

Important Disclosures

Current performance may be lower or higher than return data quoted herein. For more current information, including month-end performance, please call 877-474-5016 or visit www.massmutual.com/retire.

The investment return and the principal value of an investment will fluctuate; so an investor's shares/units, when redeemed, may be worth more or less than their original cost. Investment portfolio statistics change over time. The investment is not FDIC-insured, may lose value and is not guaranteed by a bank or other financial institution.

Some plan investments may be made available through an unregistered group annuity contract issued to your plan by the Massachusetts Mutual Life Insurance Company ("MassMutual"). If that is the case, those plan investments 1.) may be in a separate investment account of MassMutual that purchases shares/units of one or more underlying investments, or 2.) may be invested directly in the investment via a separate arrangement between your plan and a trust company.

Pre-inception Returns

For newer share classes, Morningstar may provide adjusted historical returns based on the oldest surviving share class of a fund with at least three years of performance history. This enables companies to showcase the complete history of an investment. Morningstar calculates these returns by adjusting the initial share class performance for any difference in fee structure. However, if using the expenses of the newer share class rather than the expenses of the older share class would result in better performance, then pre-inception performance represents that of the older share class without any expense adjustment. The fees and expenses are referenced in the report's Operations section. Adjusted historical returns are not actual returns. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the investment itself.

Performance

These figures reflect performance without adjusting for sales charges or the effects of taxation. They are adjusted, however, to reflect all actual ongoing fund expenses and assume reinvestment of dividends and capital gains. Returns are compared to an appropriate benchmark peer group to help investors evaluate performance. The investment's performance is generally compared with that of an index. The index is an unmanaged portfolio of specified securities and does not reflect any initial or ongoing expenses nor can it be invested in directly. An investment's portfolio may differ significantly from the securities in the index. The Index may not be the same as the comparative index noted in the investment's prospectus (if applicable).

Gross Expense Ratio/Net Expense Ratio

Expense ratios reflect the percentage of the investment's assets paid for operating expenses and management fees. In contrast to net expense ratios, gross expense ratios do not reflect any fee waivers in effect during the time period, which are typically disclosed alongside the expense ratios themselves. Net expense ratios reflect the fees actually borne by investors during the period they are in effect. Investment expense information (including waiver information) is pulled from an investment's most recent prospectus, if applicable. If an additional separate investment account fee applies, it is added to the gross and net expense ratio listed in the prospectus or other source of the expense information and factored into the performance of the separate investment account.

Unitized Plan Fund

If this is a unitized plan fund, it will invest in shares of the referenced underlying investment. Depending on the level of administrative services revenue ("ASR") generated from the underlying investment and MassMutual's target ASR for the plan, on a periodic basis MassMutual will make adjustments to the unitized plan fund's expense to cause each unitized plan fund to produce ASR equal to the target ASR. If the ASR MassMutual receives from the underlying investment is more than MassMutual's target ASR, MassMutual will allocate to the unitized plan fund a share of the revenue MassMutual received from the underlying investment so that the net expense of the unitized plan fund equals MassMutual's target revenue. If the ASR MassMutual receives from an

underlying investment is less than MassMutual's target ASR, MassMutual will redeem shares or units from the underlying investment such that the amount of the revenue received from the underlying investment for administrative services and the redeemed share or units equals MassMutual's target revenue. As a result of this process, the reported performance and expenses of the unitized plan fund is based on but not identical to the performance and expenses reported for the underlying investment.

Maximum Sales Charge/12b-1 Fee/Redemption Fee

Maximum Sales Charges and Redemption Fees are waived for MassMutual retirement plan participants. In addition, 12b-1 Fees are a component of the Net and Gross Expense Ratio; they are not in addition to the overall expense ratio.

Morningstar Proprietary Statistics

Some Morningstar proprietary calculations, including the Morningstar Rating, Morningstar Return, and Morningstar Risk may be calculated based on pre-inception returns. Please see the pre-inception returns disclosure (above) for more details. For definitions of these statistics, please visit www.MassMutual.com/FF/mstrdisclosure.pdf.

Morningstar Rating™

This brings load-adjustments, performance (returns) and risk together into one evaluation. To determine a fund's star rating for a given time period (three, five, or 10 years), the fund's risk-adjusted return is plotted on a bell curve: If the fund scores in the top 10% of its category, it receives 5 stars (Highest); if it falls in the next 22.5% it receives 4 stars (Above Average); a place in the middle 35% earns 3 stars (Average); those lower still, in the next 22.5%, receive 2 stars (Below Average); and the bottom 10% get only 1 star (Lowest). The Overall Morningstar Rating is a weighted average of the available three-, five-, and 10-year ratings.

Investment Risk

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

Risks of investing in debt securities investments include the risk that a bond issuer will default by failing to repay principal and interest in a timely manner (credit risk) and/or the risk that the value of these securities will decline when interest rates increase (interest rate risk).

Risks of investing in inflation-protected bond investments include credit risk and interest rate risk. Neither the bond investment nor its yield is guaranteed by the U.S. government.

High-yield bond investments are generally subject to greater market fluctuations and risk of loss of income and principal than lower-yielding debt securities investments. Investments that track a benchmark index are professionally managed. However, the benchmark index itself is unmanaged and does not incur fees or expenses and cannot be purchased directly.

Investments in value stocks may remain undervalued for extended periods of time, and the market may not recognize the intrinsic value of these securities.

Investments in growth stocks may experience price volatility due to their sensitivity to market fluctuations and dependence on future earnings expectations.

Investments in companies with small or mid market capitalization ("small caps" or "mid caps") may be subject to special risks given their characteristic narrow markets, limited financial resources, and less liquid stocks, all of which may cause price volatility.

International/global investing can involve special risks, such as political changes and currency fluctuations. These risks are heightened in emerging markets.

A significant percentage of the underlying investments in aggressive asset allocation portfolio investments have a

higher than average risk exposure. Investors should consider their risk tolerance carefully before choosing such a strategy. An investment with multiple underlying investments (which may include MM RetireSMARTSM and any other offered proprietary or non-proprietary asset-allocation, lifestyle (risk based), lifecycle (target date) or custom blended investments) may be subject to the expenses of those underlying investments in addition to those of the investment itself.

Investments may reside in the specialty category due to 1) allowable investment flexibility that precludes classification in standard asset categories and/or 2) investment concentration in a limited group of securities or industry sectors. Investments in this category may be more volatile than less-flexible and/or less-concentrated investments and may be appropriate as only a minor component in an investor's overall portfolio.

Participants with a large ownership interest in a company or employer stock investment may have the potential to manipulate the value of units of this investment option through their trading practices. As a result, special transfer restrictions may apply. This type of investment option presents a higher degree of risk than diversified investment options under the plan because it invests in the securities of a single company.

Investments that invest more of their assets in a single issuer or industry sector (such as company stock or sector investments) involve additional risks, including unit price fluctuations, because of the increased concentration of investments.

A participant will be prohibited from transferring into most mutual funds and similar investments if they have transferred into and out of the same investment within the previous 60 days. Certain stable value, guaranteed interest, fixed income and other investments are not subject to this rule. This rule does not prohibit participants from transferring out of any investment at any time.

Target Date (lifecycle)

Generally these investment options are designed to be held beyond the presumed retirement date to offer a continuing investment option for the investor in retirement. The year in the investment option name refers to the approximate year an investor in the option would plan to retire and likely would stop making new contributions to the investment option. However, investors may choose a date other than their presumed retirement date to be more conservative or aggressive depending on their own risk tolerance.

They are designed for participants who plan to withdraw the value of their accounts gradually after retirement. Each of these options follows its own asset allocation path ("glide path") to progressively reduce its equity exposure and become more conservative over time. Options may not reach their most conservative allocation until after their target date. Others may reach their most conservative allocation in their target date year. Investors should consider their own personal risk tolerance, circumstances and financial situation. These options should not be selected solely on a single factor such as age or retirement date. Please consult the prospectus (if applicable) pertaining to the options to determine if their glide path is consistent with your long-term financial plan. Target retirement date investment options' stated asset allocation may be subject to change.

Investments in these options are not guaranteed and you may experience losses, including losses near, at, or after the target date. Additionally, there is no guarantee that the options will provide adequate income at and through retirement.

Investors should consider an investment's objectives, risks, charges and expenses carefully before investing. For this and other information, see a fact sheet (investment profile) or the prospectus, if applicable. You may obtain a prospectus or fact sheet from your plan sponsor or visiting www.retiresmart.com. Read it carefully before investing.

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Investors should consider an investment's objectives, risks, charges and expenses carefully before investing. For this and other information, see a fact sheet (investment profile) or the prospectus, if applicable. You may obtain a prospectus or fact sheet from your plan sponsor or visiting www.retiresmart.com. Read it carefully before investing.

MassMutual Core SAGIC¹

Asset Category: Stable Value
Total Portfolio Assets: \$2,179 million

Inception: January 1999
As of December 31, 2017



Objective

To provide a stated rate of return, generated from performance of a core bond portfolio, that insulates the account from daily fluctuations in the bond market

SAGIC Structure Benefits

- Stable value guarantees with performance pass-through of an intermediate-term bond portfolio
- Provides guarantee of principal and book value participant transactions
- Separate account assets segregated from general obligations of MassMutual²
- Guarantees provided by MassMutual, which is among highest rated insurance companies
- Transparent structure and expense ratio of 0.66%³

Expected Benefits of Stable Value Product

- Principal Preservation
- Seeks steady, positive returns in excess of money market rates
- Insulation of participant account values from market fluctuation
- Book value liquidity for bona-fide benefit payments and participant-directed transfers to non-competing investments⁴
- Fixed crediting rate with investment experience realized through periodic rate reset that can be quarterly or semi-annual

BOOK VALUE PERFORMANCE (%)⁵



CHARACTERISTICS OF THE SEPARATE ACCOUNT (yield data is gross of product expense)

	MassMutual Core SAGIC	Bloomberg Barclays U.S. Aggregate Bond Index
No. of Holdings	860	9732
Average Quality	Aa3 / AA-	Aa2 / AA
Average Coupon	3.19	3.15
Duration (Years)	5.71	5.78
Weighted Yield to Maturity (%)	3.82	2.68
Weighted Current Yield (%)	3.76	2.97
Weighted Average Life (Years)	10.58	7.89
Market-to-book ratio (%) ⁶	101.1	---

PORTFOLIO MANAGER

- Barings is an investment management firm with over \$299.3 billion⁷ in assets under management focusing on fixed income securities

- Involved with stable value portfolios since 1999 and currently managing \$19.5 billion in Stable Value assets
- Team Approach to Portfolio Management, Dave Nagle, CFA, Team leader

1. MassMutual Core Bond Separate Account Guaranteed Interest Contract.
2. Assets allocated to the Core SAGIC separate account under MassMutual group annuity contracts (the "Contract") issued in Minnesota are not segregated from the general obligations of MassMutual in the event of insolvency.
3. Some client contracts may have higher or lower fees than the standard expense ratio.
4. Plan sponsor withdrawals at market value or at book value over time in annual installments. **Competing investments (which include certain fixed-income investments and self-directed brokerage accounts) are subject to asset transfer restrictions with regard to the SAGIC.**
5. Periods greater than one year are annualized. This investment is only available through a MassMutual group annuity contract (the "Contract"). Performance shown was calculated as set forth here and actual historical crediting rates under the Contracts varies from that shown due to cash flow and other fees and expenses associated with the Contracts. These rates are based on an initial lump-sum deposit made at the beginning of the indicated periods (for quarter, year-to-date, 1-, and 3-year returns) with quarterly book value account interest rate resets. Past performance does not guarantee future results. Performance is based on the book value account; performance may be higher or lower depending on actual historical crediting rates applicable to each Contract. A higher or lower return might have been realized had the contract been discontinued by the plan sponsor and, consequently, the market value account balance would be applied upon distribution. Historical performance reflects current expense so that the 0.07% increase in expense effective 10/1/17 is captured in performance history prior to this date.
6. Represents client assets on an aggregate basis, however, each client contract experiences its own ratio that differs from the aggregate
7. Assets include Barings LLC.

