market timing activities through omnibus accounts is limited, and the Funds' success in accomplishing the objectives of the policies concerning frequent trading of Fund shares in this context depends significantly upon the cooperation of the financial intermediaries. Because the Funds receive these orders on an aggregated basis and because the omnibus accounts may trade with numerous fund families with differing frequent trading policies, the Funds are limited in their ability to identify or deter those individuals or entities that may be engaging in excessive trading and/or market timing activities. While the Funds and MML Advisers encourage those financial intermediaries to apply the Funds' policies to their customers who invest indirectly in the Funds, the Funds and MML Advisers may need to rely on those intermediaries to monitor trading in good faith in accordance with its or the Funds' policies, since individual trades in omnibus accounts are often not disclosed to the Funds. While the Funds will generally monitor trading activity at the omnibus account level to attempt to identify excessive trading and/or market timing activity, reliance on intermediaries increases the risk that excessive trading and/or market timing activity may go undetected. If evidence of possible excessive trading and/or market timing activity is observed by the Funds, the financial intermediary that is the registered owner will be asked to review the account activity, and to confirm to the Funds that appropriate action has been taken to limit any excessive trading and/or market timing activity.

Determining Net Asset Value

The NAV of each Fund's shares is determined once daily as of the close of regular trading on the NYSE, on each Business Day. A "Business Day" is every day the NYSE is open. The NYSE normally closes at 4:00 p.m. Eastern Time, but may close earlier on some days. If the NYSE is scheduled to close early, the Business Day will be considered to end as of the time of the NYSE's scheduled close. A Fund will not treat an intraday disruption in NYSE trading or other event that causes an unscheduled closing of the NYSE as a close of business of the NYSE for these purposes and will instead fair value securities in accordance with procedures approved annually by the Trustees, and under the general oversight of the Trustees. The NYSE currently is not open for trading on New Year's Day, Martin Luther King, Jr. Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. Each Fund calculates the NAV of each of its classes of shares by dividing the total value of the assets attributable to that class, less the liabilities attributable to that class, by the number of shares of that class that are outstanding. On holidays and other days when the NYSE is closed, each Fund's NAV generally is not calculated and the Funds do not anticipate accepting buy or sell orders. However, the value of each Fund's assets may still be affected on such days to the extent that a Fund holds foreign securities that trade on days that foreign securities markets are open. It is the intention of the U.S. Government Money Market Fund to maintain a stable NAV per share of \$1.00, although this cannot be assured.

Equity securities and derivative contracts that are actively traded on a national securities exchange or contract market are valued on the basis of information furnished by a pricing service, which provides the last reported sale price, or, in the case of futures contracts, the settlement price, for securities or derivatives listed on the exchange or contract market or the official closing price on the NASDAQ National Market System ("NASDAQ System"), or in the case of OTC securities for which an official closing price is unavailable or not reported on the NASDAQ System, the last reported bid price. Portfolio securities traded on more than one national securities exchange are valued at the last price at the close of the exchange representing the principal market for such securities. Debt securities (with the exception of debt securities held by the U.S.

Government Money Market Fund) are valued on the basis of valuations furnished by a pricing service, which generally determines valuations taking into account factors such as institutional-size trading in similar securities, yield, quality, coupon rate, maturity, type of issue, trading characteristics, and other market data. The U.S. Government Money Market Fund's debt securities are typically valued at amortized cost, but may be valued using a vendor quote if the Fund's investment adviser determines it more closely approximates current market value, in accordance with Rule 2a-7 under the 1940 Act pursuant to which the U.S. Government Money Market Fund must adhere to certain conditions. Shares of other open-end mutual funds are valued at their closing NAVs as reported on each Business Day.

Investments for which market quotations are readily available are marked to market daily based on those quotations. Market quotations may be provided by third-party vendors or market makers, and may be determined on the basis of a variety of factors, such as broker quotations, financial modeling, and other market data, such as market indexes and yield curves, counterparty information, and foreign exchange rates. U.S. Government and agency securities may be valued on the basis of market quotations or using a model that may incorporate market observable data such as reported sales of similar securities, broker quotes, yields, bids, offers, quoted market prices, and reference data. The fair values of OTC derivative contracts, including forward, swap, and option contracts related to interest rates, foreign currencies, credit standing of reference entities, equity prices, or commodity prices, may be based on market quotations or may be modeled using a series of techniques, including simulation models, depending on the contract and the terms of the transaction. The fair values of asset-backed securities and mortgage-backed securities are estimated based on models that consider the estimated cash flows of each debt tranche of the issuer, established benchmark yield, and estimated tranche-specific spread to the benchmark yield based on the unique attributes of the tranche including, but not limited to, prepayment speed assumptions and attributes of the collateral. Restricted securities are generally valued at a discount to similar publicly traded securities.

Investments for which market quotations are not available or for which a pricing service or vendor does not provide a value, or for which such market quotations or values are considered by the investment adviser or subadviser to be unreliable (including, for example, certain foreign securities, thinly-traded securities, certain restricted securities, certain initial public offerings, or securities whose values may have been affected by a significant event) are stated at fair valuations determined in good faith by the Funds' Valuation Committee in accordance with procedures approved annually by the Trustees, and under the general oversight of the Trustees. It is possible that fair value prices will be used by the Funds to a significant extent. The value determined for an investment using the Funds' fair value procedures may differ from recent market prices for the investment and may be significantly different from the value realized upon the sale of such investment.

The Funds may invest in securities that are traded principally in foreign markets and that trade on weekends and other days when the Funds do not price their shares. As a result, the values of the Funds' portfolio securities may change on days

Taxation and Distributions

Each Fund intends to qualify each year for treatment as a regulated investment company under Subchapter M of the Code. As a regulated investment company, a Fund will not be subject to Federal income taxes on its ordinary income and net realized capital gains that are distributed in a timely manner to its shareholders. A Fund's failure to qualify as a regulated investment company would result in corporate level taxation, and consequently, a reduction in income available for distribution to shareholders. In addition, a Fund that fails to distribute at least 98% of its ordinary income for a calendar year plus 98.2% of its capital gain net income recognized during the one-year period ending October 31 plus any retained amount from the prior year generally will be subject to a non-deductible 4% excise tax on the undistributed amount.

Certain investors, including most tax-advantaged plan investors, may be eligible for preferential Federal income tax treatment on distributions received from a Fund and dispositions of Fund shares. This Prospectus does not attempt to describe such preferential tax treatment. Any prospective investor that is a trust or other entity eligible for special tax treatment under the Code

when the prices of the Funds' shares are not calculated. The prices of the Funds' shares will reflect any such changes when the prices of the Funds' shares are next calculated, which is the next Business Day. The Funds may use fair value pricing more frequently for securities primarily traded in foreign markets because, among other things, most foreign markets close well before the Funds value their securities. The earlier close of these foreign markets gives rise to the possibility that significant events, including broad market moves, may have occurred in the interim. The Funds' investments may be priced based on fair values provided by a third-party vendor, based on certain factors and methodologies applied by such vendor, in the event that there is movement in the U.S. market, between the close of the foreign market and the time the Funds calculate their NAVs. All assets and liabilities expressed in foreign currencies are converted into U.S. dollars at the mean between the buying and selling rates of such currencies against the U.S. dollar at the end of each Business Day.

The Funds' valuation methods are also described in the SAI.

that is considering purchasing shares of a Fund, including either directly or in connection with a life insurance company separate investment account, should consult its tax advisers about the Federal, state, local, and foreign tax consequences particular to it, as should persons considering whether to have amounts held for their benefit by such trusts or other entities in shares of a Fund.

Investors are generally subject to Federal income taxes on distributions received in respect of their shares. Distributions are taxed to investors in the manner described herein whether distributed in cash or additional shares. Taxes on distributions of capital gains are determined by how long a Fund owned (or is deemed to have owned) the investments that generated them, rather than by how long the shareholder held the shares. Distributions of a Fund's ordinary income and short-term capital gains (i.e., gains from capital assets held for one year or less) are taxable to a shareholder as ordinary income. Certain dividends may be eligible for the dividends-received deduction for corporate shareholders to the extent they are reported as such. Dividends properly reported as capital gain dividends (relating to gains from the sale of capital assets held by a Fund for more than

one year) are taxable in the hands of an investor as long-term gain includible in net capital gain and taxed to individuals at reduced rates. Distributions of investment income reported by a Fund as derived from “qualified dividend income” will be taxed in the hands of individuals at the rates applicable to long-term capital gain, provided that holding period and other requirements are met at both the shareholder and Fund level. Distributions from real estate investment trusts generally do not qualify as qualified dividend income. Funds investing primarily in fixed income instruments generally do not expect a significant portion of their distributions to be derived from qualified dividend income.

The Code generally imposes a 3.8% Medicare contribution tax on the net investment income of certain individuals, trusts, and estates to the extent their income exceeds certain threshold amounts. Net investment income generally includes for this purpose dividends paid by a Fund, including any capital gain dividends, and net capital gains recognized on the sale, redemption, exchange, or other taxable disposition of shares of a Fund. Shareholders are advised to consult their tax advisers regarding the possible implications of this additional tax on their investment in a Fund.

The nature of each Fund’s distributions will be affected by its investment strategies. A Fund whose investment return consists largely of interest, dividends, and capital gains from short-term holdings will distribute largely ordinary income. A Fund whose return comes largely from the sale of long-term holdings will distribute largely capital gain dividends. Distributions are taxable to a shareholder even though they are paid from income or gains earned by a Fund prior to the shareholder’s investment and thus were included in the price paid by the shareholder for his or her shares.

Each Fund intends to pay out as dividends substantially all of its net investment income (which comes from dividends and any interest it receives from its investments). Each Fund also intends to distribute substantially all of its net realized long- and short-term capital gains, if any, after giving effect to any available capital loss carryforwards. For each Fund, distributions, if any, are declared and paid at least annually. Distributions may be taken either in cash or in additional shares of the respective Fund at the Fund’s NAV on the first Business Day after the record date for the distribution, at the option of the

shareholder. A shareholder that itself qualifies as a regulated investment company is permitted to report a portion of its distributions as “qualified dividend income,” provided certain requirements are met.

The net income of the U.S. Government Money Market Fund, as defined below, is determined as of the normal close of trading on the NYSE on each day the Exchange is open. All the net income is declared as a dividend to shareholders of record as of that time. Dividends are distributed promptly after the end of each calendar month in additional shares of the U.S. Government Money Market Fund at the then current NAV, or in cash, at the option of the shareholder. For this purpose the net income of the U.S. Government Money Market Fund consists of all interest income accrued on its portfolio, plus realized gains and minus realized losses, and less all expenses and liabilities chargeable against income. Interest income includes discount earned (including both original issue and market discount) on paper purchased at a discount, less amortization of premium, accrued to the date of maturity. Expenses, including the compensation payable to MML Advisers, are accrued each day.

If the U.S. Government Money Market Fund incurs or anticipates any unusual expense, loss or depreciation that would adversely affect its NAV per share or income for a particular period, the Fund would consider whether to adhere to the dividend policy described above or to revise it in light of the then prevailing circumstances. For example, if the U.S. Government Money Market Fund’s NAV per share were reduced, or were anticipated to be reduced, below \$1.00, the Fund might suspend further dividend payments until the NAV returned to \$1.00. Thus, such expenses, losses, or depreciation might result in an investor receiving no dividends for the period during which the shares were held and in receiving upon redemption a price per share lower than the purchase price.

Any gain resulting from an exchange or redemption of an investor’s shares in a Fund will generally be subject to tax as long-term or short-term capital gain. A loss incurred with respect to shares of a Fund held for six months or less will be treated as a long-term capital loss to the extent of long-term capital gains dividends received with respect to such shares.

A Fund's investments in foreign securities may be subject to foreign withholding or other taxes. In that case, the Fund's yield on those securities would be decreased. Shareholders of the Funds other than a Fund that makes the election referred to below generally will not be entitled to claim a credit or deduction with respect to such foreign taxes. If more than 50% of a Fund's assets at taxable year end consists of the securities of foreign corporations, the Fund may be able to elect to "pass through" to its shareholders foreign income taxes that it pays directly or, under certain circumstances, indirectly through its investments in ETFs or other investment companies that are regulated investment companies for U.S. federal income tax purposes. If any of these Funds makes this election, a shareholder of the Fund must include its share of those taxes in gross income as a distribution from the Fund and the shareholder will be allowed to claim a credit (or a deduction, if the shareholder itemizes deductions) for such amounts on its federal tax return subject to certain limitations. Shareholders that are not subject to U.S. federal income tax, and those who invest in a Fund through tax-advantaged accounts (including those who invest through individual retirement accounts or other tax-advantaged retirement plans), generally will receive no benefit from any tax credit or deduction passed through by a Fund. A shareholder that itself qualifies for treatment as a regulated investment company and that qualifies as a "qualified fund of funds" may elect to pass through to its shareholders a tax credit or deduction passed through by a Fund.

In addition, a Fund's investments in foreign securities, fixed income securities, derivatives, or foreign currencies may increase or accelerate the Fund's recognition of ordinary income and may affect the timing, amount, or character of the Fund's distributions.

Certain of a Fund's investments, including certain debt instruments, could cause the Fund to recognize taxable income in excess of the cash generated by such investments; a Fund could be required to sell other investments, including when not otherwise advantageous to do so, in order to make required distributions.

Distributions by a Fund to shareholders that are not "United States persons" within the meaning of the Code ("foreign persons") properly reported by the Fund as (i) capital gain dividends, (ii) "interest-related dividends" (i.e., U.S.-source interest income that, in general, would not be subject to U.S. federal income tax if earned directly by an individual foreign person), and (iii) "short-term capital gain dividends" (i.e., net short-term capital gains in excess of net long-term capital losses), in each case to the extent such distributions were properly reported as such by the Fund generally are not subject to withholding of U.S. federal income tax. Distributions by a Fund to foreign persons other than capital gain dividends, interest-related dividends, and short-term capital gain dividends generally are subject to withholding of U.S. federal income tax at a rate of 30% (or lower applicable treaty rate). Foreign persons should refer to the SAI for further information, and should consult their tax advisors as to the tax consequences to them of owning Fund shares.

The discussion above is very general. Shareholders should consult their tax advisers for more information about the effect that an investment in a Fund could have on their own tax situations, including possible federal, state, local, and foreign taxes. Also, as noted above, this discussion does not apply to Fund shares held through tax-advantaged retirement plans.

Financial Highlights

The financial highlights tables are intended to help you understand the Funds' financial performance for the past 5 years (or shorter periods for newer Funds). Certain information reflects financial results for a single Fund share. The total returns in the tables represent the rate that an investor would have earned on an investment in the Fund (assuming reinvestment of all dividends and distributions). This information has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, whose reports, along with each Fund's financial statements, are included in the Trust's Annual Report and are incorporated by reference into the SAI, and are available on request.

