Fact Sheet as of September 30, 2024

MassMutual Investments

MassMutual RetireSMART℠ by JPMorgan Target Date Funds

I SHARE CLASS

Strategy and Objectives

Each MassMutual RetireSMART by JPMorgan Fund seeks to achieve its investment objective by investing in a combination of U.S. domestic and international underlying mutual funds using an asset allocation strategy designed for investors expecting to retire at age 65 around the year designated in the Fund's name and who are likely to stop making new investments in the Fund at or around that time. The Fund's assets are allocated among these underlying mutual funds according to an asset allocation strategy that generally becomes increasingly conservative until it reaches its most conservative strategic target allocations by the end of the year designated in the Fund's name. At that time, the Fund's strategic target allocation will approximate those of the MassMutual RetireSMART by JPMorgan In Retirement Fund.

Portfolio Managers

Daniel Oldroyd, CFA, CAIA - J.P. Morgan
- 23 years industry experience

Sylvia Trillo, CFA, CAIA - J.P. Morgan
- 26 years industry experience

Michael Abata, CFA – MML Investment Advisers LLC
- 31 years industry experience

Fund Performance Data

Average Annual Returns* (Net of Expenses)

Fund / Asset Category[1] / Index	QTD	YTD	1 Yr	3 Yr	5 Yr	10 Yr[2]	Since Inception[2]	Fund Inception Date	Net	Gross
MassMutual RetireSMART by JPMorgan In Retirement	5.88	9.63	18.65	2.44	5.01	4.58	-	12/31/2003	0.49	0.74
Morningstar Target-Date Retirement	5.13	8.58	16.50	2.12	4.30	4.19	-		0.65	1.12
S&P Target Date Retirement Income	5.16	8.81	16.86	2.84	4.68	4.52	-		-	-
MassMutual RetireSMART by JPMorgan 2020	5.98	9.65	18.80	2.48	5.21	5.34	-	12/31/2003	0.47	0.58
Morningstar Target-Date 2020	5.42	9.94	18.89	2.72	5.85	5.70	-		0.60	1.05
S&P Target Date 2020	5.43	10.19	19.05	3.73	6.15	5.93	-		-	-
MassMutual RetireSMART by JPMorgan 2025	6.21	10.40	20.01	3.00	6.32	6.20	-	4/1/2010	0.47	0.62
Morningstar Target-Date 2025	5.60	10.57	20.11	3.01	6.43	6.14	-		0.65	0.96
S&P Target Date 2025	5.59	10.65	19.81	4.09	7.01	6.55	-		-	-
MassMutual RetireSMART by JPMorgan 2030	6.46	11.70	22.17	3.94	7.42	6.90	-	12/31/2003	0.51	0.55
Morningstar Target-Date 2030	5.73	11.82	22.18	3.78	7.55	6.93	-		0.67	0.96
S&P Target Date 2030	5.97	12.07	22.17	4.95	8.10	7.28	-		-	-
MassMutual RetireSMART by JPMorgan 2035	6.70	13.16	24.54	4.97	8.62	7.56	-	4/1/2010	0.54	0.64
Morningstar Target-Date 2035	6.05	13.33	24.54	4.70	8.75	7.66	-		0.67	1.00
S&P Target Date 2035	6.25	13.57	24.56	5.81	9.25	8.03	-		-	-
MassMutual RetireSMART by JPMorgan 2040	6.81	14.31	26.22	5.89	9.62	8.05	-	12/31/2003	0.54	0.60
Morningstar Target-Date 2040	6.01	14.63	26.48	5.52	9.76	8.27	-		0.69	1.01
S&P Target Date 2040	6.49	14.91	26.62	6.63	10.17	8.61	-		-	-
MassMutual RetireSMART by JPMorgan 2045	6.97	15.19	27.54	6.56	10.40	8.48	-	4/1/2010	0.53	0.71
Morningstar Target-Date 2045	6.31	15.70	28.08	6.14	10.44	8.63	-		0.69	1.10
S&P Target Date 2045	6.69	15.76	27.95	7.17	10.75	8.97	-		-	-
MassMutual RetireSMART by JPMorgan 2050	6.96	15.52	28.03	6.73	10.47	8.65	-	12/17/2007	0.53	0.64
Morningstar Target-Date 2050	6.17	16.20	28.86	6.42	10.69	8.79	-		0.70	1.09
S&P Target Date 2050	6.74	16.25	28.68	7.45	11.06	9.18	-		-	-
MassMutual RetireSMART by JPMorgan 2055	7.06	15.58	28.10	6.76	10.51	8.69	-	9/17/2013	0.52	0.90
Morningstar Target-Date 2055	6.41	16.43	29.21	6.53	10.82	8.84	-		0.70	1.31
S&P Target Date 2055	6.82	16.35	28.82	7.50	11.14	9.26	-		-	-
MassMutual RetireSMART by JPMorgan 2060	7.05	15.55	28.08	6.75	10.49	-	9.64	11/23/2015	0.52	1.63
Morningstar Target-Date 2060	6.36	16.50	29.35	6.59	10.92	-	-		0.70	1.53
S&P Target Date 2060	6.87	16.42	28.90	7.53	11.18	9.32	10.14		-	-
MassMutual RetireSMART by JPMorgan 2065	6.92	14.34	25.05	-	-	-	13.92	2/1/2023	0.52	14.22
Morningstar Target-Date 2065+	6.36	16.60	29.46	6.70	11.14	-	-		0.69	5.92
S&P Target Date 2065+	7.62	15.46	28.51	5.81	9.79	8.21	14.59		-	-