Massachusetts Mutual Life Insurance Company (MassMutual) and its affiliated companies and representatives.

Western Asset Core Plus Bond A WAPAX

Benchmark

BBgBarc US Agg Bond TR USD

Overall Morningstar Rating™

★★★★★

Out of 847 Intermediate-Term Bond funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

High

Morningstar Risk

Above Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks to maximize total return, consistent with prudent investment management and liquidity needs.

The fund invests in a portfolio of fixed income securities of various maturities and, under normal market conditions, will invest at least 80% of its net assets in debt and fixed income securities. Although the fund may invest in securities of any maturity, it will normally maintain a dollar-weighted average effective duration within 30% of the average duration of the domestic bond market as a whole as estimated by the fund's subadvisers. The fund may invest up to 20% of its total assets in non-U.S. dollar denominated securities.

Fees and Expenses as of 05-01-17

Prospectus Net Expense Ratio	0.82%
Total Annual Operating Expense	0.89%
Maximum Sales Charge	4.25%
12b-1 Fee	0.25%
Redemption Fee/Term	—

Waiver Data

Type	Exp. Date	%	
ExpenseRatio	Contractual	12-31-17	0.07

Operations and Management

Initial Class Inception Date	07-08-98
Fund Inception Date	04-30-12
Portfolio Manager(s)	Carl L. Eichstaedt, CFA Michael C. Buchanan, CFA
Name of Issuer	Legg Mason
Telephone	877-721-1926
Web Site	www.leggmason.com

Benchmark Description: BBgBarc US Agg Bond TR USD

The index measures the performance of investment grade, U.S. dollar-denominated, fixed-rate taxable bond market, including Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM passthroughs), ABS, and CMBS. It rolls up into other Barclays flagship indices, such as the multi-currency Global Aggregate Index and the U.S. Universal Index, which includes high yield and emerging markets debt.

Category Description: Intermediate-Term Bond

Intermediate-term bond portfolios invest primarily in corporate and other investment-grade U.S. fixed-income issues and typically have durations of 3.5 to 6.0 years. These portfolios are less sensitive to interest rates, and therefore less volatile, than portfolios that have longer durations. Morningstar calculates monthly breakpoints using the effective duration of the Morningstar Core Bond Index in determining duration assignment. Intermediate-term is defined as 75% to 125% of the three-year average effective duration of the MCBI.

Performance



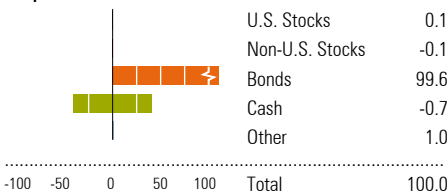
Quarter End Returns as of 12-31-17

	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	6.71	6.71	3.94	3.53	5.65	3.97
Standardized Return %	2.17	2.17	2.44	2.63	5.19	3.18

Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 09-30-17

Composition as of 09-30-17



Morningstar Fixed Income Style Box™ as of 09-30-17



Top 10 Holdings as of 09-30-17

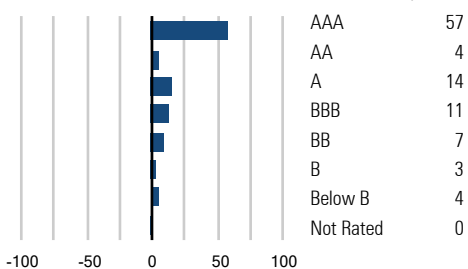
Security	% Assets
US Treasury Bond 3% 05-15-45	5.50
US Treasury Bond 3% 02-15-47	3.77
US Treasury Bond 3.75% 11-15-43	3.62
Fed Natl Mort Assc 3.5% 10-15-46	3.16
US Treasury Note 1.875% 08-31-22	2.58
Freddie Mac Gold Single Family TBA 3% 10-01-47	1.72
US Treasury Note 1.375% 04-30-21	1.56
Govt Natl Mtg Asso 3% 10-15-46	1.49
Fannie Mae Single Family TBA 3% 2032-1 11-01-32	1.43
US Treasury Note 2.25% 11-15-25	1.16

Total Number of Stock Holdings	2
Total Number of Bond Holdings	1719
Annual Turnover Ratio %	97.00
Total Fund Assets (\$mil)	22,088.26

Morningstar Sectors as of 09-30-17

Sector	% Fund	% Category
Government	24.59	25.73
Corporate	20.99	27.32
Securitized	27.57	34.79
Municipal	0.00	1.76
Cash/Cash Equivalents	9.53	6.24
Other	17.32	4.16

Credit Analysis as of 09-30-17



Principal Risks as of 09-30-17

Hedging Strategies, Credit and Counterparty, Extension, Prepayment (Call), Currency, Emerging Markets, Foreign Securities, Loss of Money, Not FDIC Insured, Temporary Defensive Measures, Interest Rate, Market/Market Volatility, High-Yield Securities, Mortgage-Backed and Asset-Backed Securities, Other, Restricted/Illiquid Securities, Derivatives, Leverage, Pricing, Sovereign Debt, Cash Drag, Shareholder Activity, Management

Loomis Sayles Strategic Income A NEFZX

Benchmark
BBgBarc US Universal TR USD

Overall Morningstar Rating™
★★★
Out of 257 Multisector Bond funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return
Above Average

Morningstar Risk
High

Investment Objective & Strategy

From investment's prospectus

The investment seeks high current income with a secondary objective of capital growth.

The fund will invest substantially all of its assets in income producing securities (including below investment grade securities, or "junk bonds") with a focus on U.S. corporate bonds, convertible securities, foreign debt instruments, including those in emerging markets and related foreign currency transactions, and U.S. government securities. The fund is not limited in the percentage of its assets that it may invest in these instruments.

Fees and Expenses as of 09-30-17

Prospectus Net Expense Ratio	0.96%
Total Annual Operating Expense	0.96%
Maximum Sales Charge	4.25%
12b-1 Fee	0.25%
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	05-01-95
Portfolio Manager(s)	Daniel J. Fuss, CFA Matthew J. Eagan, CFA
Name of Issuer	Natixis Funds
Telephone	800-225-5478
Web Site	NGAM.natixis.com

Benchmark Description: BBgBarc US Universal TR USD

The index measures the performance of USD-denominated, taxable bonds that are rated either investment grade or high-yield. It represents the union of the U.S. Aggregate Index, U.S. Corporate High Yield Index, Investment Grade 144A Index, Eurodollar Index, U.S. Emerging Markets Index, and the non-ERISA eligible portion of the CMBS Index.

Category Description: Multisector Bond

Multisector-bond portfolios seek income by diversifying their assets among several fixed-income sectors, usually U.S. government obligations, U.S. corporate bonds, foreign bonds, and high-yield U.S. debt securities. These portfolios typically hold 35% to 65% of bond assets in securities that are not rated or are rated by a major agency such as Standard & Poor's or Moody's at the level of BB (considered speculative for taxable bonds) and below.

Performance

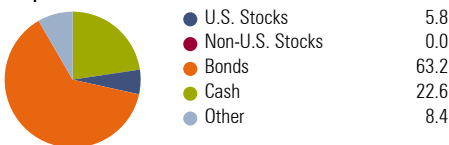


Quarter End Returns as of 12-31-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	7.22	7.22	2.35	4.66	6.00	8.23
Standardized Return %	2.66	2.66	0.88	3.76	5.54	8.02

Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 11-30-17

Composition as of 11-30-17



Morningstar Fixed Income Style Box™ as of 11-30-17



Top 10 Holdings as of 11-30-17

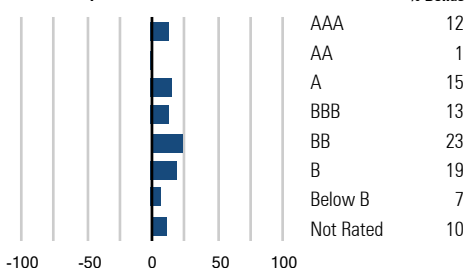
Security	% Assets
Bristol-Myers Squibb Company	5.30
US Treasury Note 0.75% 09-30-18	2.45
US Treasury Note 1% 11-30-18	2.45
Canada Govt 0.75% 09-01-20	2.34
New Zealand(Govt) 5% 03-15-19	1.77
United Mexican States 8% 12-07-23	1.50
Morgan Stanley Sr Unsecured 09/21 5 09-30-21	1.48
Dish Net Cv 3.375% 08-15-26	1.47
New Zealand(Govt) 6% 05-15-21	1.34
United Mexican States 10% 12-05-24	1.33

Total Number of Stock Holdings	8
Total Number of Bond Holdings	317
Annual Turnover Ratio %	11.00
Total Fund Assets (\$mil)	9,694.73

Morningstar Sectors as of 11-30-17

Sector	% Fund	% Category
Government	23.11	20.04
Corporate	49.31	40.98
Securitized	1.41	17.77
Municipal	1.47	2.72
Cash/Cash Equivalents	24.70	7.50
Other	0.00	11.00

Credit Analysis as of 11-30-17



Principal Risks as of 11-30-17

Credit and Counterparty, Currency, Emerging Markets, Foreign Securities, Loss of Money, Not FDIC Insured, Issuer, Interest Rate, Market/Market Volatility, Equity Securities, High-Yield Securities, Mortgage-Backed and Asset-Backed Securities, Restricted/Illiquid Securities, Derivatives, Leverage, Management

PIMCO High Yield A PHDAX

Benchmark

ICE BofAML US High Yield TR USD

Investment Objective & Strategy

From investment's prospectus

The investment seeks maximum total return, consistent with preservation of capital and prudent investment management.

The fund invests at least 80% of its assets in a diversified portfolio of high yield securities ("junk bonds"), which may be represented by forwards or derivatives. It may invest up to 20% of its total assets in securities rated Caa or below by Moody's, or equivalently rated by S&P or Fitch, or, if unrated, determined by PIMCO to be of comparable quality. The fund may invest, without limitation, in derivative instruments, such as options, futures contracts or swap agreements, or in mortgage- or asset-backed securities.

Fees and Expenses as of 07-28-17

Prospectus Net Expense Ratio	0.90%
Total Annual Operating Expense	0.91%
Maximum Sales Charge	3.75%
12b-1 Fee	0.25%
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	01-13-97
Portfolio Manager(s)	Andrew Jessop Hozef Arif
Name of Issuer	Pimco
Telephone	888-877-4626
Web Site	www.pimco.com

Benchmark Description: ICE BofAML US High Yield TR USD

The index measures the performance of short-term US dollar denominated below investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have at least 18 months to final maturity at the time of issuance, at least one year remaining term to final maturity as of the rebalancing date, a fixed coupon schedule and a minimum amount outstanding of \$100 million. It is capitalization-weighted.

Category Description: High Yield Bond

High-yield bond portfolios concentrate on lower-quality bonds, which are riskier than those of higher-quality companies. These portfolios generally offer higher yields than other types of portfolios, but they are also more vulnerable to economic and credit risk. These portfolios primarily invest in U.S. high-income debt securities where at least 65% or more of bond assets are not rated or are rated by a major agency such as Standard & Poor's or Moody's at the level of BB (considered speculative for taxable bonds) and below.