MASSMUTUAL PREMIER U.S. GOVERNMENT MONEY MARKET FUND

	Income (loss) from investment operations				Less distributions to shareholders			Ratios / Supplemental Data					
	Net asset value, beginning of the period	Net investment income (loss) ^{c,j}	Net realized and unrealized gain (loss) on investments	Total income (loss) from investment operations	From net investment income	From net realized gains	Total distributions	Net asset value, end of the period	Total return ^l	Net assets, end of the period (000's)	Ratio of expenses to average daily net assets before expense waivers	Ratio of expenses to average daily net assets after expense waivers ^j	Net investment income (loss) to average daily net assets
Class R5													
9/30/19	\$1.00	\$0.02	\$0.00 ^d	\$0.02	\$(0.02)	\$(0.00) ^d	\$(0.02)	\$1.00	1.85%	\$333,574	0.52%	N/A	1.83%
9/30/18	1.00	0.01	0.00 ^d	0.01	(0.01)	(0.00) ^d	(0.01)	1.00	1.08%	339,551	0.50%	N/A	1.04%
9/30/17	1.00	0.00 ^d	0.00 ^d	0.00 ^d	(0.00) ^d	-	(0.00) ^d	1.00	0.23%	352,317	0.52%	0.51%	0.22%
9/30/16	1.00	0.00 ^d	0.00 ^d	0.00 ^d	(0.00) ^d	-	(0.00) ^d	1.00	0.00% ^e	334,720	0.51%	0.36%	0.00% ^e
9/30/15	1.00	0.00 ^d	0.00 ^d	0.00 ^d	(0.00) ^d	-	(0.00) ^d	1.00	0.01%	400,017	0.50%	0.14%	0.00% ^e

c Per share amount calculated on the average shares method.

d Amount is less than \$0.005 per share.

e Amount is less than 0.005%.

j Computed after giving effect to an agreement by MML Advisers and/or MassMutual to waive certain fees and expenses of the Fund.

l Employee retirement benefit plans that invest plan assets in the Separate Investment Accounts (SIAs) may be subject to certain charges as set forth in their respective Plan Documents. Total return figures would be lower for the periods presented if they reflected these charges.

MASSMUTUAL PREMIER SHORT-DURATION BOND FUND

	Income (loss) from investment operations			Less distributions to shareholders			Ratios / Supplemental Data					
	Net asset value, beginning of the period	Net investment income (loss) ^c	Net realized and unrealized gain (loss) on investments	Total income (loss) from investment operations	From net investment income	From net realized gains	Total distributions	Net asset value, end of the period	Total return ^{lm}	Net assets, end of the period (000's)	Ratio of expenses to average daily net assets	Net investment income (loss) to average daily net assets
Class I												
9/30/19	10.30	\$0.32	\$ 0.08	\$0.40	\$(0.39)	\$ -	\$(0.39)	10.31	4.05%	\$204,282	0.43%	3.13%
9/30/18	10.40	0.27	(0.10)	0.17	(0.27)	-	(0.27)	10.30	1.65%	163,465	0.39%	2.64%
9/30/17	10.39	0.23	0.03	0.26	(0.25)	-	(0.25)	10.40	2.57%	299,768	0.40%	2.20%
9/30/16	10.46	0.20	0.00 ^d	0.20	(0.27)	-	(0.27)	10.39	1.98%	166,281	0.40%	1.97%
9/30/15	10.50	0.19	0.01	0.20	(0.24)	(0.00) ^d	(0.24)	10.46	2.00%	154,219	0.40%	1.83%
Class R5												
9/30/19	10.33	\$0.31	\$ 0.08	\$0.39	\$(0.38)	\$ -	\$(0.38)	10.34	3.92%	\$158,895	0.53%	3.03%
9/30/18	10.42	0.26	(0.09)	0.17	(0.26)	-	(0.26)	10.33	1.63%	135,411	0.49%	2.55%
9/30/17	10.42	0.22	0.02	0.24	(0.24)	-	(0.24)	10.42	2.36%	155,172	0.50%	2.09%
9/30/16	10.49	0.19	0.00 ^d	0.19	(0.26)	-	(0.26)	10.42	1.88%	199,354	0.50%	1.87%
9/30/15	10.52	0.18	0.02	0.20	(0.23)	(0.00) ^d	(0.23)	10.49	1.95%	159,429	0.50%	1.73%
Service Class												
9/30/19	10.25	\$0.30	\$ 0.08	\$0.38	\$(0.37)	\$ -	\$(0.37)	10.26	3.82%	\$ 51,201	0.63%	2.92%
9/30/18	10.35	0.25	(0.10)	0.15	(0.25)	-	(0.25)	10.25	1.50%	72,408	0.59%	2.45%
9/30/17	10.35	0.21	0.02	0.23	(0.23)	-	(0.23)	10.35	2.24%	75,544	0.60%	2.00%
9/30/16	10.42	0.18	0.00 ^d	0.18	(0.25)	-	(0.25)	10.35	1.78%	55,309	0.60%	1.75%
9/30/15	10.45	0.17	0.02	0.19	(0.22)	(0.00) ^d	(0.22)	10.42	1.87%	86,058	0.60%	1.64%
Administrative Class												
9/30/19	10.21	\$0.29	\$ 0.08	\$0.37	\$(0.36)	\$ -	\$(0.36)	10.22	3.76%	\$ 31,270	0.73%	2.83%
9/30/18	10.31	0.24	(0.10)	0.14	(0.24)	-	(0.24)	10.21	1.35%	34,342	0.69%	2.37%
9/30/17	10.30	0.19	0.04	0.23	(0.22)	-	(0.22)	10.31	2.24%	28,771	0.70%	1.89%
9/30/16	10.37	0.17	0.00 ^d	0.17	(0.24)	-	(0.24)	10.30	1.69%	32,906	0.70%	1.66%
9/30/15	10.41	0.16	0.01	0.17	(0.21)	(0.00) ^d	(0.21)	10.37	1.69%	36,789	0.70%	1.53%
Class A												
9/30/19	10.14	\$0.26	\$ 0.08	\$0.34	\$(0.34)	\$ -	\$(0.34)	10.14	3.44%	\$ 55,315	0.98%	2.58%
9/30/18	10.24	0.21	(0.10)	0.11	(0.21)	-	(0.21)	10.14	1.10%	53,188	0.94%	2.11%
9/30/17	10.23	0.16	0.04	0.20	(0.19)	-	(0.19)	10.24	2.00%	50,893	0.95%	1.62%
9/30/16	10.30	0.14	0.00 ^d	0.14	(0.21)	-	(0.21)	10.23	1.49%	87,598	0.95%	1.42%
9/30/15	10.34	0.13	0.02	0.15	(0.19)	(0.00) ^d	(0.19)	10.30	1.44%	75,507	0.95%	1.28%
Class R4												
9/30/19	10.26	\$0.27	\$ 0.08	\$0.35	\$(0.34)	\$ -	\$(0.34)	10.27	3.57%	\$ 12,494	0.88%	2.67%
9/30/18	10.36	0.23	(0.11)	0.12	(0.22)	-	(0.22)	10.26	1.21%	13,691	0.84%	2.21%
9/30/17	10.36	0.18	0.03	0.21	(0.21)	-	(0.21)	10.36	2.05%	13,693	0.85%	1.75%
9/30/16	10.45	0.16	0.00 ^d	0.16	(0.25)	-	(0.25)	10.36	1.59%	9,446	0.85%	1.53%
9/30/15	10.50	0.14	0.02	0.16	(0.21)	(0.00) ^d	(0.21)	10.45	1.57%	5,881	0.85%	1.39%
Class R3												
9/30/19	10.20	\$0.24	\$ 0.09	\$0.33	\$(0.33)	\$ -	\$(0.33)	10.20	3.29%	\$ 7,040	1.13%	2.43%
9/30/18	10.30	0.20	(0.10)	0.10	(0.20)	-	(0.20)	10.20	0.97%	7,980	1.09%	1.97%
9/30/17	10.31	0.15	0.03	0.18	(0.19)	-	(0.19)	10.30	1.79%	6,689	1.10%	1.50%
9/30/16	10.42	0.13	0.00 ^d	0.13	(0.24)	-	(0.24)	10.31	1.27%	3,661	1.10%	1.29%
9/30/15	10.46	0.12	0.01	0.13	(0.17)	(0.00) ^d	(0.17)	10.42	1.27%	1,561	1.10%	1.15%

Portfolio turnover rate	Year ended September 30				
	2019	2018	2017	2016	2015
	55%	68%	72%	87%	59%

c Per share amount calculated on the average shares method.

d Amount is less than \$0.005 per share.

l Employee retirement benefit plans that invest plan assets in the Separate Investment Accounts (SIAs) may be subject to certain charges as set forth in their respective Plan Documents. Total return figures would be lower for the periods presented if they reflected these charges.

m Total return excludes sales charges, if any, and would be lower for the period presented if it reflected these charges.

MASSMUTUAL PREMIER INFLATION-PROTECTED AND INCOME FUND

	Income (loss) from investment operations				Less distributions to shareholders				Ratios / Supplemental Data					
	Net asset value, beginning of the period	Net investment income (loss) ^{c,j}	Net realized and unrealized gain (loss) on investments	Total income (loss) from investment operations	From net investment income	From net realized gains	Total distributions	Net asset value, end of the period	Total return ^{l,m}	Net assets, end of the period (000's)	Ratio of expenses to average daily net assets before expense waivers (including interest expense) ^p	Ratio of expenses to average daily net assets after expense waivers (including interest expense) ^{j,p}	Ratio of expenses to average daily net assets after expense waivers (excluding interest expense) ^j	Net investment income (loss) to average daily net assets (including interest expense) ^p
Class I														
9/30/19	\$10.24	\$0.25	\$ 0.42	\$ 0.67	\$(0.32)	\$ -	\$(0.32)	\$10.59	6.80%	\$154,260	0.50%	0.49%	0.46%	2.40%
9/30/18	10.46	0.34	(0.26)	0.08	(0.30)	-	(0.30)	10.24	0.74%	133,153	1.74%	1.71%	0.45%	3.33%
9/30/17	10.79	0.23	(0.27)	(0.04)	(0.29)	-	(0.29)	10.46	(0.32%)	98,194	1.26%	1.23%	0.45%	2.24%
9/30/16	10.19	0.13	0.59	0.72	(0.12)	-	(0.12)	10.79	7.16%	122,515	0.91%	0.90%	0.46%	1.23%
9/30/15	10.56	0.06	(0.17)	(0.11)	(0.26)	-	(0.26)	10.19	(1.12%)	153,421	0.67%	N/A	0.47%	0.56%
Class R5														
9/30/19	\$10.24	\$0.24	\$ 0.42	\$ 0.66	\$(0.31)	\$ -	\$(0.31)	\$10.59	6.68%	\$ 73,365	0.60%	0.59%	0.56%	2.30%
9/30/18	10.46	0.34	(0.27)	0.07	(0.29)	-	(0.29)	10.24	0.63%	60,121	1.84%	1.81%	0.55%	3.29%
9/30/17	10.80	0.22	(0.28)	(0.06)	(0.28)	-	(0.28)	10.46	(0.51%)	60,155	1.36%	1.33%	0.55%	2.07%
9/30/16	10.19	0.13	0.59	0.72	(0.11)	-	(0.11)	10.80	7.14%	65,361	1.01%	1.00%	0.56%	1.22%
9/30/15	10.56	0.05	(0.18)	(0.13)	(0.24)	-	(0.24)	10.19	(1.22%)	60,285	0.77%	N/A	0.57%	0.48%
Service Class														
9/30/19	\$10.20	\$0.22	\$ 0.43	\$ 0.65	\$(0.30)	\$ -	\$(0.30)	\$10.55	6.60%	\$ 50,873	0.71%	0.70%	0.67%	2.17%
9/30/18	10.42	0.32	(0.27)	0.05	(0.27)	-	(0.27)	10.20	0.51%	50,449	1.94%	1.91%	0.65%	3.16%
9/30/17	10.76	0.21	(0.29)	(0.08)	(0.26)	-	(0.26)	10.42	(0.63%)	57,719	1.46%	1.43%	0.65%	2.00%
9/30/16	10.16	0.10	0.60	0.70	(0.10)	-	(0.10)	10.76	6.96%	71,040	1.11%	1.10%	0.66%	0.95%
9/30/15	10.52	0.04	(0.17)	(0.13)	(0.23)	-	(0.23)	10.16	(1.23%)	77,147	0.87%	N/A	0.67%	0.37%
Administrative Class														
9/30/19	\$10.30	\$ 0.21	\$ 0.44	\$ 0.65	\$(0.29)	\$ -	\$(0.29)	\$10.66	6.53%	\$ 16,168	0.80%	0.79%	0.76%	2.03%
9/30/18	10.53	0.31	(0.28)	0.03	(0.26)	-	(0.26)	10.30	0.31%	14,744	2.04%	2.01%	0.75%	3.02%
9/30/17	10.86	0.20	(0.27)	(0.07)	(0.26)	-	(0.26)	10.53	(0.58%)	14,519	1.56%	1.53%	0.75%	1.94%
9/30/16	10.26	0.10	0.59	0.69	(0.09)	-	(0.09)	10.86	6.80%	14,408	1.21%	1.20%	0.76%	0.96%
9/30/15	10.62	0.04	(0.17)	(0.13)	(0.23)	-	(0.23)	10.26	(1.30%)	11,859	0.97%	N/A	0.77%	0.36%
Class A														
9/30/19	\$10.05	\$ 0.18	\$ 0.42	\$ 0.60	\$(0.26)	\$ -	\$(0.26)	\$10.39	6.16%	\$ 16,136	1.06%	1.05%	1.02%	1.78%
9/30/18	10.27	0.28	(0.26)	0.02	(0.24)	-	(0.24)	10.05	0.16%	20,582	2.29%	2.26%	1.00%	2.80%
9/30/17	10.60	0.17	(0.27)	(0.10)	(0.23)	-	(0.23)	10.27	(0.92%)	22,180	1.81%	1.78%	1.00%	1.67%
9/30/16	10.00	0.08	0.58	0.66	(0.06)	-	(0.06)	10.60	6.65%	23,476	1.46%	1.45%	1.01%	0.76%
9/30/15	10.36	(0.00) ^d	(0.16)	(0.16)	(0.20)	-	(0.20)	10.00	(1.58%)	22,320	1.22%	N/A	1.02%	(0.02%)
Class R4														
9/30/19	\$10.00	\$ 0.19	\$ 0.42	\$ 0.61	\$(0.28)	\$ -	\$(0.28)	\$10.33	6.27%	\$ 6,949	0.96%	0.95%	0.92%	1.95%
9/30/18	10.22	0.29	(0.26)	0.03	(0.25)	-	(0.25)	10.00	0.31%	6,840	2.19%	2.16%	0.90%	2.87%
9/30/17	10.57	0.18	(0.28)	(0.10)	(0.25)	-	(0.25)	10.22	(0.84%)	6,231	1.71%	1.68%	0.90%	1.78%
9/30/16	10.00	0.12	0.55	0.67	(0.10)	-	(0.10)	10.57	6.77%	5,352	1.36%	1.35%	0.91%	1.21%
9/30/15	10.37	0.14	(0.29)	(0.15)	(0.22)	-	(0.22)	10.00	(1.47%)	996	1.12%	N/A	0.92%	1.42%
Class R3														
9/30/19	\$ 9.99	\$ 0.17	\$ 0.41	\$ 0.58	\$(0.24)	\$ -	\$(0.24)	\$10.33	6.03%	\$ 4,297	1.21%	1.20%	1.17%	1.68%
9/30/18	10.22	0.27	(0.27)	0.00 ^d	(0.23)	-	(0.23)	9.99	0.03%	4,569	2.44%	2.41%	1.15%	2.69%
9/30/17	10.57	0.16	(0.27)	(0.11)	(0.24)	-	(0.24)	10.22	(1.00%)	4,686	1.97%	1.94%	1.16%	1.54%
9/30/16	10.01	0.15	0.48	0.63	(0.07)	-	(0.07)	10.57	6.37%	2,792	1.61%	1.60%	1.16%	1.46%
9/30/15	10.37	(0.03)	(0.15)	(0.18)	(0.18)	-	(0.18)	10.01	(1.76%)	386	1.37%	N/A	1.17%	(0.30%)

