

MassMutual Select Funds

MassMutual Select Fundamental Value Fund

Ticker: Class I–MFUZX, Class R5–MVUSX, Service Class–MFUYX, Administrative Class–MFULX, Class A–MFUAX, Class R4–MFUFY, Class R3–MFUNX

Before you invest, you may want to review the Fund's prospectus, which contains more information about the Fund and its risks. You can find the Fund's prospectus and other information about the Fund online at www.massmutual.com/funds. You can also get this information at no cost by calling 1-888-309-3539 or by sending an email request to fundinfo@massmutual.com.

INVESTMENT OBJECTIVE

The Fund seeks long-term 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 145 of the Fund's Prospectus or from your financial professional.

Shareholder Fees (fees paid directly from your investment)

| | Class I | Class R5 | Service Class | Adminis- trative Class | Class A | Class R4 | Class R3 |
|--|---------|----------|---------------|---------------------------|---------|----------|----------|
| Maximum Sales Charge (Load) Imposed on Purchases (as a % of offering price) | None | None | None | None | 5.75% | 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 | Adminis- trative Class | Class A | Class R4 | Class R3 |
|---|-------------|-------------|---------------|---------------------------|--------------|--------------|--------------|
| Management Fees | .60% | .60% | .60% | .60% | .60% | .60% | .60% |
| Distribution and Service (Rule 12b-1) Fees | None | None | None | None | .25% | .25% | .50% |
| Other Expenses | .03% | .13% | .23% | .33% | .33% | .23% | .23% |
| Total Annual Fund Operating Expenses | .63% | .73% | .83% | .93% | 1.18% | 1.08% | 1.33% |

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 | \$ 64 | \$202 | \$ 351 | \$ 786 |
| Class R5 | \$ 75 | \$233 | \$ 406 | \$ 906 |
| Service Class | \$ 85 | \$265 | \$ 460 | \$1,025 |
| Administrative Class | \$ 95 | \$296 | \$ 515 | \$1,143 |
| Class A | \$688 | \$928 | \$1,187 | \$1,924 |
| Class R4 | \$110 | \$343 | \$ 595 | \$1,317 |
| Class R3 | \$135 | \$421 | \$ 729 | \$1,601 |

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 16% of the average value of its portfolio.

INVESTMENTS, RISKS, AND PERFORMANCE

Principal Investment Strategies

The Fund invests primarily in equity securities of issuers that the Fund’s subadviser, *Wellington Management Company LLP* (“Wellington Management”), believes are undervalued. Under normal circumstances, the Fund invests at least 80% of its net assets (plus the amount of any borrowings for investment purposes) in equity securities. Equity securities include common stock, preferred stock, securities convertible into common or preferred stock, rights, and warrants. Although the Fund may invest in companies of any size, the Fund will tend to focus on companies with large market capitalizations (which Wellington Management believes are generally above \$2 billion). The Fund may invest up to 20% of its total assets in the securities of foreign issuers and American Depositary Receipts (“ADRs”), including emerging market securities. The Fund may hold a portion of its assets in cash or cash equivalents.

Wellington Management generally employs a bottom-up investment approach based on fundamental analysis of companies with large market capitalizations and estimated below-average projected price-to-earnings ratio. Based on its assessment of various company-specific factors, such as its business environment, management, balance sheet, income statement, cash flow, anticipated earnings, hidden or undervalued assets, dividends, and other related measures of value, Wellington Management seeks to identify what it considers to be overlooked or misunderstood companies with sound fundamentals. Wellington Management generally focuses on what it believes are securities of viable, growing businesses with good financial strength in industries that are temporarily out of favor and under-researched by institutions, but provide the potential for above-average total returns and sell at estimated below-average price-to-earnings multiples. Market

timing is not employed, and limited consideration is given to macroeconomic analysis in establishing sector and industry weightings. Wellington Management may sell existing holdings as they approach their price targets.

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.

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.

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, investor confidence, or announcements of economic, political, or financial information. While potentially offering greater opportunities for capital growth than larger, more established companies, the stocks of smaller companies may be particularly volatile, especially during periods of economic uncertainty. These companies may face less certain growth prospects, or depend heavily on a limited line of products and services or the efforts of a small number of key management personnel.

Foreign Investment Risk; Emerging Markets Risk; Currency Risk Investments in securities of non-U.S. issuers (including depositary receipts) entail risks not typically associated with investing in securities of U.S. issuers. Similar risks may apply to securities traded on a U.S. securities exchange that are issued by companies with significant exposure to non-U.S. countries. In certain countries, legal remedies available to investors may be more limited than those

available with regard to U.S. investments. 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 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. Foreign investments may be subject to the risks of seizure by a foreign government, imposition of restrictions on the exchange or export of foreign currency, other economic sanctions, and tax increases. 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. Non-U.S. transaction costs, such as brokerage commissions and custody costs may be higher than in the United States. In addition, there may be a possibility of nationalization or expropriation of assets, imposition of currency exchange controls, confiscatory taxation, political or financial instability, and diplomatic developments that could adversely affect the values of the Fund's investments in certain non-U.S. countries.

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

Liquidity Risk Certain securities may be difficult (or impossible) to sell or positions 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.

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.

Smaller and Mid-Cap Company Risk Market risk and liquidity risk are particularly pronounced for securities of smaller 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. Smaller 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.

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.

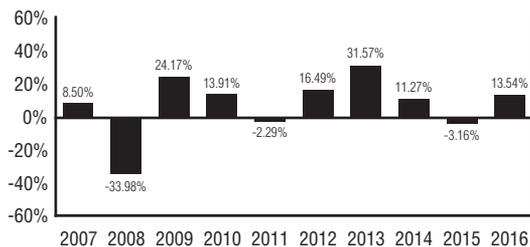
Performance Information

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 (11/15/10) 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 '09, 16.02% Lowest Quarter: 4Q '08, -19.40%

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, 2016)

| | | One Year | Five Years | Ten Years |
|----------|--|----------|------------|-----------|
| Class R5 | Return Before Taxes | 13.54% | 13.40% | 6.38% |
| | Return After Taxes on Distributions | 11.12% | 11.10% | 4.95% |
| | Return After Taxes on Distributions and Sales of Fund Shares | 9.69% | 10.56% | 5.00% |

| | | One Year | Five Years | Ten Years |
|--|---------------------|----------|------------|-----------|
| Class I | Return Before Taxes | 13.71% | 13.57% | 6.48% |
| Service Class | Return Before Taxes | 13.35% | 13.29% | 6.31% |
| Administrative Class | Return Before Taxes | 13.38% | 13.17% | 6.18% |
| Class A | Return Before Taxes | 6.50% | 11.55% | 5.28% |
| Class R4 | Return Before Taxes | 13.12% | 13.01% | 6.01% |
| Class R3 | Return Before Taxes | 12.86% | 12.65% | 5.64% |
| Russell 1000 Value Index (reflects no deduction for fees, expenses, or taxes) | | 17.34% | 14.80% | 5.72% |

MANAGEMENT

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

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

Portfolio Manager: Karen H. Grimes, CFA is a Senior Managing Director and Equity Portfolio Manager at Wellington Management. She has managed the Fund since March 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.