Overall Morningstar Rating™

★★★

Out of 609 High Yield Bond funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Average

Morningstar Risk

Average

Performance



Quarter End Returns as of 12-31-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	6.64	6.64	5.41	4.91	6.45	6.43
Standardized Return %	2.64	2.64	4.08	4.11	6.04	6.23

Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 09-30-17

Composition as of 09-30-17	% Net
U.S. Stocks	0.0
Non-U.S. Stocks	0.1
Bonds	89.6
Cash	8.3
Other	2.0
Total	100.0

Morningstar Fixed Income Style Box™ as of 09-30-17

Not Available	Avg Eff Duration	3.13
	Avg Eff Maturity	4.68
	Avg Wtd Price	104.29

Top 10 Holdings as of 09-30-17	% Assets
Pimco Fds 12-12-17	13.81
Cdx Hy28 5y Ice 06-20-22	2.75
Cdx Hy27 5y Ice 12-20-21	0.99
Crimson Merger Sub / Ortho-C 144 6.625% 05-15-22	0.78
Sprint 7.875% 09-15-23	0.54
Lloyds Bkg Grp FRN	0.52
Cdx Hy26 5y Ice 06-20-21	0.50
Cdx Hy25 5y Ice 12-20-20	0.48
Cdx Hy23 5y Ice 12-20-19	0.47
Mgm Resorts Intl 6.625% 12-15-21	0.39

Morningstar Sectors as of 09-30-17	% Fund	% Category
Government	0.00	4.36
Corporate	80.28	87.15
Securitized	0.03	2.56
Municipal	0.00	0.57
Cash/Cash Equivalents	14.20	3.32
Other	5.48	2.04

Credit Analysis % Bonds
Not Available

Total Number of Stock Holdings	12
Total Number of Bond Holdings	780
Annual Turnover Ratio %	31.00
Total Fund Assets (\$mil)	10,266.22

Principal Risks as of 09-30-17

Short Sale, Credit and Counterparty, Prepayment (Call), Currency, Emerging Markets, Foreign Securities, Loss of Money, Not FDIC Insured, Issuer, Interest Rate, Market/Market Volatility, Equity Securities, High-Yield Securities, Mortgage-Backed and Asset-Backed Securities, Restricted/Illiquid Securities, Derivatives, Leverage, Sovereign Debt, Management

PIMCO Foreign Bond (USD-Hedged) A PFOAX

Benchmark
Citi WGBI NonUSD USD

Overall Morningstar Rating™
★★★★★

Morningstar Return
High

Morningstar Risk
Below Average

Out of 271 World Bond funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Investment Objective & Strategy

From investment's prospectus

The investment seeks maximum total return, consistent with preservation of capital and prudent investment management.

The fund normally invests at least 80% of its assets in Fixed Income Instruments that are economically tied to foreign (non-U.S.) countries, representing at least three foreign countries, which may be represented by forwards or derivatives such as options, future contracts or swap agreements. It invests primarily in investment grade debt securities, but may invest up to 10% of its total assets in junk bonds rated B or higher. The fund is non-diversified.

Fees and Expenses as of 07-28-17

Prospectus Net Expense Ratio	0.90%
Total Annual Operating Expense	0.95%
Maximum Sales Charge	3.75%
12b-1 Fee	0.25%
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	01-20-97
Portfolio Manager(s)	Andrew Thomas Balls Lorenzo Pagani
Name of Issuer	Pimco
Telephone	888-877-4626
Web Site	www.pimco.com

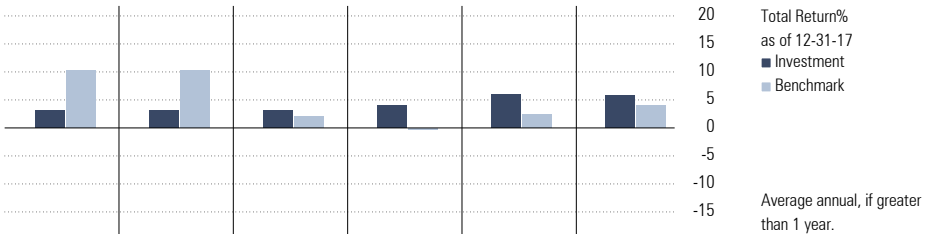
Benchmark Description: Citi WGBI NonUSD USD

The index measures the performance of fixed-rate, local currency, investment-grade sovereign bonds of all WGBI countries except the United States and is stated in US dollar terms. It is a subset of Citigroup World Government Bond Index (WGBI).

Category Description: World Bond

World-bond portfolios typically invest 40% or more of their assets in foreign bonds. These portfolios invest primarily in investment-grade rated issues, but their strategies can vary. Some follow a conservative approach, sticking with high-quality bonds from developed markets and/or hedging foreign currency exposure back to the U.S. dollar. Others are more adventurous, owning some lower-quality bonds from developed or emerging markets and/or taking meaningful foreign currency risk. Some portfolios invest exclusively outside the U.S., while others regularly invest in both U.S. and non-U.S. bonds.

Performance



	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	
Fund Return %	3.11	3.11	3.20	4.11	6.06	5.89	Fund Return %
Standardized Return %	-0.76	-0.76	1.89	3.31	5.66	5.69	Load-Adj. Return %
			1.99	-0.29	2.44	4.05	Benchmark Return %
			2.01	0.91	3.47	4.46	Category Average %
			★★★★★	★★★★★	★★★★★	—	Morningstar Rating™
			271	243	136	—	# of Funds in Category

Quarter End Returns as of 12-31-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	3.11	3.11	3.20	4.11	6.06	5.89
Standardized Return %	-0.76	-0.76	1.89	3.31	5.66	5.69

Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 09-30-17

Composition as of 09-30-17	% Net
U.S. Stocks	0.0
Non-U.S. Stocks	0.0
Bonds	109.8
Cash	-12.0
Other	2.3
Total	100.0

Morningstar Fixed Income Style Box™ as of 09-30-17

Not Available	Avg Eff Duration	6.57
	Avg Eff Maturity	8.94
	Avg Wtd Price	—

Top 10 Holdings as of 09-30-17

	% Assets
IRS USD 2.25000 12/18/18-0Y* CME_Pay 06-18-19	54.73
IRS USD 1.75000 12/18/17-0Y*	54.69
CME_Receiv 06-18-18	—
90 Day Eurodollar Future Mar18 03-19-18	21.28
90 Day Eurodollar Future Mar19 03-18-19	21.21
IRS USD 1.25000 06/21/17-2Y CME_Pay 06-21-19	18.23
Cdx Itraxx Main26 5y Ice 12-20-21	15.71
IRS EUR 0.50000 03/21/18-5Y LCH_Receiv 03-21-23	14.66
US 10 Year Note (CBT) Dec17 12-19-17	13.91
Euro Schatz Dec17 12-07-17	12.58
3 Month Canadian Bankers' Acceptance D 12-18-17	10.65

Total Number of Stock Holdings	0
Total Number of Bond Holdings	890
Annual Turnover Ratio %	252.00
Total Fund Assets (\$mil)	8,625.71

Principal Risks as of 09-30-17

Short Sale, Credit and Counterparty, Prepayment (Call), Currency, Emerging Markets, Foreign Securities, Loss of Money, Not FDIC Insured, Nondiversification, Issuer, Interest Rate, Market/Market Volatility, Equity Securities, High-Yield Securities, Mortgage-Backed and Asset-Backed Securities, Restricted/Illiquid Securities, Derivatives, Leverage, Sovereign Debt, Management

Morningstar Sectors as of 09-30-17

	% Fund	% Category
Government	43.42	43.41
Corporate	3.53	15.43
Securitized	7.17	8.20
Municipal	0.05	0.25
Cash/Cash Equivalents	32.77	13.01
Other	13.06	19.69

Credit Analysis

Not Available % Bonds

American Funds American Balanced R3 RLBCX

Benchmark

Morningstar Mod Tgt Risk TR USD

Overall Morningstar Rating™

★★★★★

Out of 718 Allocation-50% to 70% Equity funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

High

Morningstar Risk

Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks conservation of capital, current income and long-term growth of capital and income.

The fund uses a balanced approach to invest in a broad range of securities, including common stocks and investment-grade bonds. It also invests in securities issued and guaranteed by the U.S. government and by federal agencies and instrumentalities. In addition, the fund may invest a portion of its assets in common stocks, most of which have a history of paying dividends, bonds and other securities of issuers domiciled outside the United States.

Fees and Expenses as of 06-30-17

Prospectus Net Expense Ratio	0.93%
Total Annual Operating Expense	0.93%
Maximum Sales Charge	—
12b-1 Fee	0.50%
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	06-04-02
Portfolio Manager(s)	John H. Smet
	Hilda L. Applbaum, CFA
Name of Issuer	American Funds
Telephone	800-421-4225
Web Site	www.americanfunds.com

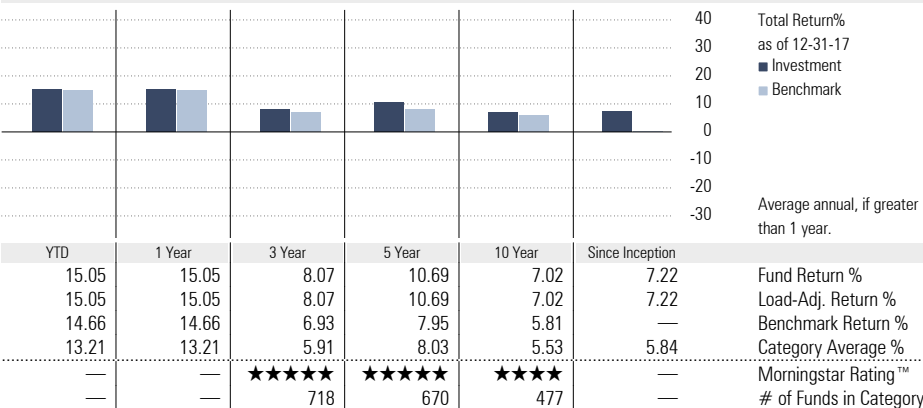
Benchmark Description: Morningstar Mod Tgt Risk TR USD

The Morningstar Target Risk Index family is designed to meet the needs of investors who would like to maintain a target level of equity exposure through a portfolio diversified across equities, bonds and inflation-hedged instruments. The Morningstar Moderate Target Risk Index seeks approximately 60% exposure to global equity markets.

Category Description: Allocation-50% to 70% Equity

Funds in allocation categories seek to provide both income and capital appreciation by investing in multiple asset classes, including stocks, bonds, and cash. These portfolios are dominated by domestic holdings and have equity exposures between 50% and 70%.

Performance

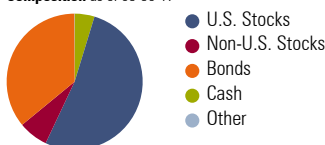


Quarter End Returns as of 12-31-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	15.05	15.05	8.07	10.69	7.02	7.22
Standardized Return %	15.05	15.05	8.07	10.69	7.02	7.22

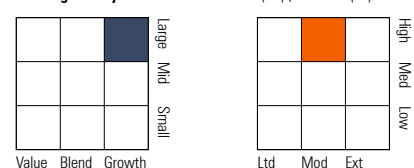
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 09-30-17

Composition as of 09-30-17



Morningstar Style Box™ as of 09-30-17(EQ) ; 09-30-17(F-I)



Top 10 Holdings as of 09-30-17

Company	% Assets
Microsoft Corp	3.95
The Home Depot Inc	2.33
Berkshire Hathaway Inc A	2.20
UnitedHealth Group Inc	1.99
Comcast Corp Class A	1.94
Philip Morris International Inc	1.83
DowDuPont Inc	1.70
Amazon.com Inc	1.64
Broadcom Ltd	1.49
Wells Fargo & Co	1.42

Total Number of Stock Holdings	125
Total Number of Bond Holdings	1364
Annual Turnover Ratio %	79.00
Total Fund Assets (\$mil)	124,866.18

Morningstar Sectors as of 09-30-17

Sector	% Fund	S&P 500 %
Cyclical	33.65	32.88
Basic Materials	5.63	2.81
Consumer Cyclical	11.50	11.11
Financial Services	15.58	16.78
Real Estate	0.94	2.18
Sensitive	45.59	41.76
Communication Services	5.77	3.76
Energy	10.53	6.07
Industrials	6.07	10.69
Technology	23.22	21.24
Defensive	20.76	25.35
Consumer Defensive	10.23	8.35
Healthcare	10.03	14.07
Utilities	0.50	2.93

Principal Risks as of 09-30-17

Foreign Securities, Loss of Money, Not FDIC Insured, Growth Investing, Active Management, Income, Issuer, Market/Market Volatility, Mortgage-Backed and Asset-Backed Securities, Restricted/Illiquid Securities, U.S. Government Obligations, Fixed-Income Securities

MassMutual Select Fundamental Value A MFUAX

Benchmark

Russell 1000 Value TR USD

Overall Morningstar Rating™

★★★

Out of 1090 Large Value funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Average

Morningstar Risk

Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks long-term total return.