Year ended September 30

	2019	2018	2017	2016	2015
Portfolio turnover rate	42%	62%	25%	46%	59%

c Per share amount calculated on the average shares method.

d Amount is less than \$0.005 per share.

j Computed after giving effect to an agreement by MML Advisers and/or MassMutual to waive certain fees and expenses of the Fund.

l Employee retirement benefit plans that invest plan assets in the Separate Investment Accounts (SIAs) may be subject to certain charges as set forth in their respective Plan Documents. Total return figures would be lower for the periods presented if they reflected these charges.

m Total return excludes sales charges, if any, and would be lower for the period presented if it reflected these charges.

p Interest expense incurred as a result of entering into reverse repurchase agreements and Treasury roll transactions is included in the Fund's net expenses in the Statements of Operations. Income earned on investing proceeds from reverse repurchase agreements and Treasury roll transactions is included in interest income in the Statements of Operations.

MASSMUTUAL PREMIER CORE BOND FUND

	Income (loss) from investment operations				Less distributions to shareholders			Ratios / Supplemental Data				
	Net asset value, beginning of the period	Net investment income (loss) ^c	Net realized and unrealized gain (loss) on investments	Total income (loss) from investment operations	From net investment income	From net realized gains	Total distributions	Net asset value, end of the period	Total return ^{l,m}	Net assets, end of the period ('000's)	Ratio of expenses to average daily net assets	Net investment income (loss) to average daily net assets
Class I												
9/30/19	\$10.66	\$0.37	\$ 0.66	\$ 1.03	\$(0.36)	\$ -	\$(0.36)	\$11.33	9.98%	\$847,736	0.43%	3.42%
9/30/18	11.04	0.34	(0.39)	(0.05)	(0.33)	-	(0.33)	10.66	(0.46%)	695,501	0.42%	3.19%
9/30/17	11.26	0.29	(0.15)	0.14	(0.36)	-	(0.36)	11.04	1.41%	546,975	0.42%	2.70%
9/30/16	11.27	0.29	0.19	0.48	(0.34)	(0.15)	(0.49)	11.26	4.54%	501,737	0.42%	2.59%
9/30/15	11.43	0.30	(0.11)	0.19	(0.30)	(0.05)	(0.35)	11.27	1.67%	677,427	0.42%	2.61%
Class R5												
9/30/19	\$10.69	\$0.36	\$ 0.67	\$ 1.03	\$(0.35)	\$ -	\$(0.35)	\$11.37	9.92%	\$317,805	0.53%	3.32%
9/30/18	11.07	0.33	(0.39)	(0.06)	(0.32)	-	(0.32)	10.69	(0.57%)	294,370	0.52%	3.07%
9/30/17	11.29	0.28	(0.15)	0.13	(0.35)	-	(0.35)	11.07	1.30%	358,319	0.52%	2.58%
9/30/16	11.30	0.28	0.19	0.47	(0.33)	(0.15)	(0.48)	11.29	4.40%	408,472	0.52%	2.49%
9/30/15	11.45	0.29	(0.11)	0.18	(0.28)	(0.05)	(0.33)	11.30	1.63%	489,222	0.52%	2.51%
Service Class												
9/30/19	\$10.63	\$0.35	\$ 0.64	\$ 0.99	\$(0.33)	\$ -	\$(0.33)	\$11.29	9.67%	\$ 86,988	0.63%	3.22%
9/30/18	11.01	0.32	(0.39)	(0.07)	(0.31)	-	(0.31)	10.63	(0.66%)	101,502	0.62%	2.98%
9/30/17	11.22	0.27	(0.15)	0.12	(0.33)	-	(0.33)	11.01	1.24%	100,903	0.62%	2.51%
9/30/16	11.23	0.26	0.20	0.46	(0.32)	(0.15)	(0.47)	11.22	4.34%	91,885	0.62%	2.40%
9/30/15	11.38	0.27	(0.10)	0.17	(0.27)	(0.05)	(0.32)	11.23	1.49%	130,923	0.62%	2.40%
Administrative Class												
9/30/19	\$10.55	\$0.33	\$ 0.66	\$ 0.99	\$(0.33)	\$ -	\$(0.33)	\$11.21	9.65%	\$ 67,239	0.73%	3.13%
9/30/18	10.92	0.31	(0.38)	(0.07)	(0.30)	-	(0.30)	10.55	(0.70%)	69,478	0.72%	2.88%
9/30/17	11.14	0.26	(0.15)	0.11	(0.33)	-	(0.33)	10.92	1.11%	71,425	0.72%	2.38%
9/30/16	11.16	0.25	0.19	0.44	(0.31)	(0.15)	(0.46)	11.14	4.19%	85,249	0.72%	2.29%
9/30/15	11.32	0.26	(0.10)	0.16	(0.27)	(0.05)	(0.32)	11.16	1.38%	84,709	0.72%	2.31%
Class A												
9/30/19	\$10.45	\$0.30	\$ 0.65	\$ 0.95	\$(0.30)	\$ -	\$(0.30)	\$11.10	9.32%	\$ 97,070	0.98%	2.87%
9/30/18	10.82	0.28	(0.38)	(0.10)	(0.27)	-	(0.27)	10.45	(1.00%)	106,562	0.97%	2.63%
9/30/17	11.03	0.23	(0.15)	0.08	(0.29)	-	(0.29)	10.82	0.87%	114,317	0.97%	2.13%
9/30/16	11.04	0.22	0.20	0.42	(0.28)	(0.15)	(0.43)	11.03	4.01%	150,014	0.97%	2.04%
9/30/15	11.20	0.23	(0.10)	0.13	(0.24)	(0.05)	(0.29)	11.04	1.12%	166,649	0.97%	2.06%
Class R4												
9/30/19	\$10.39	\$0.31	\$ 0.64	\$ 0.95	\$(0.30)	\$ -	\$(0.30)	\$11.04	9.47%	\$ 14,011	0.88%	2.98%
9/30/18	10.78	0.29	(0.39)	(0.10)	(0.29)	-	(0.29)	10.39	(0.97%)	10,624	0.87%	2.72%
9/30/17	11.00	0.24	(0.14)	0.10	(0.32)	-	(0.32)	10.78	1.03%	14,811	0.87%	2.23%
9/30/16	11.03	0.23	0.19	0.42	(0.30)	(0.15)	(0.45)	11.00	4.09%	14,906	0.87%	2.14%
9/30/15	11.20	0.25	(0.11)	0.14	(0.26)	(0.05)	(0.31)	11.03	1.28%	8,960	0.87%	2.21%
Class R3												
9/30/19	\$10.67	\$0.29	\$ 0.67	\$ 0.96	\$(0.29)	\$ -	\$(0.29)	\$11.34	9.24%	\$ 1,225	1.13%	2.72%
9/30/18	11.02	0.27	(0.39)	(0.12)	(0.23)	-	(0.23)	10.67	(1.13%)	803	1.12%	2.49%
9/30/17	11.25	0.22	(0.16)	0.06	(0.29)	-	(0.29)	11.02	0.64%	828	1.12%	1.99%
9/30/16	11.25	0.21	0.20	0.41	(0.26)	(0.15)	(0.41)	11.25	3.89%	783	1.12%	1.89%
9/30/15	11.40	0.22	(0.10)	0.12	(0.22)	(0.05)	(0.27)	11.25	1.02%	625	1.12%	1.90%

Portfolio turnover rate	Year ended September 30				
	2019	2018	2017	2016	2015
	261%	140%	213%	330%	361%

c Per share amount calculated on the average shares method.

l Employee retirement benefit plans that invest plan assets in the Separate Investment Accounts (SIAs) may be subject to certain charges as set forth in their respective Plan Documents. Total return figures would be lower for the periods presented if they reflected these charges.

m Total return excludes sales charges, if any, and would be lower for the period presented if it reflected these charges.

MASSMUTUAL PREMIER DIVERSIFIED BOND FUND

	Income (loss) from investment operations				Less distributions to shareholders			Ratios / Supplemental Data					
	Net asset value, beginning of the period	Net investment income (loss) ^{c,j}	Net realized and unrealized gain (loss) on investments	Total income (loss) from investment operations	From net investment income	From net realized gains	Total distributions	Net asset value, end of the period	Total return ^{l,m}	Net assets, end of the period (000's)	Ratio of expenses to average daily net assets before expense waivers	Ratio of expenses to average daily net assets after expense waivers ^j	Net investment income (loss) to average daily net assets
Class I													
9/30/19	\$10.59	\$0.38	\$ 0.64	\$ 1.02	\$(0.33)	\$ -	\$(0.33)	\$11.28	9.98%	\$ 60,965	0.55%	0.55% ⁿ	3.54%
9/30/18	10.97	0.35	(0.41)	(0.06)	(0.32)	-	(0.32)	10.59	(0.55%)	21,746	0.50%	0.50% ⁿ	3.33%
9/30/17	11.01	0.31	(0.09)	0.22	(0.26)	-	(0.26)	10.97	2.16%	27,548	0.51%	0.51% ⁿ	2.87%
9/30/16	10.73	0.28	0.31	0.59	(0.26)	(0.05)	(0.31)	11.01	5.71%	20,147	0.53%	0.52%	2.60%
9/30/15	10.88	0.28	(0.19)	0.09	(0.23)	(0.01)	(0.24)	10.73	0.81%	15,756	0.56%	0.52%	2.54%
Class R5													
9/30/19	\$ 9.78	\$0.34	\$ 0.60	\$ 0.94	\$(0.32)	\$ -	\$(0.32)	\$10.40	9.99%	\$109,659	0.65%	0.65% ⁿ	3.46%
9/30/18	10.16	0.32	(0.39)	(0.07)	(0.31)	-	(0.31)	9.78	(0.69%)	98,402	0.60%	0.60% ⁿ	3.24%
9/30/17	10.22	0.28	(0.09)	0.19	(0.25)	-	(0.25)	10.16	2.02%	88,740	0.61%	0.61% ⁿ	2.76%
9/30/16	9.98	0.25	0.29	0.54	(0.25)	(0.05)	(0.30)	10.22	5.63%	77,693	0.63%	0.62%	2.50%
9/30/15	10.14	0.24	(0.17)	0.07	(0.22)	(0.01)	(0.23)	9.98	0.66%	65,209	0.66%	0.62%	2.41%
Service Class													
9/30/19	\$ 9.91	\$0.33	\$ 0.61	\$ 0.94	\$(0.31)	\$ -	\$(0.31)	\$10.54	9.80%	\$ 12,976	0.75%	0.75% ⁿ	3.35%
9/30/18	10.28	0.31	(0.38)	(0.07)	(0.30)	-	(0.30)	9.91	(0.69%)	18,946	0.70%	0.70% ⁿ	3.14%
9/30/17	10.34	0.27	(0.09)	0.18	(0.24)	-	(0.24)	10.28	1.89%	16,047	0.71%	0.71% ⁿ	2.65%
9/30/16	10.09	0.24	0.30	0.54	(0.24)	(0.05)	(0.29)	10.34	5.53%	16,990	0.73%	0.72%	2.39%
9/30/15	10.24	0.24	(0.17)	0.07	(0.21)	(0.01)	(0.22)	10.09	0.59%	20,226	0.76%	0.72%	2.32%
Administrative Class													
9/30/19	\$ 9.88	\$0.32	\$ 0.62	\$ 0.94	\$(0.30)	\$ -	\$(0.30)	\$10.52	9.79%	\$ 21,870	0.85%	0.85% ⁿ	3.25%
9/30/18	10.25	0.30	(0.38)	(0.08)	(0.29)	-	(0.29)	9.88	(0.83%)	27,039	0.80%	0.80% ⁿ	3.03%
9/30/17	10.31	0.26	(0.09)	0.17	(0.23)	-	(0.23)	10.25	1.78%	26,601	0.81%	0.81% ⁿ	2.54%
9/30/16	10.07	0.23	0.29	0.52	(0.23)	(0.05)	(0.28)	10.31	5.38%	34,731	0.83%	0.82%	2.29%
9/30/15	10.22	0.23	(0.17)	0.06	(0.20)	(0.01)	(0.21)	10.07	0.54%	35,581	0.86%	0.82%	2.22%
Class A													
9/30/19	\$ 9.85	\$0.30	\$ 0.60	\$ 0.90	\$(0.27)	\$ -	\$(0.27)	\$10.48	9.45%	\$ 28,973	1.10%	1.10% ⁿ	3.01%
9/30/18	10.23	0.28	(0.40)	(0.12)	(0.26)	-	(0.26)	9.85	(1.17%)	32,456	1.05%	1.05% ⁿ	2.78%
9/30/17	10.28	0.23	(0.07)	0.16	(0.21)	-	(0.21)	10.23	1.63%	34,137	1.06%	1.06% ⁿ	2.30%
9/30/16	10.04	0.20	0.29	0.49	(0.20)	(0.05)	(0.25)	10.28	5.06%	37,243	1.08%	1.07%	2.04%
9/30/15	10.17	0.20	(0.16)	0.04	(0.16)	(0.01)	(0.17)	10.04	0.21%	36,941	1.11%	1.07%	1.96%
Class R4													
9/30/19	\$ 9.78	\$0.31	\$ 0.59	\$ 0.90	\$(0.30)	\$ -	\$(0.30)	\$10.38	9.49%	\$ 6,925	1.00%	1.00% ⁿ	3.12%
9/30/18	10.16	0.28	(0.38)	(0.10)	(0.28)	-	(0.28)	9.78	(1.01%)	4,730	0.95%	0.95% ⁿ	2.87%
9/30/17	10.22	0.24	(0.07)	0.17	(0.23)	-	(0.23)	10.16	1.77%	5,032	0.96%	0.96% ⁿ	2.41%
9/30/16	10.01	0.21	0.29	0.50	(0.24)	(0.05)	(0.29)	10.22	5.18%	3,765	0.98%	0.97%	2.15%
9/30/15	10.18	0.22	(0.18)	0.04	(0.20)	(0.01)	(0.21)	10.01	0.34%	2,959	1.01%	0.97%	2.17%
Class R3													
9/30/19	\$ 9.72	\$0.28	\$ 0.60	\$ 0.88	\$(0.26)	\$ -	\$(0.26)	\$10.34	9.35%	\$ 3,553	1.25%	1.25% ⁿ	2.85%
9/30/18	10.10	0.26	(0.38)	(0.12)	(0.26)	-	(0.26)	9.72	(1.24%)	4,530	1.20%	1.20% ⁿ	2.64%
9/30/17	10.19	0.22	(0.09)	0.13	(0.22)	-	(0.22)	10.10	1.41%	3,869	1.21%	1.21% ⁿ	2.18%
9/30/16	9.99	0.19	0.29	0.48	(0.23)	(0.05)	(0.28)	10.19	4.94%	2,592	1.23%	1.22%	1.95%
9/30/15	10.16	0.19	(0.17)	0.02	(0.18)	(0.01)	(0.19)	9.99	0.15%	412	1.26%	1.22%	1.84%

Year ended September 30

	2019	2018	2017	2016	2015
Portfolio turnover rate	236%	142%	207%	314%	362%

c Per share amount calculated on the average shares method.

j Computed after giving effect to an agreement by MML Advisers and/or MassMutual to waive certain fees and expenses of the Fund.

l Employee retirement benefit plans that invest plan assets in the Separate Investment Accounts (SIAs) may be subject to certain charges as set forth in their respective Plan Documents. Total return figures would be lower for the periods presented if they reflected these charges.

m Total return excludes sales charges, if any, and would be lower for the period presented if it reflected these charges.

n Expenses incurred during the period fell under the expense cap.

MASSMUTUAL PREMIER HIGH YIELD FUND

	Income (loss) from investment operations				Less distributions to shareholders			Ratios / Supplemental Data					
	Net asset value, beginning of the period	Net investment income (loss) ^{c,j}	Net realized and unrealized gain (loss) on investments	Total income (loss) from investment operations	From net investment income	From net realized gains	Total distributions	Net asset value, end of the period	Total return ^{l,m}	Net assets, end of the period (000's)	Ratio of expenses to average daily net assets before expense waivers	Ratio of expenses to average daily net assets after expense waivers ^l	Net investment income (loss) to average daily net assets
Class I													
9/30/19	\$ 9.27	\$0.56	\$(0.10)	\$ 0.46	\$(0.52)	\$ -	\$(0.52)	\$9.21	5.45%	\$326,836	0.54%	0.54% ⁿ	6.31%
9/30/18	9.62	0.58	(0.33)	0.25	(0.60)	-	(0.60)	9.27	2.78%	382,927	0.54%	0.54% ⁿ	6.32%
9/30/17	9.29	0.62	0.28	0.90	(0.57)	-	(0.57)	9.62	10.22%	242,645	0.54%	0.54% ⁿ	6.63%
9/30/16	8.98	0.62	0.28	0.90	(0.59)	-	(0.59)	9.29	10.86%	220,759	0.57%	0.55%	7.05%
9/30/15	10.16	0.61	(0.86)	(0.25)	(0.69)	(0.24)	(0.93)	8.98	(2.27%)	106,575	0.58%	0.55%	6.47%
Class R5													
9/30/19	\$ 9.31	\$0.56	\$(0.11)	\$ 0.45	\$(0.51)	\$ -	\$(0.51)	\$9.25	5.29%	\$ 41,369	0.64%	0.64% ⁿ	6.23%
9/30/18	9.66	0.57	(0.33)	0.24	(0.59)	-	(0.59)	9.31	2.65%	43,613	0.64%	0.64% ⁿ	6.20%
9/30/17	9.33	0.61	0.28	0.89	(0.56)	-	(0.56)	9.66	10.08%	55,628	0.64%	0.64% ⁿ	6.54%
9/30/16	9.02	0.61	0.28	0.89	(0.58)	-	(0.58)	9.33	10.68%	45,867	0.67%	0.65%	6.93%
9/30/15	10.19	0.60	(0.85)	(0.25)	(0.68)	(0.24)	(0.92)	9.02	(2.28%)	41,616	0.68%	0.65%	6.38%
Service Class													
9/30/19	\$ 9.31	\$0.55	\$(0.11)	\$ 0.44	\$(0.50)	\$ -	\$(0.50)	\$9.25	5.20%	\$ 49,174	0.74%	0.74% ⁿ	6.13%
9/30/18	9.66	0.56	(0.33)	0.23	(0.58)	-	(0.58)	9.31	2.55%	45,296	0.74%	0.74% ⁿ	6.11%
9/30/17	9.33	0.60	0.28	0.88	(0.55)	-	(0.55)	9.66	9.93%	49,581	0.74%	0.74% ⁿ	6.45%
9/30/16	9.01	0.60	0.29	0.89	(0.57)	-	(0.57)	9.33	10.70%	59,787	0.77%	0.75%	6.83%
9/30/15	10.18	0.59	(0.86)	(0.27)	(0.66)	(0.24)	(0.90)	9.01	(2.40%)	62,734	0.78%	0.75%	6.27%
Administrative Class													
9/30/19	\$ 9.16	\$0.53	\$(0.10)	\$ 0.43	\$(0.49)	\$ -	\$(0.49)	\$9.10	5.13%	\$ 25,980	0.84%	0.84% ⁿ	6.03%
9/30/18	9.51	0.55	(0.33)	0.22	(0.57)	-	(0.57)	9.16	2.49%	31,250	0.84%	0.84% ⁿ	6.01%
9/30/17	9.20	0.58	0.28	0.86	(0.55)	-	(0.55)	9.51	9.79%	32,889	0.84%	0.84% ⁿ	6.34%
9/30/16	8.89	0.58	0.29	0.87	(0.56)	-	(0.56)	9.20	10.63%	28,948	0.87%	0.85%	6.74%
9/30/15	10.07	0.57	(0.85)	(0.28)	(0.66)	(0.24)	(0.90)	8.89	(2.58%)	24,221	0.88%	0.85%	6.18%
Class A													
9/30/19	\$ 9.13	\$0.51	\$(0.10)	\$ 0.41	\$(0.47)	\$ -	\$(0.47)	\$9.07	4.89%	\$ 31,392	1.09%	1.09% ⁿ	5.77%
9/30/18	9.49	0.52	(0.33)	0.19	(0.55)	-	(0.55)	9.13	2.10%	27,393	1.09%	1.09% ⁿ	5.76%
9/30/17	9.17	0.56	0.28	0.84	(0.52)	-	(0.52)	9.49	9.63%	29,357	1.09%	1.09% ⁿ	6.09%
9/30/16	8.86	0.56	0.29	0.85	(0.54)	-	(0.54)	9.17	10.31%	29,055	1.12%	1.10%	6.49%
9/30/15	10.02	0.55	(0.85)	(0.30)	(0.62)	(0.24)	(0.86)	8.86	(2.78%)	28,572	1.13%	1.10%	5.93%
Class R4													
9/30/19	\$ 9.04	\$0.51	\$(0.10)	\$ 0.41	\$(0.48)	\$ -	\$(0.48)	\$8.97	4.97%	\$ 47,055	0.99%	0.99% ⁿ	5.88%
9/30/18	9.40	0.53	(0.33)	0.20	(0.56)	-	(0.56)	9.04	2.30%	35,011	0.99%	0.99% ⁿ	5.87%
9/30/17	9.11	0.56	0.28	0.84	(0.55)	-	(0.55)	9.40	9.66%	30,611	0.99%	0.99% ⁿ	6.18%
9/30/16	8.84	0.57	0.28	0.85	(0.58)	-	(0.58)	9.11	10.44%	18,428	1.02%	1.00%	6.66%
9/30/15	10.02	0.54	(0.83)	(0.29)	(0.65)	(0.24)	(0.89)	8.84	(2.67%)	2,672	1.03%	1.00%	5.97%
Class R3													
9/30/19	\$ 9.23	\$0.50	\$(0.10)	\$ 0.40	\$(0.46)	\$ -	\$(0.46)	\$9.17	4.71%	\$ 42,509	1.24%	1.24% ⁿ	5.63%
9/30/18	9.60	0.51	(0.33)	0.18	(0.55)	-	(0.55)	9.23	2.04%	44,944	1.24%	1.24% ⁿ	5.62%
9/30/17	9.29	0.55	0.29	0.84	(0.53)	-	(0.53)	9.60	9.43%	36,626	1.24%	1.24% ⁿ	5.93%
9/30/16	9.01	0.56	0.28	0.84	(0.56)	-	(0.56)	9.29	10.12%	13,928	1.27%	1.25%	6.38%
9/30/15	10.17	0.54	(0.85)	(0.31)	(0.61)	(0.24)	(0.85)	9.01	(2.91%)	3,423	1.28%	1.25%	5.74%

Year ended September 30

	2019	2018	2017	2016	2015
Portfolio turnover rate	54%	38%	70%	50%	76%

c Per share amount calculated on the average shares method.

j Computed after giving effect to an agreement by MML Advisers and/or MassMutual to waive certain fees and expenses of the Fund.

l Employee retirement benefit plans that invest plan assets in the Separate Investment Accounts (SIAs) may be subject to certain charges as set forth in their respective Plan Documents. Total return figures would be lower for the periods presented if they reflected these charges.

m Total return excludes sales charges, if any, and would be lower for the period presented if it reflected these charges.

n Expenses incurred during the period fell under the expense cap.

MASSMUTUAL PREMIER BALANCED FUND

	Income (loss) from investment operations				Less distributions to shareholders			Ratios / Supplemental Data					
	Net asset value, beginning of the period	Net investment income (loss) ^{c,j}	Net realized and unrealized gain (loss) on investments	Total income (loss) from investment operations	From net investment income	From net realized gains	Total distributions	Net asset value, end of the period	Total return ^{l,m}	Net assets, end of the period (000's)	Ratio of expenses to average daily net assets before expense waivers	Ratio of expenses to average daily net assets after expense waivers ^l	Net investment income (loss) to average daily net assets
Class I													
9/30/19	\$12.86	\$0.24	\$(0.09) ^{aa}	\$ 0.15	\$(0.22)	\$(0.72)	\$(0.94)	\$12.07	1.91%	\$31,567	0.76%	0.74%	2.06%
9/30/18	12.53	0.22	1.02	1.24	(0.24)	(0.67)	(0.91)	12.86	10.21%	11,637	0.70%	0.60%	1.79%
9/30/17	11.32	0.21	1.28	1.49	(0.22)	(0.06)	(0.28)	12.53	13.39%	8,270	0.68%	0.60%	1.76%
9/30/16	11.48	0.22	0.84	1.06	(0.29)	(0.93)	(1.22)	11.32	9.96%	967	0.68%	0.60%	1.98%
9/30/15	13.01	0.22	(0.44)	(0.22)	(0.24)	(1.07)	(1.31)	11.48	(1.96%)	376	0.65%	0.60%	1.77%
Class R5													
9/30/19	\$12.85	\$0.23	\$(0.09) ^{aa}	\$ 0.14	\$(0.20)	\$(0.72)	\$(0.92)	\$12.07	1.88%	\$45,321	0.86%	0.83%	1.94%
9/30/18	12.53	0.21	1.01	1.22	(0.23)	(0.67)	(0.90)	12.85	10.01%	45,211	0.80%	0.70%	1.67%
9/30/17	11.32	0.20	1.28	1.48	(0.21)	(0.06)	(0.27)	12.53	13.27%	49,381	0.78%	0.70%	1.66%
9/30/16	11.48	0.21	0.84	1.05	(0.28)	(0.93)	(1.21)	11.32	9.82%	53,727	0.78%	0.70%	1.87%
9/30/15	13.00	0.21	(0.44)	(0.23)	(0.22)	(1.07)	(1.29)	11.48	(2.03%)	62,971	0.75%	0.70%	1.70%
Service Class													
9/30/19	\$13.50	\$0.23	\$(0.09) ^{aa}	\$ 0.14	\$(0.19)	\$(0.72)	\$(0.91)	\$12.73	1.73%	\$ 6,045	0.96%	0.92%	1.84%
9/30/18	13.11	0.21	1.06	1.27	(0.21)	(0.67)	(0.88)	13.50	9.94%	7,243	0.90%	0.80%	1.58%
9/30/17	11.83	0.19	1.34	1.53	(0.19)	(0.06)	(0.25)	13.11	13.11%	6,978	0.88%	0.80%	1.54%
9/30/16	11.94	0.20	0.89	1.09	(0.27)	(0.93)	(1.20)	11.83	9.76%	14,130	0.88%	0.80%	1.87%
9/30/15	13.48	0.20	(0.46)	(0.26)	(0.21)	(1.07)	(1.28)	11.94	(2.18%)	12,545	0.85%	0.80%	1.60%
Administrative Class													
9/30/19	\$12.89	\$0.20	\$(0.09) ^{aa}	\$ 0.11	\$(0.17)	\$(0.72)	\$(0.89)	\$12.11	1.62%	\$ 6,981	1.06%	1.02%	1.73%
9/30/18	12.55	0.18	1.02	1.20	(0.19)	(0.67)	(0.86)	12.89	9.88%	8,129	1.00%	0.90%	1.47%
9/30/17	11.35	0.17	1.28	1.45	(0.19)	(0.06)	(0.25)	12.55	13.01%	9,413	0.98%	0.90%	1.46%
9/30/16	11.51	0.19	0.84	1.03	(0.26)	(0.93)	(1.19)	11.35	9.59%	9,751	0.98%	0.90%	1.68%
9/30/15	13.04	0.19	(0.44)	(0.25)	(0.21)	(1.07)	(1.28)	11.51	(2.23%)	8,691	0.95%	0.90%	1.51%
Class A													
9/30/19	\$12.51	\$0.17	\$(0.08) ^{aa}	\$ 0.09	\$(0.14)	\$(0.72)	\$(0.86)	\$11.74	1.44%	\$26,981	1.31%	1.27%	1.49%
9/30/18	12.22	0.15	0.98	1.13	(0.17)	(0.67)	(0.84)	12.51	9.48%	30,517	1.25%	1.15%	1.22%
9/30/17	11.05	0.14	1.25	1.39	(0.16)	(0.06)	(0.22)	12.22	12.78%	32,637	1.23%	1.15%	1.21%
9/30/16	11.22	0.15	0.83	0.98	(0.22)	(0.93)	(1.15)	11.05	9.38%	30,781	1.23%	1.15%	1.42%
9/30/15	12.73	0.15	(0.43)	(0.28)	(0.16)	(1.07)	(1.23)	11.22	(2.49%)	31,375	1.20%	1.15%	1.26%
Class R4													
9/30/19	\$12.42	\$0.18	\$(0.08) ^{aa}	\$ 0.10	\$(0.16)	\$(0.72)	\$(0.88)	\$11.64	1.52%	\$ 2,853	1.21%	1.17%	1.59%
9/30/18	12.15	0.16	0.97	1.13	(0.19)	(0.67)	(0.86)	12.42	9.58%	3,499	1.15%	1.05%	1.34%
9/30/17	10.99	0.15	1.24	1.39	(0.17)	(0.06)	(0.23)	12.15	12.88%	2,822	1.13%	1.05%	1.32%
9/30/16	11.20	0.16	0.83	0.99	(0.27)	(0.93)	(1.20)	10.99	9.51%	2,373	1.13%	1.05%	1.54%
9/30/15	12.74	0.17	(0.44)	(0.27)	(0.20)	(1.07)	(1.27)	11.20	(2.46%)	2,010	1.10%	1.05%	1.49%
Class R3													
9/30/19	\$12.36	\$0.15	\$(0.08) ^{aa}	\$ 0.07	\$(0.14)	\$(0.72)	\$(0.86)	\$11.57	1.27%	\$ 7,236	1.46%	1.42%	1.35%
9/30/18	12.09	0.13	0.97	1.10	(0.16)	(0.67)	(0.83)	12.36	9.32%	8,002	1.40%	1.30%	1.08%
9/30/17	10.95	0.12	1.24	1.36	(0.16)	(0.06)	(0.22)	12.09	12.58%	7,251	1.38%	1.30%	1.08%
9/30/16	11.18	0.14	0.82	0.96	(0.26)	(0.93)	(1.19)	10.95	9.29%	5,002	1.38%	1.30%	1.31%
9/30/15	12.72	0.14	(0.44)	(0.30)	(0.17)	(1.07)	(1.24)	11.18	(2.66%)	1,734	1.35%	1.30%	1.16%