The fund invests primarily in equity securities of issuers that the fund's subadviser believes are undervalued. It normally invests at least 80% of its net assets (plus the amount of any borrowings for investment purposes) in equity securities. Equity securities may include common stocks, preferred stocks, securities convertible into common or preferred stocks, rights, and warrants. It may invest up to 20% of its total assets in the securities of foreign issuers and American Depositary Receipts, including emerging market securities.

Fees and Expenses as of 09-30-17

Prospectus Net Expense Ratio	1.18%
Total Annual Operating Expense	1.18%
Maximum Sales Charge	5.75%
12b-1 Fee	0.25%
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	12-31-01
Portfolio Manager(s)	Karen H. Grimes, CFA R. Lewis Ropp
Name of Issuer	MassMutual
Telephone	888-309-3539
Web Site	www.massmutual.com

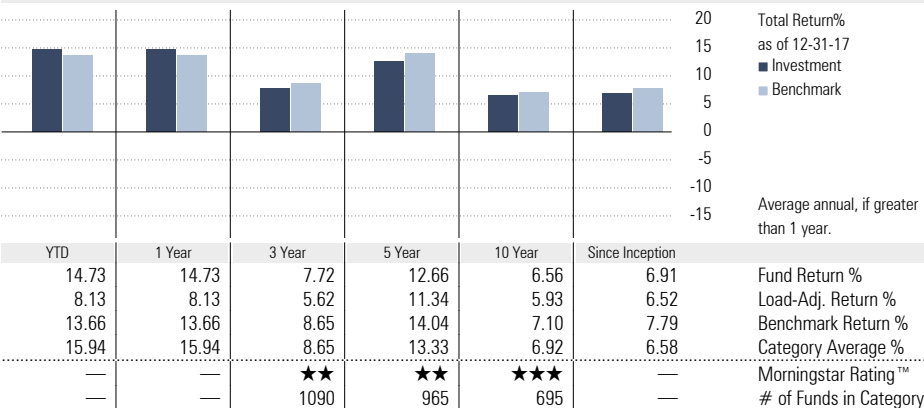
Benchmark Description: Russell 1000 Value TR USD

The index measures the performance of the large-cap value segment of the US 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. Russell Investment Group is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. Russell® is a trademark of Russell Investment Group.

Category Description: Large Value

Large-value portfolios invest primarily in big U.S. companies that are less expensive or growing more slowly than other large-cap stocks. Stocks in the top 70% of the capitalization of the U.S. equity market are defined as large cap. Value is defined based on low valuations (low price ratios and high dividend yields) and slow growth (low growth rates for earnings, sales, book value, and cash flow).

Performance

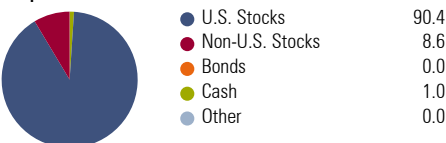


Quarter End Returns as of 12-31-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	14.73	14.73	7.72	12.66	6.56	6.91
Standardized Return %	8.13	8.13	5.62	11.34	5.93	6.52

Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 09-30-17

Composition as of 09-30-17



Morningstar Equity Style Box™ as of 09-30-17

Style	% Mkt Cap
Giant	52.36
Large	29.97
Medium	16.52
Small	1.14
Micro	0.00

Top 10 Holdings as of 09-30-17

Company	% Assets
JPMorgan Chase & Co	4.50
Wells Fargo & Co	3.11
Citigroup Inc	2.85
Cisco Systems Inc	2.74
PNC Financial Services Group Inc	2.54
Intel Corp	2.38
Merck & Co Inc	2.37
Chevron Corp	2.36
Bank of America Corporation	1.95
Chubb Ltd	1.71

Total Number of Stock Holdings	78
Total Number of Bond Holdings	0
Annual Turnover Ratio %	13.00
Total Fund Assets (\$mil)	1,265.65

Morningstar Sectors as of 09-30-17

Sector	% Fund	S&P 500 %
Cyclical	43.32	32.88
Basic Materials	1.70	2.81
Consumer Cyclical	12.67	11.11
Financial Services	28.95	16.78
Real Estate	0.00	2.18
Sensitive	35.98	41.76
Communication Services	2.30	3.76
Energy	10.12	6.07
Industrials	11.13	10.69
Technology	12.43	21.24
Defensive	20.70	25.35
Consumer Defensive	5.13	8.35
Healthcare	12.07	14.07
Utilities	3.50	2.93

Principal Risks as of 09-30-17

Currency, Emerging Markets, Foreign Securities, Loss of Money, Not FDIC Insured, Value Investing, Market/Market Volatility, Convertible Securities, Equity Securities, Industry and Sector Investing, Preferred Stocks, Restricted/Illiquid Securities, Pricing, Cash Drag, Management, Small Cap, Mid-Cap, Large Cap

Delaware Value[®] A DDVAX

Benchmark

Russell 1000 Value TR USD

Overall Morningstar Rating™

★★★★

Out of 1090 Large Value funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Above Average

Morningstar Risk

Below Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks long-term capital appreciation.

Under normal circumstances, the fund will invest at least 80% of its net assets, plus the amount of any borrowings for investment purposes, in securities of large-capitalization companies (the 80% policy). It invests primarily in securities of large-capitalization companies that the Manager believes have long-term capital appreciation potential. The fund's advisor currently defines large-capitalization stocks as those with market capitalizations of \$5 billion or greater at the time of purchase.

Fees and Expenses as of 05-31-17

Prospectus Net Expense Ratio	0.97%
Total Annual Operating Expense	0.97%
Maximum Sales Charge	5.75%
12b-1 Fee	0.25%
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	09-14-98
Portfolio Manager(s)	D. Tysen Nutt
	Robert A. Vogel, CFA
Name of Issuer	Delaware Funds by Macquarie
Telephone	800-523-1918
Web Site	www.delawarefunds.com

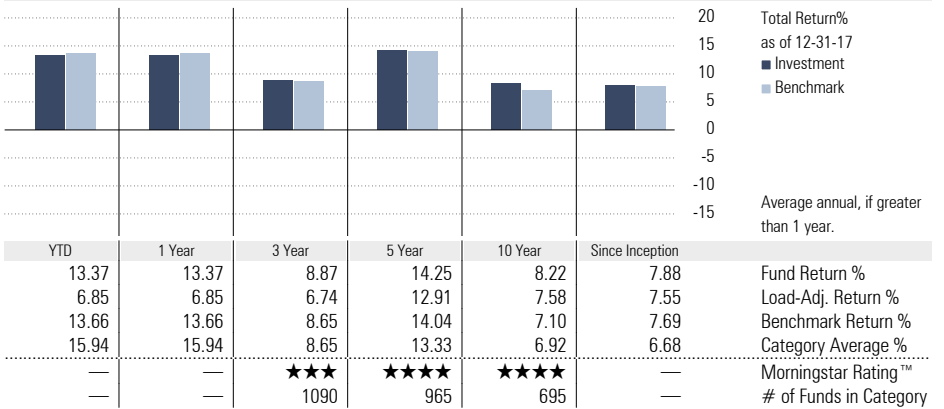
Benchmark Description: Russell 1000 Value TR USD

The index measures the performance of the large-cap value segment of the US 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. Russell Investment Group is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. Russell® is a trademark of Russell Investment Group.

Category Description: Large Value

Large-value portfolios invest primarily in big U.S. companies that are less expensive or growing more slowly than other large-cap stocks. Stocks in the top 70% of the capitalization of the U.S. equity market are defined as large cap. Value is defined based on low valuations (low price ratios and high dividend yields) and slow growth (low growth rates for earnings, sales, book value, and cash flow).

Performance



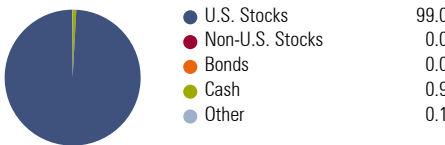
Quarter End Returns as of 12-31-17

	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	13.37	13.37	8.87	14.25	8.22	7.88
Standardized Return %	6.85	6.85	6.74	12.91	7.58	7.55

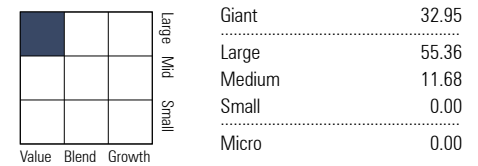
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 11-30-17

Composition as of 11-30-17



Morningstar Equity Style Box™ as of 11-30-17



Top 10 Holdings as of 11-30-17

Company	% Assets
Occidental Petroleum Corp	3.20
Allstate Corp	3.18
BB&T Corp	3.16
Dollar Tree Inc	3.12
Express Scripts Holding Co	3.12
Lowe's Companies Inc	3.12
Northrop Grumman Corp	3.12
Mondelez International Inc Class A	3.11
Cisco Systems Inc	3.10
Waste Management Inc	3.10

Total Number of Stock Holdings	33
Total Number of Bond Holdings	0
Annual Turnover Ratio %	9.00
Total Fund Assets (\$mil)	12,776.09

Morningstar Sectors as of 11-30-17

Sector	% Fund	S&P 500 %
Cyclical	21.72	32.88
Basic Materials	3.04	2.81
Consumer Cyclical	3.15	11.11
Financial Services	12.54	16.78
Real Estate	2.99	2.18
Sensitive	42.72	41.76
Communication Services	5.91	3.76
Energy	15.22	6.07
Industrials	9.36	10.69
Technology	12.23	21.24
Defensive	35.56	25.35
Consumer Defensive	9.04	8.35
Healthcare	23.46	14.07
Utilities	3.06	2.93

Principal Risks as of 11-30-17

Loss of Money, Not FDIC Insured, Market/Market Volatility, Industry and Sector Investing, Restricted/Illiquid Securities, Regulation/Government Intervention, Management, Portfolio Diversification

MassMutual Select Equity Opports A MFVAX

Benchmark
Russell 1000 TR USD

Overall Morningstar Rating™
★★★
Out of 1217 Large Blend funds. **An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.**

Morningstar Return
Above Average

Morningstar Risk
High

Investment Objective & Strategy

From investment's prospectus

The investment seeks growth of capital over the long-term.

The fund invests primarily in equity securities of U.S. companies that the fund's subadvisers believe are financially sound, valued conservatively by the market, and have improving prospects. It typically invests most of its assets in equity securities of U.S. companies, but may invest in foreign securities and American Depositary Receipts ("ADRs"), including emerging market securities. The fund generally will not invest more than 30% of its total assets in foreign securities.

Fees and Expenses as of 09-30-17

Prospectus Net Expense Ratio	1.28%
Total Annual Operating Expense	1.28%
Maximum Sales Charge	5.75%
12b-1 Fee	0.25%
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	05-01-00
Portfolio Manager(s)	Donald J. Kilbride John D. Linehan, CFA
Name of Issuer	MassMutual
Telephone	888-309-3539
Web Site	www.massmutual.com

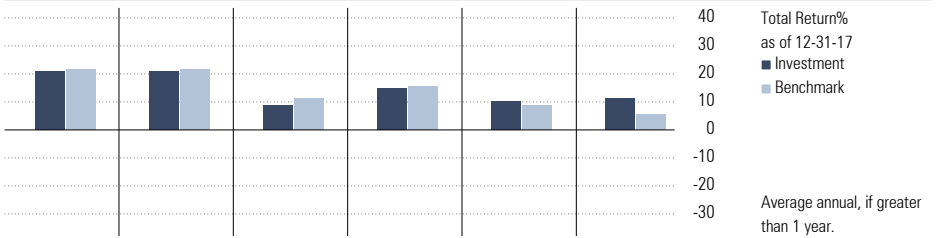
Benchmark Description: Russell 1000 TR USD

The index measures the performance of the large-cap segment of the US equity securities. It is a subset of the Russell 3000 index and includes approximately 1000 of the largest securities based on a combination of their market cap and current index membership.