Portfolio turnover rate	Year ended September 30				
	2019	2018	2017	2016	2015
	161%	77%	108%	176%	204%

c Per share amount calculated on the average shares method.

j Computed after giving effect to an agreement by MML Advisers and/or MassMutual to waive certain fees and expenses of the Fund.

l Employee retirement benefit plans that invest plan assets in the Separate Investment Accounts (SIAs) may be subject to certain charges as set forth in their respective Plan Documents. Total return figures would be lower for the periods presented if they reflected these charges.

m Total return excludes sales charges, if any, and would be lower for the period presented if it reflected these charges.

aa The amount shown for a share outstanding does not correspond with the aggregate net realized and unrealized gain (loss) for the period due to the timing of purchases and redemptions of Fund shares in relation to the fluctuating market values of the Fund.

MASSMUTUAL PREMIER DISCIPLINED VALUE FUND

	Income (loss) from investment operations				Less distributions to shareholders			Ratios / Supplemental Data				
	Net asset value, beginning of the period	Net investment income (loss) ^c	Net realized and unrealized gain (loss) on investments	Total income (loss) from investment operations	From net investment income	From net realized gains	Total distributions	Net asset value, end of the period	Total return ^{l,m}	Net assets, end of the period (000's)	Ratio of expenses to average daily net assets	Net investment income (loss) to average daily net assets
Class I												
9/30/19	\$17.06	\$0.28	\$(0.76)	\$(0.48)	\$(0.40)	\$(2.20)	\$(2.60)	\$13.98	(1.20%)	\$ 16,781	0.64%	2.03%
9/30/18	17.67	0.29	1.28	1.57	(0.36)	(1.82)	(2.18)	17.06	9.34%	19,546	0.57%	1.74%
9/30/17	16.05	0.31	2.40	2.71	(0.53)	(0.56)	(1.09)	17.67	17.36%	79,531	0.57%	1.87%
9/30/16	14.75	0.35	1.56	1.91	(0.32)	(0.29)	(0.61)	16.05	13.26%	73,202	0.53%	2.29%
9/30/15	15.75	0.29	(1.00)	(0.71)	(0.29)	-	(0.29)	14.75	(4.64%)	163,640	0.53%	1.84%
Class R5												
9/30/19	\$17.09	\$0.27	\$(0.76)	\$(0.49)	\$(0.39)	\$(2.20)	\$(2.59)	\$14.01	(1.32%)	\$ 53,709	0.74%	1.92%
9/30/18	17.69	0.28	1.28	1.56	(0.34)	(1.82)	(2.16)	17.09	9.27%	59,987	0.67%	1.65%
9/30/17	16.06	0.30	2.40	2.70	(0.51)	(0.56)	(1.07)	17.69	17.31%	46,583	0.67%	1.78%
9/30/16	14.76	0.34	1.55	1.89	(0.30)	(0.29)	(0.59)	16.06	13.11%	46,644	0.63%	2.22%
9/30/15	15.76	0.28	(1.01)	(0.73)	(0.27)	-	(0.27)	14.76	(4.74%)	46,754	0.63%	1.73%
Service Class												
9/30/19	\$16.95	\$0.25	\$(0.76)	\$(0.51)	\$(0.36)	\$(2.20)	\$(2.56)	\$13.88	(1.43%)	\$ 20,401	0.84%	1.82%
9/30/18	17.57	0.26	1.26	1.52	(0.32)	(1.82)	(2.14)	16.95	9.10%	50,102	0.77%	1.55%
9/30/17	15.95	0.28	2.39	2.67	(0.49)	(0.56)	(1.05)	17.57	17.19%	49,413	0.77%	1.65%
9/30/16	14.66	0.32	1.55	1.87	(0.29)	(0.29)	(0.58)	15.95	13.03%	64,634	0.73%	2.12%
9/30/15	15.66	0.26	(1.00)	(0.74)	(0.26)	-	(0.26)	14.66	(4.84%)	65,799	0.73%	1.65%
Administrative Class												
9/30/19	\$17.27	\$0.25	\$(0.76)	\$(0.51)	\$(0.36)	\$(2.20)	\$(2.56)	\$14.20	(1.46%)	\$ 5,731	0.94%	1.72%
9/30/18	17.86	0.25	1.29	1.54	(0.31)	(1.82)	(2.13)	17.27	9.02%	9,147	0.87%	1.46%
9/30/17	16.21	0.27	2.41	2.68	(0.47)	(0.56)	(1.03)	17.86	17.01%	5,970	0.87%	1.57%
9/30/16	14.88	0.31	1.58	1.89	(0.27)	(0.29)	(0.56)	16.21	12.97%	5,801	0.83%	2.00%
9/30/15	15.90	0.25	(1.02)	(0.77)	(0.25)	-	(0.25)	14.88	(4.97%)	7,460	0.83%	1.55%
Class A												
9/30/19	\$16.78	\$0.20	\$(0.74)	\$(0.54)	\$(0.31)	\$(2.20)	\$(2.51)	\$13.73	(1.75%)	\$ 6,012	1.19%	1.48%
9/30/18	17.39	0.20	1.25	1.45	(0.24)	(1.82)	(2.06)	16.78	8.74%	8,886	1.12%	1.20%
9/30/17	15.82	0.22	2.36	2.58	(0.45)	(0.56)	(1.01)	17.39	16.74%	9,120	1.12%	1.32%
9/30/16	14.53	0.27	1.53	1.80	(0.22)	(0.29)	(0.51)	15.82	12.65%	10,415	1.08%	1.78%
9/30/15	15.51	0.20	(0.98)	(0.78)	(0.20)	-	(0.20)	14.53	(5.13%)	8,081	1.08%	1.30%
Class R4												
9/30/19	\$16.67	\$0.22	\$(0.75)	\$(0.53)	\$(0.31)	\$(2.20)	\$(2.51)	\$13.63	(1.65%)	\$ 4,039	1.09%	1.58%
9/30/18	17.32	0.22	1.24	1.46	(0.29)	(1.82)	(2.11)	16.67	8.84%	6,428	1.02%	1.30%
9/30/17	15.77	0.24	2.36	2.60	(0.49)	(0.56)	(1.05)	17.32	16.94%	10,139	1.02%	1.43%
9/30/16	14.51	0.28	1.53	1.81	(0.26)	(0.29)	(0.55)	15.77	12.75%	4,127	0.98%	1.90%
9/30/15	15.52	0.21	(0.98)	(0.77)	(0.24)	-	(0.24)	14.51	(5.10%)	2,524	0.98%	1.34%
Class R3												
9/30/19	\$16.90	\$0.18	\$(0.74)	\$(0.56)	\$(0.29)	\$(2.20)	\$(2.49)	\$13.85	(1.85%)	\$ 4,346	1.34%	1.33%
9/30/18	17.56	0.18	1.25	1.43	(0.27)	(1.82)	(2.09)	16.90	8.53%	4,196	1.27%	1.05%
9/30/17	15.92	0.20	2.38	2.58	(0.38)	(0.56)	(0.94)	17.56	16.62%	3,820	1.27%	1.18%
9/30/16	14.62	0.25	1.54	1.79	(0.20)	(0.29)	(0.49)	15.92	12.49%	648	1.23%	1.66%
9/30/15	15.61	0.19	(1.00)	(0.81)	(0.18)	-	(0.18)	14.62	(5.29%)	185	1.23%	1.19%

Portfolio turnover rate	Year ended September 30				
	2019	2018	2017	2016	2015
	53%	80%	102%	109%	113%

c Per share amount calculated on the average shares method.

l Employee retirement benefit plans that invest plan assets in the Separate Investment Accounts (SIAs) may be subject to certain charges as set forth in their respective Plan Documents. Total return figures would be lower for the periods presented if they reflected these charges.

m Total return excludes sales charges, if any, and would be lower for the period presented if it reflected these charges.

MASSMUTUAL PREMIER MAIN STREET FUND

	Income (loss) from investment operations				Less distributions to shareholders			Ratios / Supplemental Data				
	Net asset value, beginning of the period	Net investment income (loss) ^c	Net realized and unrealized gain (loss) on investments	Total income (loss) from investment operations	From net investment income	From net realized gains	Total distributions	Net asset value, end of the period	Total return ^{l,m}	Net assets, end of the period ('000's)	Ratio of expenses to average daily net assets	Net investment income (loss) to average daily net assets
Class I												
9/30/19	\$12.04	\$0.14	\$ 0.30	\$ 0.44	\$(0.13)	\$(1.28)	\$(1.41)	\$11.07	5.60%	\$24,639	0.73%	1.29%
9/30/18	11.94	0.14	0.89	1.03	(0.14)	(0.79)	(0.93)	12.04	9.11%	24,123	0.71%	1.17%
9/30/17	10.42	0.16	1.81	1.97	(0.15)	(0.30)	(0.45)	11.94	19.50%	8,516	0.71%	1.40%
9/30/16	13.75	0.18	1.43	1.61	(0.22)	(4.72)	(4.94)	10.42	14.34%	739	0.72%	1.68%
9/30/15	14.23	0.14	(0.19)	(0.05)	(0.13)	(0.30)	(0.43)	13.75	(0.36%)	37	0.65%	0.99%
Class R5												
9/30/19	\$12.03	\$0.13	\$ 0.29	\$ 0.42	\$(0.11)	\$(1.28)	\$(1.39)	\$11.06	5.47%	\$48,226	0.83%	1.19%
9/30/18	11.93	0.12	0.90	1.02	(0.13)	(0.79)	(0.92)	12.03	9.00%	67,695	0.81%	1.04%
9/30/17	10.41	0.15	1.81	1.96	(0.14)	(0.30)	(0.44)	11.93	19.40%	78,580	0.81%	1.36%
9/30/16	13.73	0.13	1.48	1.61	(0.21)	(4.72)	(4.93)	10.41	14.28%	73,380	0.82%	1.27%
9/30/15	14.22	0.14	(0.21)	(0.07)	(0.12)	(0.30)	(0.42)	13.73	(0.50%)	69,529	0.76%	0.95%
Service Class												
9/30/19	\$12.44	\$0.12	\$ 0.32	\$ 0.44	\$(0.10)	\$(1.28)	\$(1.38)	\$11.50	5.38%	\$ 652	0.93%	1.08%
9/30/18	12.30	0.11	0.93	1.04	(0.11)	(0.79)	(0.90)	12.44	8.94%	738	0.91%	0.95%
9/30/17	10.71	0.15	1.85	2.00	(0.11)	(0.30)	(0.41)	12.30	19.21%	1,133	0.91%	1.28%
9/30/16	13.91	0.12	1.51	1.63	(0.11)	(4.72)	(4.83)	10.71	14.21%	1,979	0.92%	0.98%
9/30/15	14.40	0.13	(0.21)	(0.08)	(0.11)	(0.30)	(0.41)	13.91	(0.57%)	6,517	0.86%	0.88%
Administrative Class												
9/30/19	\$12.01	\$0.10	\$ 0.31	\$ 0.41	\$(0.09)	\$(1.28)	\$(1.37)	\$11.05	5.30%	\$24,458	1.03%	0.98%
9/30/18	11.91	0.10	0.89	0.99	(0.10)	(0.79)	(0.89)	12.01	8.79%	28,295	1.01%	0.84%
9/30/17	10.40	0.13	1.80	1.93	(0.12)	(0.30)	(0.42)	11.91	19.07%	30,996	1.01%	1.17%
9/30/16	13.71	0.11	1.48	1.59	(0.18)	(4.72)	(4.90)	10.40	14.11%	29,371	1.02%	1.05%
9/30/15	14.19	0.11	(0.20)	(0.09)	(0.09)	(0.30)	(0.39)	13.71	(0.63%)	31,644	0.96%	0.77%
Class A												
9/30/19	\$11.83	\$0.08	\$ 0.29	\$ 0.37	\$(0.06)	\$(1.28)	\$(1.34)	\$10.86	5.01%	\$12,843	1.28%	0.74%
9/30/18	11.75	0.07	0.88	0.95	(0.08)	(0.79)	(0.87)	11.83	8.49%	14,495	1.26%	0.60%
9/30/17	10.26	0.10	1.79	1.89	(0.10)	(0.30)	(0.40)	11.75	18.88%	13,096	1.26%	0.90%
9/30/16	13.58	0.09	1.45	1.54	(0.14)	(4.72)	(4.86)	10.26	13.78%	11,877	1.27%	0.82%
9/30/15	14.07	0.07	(0.20)	(0.13)	(0.06)	(0.30)	(0.36)	13.58	(0.96%)	12,906	1.21%	0.52%
Class R4												
9/30/19	\$11.75	\$0.09	\$ 0.29	\$ 0.38	\$(0.08)	\$(1.28)	\$(1.36)	\$10.77	5.08%	\$ 6,379	1.18%	0.83%
9/30/18	11.67	0.08	0.87	0.95	(0.08)	(0.79)	(0.87)	11.75	8.63%	6,394	1.16%	0.70%
9/30/17	10.22	0.11	1.78	1.89	(0.14)	(0.30)	(0.44)	11.67	19.02%	5,268	1.16%	0.99%
9/30/16	13.57	0.15	1.40	1.55	(0.18)	(4.72)	(4.90)	10.22	13.88%	3,421	1.17%	1.45%
9/30/15	14.07	0.09	(0.21)	(0.12)	(0.08)	(0.30)	(0.38)	13.57	(0.85%)	105	1.11%	0.63%
Class R3												
9/30/19	\$11.85	\$0.06	\$ 0.30	\$ 0.36	\$(0.05)	\$(1.28)	\$(1.33)	\$10.88	4.87%	\$ 1,239	1.43%	0.61%
9/30/18	11.76	0.05	0.88	0.93	(0.05)	(0.79)	(0.84)	11.85	8.34%	1,813	1.41%	0.45%
9/30/17	10.30	0.08	1.79	1.87	(0.11)	(0.30)	(0.41)	11.76	18.69%	1,144	1.41%	0.74%
9/30/16	13.66	0.07	1.46	1.53	(0.17)	(4.72)	(4.89)	10.30	13.60%	802	1.42%	0.70%
9/30/15	14.15	0.05	(0.20)	(0.15)	(0.04)	(0.30)	(0.34)	13.66	(1.07%)	140	1.36%	0.38%