Category Description: Large Blend

Large-blend portfolios are fairly representative of the overall US stock market in size, growth rates and price. Stocks in the top 70% of the capitalization of the US equity market are defined as large cap. The blend style is assigned to portfolios where neither growth nor value characteristics predominate. These portfolios tend to invest across the spectrum of US industries, and owing to their broad exposure, the portfolios' returns are often similar to those of the S&P 500 Index.

Performance



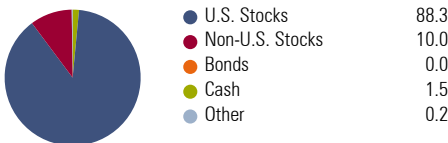
	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	
Fund Return %	20.98	20.98	8.84	14.70	10.28	11.34	Fund Return %
Load-Adj. Return %	14.02	14.02	6.71	13.35	9.63	10.96	Load-Adj. Return %
Benchmark Return %	21.69	21.69	11.23	15.71	8.59	5.69	Benchmark Return %
Category Average %	20.44	20.44	9.70	14.24	7.61	4.44	Category Average %
Morningstar Rating™	—	—	★★	★★	★★★★	—	Morningstar Rating™
# of Funds in Category	—	—	1217	1079	800	—	# of Funds in Category

Quarter End Returns as of 12-31-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	20.98	20.98	8.84	14.70	10.28	11.34
Standardized Return %	14.02	14.02	6.71	13.35	9.63	10.96

Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 09-30-17

Composition as of 09-30-17



Morningstar Equity Style Box™ as of 09-30-17

Style	% Mkt Cap
Giant	46.03
Large	49.75
Medium	4.22
Small	0.00
Micro	0.00

Top 10 Holdings as of 09-30-17

Company	% Assets
Microsoft Corp	4.39
United Parcel Service Inc Class B	3.78
Nike Inc B	3.58
Bristol-Myers Squibb Company	3.33
Chubb Ltd	3.30
PNC Financial Services Group Inc	3.30
Public Storage	2.96
American Express Co	2.95
Diageo PLC	2.87
Medtronic PLC	2.77

Total Number of Stock Holdings	64
Total Number of Bond Holdings	0
Annual Turnover Ratio %	131.00
Total Fund Assets (\$mil)	710.40

Morningstar Sectors as of 09-30-17

Sector	% Fund	S&P 500 %
Cyclical	40.28	32.88
Basic Materials	3.41	2.81
Consumer Cyclical	9.05	11.11
Financial Services	24.34	16.78
Real Estate	3.48	2.18
Sensitive	27.28	41.76
Communication Services	1.92	3.76
Energy	3.24	6.07
Industrials	12.42	10.69
Technology	9.70	21.24
Defensive	32.44	25.35
Consumer Defensive	13.53	8.35
Healthcare	16.92	14.07
Utilities	1.99	2.93

Principal Risks as of 09-30-17

Currency, Emerging Markets, Foreign Securities, Loss of Money, Not FDIC Insured, Value Investing, Market/Market Volatility, Convertible Securities, Equity Securities, Preferred Stocks, Restricted/Illiquid Securities, Pricing, Cash Drag, Management, Small Cap, Mid-Cap, Large Cap

MM S&P 500 Index Fund MIEAX

Class R4

Benchmark
S&P 500 TR USD

Overall Morningstar Rating™
★★★

Morningstar Return
Average

Morningstar Risk
Average

Out of 1217 Large Blend funds. **An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.**

Investment Objective & Strategy

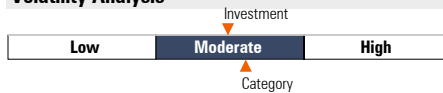
The investment seeks to approximate as closely as practicable (before fees and expenses) the capitalization-weighted total rate of return of that portion of the U.S. market for publicly-traded common stocks composed of larger-capitalized companies.

The fund invests at least 80% (and, typically, substantially all) of its net assets (plus the amount of any borrowings for investment purposes) in the equity securities of companies included within the index. It invests in the equity securities of companies included in the index in weightings that approximate the relative composition of the securities contained in the index, and in S&P 500 Index futures contracts.

Category Description: Large Blend

Large-blend portfolios are fairly representative of the overall US stock market in size, growth rates and price. Stocks in the top 70% of the capitalization of the US equity market are defined as large cap. The blend style is assigned to portfolios where neither growth nor value characteristics predominate. These portfolios tend to invest across the spectrum of US industries, and owing to their broad exposure, the portfolios' returns are often similar to those of the S&P 500 Index.

Volatility Analysis



In the past, this investment has shown a relatively moderate range of price fluctuations relative to other investments. This investment may experience larger or smaller price declines or price increases depending on market conditions. Some of this risk may be offset by owning other investments with different portfolio makeups or investment strategies.

Best 3 Month Return	Worst 3 Month Return
25.78%	-29.85%
(Mar '09 - May '09)	(Sep '08 - Nov '08)

Operations as of 02-01-17

Expense	Ratio %	Per \$1000
Gross Expense	0.62	6.20
Net Expense	0.62	6.20

Fund Inception Date	02-27-98
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Waiver Data	Type	Exp. Date	%
—	—	—	—

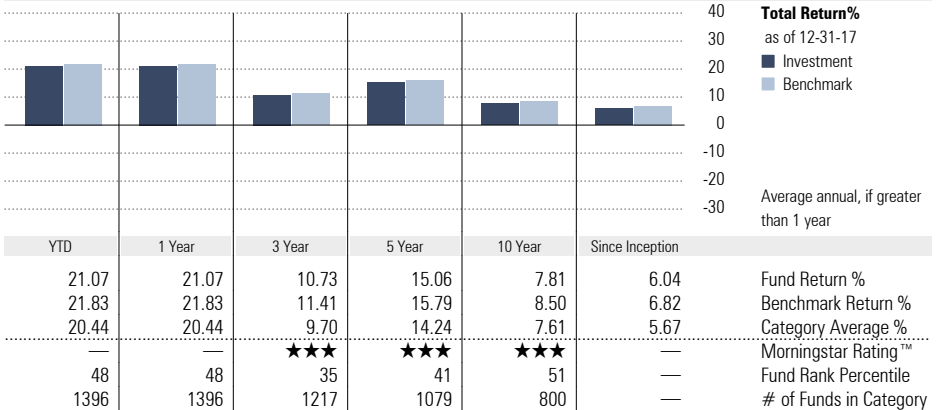
Portfolio Manager(s)

Brent Reeder	
Management Company	MML Investment Advisers, LLC
Name of Issuer	MassMutual

Notes

See disclosure page for more details.

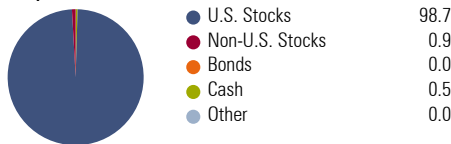
Performance



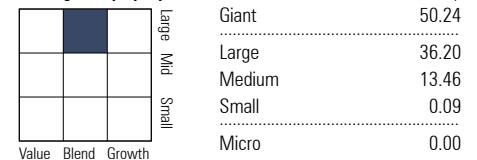
Performance Disclosure: The performance data given represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; so an investor's shares/units, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein.

Portfolio Analysis as of 12-31-17

Composition as of 12-31-17



Morningstar Equity Style Box™ as of 12-31-17



Top 10 Holdings as of 12-31-17

Company	% Assets
Apple Inc	3.70
Microsoft Corp	2.81
S + p500 Emini Fut Mar18 Xcme 20180316 03-16-18	2.40
Amazon.com Inc	1.99
Facebook Inc A	1.79
Berkshire Hathaway Inc B	1.62
Johnson & Johnson	1.60
JPMorgan Chase & Co	1.58
Exxon Mobil Corp	1.51
Alphabet Inc C	1.35

Total Number of Stock Holdings	504
Total Number of Bond Holdings	0
Annual Turnover Ratio %	5
Total Fund Assets (\$mil)	3,249.3

Morningstar Equity Sectors as of 12-31-17

Sector	% Fund	S&P 500 %
Cyclical	33.11	32.88
Basic Materials	2.81	2.81
Consumer Cyclical	11.12	11.11
Financial Services	16.80	16.78
Real Estate	2.38	2.18
Sensitive	41.59	41.76
Communication Services	3.57	3.76
Energy	6.08	6.07
Industrials	10.69	10.69
Technology	21.25	21.24
Defensive	25.31	25.35
Consumer Defensive	8.36	8.35
Healthcare	14.01	14.07
Utilities	2.94	2.93

Principal Risks as of 12-31-17

Loss of Money, Not FDIC Insured, Index Correlation/Tracking Error, Market/Market Volatility, Equity Securities, Industry and Sector Investing, Derivatives, Pricing, Cash Drag, Management, Large Cap

ClearBridge Large Cap Growth A SBLGX

Benchmark

Russell 1000 Growth TR USD

Overall Morningstar Rating™

★★★★★

Out of 1216 Large Growth funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Above Average

Morningstar Risk

Below Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks long-term capital growth.

Under normal circumstances, the fund invests at least 80% of its net assets, plus borrowings for investment purposes, if any, in equity securities or other instruments with similar economic characteristics of U.S. companies with large market capitalizations.

Fees and Expenses as of 11-30-17

Prospectus Net Expense Ratio	1.06%
Total Annual Operating Expense	1.06%
Maximum Sales Charge	5.75%
12b-1 Fee	0.25%
Redemption Fee/Term	—

Waiver Data

Type	Exp. Date	%
—	—	—

Operations and Management

Fund Inception Date	08-29-97
Portfolio Manager(s)	Peter Bourbeau Margaret B. Vitrano
Name of Issuer	Legg Mason
Telephone	877-721-1926
Web Site	http://www.leggmason.com/

Benchmark Description: Russell 1000 Growth TR USD

The index measures the performance of the large-cap growth segment of the US 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. Russell Investment Group is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. Russell® is a trademark of Russell Investment Group.

Category Description: Large Growth

Large-growth portfolios invest primarily in big U.S. companies that are projected to grow faster than other large-cap stocks. Stocks in the top 70% of the capitalization of the U.S. equity market are defined as large cap. Growth is defined based on fast growth (high growth rates for earnings, sales, book value, and cash flow) and high valuations (high price ratios and low dividend yields). Most of these portfolios focus on companies in rapidly expanding industries.

Performance



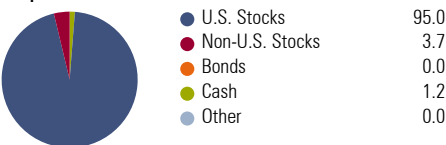
Quarter End Returns as of 12-31-17

	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	25.04	25.04	13.38	17.80	10.00	8.82
Standardized Return %	17.85	17.85	11.17	16.42	9.36	8.50

Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 09-30-17

Composition as of 09-30-17



Morningstar Equity Style Box™ as of 09-30-17

Style	% Mkt Cap
Giant	46.27
Large	39.14
Medium	14.59
Small	0.00
Micro	0.00

Top 10 Holdings as of 09-30-17

Company	% Assets
Amazon.com Inc	4.65
Celgene Corp	3.68
Microsoft Corp	3.57
Visa Inc Class A	3.32
Alphabet Inc C	3.23
Facebook Inc A	2.80
Comcast Corp Class A	2.74
UnitedHealth Group Inc	2.73
The Home Depot Inc	2.69
Adobe Systems Inc	2.38
Total Number of Stock Holdings	47
Total Number of Bond Holdings	0
Annual Turnover Ratio %	13.00
Total Fund Assets (\$mil)	9,514.36

Morningstar Sectors as of 09-30-17

Sector	% Fund	S&P 500 %
Cyclical	31.78	32.88
Basic Materials	3.98	2.81
Consumer Cyclical	14.75	11.11
Financial Services	13.05	16.78
Real Estate	0.00	2.18
Sensitive	41.79	41.76
Communication Services	2.78	3.76
Energy	3.85	6.07
Industrials	7.96	10.69
Technology	27.20	21.24
Defensive	26.43	25.35
Consumer Defensive	4.76	8.35
Healthcare	21.67	14.07
Utilities	0.00	2.93

Principal Risks as of 09-30-17

Loss of Money, Not FDIC Insured, Growth Investing, Issuer, Market/Market Volatility, Equity Securities, Other, Restricted/Illiquid Securities, Management, Large Cap

Hartford Growth Opportunities R5 HGOTX

Benchmark
Russell 1000 Growth TR USD

Overall Morningstar Rating™
★★★
Out of 1216 Large Growth funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return
Above Average

Morningstar Risk
High

Investment Objective & Strategy

From investment's prospectus

The investment seeks capital appreciation.

The fund invests primarily in a diversified portfolio of common stocks covering a broad range of industries, companies and market capitalizations that the sub-adviser believes have superior growth potential with a focus on mid to large capitalization stocks. It may invest up to 25% of its net assets in foreign issuers and non-dollar securities. The fund may trade securities actively.

Fees and Expenses as of 10-31-17

Prospectus Net Expense Ratio	0.85%
Total Annual Operating Expense	0.85%
Maximum Sales Charge	—
12b-1 Fee	—
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Initial Class Inception Date	02-19-02
Fund Inception Date	12-22-06
Portfolio Manager(s)	Michael T. Carmen, CPA Mario E. Abularach, CFA
Name of Issuer	Hartford Mutual Funds
Telephone	888-843-7824
Web Site	www.hartfordfunds.com

Benchmark Description: Russell 1000 Growth TR USD

The index measures the performance of the large-cap growth segment of the US 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. Russell Investment Group is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. Russell® is a trademark of Russell Investment Group.

Category Description: Large Growth

Large-growth portfolios invest primarily in big U.S. companies that are projected to grow faster than other large-cap stocks. Stocks in the top 70% of the capitalization of the U.S. equity market are defined as large cap. Growth is defined based on fast growth (high growth rates for earnings, sales, book value, and cash flow) and high valuations (high price ratios and low dividend yields). Most of these portfolios focus on companies in rapidly expanding industries.

Performance

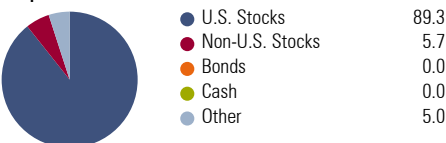


Quarter End Returns as of 12-31-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	30.58	30.58	12.79	17.17	7.86	9.64
Standardized Return %	30.58	30.58	12.79	17.17	7.86	9.64

Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 11-30-17

Composition as of 11-30-17



Morningstar Equity Style Box™ as of 11-30-17

Style	% Mkt Cap
Giant	16.01
Large	34.60
Medium	43.52
Small	4.76
Micro	1.10

Top 10 Holdings as of 11-30-17

Company	% Assets
Alphabet Inc C	7.41
Facebook Inc A	4.96
Workday Inc Class A	2.50
NVIDIA Corp	2.38
Salesforce.com Inc	2.38
CoStar Group Inc	2.29
PayPal Holdings Inc	2.16
ServiceNow Inc	2.05
American Express Co	2.04
Uber Technologies Inc Preferred Stock	2.01
Total Number of Stock Holdings	83
Total Number of Bond Holdings	0
Annual Turnover Ratio %	117.00
Total Fund Assets (\$mil)	4,703.07

Morningstar Sectors as of 11-30-17

Sector	% Fund	S&P 500 %
Cyclical	28.72	32.88
Basic Materials	0.99	2.81
Consumer Cyclical	13.75	11.11
Financial Services	10.02	16.78
Real Estate	3.96	2.18
Sensitive	53.65	41.76
Communication Services	0.00	3.76
Energy	0.59	6.07
Industrials	10.17	10.69
Technology	42.89	21.24
Defensive	17.64	25.35
Consumer Defensive	2.36	8.35
Healthcare	15.28	14.07
Utilities	0.00	2.93

Principal Risks as of 11-30-17

Currency, Foreign Securities, Loss of Money, Not FDIC Insured, Growth Investing, High Portfolio Turnover, Market/Market Volatility, Equity Securities, Industry and Sector Investing, Management, Mid-Cap

JPMorgan Mid Cap Value A JAMCX

Benchmark

Russell Mid Cap TR USD

Overall Morningstar Rating™

★★★★

Out of 359 Mid-Cap Blend funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Average

Morningstar Risk

Below Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks growth from capital appreciation.

Under normal circumstances, the fund invests at least 80% of its assets in equity securities of mid cap companies. "Assets" means net assets, plus the amount of borrowings for investment purposes. Mid cap companies are companies with market capitalizations equal to those within the universe of the Russell Midcap Value Index and/or between \$1 billion and \$20 billion at the time of purchase.

Fees and Expenses as of 11-01-17

Prospectus Net Expense Ratio	1.24%
Total Annual Operating Expense	1.26%
Maximum Sales Charge	5.25%
12b-1 Fee	0.25%
Redemption Fee/Term	—

Waiver Data

Type	Exp. Date	%
ExpenseRatio	Contractual 10-31-18	0.02

Operations and Management

Fund Inception Date	04-30-01
Portfolio Manager(s)	Jonathan K.L. Simon, CPA Lawrence E. Playford, CPA
Name of Issuer	JPMorgan
Telephone	800-480-4111
Web Site	www.jpmorganfunds.com

Benchmark Description: Russell Mid Cap TR USD

The index measures the performance of the mid-cap segment of the US equity universe. It is a subset of Russell 1000 index and includes approximately 800 of the smallest securities based on a combination of their market cap and current index membership. The index represents approximately 31% of the total market capitalization of the Russell 1000 companies.

Category Description: Mid-Cap Blend

The typical mid-cap blend portfolio invests in U.S. stocks of various sizes and styles, giving it a middle-of-the-road profile. Most shy away from high-priced growth stocks but aren't so price-conscious that they land in value territory. The U.S. mid-cap range for market capitalization typically falls between \$1 billion and \$8 billion and represents 20% of the total capitalization of the U.S. equity market. The blend style is assigned to portfolios where neither growth nor value characteristics predominate.

Performance



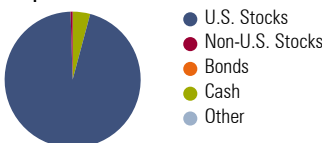
Quarter End Returns as of 12-31-17

	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	13.13	13.13	7.84	13.55	9.07	10.44
Standardized Return %	7.19	7.19	5.92	12.33	8.48	10.08

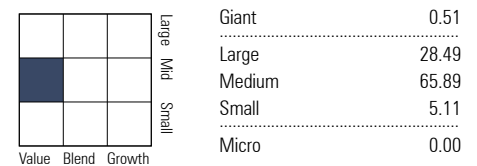
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 11-30-17

Composition as of 11-30-17



Morningstar Equity Style Box™ as of 11-30-17



Top 10 Holdings as of 11-30-17

Company	% Assets
JPMorgan US Government MMkt Instl	4.17
Mohawk Industries Inc	2.04
Energen Corp	1.97
EQT Corp	1.80
Loews Corp	1.76
M&T Bank Corp	1.67
Xcel Energy Inc	1.62
CMS Energy Corp	1.56
WEC Energy Group Inc	1.54
Edison International	1.48
Total Number of Stock Holdings	109
Total Number of Bond Holdings	0
Annual Turnover Ratio %	23.00
Total Fund Assets (\$mil)	19,249.94

Morningstar Sectors as of 11-30-17

Sector	% Fund	S&P 500 %
Cyclical	55.56	32.88
Basic Materials	2.25	2.81
Consumer Cyclical	20.99	11.11
Financial Services	23.29	16.78
Real Estate	9.03	2.18
Sensitive	23.76	41.76
Communication Services	0.86	3.76
Energy	6.97	6.07
Industrials	6.56	10.69
Technology	9.37	21.24
Defensive	20.68	25.35
Consumer Defensive	6.28	8.35
Healthcare	5.95	14.07
Utilities	8.45	2.93

Principal Risks as of 11-30-17

Loss of Money, Not FDIC Insured, Value Investing, Market/Market Volatility, Equity Securities, Industry and Sector Investing, Derivatives, Suitability, Shareholder Activity, Management, Mid-Cap, Real Estate/REIT Sector

MassMutual Select Mid Cap Growth A MEFAX

Benchmark

Russell Mid Cap Growth TR USD

Overall Morningstar Rating™

★★★★

Out of 562 Mid-Cap Growth funds. **An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.**

Morningstar Return

Above Average

Morningstar Risk

Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks growth of capital over the long-term.

The fund invests primarily in equity securities of mid-capitalization companies that the fund's subadvisers believe offer the potential for long-term growth. It invests at least 80% of its net assets (plus the amount of any borrowings for investment purposes) in a broadly diversified portfolio of common stocks of mid-cap companies whose earnings the subadvisers expect to grow at a faster rate than the average company.

Fees and Expenses as of 09-30-17

Prospectus Net Expense Ratio	1.28%
Total Annual Operating Expense	1.28%
Maximum Sales Charge	5.75%
12b-1 Fee	0.25%
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	05-31-00
Portfolio Manager(s)	Brian W.H. Berghuis, CFA Christopher J. Scarpa
Name of Issuer	MassMutual
Telephone	888-309-3539
Web Site	www.massmutual.com

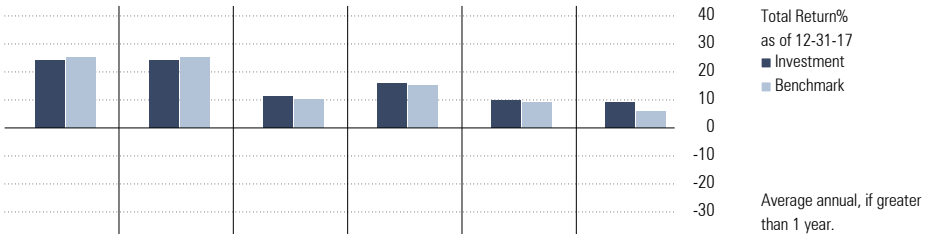
Benchmark Description: Russell Mid Cap Growth TR USD

The index measures the performance of the mid-cap growth segment of the US equity universe. It includes Russell midcap index companies with higher price-to-book ratios and higher forecasted growth values. It is market-capitalization weighted. Russell Investment Group is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. Russell® is a trademark of Russell Investment Group.

Category Description: Mid-Cap Growth

Some mid-cap growth portfolios invest in stocks of all sizes, thus leading to a mid-cap profile, but others focus on midsize companies. Mid-cap growth portfolios target U.S. firms that are projected to grow faster than other mid-cap stocks, therefore commanding relatively higher prices. The U.S. mid-cap range for market capitalization typically falls between \$1 billion and \$8 billion and represents 20% of the total capitalization of the U.S. equity market. Growth is defined based on fast growth (high growth rates for earnings, sales, book value, and cash flow) and high valuations (high price ratios and low dividend yields).