	Year ended September 30				
	2019	2018	2017	2016	2015
Portfolio turnover rate	55%	64%	35%	38%	54%

c Per share amount calculated on the average shares method.

l Employee retirement benefit plans that invest plan assets in the Separate Investment Accounts (SIAs) may be subject to certain charges as set forth in their respective Plan Documents. Total return figures would be lower for the periods presented if they reflected these charges.

m Total return excludes sales charges, if any, and would be lower for the period presented if it reflected these charges.

MASSMUTUAL PREMIER DISCIPLINED GROWTH FUND

	Income (loss) from investment operations				Less distributions to shareholders			Ratios / Supplemental Data				
	Net asset value, beginning of the period	Net investment income (loss) ^c	Net realized and unrealized gain (loss) on investments	Total income (loss) from investment operations	From net investment income	From net realized gains	Total distributions	Net asset value, end of the period	Total return ^{l,m}	Net assets, end of the period (000's)	Ratio of expenses to average daily net assets	Net investment income (loss) to average daily net assets
Class I												
9/30/19	\$14.37	\$0.10	\$(0.47)	\$(0.37)	\$(0.15)	\$(2.85)	\$(3.00)	\$11.00	0.99%	\$ 28,367	0.55%	0.89%
9/30/18	13.13	0.10	2.81	2.91	(0.12)	(1.55)	(1.67)	14.37	23.95%	30,279	0.52%	0.78%
9/30/17	11.69	0.13	2.30	2.43	(0.17)	(0.82)	(0.99)	13.13	22.32%	113,313	0.53%	1.09%
9/30/16	11.37	0.14	1.17	1.31	(0.14)	(0.85)	(0.99)	11.69	11.94%	107,336	0.51%	1.22%
9/30/15	12.87	0.15	0.04	0.19	(0.14)	(1.55)	(1.69)	11.37	1.30%	184,981	0.50%	1.21%
Class R5												
9/30/19	\$14.37	\$0.09	\$(0.48)	\$(0.39)	\$(0.13)	\$(2.85)	\$(2.98)	\$11.00	0.85%	\$100,651	0.65%	0.79%
9/30/18	13.14	0.09	2.80	2.89	(0.11)	(1.55)	(1.66)	14.37	23.72%	112,178	0.62%	0.69%
9/30/17	11.69	0.12	2.31	2.43	(0.16)	(0.82)	(0.98)	13.14	22.27%	87,103	0.63%	1.00%
9/30/16	11.38	0.13	1.16	1.29	(0.13)	(0.85)	(0.98)	11.69	11.70%	76,893	0.61%	1.12%
9/30/15	12.88	0.14	0.04	0.18	(0.13)	(1.55)	(1.68)	11.38	1.29%	85,630	0.60%	1.12%
Service Class												
9/30/19	\$14.40	\$0.08	\$(0.47)	\$(0.39)	\$(0.12)	\$(2.85)	\$(2.97)	\$11.04	0.79%	\$ 31,895	0.75%	0.71%
9/30/18	13.17	0.08	2.80	2.88	(0.10)	(1.55)	(1.65)	14.40	23.54%	74,294	0.72%	0.59%
9/30/17	11.71	0.11	2.31	2.42	(0.14)	(0.82)	(0.96)	13.17	22.15%	73,755	0.73%	0.89%
9/30/16	11.40	0.12	1.16	1.28	(0.12)	(0.85)	(0.97)	11.71	11.58%	80,551	0.71%	1.02%
9/30/15	12.90	0.12	0.05	0.17	(0.12)	(1.55)	(1.67)	11.40	1.19%	87,882	0.70%	1.02%
Administrative Class												
9/30/19	\$14.55	\$0.07	\$(0.47)	\$(0.40)	\$(0.11)	\$(2.85)	\$(2.96)	\$11.19	0.66%	\$ 37,316	0.85%	0.60%
9/30/18	13.28	0.07	2.83	2.90	(0.08)	(1.55)	(1.63)	14.55	23.51%	42,622	0.82%	0.49%
9/30/17	11.81	0.09	2.34	2.43	(0.14)	(0.82)	(0.96)	13.28	21.95%	41,678	0.83%	0.78%
9/30/16	11.48	0.10	1.19	1.29	(0.11)	(0.85)	(0.96)	11.81	11.57%	38,399	0.81%	0.91%
9/30/15	12.98	0.11	0.04	0.15	(0.10)	(1.55)	(1.65)	11.48	1.08%	33,634	0.80%	0.91%
Class A												
9/30/19	\$14.15	\$0.04	\$(0.47)	\$(0.43)	\$(0.07)	\$(2.85)	\$(2.92)	\$10.80	0.42%	\$ 29,210	1.10%	0.35%
9/30/18	12.95	0.03	2.77	2.80	(0.05)	(1.55)	(1.60)	14.15	23.22%	39,399	1.07%	0.24%
9/30/17	11.53	0.07	2.28	2.35	(0.11)	(0.82)	(0.93)	12.95	21.73%	36,625	1.08%	0.55%
9/30/16	11.23	0.07	1.15	1.22	(0.07)	(0.85)	(0.92)	11.53	11.23%	38,743	1.06%	0.67%
9/30/15	12.74	0.08	0.04	0.12	(0.08)	(1.55)	(1.63)	11.23	0.78%	38,035	1.05%	0.66%
Class R4												
9/30/19	\$14.05	\$0.05	\$(0.46)	\$(0.41)	\$(0.09)	\$(2.85)	\$(2.94)	\$10.70	0.59%	\$ 24,049	1.00%	0.45%
9/30/18	12.89	0.04	2.74	2.78	(0.07)	(1.55)	(1.62)	14.05	23.26%	31,265	0.97%	0.34%
9/30/17	11.50	0.07	2.27	2.34	(0.13)	(0.82)	(0.95)	12.89	21.80%	26,809	0.98%	0.61%
9/30/16	11.23	0.08	1.16	1.24	(0.12)	(0.85)	(0.97)	11.50	11.38%	14,016	0.96%	0.75%
9/30/15	12.74	0.09	0.05	0.14	(0.10)	(1.55)	(1.65)	11.23	0.94%	6,003	0.95%	0.78%
Class R3												
9/30/19	\$14.02	\$0.02	\$(0.47)	\$(0.45)	\$(0.06)	\$(2.85)	\$(2.91)	\$10.66	0.23%	\$ 6,015	1.25%	0.20%
9/30/18	12.86	0.01	2.74	2.75	(0.04)	(1.55)	(1.59)	14.02	23.01%	7,119	1.22%	0.10%
9/30/17	11.45	0.04	2.27	2.31	(0.08)	(0.82)	(0.90)	12.86	21.52%	4,310	1.23%	0.38%
9/30/16	11.21	0.06	1.14	1.20	(0.11)	(0.85)	(0.96)	11.45	11.01%	3,159	1.21%	0.55%
9/30/15	12.73	0.06	0.04	0.10	(0.07)	(1.55)	(1.62)	11.21	0.66%	3,637	1.20%	0.51%

Portfolio turnover rate	Year ended September 30				
	2019	2018	2017	2016	2015
	49%	73%	105%	124%	138%

c Per share amount calculated on the average shares method.

l Employee retirement benefit plans that invest plan assets in the Separate Investment Accounts (SIAs) may be subject to certain charges as set forth in their respective Plan Documents. Total return figures would be lower for the periods presented if they reflected these charges.

m Total return excludes sales charges, if any, and would be lower for the period presented if it reflected these charges.

MASSMUTUAL PREMIER SMALL CAP OPPORTUNITIES FUND

	Income (loss) from investment operations				Less distributions to shareholders			Ratios / Supplemental Data				
	Net asset value, beginning of the period	Net investment income (loss) ^c	Net realized and unrealized gain (loss) on investments	Total income (loss) from investment operations	From net investment income	From net realized gains	Total distributions	Net asset value, end of the period	Total return ^{l,m}	Net assets, end of the period (000's)	Ratio of expenses to average daily net assets	Net investment income (loss) to average daily net assets
Class I												
9/30/19	\$16.47	\$0.11	\$(1.43)	\$(1.32)	\$(0.07)	\$(1.36)	\$(1.43)	\$13.72	(7.01%)	\$35,326	0.70%	0.82%
9/30/18	16.41	0.11	1.96	2.07	(0.07)	(1.94)	(2.01)	16.47	13.93%	40,439	0.69%	0.73%
9/30/17	13.81	0.11	3.01	3.12	(0.18)	(0.34)	(0.52)	16.41	23.05%	15,105	0.70%	0.75%
9/30/16	13.84	0.17	1.31	1.48	(0.12)	(1.39)	(1.51)	13.81	11.60%	3,642	0.71%	1.33%
9/30/15	15.78	0.13	0.44	0.57	(0.17)	(2.34)	(2.51)	13.84	2.63%	0 ^f	0.68%	0.84%
Class R5												
9/30/19	\$16.44	\$0.10	\$(1.43)	\$(1.33)	\$(0.06)	\$(1.36)	\$(1.42)	\$13.69	(7.14%)	\$61,826	0.80%	0.71%
9/30/18	16.38	0.10	1.96	2.06	(0.06)	(1.94)	(2.00)	16.44	13.82%	77,025	0.79%	0.62%
9/30/17	13.78	0.10	3.00	3.10	(0.16)	(0.34)	(0.50)	16.38	22.99%	64,889	0.80%	0.63%
9/30/16	13.82	0.15	1.30	1.45	(0.10)	(1.39)	(1.49)	13.78	11.40%	61,310	0.81%	1.16%
9/30/15	15.77	0.13	0.41	0.54	(0.15)	(2.34)	(2.49)	13.82	2.44%	58,840	0.79%	0.82%
Service Class												
9/30/19	\$16.39	\$0.08	\$(1.41)	\$(1.33)	\$(0.04)	\$(1.36)	\$(1.40)	\$13.66	(7.16%)	\$17,073	0.90%	0.61%
9/30/18	16.34	0.08	1.95	2.03	(0.04)	(1.94)	(1.98)	16.39	13.68%	18,192	0.89%	0.52%
9/30/17	13.75	0.08	3.00	3.08	(0.15)	(0.34)	(0.49)	16.34	22.87%	14,726	0.90%	0.54%
9/30/16	13.81	0.14	1.29	1.43	(0.10)	(1.39)	(1.49)	13.75	11.23%	13,313	0.91%	1.08%
9/30/15	15.76	0.11	0.43	0.54	(0.15)	(2.34)	(2.49)	13.81	2.41%	6,927	0.89%	0.73%
Administrative Class												
9/30/19	\$16.29	\$0.07	\$(1.41)	\$(1.34)	\$(0.02)	\$(1.36)	\$(1.38)	\$13.57	(7.28%)	\$20,377	1.00%	0.51%
9/30/18	16.25	0.07	1.94	2.01	(0.03)	(1.94)	(1.97)	16.29	13.59%	26,503	0.99%	0.42%
9/30/17	13.68	0.07	2.98	3.05	(0.14)	(0.34)	(0.48)	16.25	22.75%	23,967	1.00%	0.44%
9/30/16	13.72	0.12	1.29	1.41	(0.06)	(1.39)	(1.45)	13.68	11.17%	17,641	1.01%	0.94%
9/30/15	15.68	0.10	0.41	0.51	(0.13)	(2.34)	(2.47)	13.72	2.25%	18,171	0.99%	0.64%
Class A												
9/30/19	\$15.92	\$0.03	\$(1.38)	\$(1.35)	\$ -	\$(1.36)	\$(1.36)	\$13.21	(7.54%)	\$50,524	1.25%	0.26%
9/30/18	15.93	0.03	1.90	1.93	-	(1.94)	(1.94)	15.92	13.34%	69,157	1.24%	0.17%
9/30/17	13.42	0.03	2.92	2.95	(0.10)	(0.34)	(0.44)	15.93	22.42%	73,462	1.25%	0.19%
9/30/16	13.49	0.09	1.26	1.35	(0.03)	(1.39)	(1.42)	13.42	10.88%	69,495	1.26%	0.70%
9/30/15	15.43	0.06	0.42	0.48	(0.08)	(2.34)	(2.42)	13.49	2.04%	66,359	1.24%	0.38%
Class R4												
9/30/19	\$15.81	\$0.05	\$(1.38)	\$(1.33)	\$(0.00) ^d	\$(1.36)	\$(1.36)	\$13.12	(7.43%)	\$10,591	1.15%	0.36%
9/30/18	15.83	0.04	1.89	1.93	(0.01)	(1.94)	(1.95)	15.81	13.42%	11,773	1.14%	0.26%
9/30/17	13.36	0.04	2.91	2.95	(0.14)	(0.34)	(0.48)	15.83	22.50%	9,717	1.15%	0.29%
9/30/16	13.48	0.10	1.27	1.37	(0.10)	(1.39)	(1.49)	13.36	11.06%	4,467	1.16%	0.75%
9/30/15	15.44	0.12	0.38	0.50	(0.12)	(2.34)	(2.46)	13.48	2.17%	571	1.14%	0.84%
Class R3												
9/30/19	\$15.71	\$0.01	\$(1.36)	\$(1.35)	\$ -	\$(1.36)	\$(1.36)	\$13.00	(7.66%)	\$ 8,551	1.40%	0.11%
9/30/18	15.77	0.00 ^d	1.88	1.88	-	(1.94)	(1.94)	15.71	13.14%	10,564	1.39%	0.02%
9/30/17	13.32	0.01	2.89	2.90	(0.11)	(0.34)	(0.45)	15.77	22.19%	9,008	1.40%	0.04%
9/30/16	13.46	0.07	1.25	1.32	(0.07)	(1.39)	(1.46)	13.32	10.72%	5,524	1.41%	0.51%
9/30/15	15.42	0.07	0.40	0.47	(0.09)	(2.34)	(2.43)	13.46	1.97%	1,245	1.39%	0.45%

	Year ended September 30				
	2019	2018	2017	2016	2015
Portfolio turnover rate	34%	57%	62%	57%	52%

c Per share amount calculated on the average shares method.

d Amount is less than \$0.005 per share.

f Amount is less than \$500.

l Employee retirement benefit plans that invest plan assets in the Separate Investment Accounts (SIAs) may be subject to certain charges as set forth in their respective Plan Documents. Total return figures would be lower for the periods presented if they reflected these charges.

m Total return excludes sales charges, if any, and would be lower for the period presented if it reflected these charges.

MASSMUTUAL PREMIER GLOBAL FUND

	Income (loss) from investment operations				Less distributions to shareholders			Ratios / Supplemental Data				
	Net asset value, beginning of the period	Net investment income (loss) ^c	Net realized and unrealized gain (loss) on investments	Total income (loss) from investment operations	From net investment income	From net realized gains	Total distributions	Net asset value, end of the period	Total return ^{l,m}	Net assets, end of the period (000's)	Ratio of expenses to average daily net assets	Net investment income (loss) to average daily net assets
Class I												
9/30/19	\$16.08	\$0.10	\$(0.83)	\$(0.73)	\$(0.11)	\$(2.89)	\$(3.00)	\$12.35	(1.93%)	\$ 70,159	0.84%	0.79%
9/30/18	16.46	0.13	1.52	1.65	(0.16)	(1.87)	(2.03)	16.08	10.39%	50,503	0.86%	0.79%
9/30/17	13.47	0.12	3.43	3.55	(0.18)	(0.38)	(0.56)	16.46	27.53%	34,308	0.86%	0.78%
9/30/16	13.94	0.11	0.66	0.77	(0.14)	(1.10)	(1.24)	13.47	5.50%	16,576	0.85%	0.85%
9/30/15	15.11	0.18	(0.46)	(0.28)	(0.19)	(0.70)	(0.89)	13.94	(1.92%)	1,044	0.84%	1.16%
Class R5												
9/30/19	\$16.09	\$0.08	\$(0.83)	\$(0.75)	\$(0.09)	\$(2.89)	\$(2.98)	\$12.36	(2.07%)	\$ 98,379	0.94%	0.66%
9/30/18	16.47	0.11	1.53	1.64	(0.15)	(1.87)	(2.02)	16.09	10.28%	101,536	0.96%	0.65%
9/30/17	13.46	0.08	3.48	3.56	(0.17)	(0.38)	(0.55)	16.47	27.55%	120,521	0.96%	0.54%
9/30/16	13.93	0.12	0.63	0.75	(0.12)	(1.10)	(1.22)	13.46	5.37%	125,171	0.95%	0.89%
9/30/15	15.11	0.15	(0.46)	(0.31)	(0.17)	(0.70)	(0.87)	13.93	(2.07%)	166,316	0.94%	0.99%
Service Class												
9/30/19	\$15.94	\$0.06	\$(0.82)	\$(0.76)	\$(0.06)	\$(2.89)	\$(2.95)	\$12.23	(2.23%)	\$ 6,361	1.04%	0.43%
9/30/18	16.33	0.10	1.51	1.61	(0.13)	(1.87)	(2.00)	15.94	10.17%	16,104	1.06%	0.60%
9/30/17	13.35	0.07	3.44	3.51	(0.15)	(0.38)	(0.53)	16.33	27.37%	19,086	1.06%	0.46%
9/30/16	13.83	0.11	0.62	0.73	(0.11)	(1.10)	(1.21)	13.35	5.28%	28,699	1.05%	0.87%
9/30/15	15.01	0.14	(0.46)	(0.32)	(0.16)	(0.70)	(0.86)	13.83	(2.15%)	30,582	1.04%	0.95%
Administrative Class												
9/30/19	\$16.06	\$0.06	\$(0.83)	\$(0.77)	\$(0.06)	\$(2.89)	\$(2.95)	\$12.34	(2.30%)	\$ 77,097	1.14%	0.45%
9/30/18	16.44	0.07	1.53	1.60	(0.11)	(1.87)	(1.98)	16.06	10.07%	90,239	1.16%	0.46%
9/30/17	13.44	0.05	3.47	3.52	(0.14)	(0.38)	(0.52)	16.44	27.24%	103,200	1.16%	0.36%
9/30/16	13.91	0.09	0.63	0.72	(0.09)	(1.10)	(1.19)	13.44	5.15%	99,085	1.15%	0.68%
9/30/15	15.08	0.12	(0.45)	(0.33)	(0.14)	(0.70)	(0.84)	13.91	(2.23%)	120,753	1.14%	0.79%
Class A												
9/30/19	\$15.87	\$0.03	\$(0.82)	\$(0.79)	\$(0.02)	\$(2.89)	\$(2.91)	\$12.17	(2.48%)	\$ 24,676	1.39%	0.20%
9/30/18	16.27	0.03	1.51	1.54	(0.07)	(1.87)	(1.94)	15.87	9.74%	31,725	1.41%	0.21%
9/30/17	13.29	0.02	3.44	3.46	(0.10)	(0.38)	(0.48)	16.27	26.99%	30,769	1.41%	0.12%
9/30/16	13.77	0.06	0.61	0.67	(0.05)	(1.10)	(1.15)	13.29	4.85%	32,200	1.40%	0.44%
9/30/15	14.92	0.08	(0.44)	(0.36)	(0.09)	(0.70)	(0.79)	13.77	(2.44%)	40,690	1.39%	0.54%
Class R4												
9/30/19	\$15.71	\$0.04	\$(0.82)	\$(0.78)	\$(0.06)	\$(2.89)	\$(2.95)	\$11.98	(2.45%)	\$ 7,531	1.29%	0.32%
9/30/18	16.13	0.04	1.51	1.55	(0.10)	(1.87)	(1.97)	15.71	9.90%	7,790	1.31%	0.27%
9/30/17	13.21	0.03	3.41	3.44	(0.14)	(0.38)	(0.52)	16.13	27.05%	5,560	1.31%	0.20%
9/30/16	13.74	0.09	0.61	0.70	(0.13)	(1.10)	(1.23)	13.21	5.05%	4,322	1.30%	0.73%
9/30/15	14.93	0.12	(0.48)	(0.36)	(0.13)	(0.70)	(0.83)	13.74	(2.44%)	729	1.29%	0.79%
Class R3												
9/30/19	\$15.80	\$0.01	\$(0.82)	\$(0.81)	\$ -	\$(2.89)	\$(2.89)	\$12.10	(2.69%)	\$ 10,226	1.54%	0.06%
9/30/18	16.21	0.01	1.51	1.52	(0.06)	(1.87)	(1.93)	15.80	9.64%	11,029	1.56%	0.06%
9/30/17	13.27	(0.00) ^d	3.42	3.42	(0.10)	(0.38)	(0.48)	16.21	26.73%	10,696	1.56%	(0.03%)
9/30/16	13.79	0.05	0.61	0.66	(0.08)	(1.10)	(1.18)	13.27	4.78%	8,702	1.55%	0.42%
9/30/15	14.97	0.05	(0.43)	(0.38)	(0.10)	(0.70)	(0.80)	13.79	(2.63%)	2,905	1.54%	0.36%

Portfolio turnover rate	Year ended September 30				
	2019	2018	2017	2016	2015
	32%	42%	30%	25%	32%

c Per share amount calculated on the average shares method.

d Amount is less than \$0.005 per share.

l Employee retirement benefit plans that invest plan assets in the Separate Investment Accounts (SIAs) may be subject to certain charges as set forth in their respective Plan Documents. Total return figures would be lower for the periods presented if they reflected these charges.

m Total return excludes sales charges, if any, and would be lower for the period presented if it reflected these charges.

MASSMUTUAL PREMIER INTERNATIONAL EQUITY FUND

	Income (loss) from investment operations				Less distributions to shareholders			Ratios /Supplemental Data					
	Net asset value, beginning of the period	Net investment income (loss) ^{c,j}	Net realized and unrealized gain (loss) on investments	Total income (loss) from investment operations	From net investment income	From net realized gains	Total distributions	Net asset value, end of the period	Total return ^{l,m}	Net assets, end of the period (000's)	Ratio of expenses to average daily net assets before expense waiver	Ratio of expenses to average daily net assets after expense waivers ^j	Net investment income (loss) to average daily net assets
Class I													
9/30/19	\$12.99	\$0.09	\$(0.49)	\$(0.40)	\$(0.12)	\$(0.46)	\$(0.58)	\$12.01	(2.49%)	\$149,979	0.93%	0.92%	0.81%
9/30/18	13.44	0.14	(0.42)	(0.28)	(0.17)	-	(0.17)	12.99	(2.14%)	293,575	0.96%	0.94%	1.01%
9/30/17	11.97	0.18	1.61	1.79	(0.15)	(0.17)	(0.32)	13.44	15.60%	246,510	0.96%	0.94%	1.46%
9/30/16	11.55	0.15	0.85	1.00	(0.14)	(0.44)	(0.58)	11.97	8.86%	195,019	0.95%	0.94%	1.30%
9/30/15	14.39	0.18	(0.60)	(0.42)	(0.18)	(2.24)	(2.42)	11.55	(3.02%)	169,842	0.96%	N/A	1.42%
Class R5													
9/30/19	\$12.98	\$0.10	\$(0.51)	\$(0.41)	\$(0.11)	\$(0.46)	\$(0.57)	\$12.00	(2.63%)	\$ 94,827	1.03%	1.02%	0.89%
9/30/18	13.44	0.12	(0.42)	(0.30)	(0.16)	-	(0.16)	12.98	(2.32%)	147,654	1.06%	1.04%	0.85%
9/30/17	11.97	0.17	1.61	1.78	(0.14)	(0.17)	(0.31)	13.44	15.47%	195,316	1.06%	1.04%	1.38%
9/30/16	11.54	0.14	0.85	0.99	(0.12)	(0.44)	(0.56)	11.97	8.83%	221,320	1.05%	1.04%	1.18%
9/30/15	14.38	0.13	(0.57)	(0.44)	(0.16)	(2.24)	(2.40)	11.54	(3.17%)	251,687	1.06%	N/A	1.05%
Service Class													
9/30/19	\$12.94	\$0.07	\$(0.49)	\$(0.42)	\$(0.09)	\$(0.46)	\$(0.55)	\$11.97	(2.74%)	\$ 9,393	1.13%	1.12%	0.60%
9/30/18	13.39	0.11	(0.41)	(0.30)	(0.15)	-	(0.15)	12.94	(2.33%)	23,069	1.16%	1.14%	0.79%
9/30/17	11.93	0.15	1.61	1.76	(0.13)	(0.17)	(0.30)	13.39	15.33%	21,422	1.16%	1.14%	1.25%
9/30/16	11.51	0.13	0.84	0.97	(0.11)	(0.44)	(0.55)	11.93	8.66%	22,510	1.15%	1.14%	1.09%
9/30/15	14.34	0.13	(0.57)	(0.44)	(0.15)	(2.24)	(2.39)	11.51	(3.20%)	21,741	1.16%	N/A	1.03%
Administrative Class													
9/30/19	\$12.87	\$0.08	\$(0.51)	\$(0.43)	\$(0.07)	\$(0.46)	\$(0.53)	\$11.91	(2.77%)	\$ 5,465	1.23%	1.22%	0.65%
9/30/18	13.32	0.08	(0.40)	(0.32)	(0.13)	-	(0.13)	12.87	(2.49%)	11,908	1.26%	1.24%	0.58%
9/30/17	11.87	0.15	1.58	1.73	(0.11)	(0.17)	(0.28)	13.32	15.19%	17,968	1.26%	1.24%	1.22%
9/30/16	11.45	0.11	0.85	0.96	(0.10)	(0.44)	(0.54)	11.87	8.59%	18,407	1.25%	1.24%	0.97%
9/30/15	14.27	0.12	(0.56)	(0.44)	(0.14)	(2.24)	(2.38)	11.45	(3.28%)	19,307	1.26%	N/A	0.96%
Class A													
9/30/19	\$12.49	\$0.05	\$(0.50)	\$(0.45)	\$(0.04)	\$(0.46)	\$(0.50)	\$11.54	(3.09%)	\$ 22,004	1.48%	1.47%	0.46%
9/30/18	12.93	0.05	(0.39)	(0.34)	(0.10)	-	(0.10)	12.49	(2.70%)	30,719	1.51%	1.49%	0.41%
9/30/17	11.52	0.10	1.56	1.66	(0.08)	(0.17)	(0.25)	12.93	14.95%	39,746	1.51%	1.49%	0.90%
9/30/16	11.12	0.08	0.83	0.91	(0.07)	(0.44)	(0.51)	11.52	8.34%	42,907	1.50%	1.49%	0.72%
9/30/15	13.94	0.08	(0.56)	(0.48)	(0.10)	(2.24)	(2.34)	11.12	(3.54%)	47,166	1.51%	N/A	0.65%
Class R4													
9/30/19	\$12.38	\$0.05	\$(0.48)	\$(0.43)	\$(0.06)	\$(0.46)	\$(0.52)	\$11.43	(2.95%)	\$ 4,895	1.38%	1.37%	0.48%
9/30/18	12.84	0.07	(0.40)	(0.33)	(0.13)	-	(0.13)	12.38	(2.63%)	10,673	1.41%	1.39%	0.54%
9/30/17	11.47	0.13	1.53	1.66	(0.12)	(0.17)	(0.29)	12.84	15.10%	10,932	1.41%	1.39%	1.10%
9/30/16	11.11	0.14	0.77	0.91	(0.11)	(0.44)	(0.55)	11.47	8.42%	3,648	1.40%	1.39%	1.28%
9/30/15	13.94	0.09	(0.55)	(0.46)	(0.13)	(2.24)	(2.37)	11.11	(3.46%)	349	1.41%	N/A	0.73%
Class R3													
9/30/19	\$12.34	\$0.02	\$(0.48)	\$(0.46)	\$(0.04)	\$(0.46)	\$(0.50)	\$11.38	(3.24%)	\$ 5,415	1.63%	1.62%	0.21%
9/30/18	12.79	0.03	(0.39)	(0.36)	(0.09)	-	(0.09)	12.34	(2.88%)	9,024	1.66%	1.64%	0.25%
9/30/17	11.43	0.09	1.54	1.63	(0.10)	(0.17)	(0.27)	12.79	14.77%	9,045	1.66%	1.64%	0.77%
9/30/16	11.09	0.09	0.80	0.89	(0.11)	(0.44)	(0.55)	11.43	8.24%	3,618	1.65%	1.64%	0.82%
9/30/15	13.93	0.05	(0.54)	(0.49)	(0.11)	(2.24)	(2.35)	11.09	(3.76%)	524	1.66%	N/A	0.41%

Year ended September 30

	2019	2018	2017	2016	2015
Portfolio turnover rate	52%	70%	44%	36%	45%

c Per share amount calculated on the average shares method.

j Computed after giving effect to an agreement by MML Advisers and/or MassMutual to waive certain fees and expenses of the Fund.

l Employee retirement benefit plans that invest plan assets in the Separate Investment Accounts (SIAs) may be subject to certain charges as set forth in their respective Plan Documents. Total return figures would be lower for the periods presented if they reflected these charges.

m Total return excludes sales charges, if any, and would be lower for the period presented if it reflected these charges.