Performance



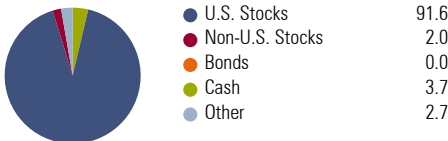
	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	
Fund Return %	24.02	24.02	11.32	15.99	9.70	9.09	Fund Return %
Standardized Return %	16.89	16.89	9.14	14.63	9.05	8.72	Load-Adj. Return %
			10.30	15.30	9.10	5.91	Benchmark Return %
			9.40	13.73	7.67	4.92	Category Average %
			★★★★	★★★★	★★★★	—	Morningstar Rating™
			562	490	362	—	# of Funds in Category

Quarter End Returns as of 12-31-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	24.02	24.02	11.32	15.99	9.70	9.09
Standardized Return %	16.89	16.89	9.14	14.63	9.05	8.72

Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 09-30-17

Composition as of 09-30-17



Morningstar Equity Style Box™ as of 09-30-17

Style	% Mkt Cap
Giant	0.00
Large	20.89
Medium	72.90
Small	6.07
Micro	0.15

Top 10 Holdings as of 09-30-17

Company	% Assets
Reserve Invnt Fds 09-19-34	2.18
Teleflex Inc	2.05
Textron Inc	1.75
Dollar General Corp	1.59
The Cooper Companies Inc	1.58
Willis Towers Watson PLC	1.52
Microchip Technology Inc	1.47
Fidelity National Financial Inc	1.43
Fiserv Inc	1.41
Ball Corp	1.37

Total Number of Stock Holdings	189
Total Number of Bond Holdings	0
Annual Turnover Ratio %	36.00
Total Fund Assets (\$mil)	5,693.54

Morningstar Sectors as of 09-30-17

Sector	% Fund	S&P 500 %
Cyclical	29.68	32.88
Basic Materials	4.15	2.81
Consumer Cyclical	14.60	11.11
Financial Services	10.31	16.78
Real Estate	0.62	2.18
Sensitive	47.26	41.76
Communication Services	0.47	3.76
Energy	1.81	6.07
Industrials	22.66	10.69
Technology	22.32	21.24
Defensive	23.06	25.35
Consumer Defensive	4.49	8.35
Healthcare	18.57	14.07
Utilities	0.00	2.93

Principal Risks as of 09-30-17

Currency, Emerging Markets, Foreign Securities, Loss of Money, Not FDIC Insured, Growth Investing, Market/Market Volatility, Convertible Securities, Equity Securities, Preferred Stocks, Restricted/Illiquid Securities, Pricing, Cash Drag, Management, Small Cap, Mid-Cap

Delaware Small Cap Core A DCCAX

Benchmark
Russell 2000 TR USD

Overall Morningstar Rating™
★★★★

Morningstar Return
Above Average

Morningstar Risk
Average

Out of 652 Small Blend funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Investment Objective & Strategy

From investment's prospectus

The investment seeks long-term capital appreciation.

The fund invests primarily in stocks of small companies that its investment manager believes have a combination of attractive valuations, growth prospects, and strong cash flows. Under normal circumstances, at least 80% of the fund's net assets, plus the amount of any borrowings for investment purposes, will be in investments of small-capitalization companies (80% policy). The fund's manager considers small-capitalization companies to be companies within the market capitalization range of the Russell 2000® Index at the time of purchase.

Fees and Expenses as of 05-31-17

Prospectus Net Expense Ratio	1.24%
Total Annual Operating Expense	1.24%
Maximum Sales Charge	5.75%
12b-1 Fee	0.25%
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	12-29-98
Portfolio Manager(s)	Christopher S. Adams, CFA Michael S. Morris, CFA
Name of Issuer	Delaware Funds by Macquarie
Telephone	800-523-1918
Web Site	www.delawareinvestments.com

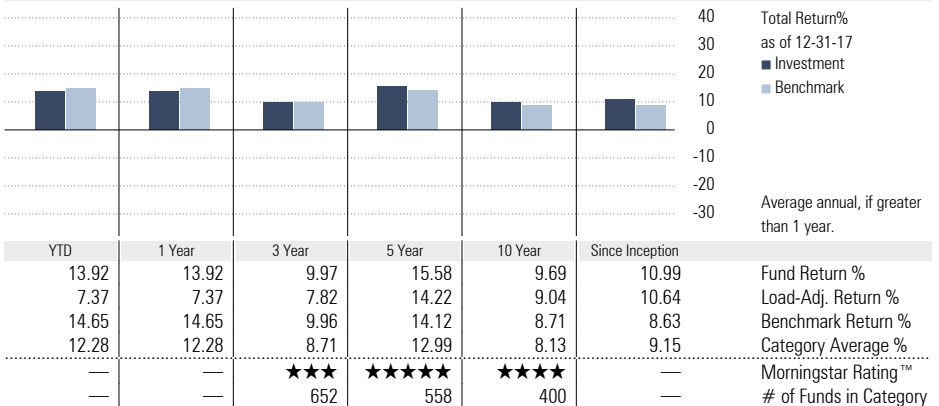
Benchmark Description: Russell 2000 TR USD

The index measures the performance of the small-cap segment of the US equity universe. It is a subset of the Russell 3000 and includes approximately 2000 of the smallest securities based on a combination of their market cap and current index membership. Russell Investment Group is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. Russell® is a trademark of Russell Investment Group.

Category Description: Small Blend

Small-blend portfolios favor U.S. firms at the smaller end of the market-capitalization range. Some aim to own an array of value and growth stocks while others employ a discipline that leads to holdings with valuations and growth rates close to the small-cap averages. Stocks in the bottom 10% of the capitalization of the U.S. equity market are defined as small cap. The blend style is assigned to portfolios where neither growth nor value characteristics predominate.

Performance

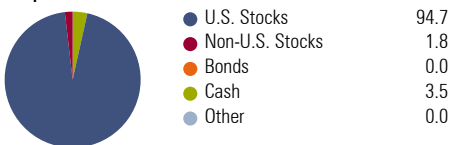


Quarter End Returns as of 12-31-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	13.92	13.92	9.97	15.58	9.69	10.99
Standardized Return %	7.37	7.37	7.82	14.22	9.04	10.64

Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 11-30-17

Composition as of 11-30-17



Morningstar Equity Style Box™ as of 11-30-17

Style	% Mkt Cap
Giant	0.00
Large	0.00
Medium	10.72
Small	67.20
Micro	22.09

Top 10 Holdings as of 11-30-17

Company	% Assets
Callidus Software Inc	1.50
Continental Building Products Inc	1.31
GrubHub Inc	1.31
Neenah Paper Inc	1.29
Proofpoint Inc	1.25
NorthWestern Corp	1.24
Barnes Group Inc	1.22
MGIC Investment Corp	1.22
Steven Madden Ltd	1.19
Minerals Technologies Inc	1.18

Total Number of Stock Holdings	125
Total Number of Bond Holdings	0
Annual Turnover Ratio %	43.00
Total Fund Assets (\$mil)	2,800.97

Morningstar Sectors as of 11-30-17

Sector	% Fund	S&P 500 %
Cyclical	43.58	32.88
Basic Materials	9.64	2.81
Consumer Cyclical	5.73	11.11
Financial Services	20.35	16.78
Real Estate	7.86	2.18
Sensitive	37.87	41.76
Communication Services	0.79	3.76
Energy	2.70	6.07
Industrials	19.49	10.69
Technology	14.89	21.24
Defensive	18.55	25.35
Consumer Defensive	0.89	8.35
Healthcare	14.28	14.07
Utilities	3.38	2.93

Principal Risks as of 11-30-17

Loss of Money, Not FDIC Insured, Capitalization, Interest Rate, Market/Market Volatility, Industry and Sector Investing, Restricted/Illiquid Securities, Regulation/Government Intervention

Baron Growth Retail BGRFX

Benchmark

Russell Mid Cap Growth TR USD

Investment Objective & Strategy

From investment's prospectus

The investment seeks capital appreciation through long-term investments primarily in securities of small-sized growth companies.

The fund invests for the long term primarily in equity securities in the form of common stock of U.S. small-sized growth companies. BAMCO, Inc. ("BAMCO" or the "Adviser") defines small-sized companies as those, at the time of purchase, with market capitalizations up to the largest market cap stock in the Russell 2000 Growth Index at reconstitution, or companies with market capitalizations up to \$2.5 billion, whichever is larger.

Fees and Expenses as of 11-15-17

Prospectus Net Expense Ratio	1.30%
Total Annual Operating Expense	1.30%
Maximum Sales Charge	—
12b-1 Fee	0.25%
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	12-30-94
Portfolio Manager(s)	Ronald Baron Neal Rosenberg
Name of Issuer	Baron Capital Group
Telephone	800-992-2766
Web Site	www.baronfunds.com

Benchmark Description: Russell Mid Cap Growth TR USD

The index measures the performance of the mid-cap growth segment of the US equity universe. It includes Russell midcap index companies with higher price-to-book ratios and higher forecasted growth values. It is market-capitalization weighted. Russell Investment Group is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. Russell® is a trademark of Russell Investment Group.

Category Description: Mid-Cap Growth

Some mid-cap growth portfolios invest in stocks of all sizes, thus leading to a mid-cap profile, but others focus on midsize companies. Mid-cap growth portfolios target U.S. firms that are projected to grow faster than other mid-cap stocks, therefore commanding relatively higher prices. The U.S. mid-cap range for market capitalization typically falls between \$1 billion and \$8 billion and represents 20% of the total capitalization of the U.S. equity market. Growth is defined based on fast growth (high growth rates for earnings, sales, book value, and cash flow) and high valuations (high price ratios and low dividend yields).

Overall Morningstar Rating™

★★★★

Out of 562 Mid-Cap Growth funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Average

Morningstar Risk

Below Average

Performance

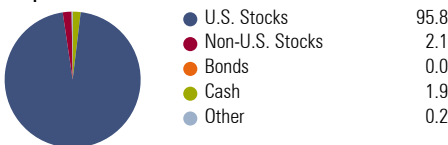


Quarter End Returns as of 12-31-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	27.04	27.04	8.83	13.23	8.31	13.05
Standardized Return %	27.04	27.04	8.83	13.23	8.31	13.05

Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 09-30-17

Composition as of 09-30-17



Morningstar Equity Style Box™ as of 09-30-17

Style	% Mkt Cap
Giant	0.00
Large	0.00
Medium	67.92
Small	27.24
Micro	4.85

Top 10 Holdings as of 09-30-17

Company	% Assets
Vail Resorts Inc	8.19
Arch Capital Group Ltd	6.04
Gartner Inc A	4.82
CoStar Group Inc	4.27
FactSet Research Systems Inc	3.97
IDEXX Laboratories Inc	3.53
MSCI Inc	3.53
Gaming and Leisure Properties Inc	3.26
Marriott Vacations Worldwide Corp	3.26
Ansys Inc	3.21

Total Number of Stock Holdings	58
Total Number of Bond Holdings	0
Annual Turnover Ratio %	3.32
Total Fund Assets (\$mil)	6,231.56

Principal Risks as of 09-30-17

Loss of Money, Not FDIC Insured, Growth Investing, Market/Market Volatility, Equity Securities, Small Cap

Morningstar Sectors as of 09-30-17

Sector	% Fund	S&P 500 %
Cyclical	64.14	32.88
Basic Materials	3.21	2.81
Consumer Cyclical	25.36	11.11
Financial Services	22.76	16.78
Real Estate	12.81	2.18
Sensitive	24.55	41.76
Communication Services	1.29	3.76
Energy	0.00	6.07
Industrials	5.99	10.69
Technology	17.27	21.24
Defensive	11.31	25.35
Consumer Defensive	2.35	8.35
Healthcare	8.96	14.07
Utilities	0.00	2.93

Oakmark International Service OARIX

Benchmark
MSCI ACWI Ex USA NR USD

Overall Morningstar Rating™
★★★★★
Out of 597 Foreign Large Blend funds. **An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.**

Morningstar Return
High

Morningstar Risk
High

Investment Objective & Strategy

From investment's prospectus

The investment seeks long-term capital appreciation.

The fund invests primarily in a diversified portfolio of common stocks of non-U.S. companies. It may invest in non-U.S. markets throughout the world, including emerging markets. Ordinarily, the fund will invest in the securities of at least five countries outside of the U.S. There are no geographic limits on the fund's non-U.S. investments. The fund may invest in securities of large-, mid-, and small- capitalization companies.

Fees and Expenses as of 09-30-17

Prospectus Net Expense Ratio	1.34%
Total Annual Operating Expense	1.39%
Maximum Sales Charge	—
12b-1 Fee	—
Redemption Fee/Term	—

Waiver Data

Waiver Data	Type	Exp. Date	%
Management Fee	Contractual	01-28-18	0.05

Operations and Management

Fund Inception Date	11-04-99
Portfolio Manager(s)	David G. Herro, CFA Michael L. Manelli, CFA
Name of Issuer	Oakmark
Telephone	800-625-6275
Web Site	www.oakmark.com

Benchmark Description: MSCI ACWI Ex USA NR USD

The index measures the performance of the large and mid cap segments of the particular regions, excluding USA equity securities, including developed and emerging market. It is free float-adjusted market-capitalization weighted.

Category Description: Foreign Large Blend

Foreign large-blend portfolios invest in a variety of big international stocks. Most of these portfolios divide their assets among a dozen or more developed markets, including Japan, Britain, France, and Germany. These portfolios primarily invest in stocks that have market caps in the top 70% of each economically integrated market (such as Europe or Asia ex-Japan). The blend style is assigned to portfolios where neither growth nor value characteristics predominate. These portfolios typically will have less than 20% of assets invested in U.S. stocks.

Performance



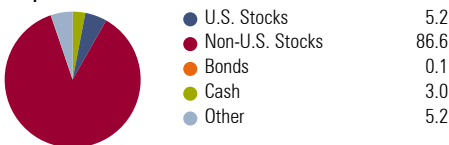
Quarter End Returns as of 12-31-17

	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	29.45	29.45	10.08	10.14	6.62	8.84
Standardized Return %	29.45	29.45	10.08	10.14	6.62	8.84

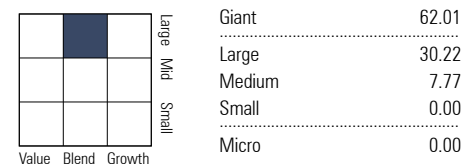
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 09-30-17

Composition as of 09-30-17



Morningstar Equity Style Box™ as of 09-30-17



Top 10 Holdings as of 09-30-17

Company	% Assets
Lloyds Banking Group PLC	4.80
Daimler AG	4.73
Credit Suisse Group AG	4.56
Bayerische Motoren Werke AG	4.02
Glencore PLC	3.91
BNP Paribas	3.84
Hennes & Mauritz AB B	3.57
Allianz SE	3.54
Toyota Motor Corp	3.44
CNH Industrial NV	2.93
Total Number of Stock Holdings	58
Total Number of Bond Holdings	1
Annual Turnover Ratio %	41.00
Total Fund Assets (\$mil)	43,359.75

Morningstar World Regions as of 09-30-17

Region	% Fund	S&P 500
Americas	7.20	99.13
North America	5.66	99.13
Latin America	1.54	0.00
Greater Europe	80.24	0.36
United Kingdom	22.46	0.06
Europe Developed	57.78	0.30
Europe Emerging	0.00	0.00
Africa/Middle East	0.00	0.00
Greater Asia	12.56	0.51
Japan	5.97	0.00
Australasia	2.91	0.00
Asia Developed	0.50	0.05
Asia Emerging	3.19	0.46

Principal Risks as of 09-30-17

Foreign Securities, Long-Term Outlook and Projections, Loss of Money, Not FDIC Insured, Capitalization, Value Investing, Market/Market Volatility, Equity Securities, Portfolio Diversification

MassMutual Premier International Eq A MMIAX

Benchmark

MSCI ACWI Ex USA Growth NR USD

Overall Morningstar Rating™

★★★

Out of 330 Foreign Large Growth funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Average

Morningstar Risk

Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks to achieve long-term capital appreciation by investing primarily in common stock of foreign companies.

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, it 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. It may invest in emerging markets as well as in developed markets throughout the world.

Fees and Expenses as of 09-30-17

Prospectus Net Expense Ratio	1.50%
Total Annual Operating Expense	1.50%
Maximum Sales Charge	5.75%
12b-1 Fee	0.25%
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	01-02-98
Portfolio Manager(s)	George R. Evans, CFA Robert B. Dunphy, CFA
Name of Issuer	MassMutual
Telephone	888-309-3539
Web Site	www.massmutual.com

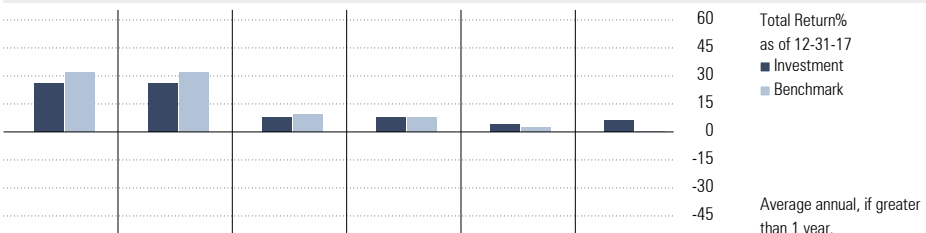
Benchmark Description: MSCI ACWI Ex USA Growth NR USD

The index measures the performance of the growth large and mid cap segments of the particular regions, excluding USA equity securities, including developed and emerging market. It is free float-adjusted market-capitalization weighted.

Category Description: Foreign Large Growth

Foreign large-growth portfolios focus on high-priced growth stocks, mainly outside of the United States. Most of these portfolios divide their assets among a dozen or more developed markets, including Japan, Britain, France, and Germany. These portfolios primarily invest in stocks that have market caps in the top 70% of each economically integrated market (such as Europe or Asia ex-Japan). Growth is defined based on fast growth (high growth rates for earnings, sales, book value, and cash flow) and high valuations (high price ratios and low dividend yields). These portfolios typically will have less than 20% of assets invested in U.S. stocks.

Performance



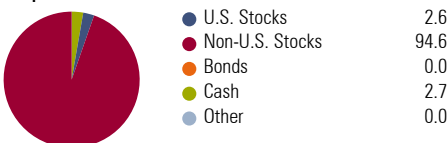
	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	
Fund Return %	25.93	25.93	7.94	7.82	3.80	6.07	Fund Return %
Standardized Return %	18.69	18.69	5.83	6.55	3.19	5.76	Load-Adj. Return %
			9.29	7.97	2.40	—	Benchmark Return %
			9.04	8.51	2.75	5.10	Category Average %
			★★	★★★	★★★★	—	Morningstar Rating™
			330	289	206	—	# of Funds in Category

Quarter End Returns as of 12-31-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	25.93	25.93	7.94	7.82	3.80	6.07
Standardized Return %	18.69	18.69	5.83	6.55	3.19	5.76

Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 09-30-17

Composition as of 09-30-17



Morningstar Equity Style Box™ as of 09-30-17

Value Blend Growth	Large Mid Small	Mkt Cap
	Giant	37.43
	Large	40.39
	Medium	21.15
	Small	1.04
	Micro	0.00

Top 10 Holdings as of 09-30-17

	% Assets
Oppenheimer Institutional Govt MM E	2.74
Infineon Technologies AG	2.38
SAP SE	2.06
Valeo SA	1.84
Nippon Telegraph & Telephone Corp	1.77
Keyence Corp	1.73
Continental AG	1.71
Lonza Group Ltd	1.71
Temenos Group AG	1.61
Reckitt Benckiser Group PLC	1.60
Total Number of Stock Holdings	94
Total Number of Bond Holdings	0
Annual Turnover Ratio %	44.00
Total Fund Assets (\$mil)	555.78

Morningstar World Regions as of 09-30-17

	% Fund	S&P 500
Americas	6.73	99.13
North America	6.73	99.13
Latin America	0.00	0.00
Greater Europe	75.48	0.36
United Kingdom	15.54	0.06
Europe Developed	59.24	0.30
Europe Emerging	0.00	0.00
Africa/Middle East	0.70	0.00
Greater Asia	17.79	0.51
Japan	9.86	0.00
Australasia	1.71	0.00
Asia Developed	1.49	0.05
Asia Emerging	4.74	0.46

Principal Risks as of 09-30-17

Currency, Emerging Markets, Foreign Securities, Loss of Money, Not FDIC Insured, Country or Region, Growth Investing, Market/Market Volatility, Convertible Securities, Equity Securities, Preferred Stocks, Restricted/Illiquid Securities, Derivatives, Pricing, Cash Drag, Management, Small Cap, Mid-Cap, Large Cap

Oppenheimer Developing Markets Y ODVYX

Benchmark
MSCI EM NR USD

Overall Morningstar Rating™
★★★★

Morningstar Return
Above Average

Morningstar Risk
Average

Out of 647 Diversified Emerging Mkts funds. **An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.**

Investment Objective & Strategy

From investment's prospectus

The investment seeks capital appreciation.

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, it will invest at least 80% of its net assets, plus borrowings for investment purposes, in equity securities of issuers whose principal activities are in a developing 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.

Fees and Expenses as of 10-27-17

Prospectus Net Expense Ratio	1.07%
Total Annual Operating Expense	1.07%
Maximum Sales Charge	—
12b-1 Fee	—
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Initial Class Inception Date	11-18-96
Fund Inception Date	09-07-05
Portfolio Manager(s)	Justin M. Leverenz, CFA
Name of Issuer	OppenheimerFunds
Telephone	800-225-5677
Web Site	www.oppenheimerfunds.com

Benchmark Description: MSCI EM NR USD

The index measures the performance of the large and mid cap segments of emerging market equity securities. It is free float-adjusted market-capitalization weighted.

Category Description: Diversified Emerging Mkts

Diversified emerging-markets portfolios tend to divide their assets among 20 or more nations, although they tend to focus on the emerging markets of Asia and Latin America rather than on those of the Middle East, Africa, or Europe. These portfolios invest predominantly in emerging market equities, but some funds also invest in both equities and fixed income investments from emerging markets.

Performance

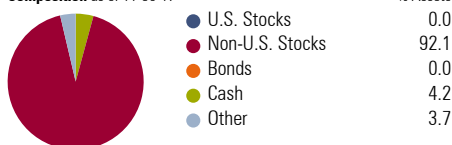


Quarter End Returns as of 12-31-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	35.10	35.10	7.65	5.29	4.55	9.66
Standardized Return %	35.10	35.10	7.65	5.29	4.55	9.66

Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 11-30-17

Composition as of 11-30-17



Morningstar Equity Style Box™ as of 11-30-17

Value Blend Growth	Large Mid Small	% Mkt Cap
	Giant	61.09
	Large	32.71
	Medium	6.20
	Small	0.00
	Micro	0.00

Top 10 Holdings as of 11-30-17

	% Assets
Tencent Holdings Ltd	6.30
Taiwan Semiconductor Manufacturing Co Ltd	5.74
Alibaba Group Holding Ltd ADR	5.16
Oppenheimer Institutional Govt MM E 12-04-17	4.23
Housing Development Finance Corp Ltd	4.00
Master China Series 1	3.25
AIA Group Ltd	2.84
Glencore PLC	2.59
NOVATEK PJSC GDR	2.47
Kering SA	2.46
Total Number of Stock Holdings	95
Total Number of Bond Holdings	0
Annual Turnover Ratio %	33.00
Total Fund Assets (\$mil)	39,274.38

Morningstar World Regions as of 11-30-17

	% Fund	S&P 500
Americas	12.63	99.13
North America	0.00	99.13
Latin America	12.63	0.00
Greater Europe	26.66	0.36
United Kingdom	5.30	0.06
Europe Developed	7.56	0.30
Europe Emerging	8.80	0.00
Africa/Middle East	5.00	0.00
Greater Asia	60.72	0.51
Japan	0.00	0.00
Australasia	0.00	0.00
Asia Developed	18.21	0.05
Asia Emerging	42.51	0.46

Principal Risks as of 11-30-17

Foreign Securities, Loss of Money, Not FDIC Insured, Growth Investing, Market/Market Volatility, Equity Securities, Industry and Sector Investing, Suitability, China Region, Management, Small Cap, Mid-Cap