MASSMUTUAL PREMIER STRATEGIC EMERGING MARKETS FUND

	Income (loss) from investment operations				Less distributions to shareholders				Ratios / Supplemental Data			
	Net asset value, beginning of the period	Net investment income (loss) ^{c,j}	Net realized and unrealized gain (loss) on investments	Total income (loss) from investment operations	From net investment income	Total distributions	Net asset value, end of the period	Total return ^{l,m}	Net assets, end of the period (000's)	Ratio of expenses to average daily net assets before expense waivers	Ratio of expenses to average daily net assets after expense waivers ^j	Net investment income (loss) to average daily net assets
Class I												
9/30/19	\$12.75	\$ 0.07	\$ 0.28	\$ 0.35	\$(0.08)	\$(0.08)	\$13.02	2.85%	\$141,988	1.21%	1.10%	0.55%
9/30/18	12.88	0.08	(0.04)	0.04	(0.17)	(0.17)	12.75	0.31%	216,085	1.27%	1.05%	0.62%
9/30/17	10.79	0.07	2.14	2.21	(0.12)	(0.12)	12.88	20.85%	236,991	1.28%	1.05%	0.65%
9/30/16	9.19	0.07	1.61	1.68	(0.08)	(0.08)	10.79	18.36%	204,626	1.31%	1.05%	0.69%
9/30/15	12.11	0.09	(2.87)	(2.78)	(0.14)	(0.14)	9.19	(23.13%)	127,823	1.37%	1.05%	0.77%
Class R5												
9/30/19	\$12.92	\$ 0.06	\$ 0.29	\$ 0.35	\$(0.07)	\$(0.07)	\$13.20	2.78%	\$ 4,295	1.31%	1.22%	0.45%
9/30/18	13.05	0.07	(0.04)	0.03	(0.16)	(0.16)	12.92	0.21%	4,047	1.37%	1.15%	0.53%
9/30/17	10.94	0.06	2.16	2.22	(0.11)	(0.11)	13.05	20.59%	3,887	1.38%	1.15%	0.54%
9/30/16	9.30	0.04	1.65	1.69	(0.05)	(0.05)	10.94	18.22%	3,148	1.41%	1.15%	0.38%
9/30/15	12.24	0.08	(2.89)	(2.81)	(0.13)	(0.13)	9.30	(23.20%)	7,389	1.47%	1.15%	0.67%
Service Class												
9/30/19	\$12.73	\$ 0.05	\$ 0.29	\$ 0.34	\$(0.02)	\$(0.02)	\$13.05	2.71%	\$ 419	1.41%	1.31%	0.42%
9/30/18	12.85	0.05	(0.03)	0.02	(0.14)	(0.14)	12.73	0.10%	230	1.47%	1.25%	0.41%
9/30/17	10.78	(0.02)	2.19	2.17	(0.10)	(0.10)	12.85	20.41%	434	1.48%	1.25%	(0.20%)
9/30/16	9.17	0.04	1.63	1.67	(0.06)	(0.06)	10.78	18.27%	8,238	1.51%	1.25%	0.43%
9/30/15	12.09	0.07	(2.87)	(2.80)	(0.12)	(0.12)	9.17	(23.23%)	7,015	1.57%	1.25%	0.63%
Administrative Class												
9/30/19	\$12.78	\$ 0.03	\$ 0.30	\$ 0.33	\$(0.03)	\$(0.03)	\$13.08	2.61%	\$ 927	1.51%	1.41%	0.24%
9/30/18	12.91	0.04	(0.03)	0.01	(0.14)	(0.14)	12.78	0.02%	879	1.57%	1.35%	0.33%
9/30/17	10.84	0.05	2.13	2.18	(0.11)	(0.11)	12.91	20.35%	1,565	1.58%	1.35%	0.41%
9/30/16	9.23	0.04	1.62	1.66	(0.05)	(0.05)	10.84	18.02%	677	1.61%	1.35%	0.42%
9/30/15	12.15	0.06	(2.88)	(2.82)	(0.10)	(0.10)	9.23	(23.32%)	431	1.67%	1.35%	0.54%
Class A												
9/30/19	\$12.73	\$ 0.01	\$ 0.28	\$ 0.29	\$(0.04)	\$(0.04)	\$12.98	2.32%	\$ 885	1.76%	1.68%	0.09%
9/30/18	12.88	0.04	(0.07)	(0.03)	(0.12)	(0.12)	12.73	(0.23%)	386	1.82%	1.60%	0.30%
9/30/17	10.74	0.02	2.14	2.16	(0.02)	(0.02)	12.88	20.18%	118	1.83%	1.60%	0.14%
9/30/16	9.13	0.01	1.60	1.61	(0.00) ^d	(0.00) ^d	10.74	17.68%	95	1.86%	1.60%	0.11%
9/30/15	12.04	0.00 ^d	(2.81)	(2.81)	(0.10)	(0.10)	9.13	(23.47%)	190	1.92%	1.60%	0.02%
Class R4												
9/30/19	\$12.63	\$ 0.01	\$ 0.29	\$ 0.30	\$(0.03)	\$(0.03)	\$12.90	2.38%	\$ 1,337	1.66%	1.57%	0.05%
9/30/18	12.76	0.03	(0.04)	(0.01)	(0.12)	(0.12)	12.63	(0.10%)	1,295	1.72%	1.50%	0.22%
9/30/17	10.72	0.03	2.11	2.14	(0.10)	(0.10)	12.76	20.23%	1,019	1.73%	1.50%	0.24%
9/30/16	9.14	0.02	1.61	1.63	(0.05)	(0.05)	10.72	17.87%	599	1.76%	1.50%	0.23%
9/30/15	12.05	0.03	(2.84)	(2.81)	(0.10)	(0.10)	9.14	(23.45%)	112	1.82%	1.50%	0.27%
Class R3												
9/30/19	\$12.60	\$(0.02)	\$ 0.29	\$ 0.27	\$ -	\$ -	\$12.87	2.14%	\$ 750	1.91%	1.81%	(0.15%)
9/30/18	12.73	(0.01)	(0.04)	(0.05)	(0.08)	(0.08)	12.60	(0.39%)	761	1.97%	1.75%	(0.09%)
9/30/17	10.70	(0.01)	2.12	2.11	(0.08)	(0.08)	12.73	19.88%	821	1.98%	1.75%	(0.07%)
9/30/16	9.12	0.00 ^d	1.61	1.61	(0.03)	(0.03)	10.70	17.66%	642	2.01%	1.75%	0.04%
9/30/15	12.03	0.03	(2.86)	(2.83)	(0.08)	(0.08)	9.12	(23.57%)	184	2.07%	1.75%	0.24%

Portfolio turnover rate	Year ended September 30				
	2019	2018	2017	2016	2015
	32%	38%	51%	33%	40%

c Per share amount calculated on the average shares method.

d Amount is less than \$0.005 per share.

j Computed after giving effect to an agreement by MML Advisers and/or MassMutual to waive certain fees and expenses of the Fund.

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m Total return excludes sales charges, if any, and would be lower for the period presented if it reflected these charges.

Index Descriptions

The **Bloomberg Barclays U.S. 1-3 Year Government Bond Index** measures the performance of the U.S. Treasury and U.S. Agency Indexes with maturities of 1-3 years, including Treasuries and U.S. agency debentures. It is a component of the U.S. Government/Credit Index and the U.S. Aggregate Index. The Index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.

The **Bloomberg Barclays U.S. Aggregate Bond Index** measures the performance of the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market, including Treasuries, government-related and corporate securities, mortgage-backed securities (MBS) (agency fixed-rate and hybrid ARM pass-throughs), asset-backed securities (ABS), and commercial mortgage-backed securities (CMBS). It rolls up into other Bloomberg Barclay's flagship indexes, such as the multi-currency Global Aggregate Index and the U.S. Universal Index, which includes high yield and emerging markets debt. The Index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.

The **Bloomberg Barclays U.S. Corporate High-Yield Bond Index** measures the performance of U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bonds, including corporate bonds, fixed-rate bullet, putable, and callable bonds, SEC Rule 144A securities, original issue zeros, pay-in-kind bonds, fixed-rate and fixed-to-floating capital securities. The Index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.

The **Bloomberg Barclays U.S. Treasury Inflation Protected Securities (TIPS) Index (Series-L)** measures the performance of rules-based, market value-weighted inflation-protected securities issued by the U.S. Treasury. It is a subset of the Global Inflation-Linked Index (Series-L). The Index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.

The **Custom Balanced Index** comprises the S&P 500, Bloomberg Barclays U.S. Aggregate Bond, and MSCI EAFE Indexes. The weightings of each index are 50%, 40%, and 10%, respectively. The Index does not reflect any deduction for fees or expenses and cannot be purchased directly by investors.

The **FTSE 3-Month Treasury Bill Index** measures the performance of the last three three-month Treasury bill month-end rates. The Index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.

The **Lipper Balanced Fund Index** is an unmanaged, equally weighted index of the 30 largest mutual funds within the Lipper Balanced Category. The Index does not reflect any deduction for taxes and cannot be purchased directly by investors.

The **MSCI All Country World Index (ACWI)** measures the performance of the large- and mid-cap segments of all country markets. It is free float-adjusted market-capitalization weighted. The Index does not reflect any deduction for fees or expenses and cannot be purchased directly by investors.

The **MSCI All Country World Index (ACWI) ex USA** measures the performance of the large- and mid-cap segments of the particular regions, excluding U.S. equity securities, including developed and emerging markets. It is free float-adjusted market-capitalization weighted. The Index does not reflect any deduction for fees or expenses and cannot be purchased directly by investors.

The **MSCI EAFE Index** measures the performance of the large- and mid-cap segments of developed markets, excluding the U.S. and Canada equity securities. It is free float-adjusted market-capitalization weighted. The Index does not reflect any deduction for fees or expenses and cannot be purchased directly by investors.

The **MSCI Emerging Markets (EM) Index** measures the performance of the large- and mid-cap segments of emerging market equity securities. It is free float-adjusted market-capitalization weighted. The Index does not reflect any deduction for fees or expenses and cannot be purchased directly by investors.

The **Russell 1000 Growth Index** measures the performance of the large-cap growth segment of U.S. equity securities. It includes the Russell 1000 Index companies with higher price-to-book ratios and higher forecasted growth values. It is market-capitalization weighted. The Index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.

The **Russell 1000 Value Index** measures the performance of the large-cap value segment of U.S. equity securities. It includes the Russell 1000 Index companies with lower price-to-book ratios and lower expected growth values. It is market-capitalization weighted. The Index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.

The **Russell 2000 Index** measures the performance of the small-cap segment of the U.S. equity universe. It is a subset of the Russell 3000[®] Index and includes approximately 2000 of the smallest securities based on a combination of their market cap and current index membership. The Index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.

The **S&P 500 Index** measures the performance of 500 widely held stocks in the U.S. equity market. Standard and Poor's chooses member companies for the index based on market size, liquidity, and industry group representation. Included are the stocks of industrial, financial, utility, and transportation companies. Since mid-1989, this composition has been more flexible and the number of issues in each sector has varied. It is market capitalization-weighted. The Index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.

MASSMUTUAL PREMIER FUNDS

100 Bright Meadow Blvd.
Enfield, Connecticut 06082-1981

Learning More About the Funds

You can learn more about the Funds by reading the Funds' **Annual and Semiannual Reports** and the **SAI**. You may obtain free copies of this information from the Funds or from the SEC using one or more of the methods set forth below. In the Annual and Semiannual Reports, you will find a discussion of market conditions and investment strategies that significantly affected each Fund's performance during the period covered by the Report and a listing of each Fund's portfolio securities as of the end of such period. The SAI provides additional information about the Funds and will provide you with more detail regarding the organization and operation of the Funds, including their investment strategies. The SAI is incorporated by reference into this Prospectus and is therefore legally considered a part of this Prospectus.

How to Obtain Information

From MassMutual Premier Funds: You may request information about the Funds free of charge (including the Annual/Semiannual Reports and the SAI) or make shareholder inquiries by calling 1-888-309-3539 or by writing MassMutual Premier Funds, c/o Massachusetts Mutual Life Insurance Company, 100 Bright Meadow Blvd., Enfield, Connecticut 06082-1981, **Attention: MassMutual U.S. Product and Marketing**. You may also obtain copies of the Annual/Semiannual Reports and the SAI free of charge at <http://www.massmutual.com/funds>.

From the SEC: Information about the Funds (including the Annual/Semiannual Reports and the SAI) is available on the SEC's EDGAR database on its Internet site at <http://www.sec.gov>. You can also get copies of this information, upon payment of a copying fee, by electronic request at publicinfo@sec.gov.

When obtaining information about the Funds from the SEC, you may find it useful to reference the **Funds' SEC file number: 811-08690**.

Underwriter:

MML Distributors, LLC
100 Bright Meadow Blvd.
Enfield, Connecticut 06082-1981