** Performance shown is for Class I shares.*

*[1] **Morningstar Category** identifies funds based on investment styles as measured by their underlying portfolio holdings/ statistics over 3 years. Investment options can move into other categories, or Morningstar may change their classification methodology. Morningstar calculates adjusted historical returns.*

*[2] **Pre-Inception Returns:** The inception date listed is that of the of the Fund. The Class I inception date for the In Retirement, 2020, 2025, 2030, 2035, 2040, 2045, 2050, and 2055 Funds is 4/1/2014. The Class I inception date for the 2060 Fund is 11/23/2015. The Class I inception date for the 2065 Fund is 02/01/2023. The Class I inception date for the 2065 Fund is 02/01/2023. Performance for the 10-year period may be based on the performance of Service Class shares, adjusted to reflect Class I expenses. Inception dates vary by share classes, which accounts for any pre-inception performance shown. The expenses of the Class I shares used is lower than the expenses of the other share classes, which results in better performance. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future.*

[3] The expenses in this table reflect a contractual agreement by MML Investment Advisers LLC to cap the fees and expenses of the Fund through January 31, 2025. Please refer to the Funds prospectus for more information.

Performance shown is past performance and does not guarantee future results. Investment return and the principal value of an investment fluctuate; so an investor's shares when redeemed, may be worth more or less than their original cost. Current performance may be higher or lower. For more current information, including the fund's holdings and month-end performance, call 1-866-444-2601. Performance includes the reinvestment of dividends and capital gains and reflects waivers and subsidies. The results are not adjusted for sales charges or taxes. Performance less than one year is cumulative; all other performance is annualized.

Investors should consider funds' objectives, risks, fees, and expenses carefully before investing. This and other information can be found in the funds' prospectuses or summary prospectuses, which are available from MassMutual by calling 1-866-444-2601. Please read them carefully before investing.

Morningstar Star Ratings[1]

Fund Name	Morningstar Category	Overall Rating	Peer Group	3 Yr	Peer Group	5 Yr	Peer Group	10 Yr	Peer Group
MassMutual RetireSMART by JPMorgan In Retirement	Target-Date Retirement	★★★	142	★★★	142	★★★★	126	★★★	84
MassMutual RetireSMART by JPMorgan 2020	Target-Date 2020	★★	136	★★★	136	★★	126	★★	75
MassMutual RetireSMART by JPMorgan 2025	Target-Date 2025	★★★	197	★★★	197	★★★	173	★★★	114
MassMutual RetireSMART by JPMorgan 2030	Target-Date 2030	★★★	199	★★★	199	★★★	173	★★★	111
MassMutual RetireSMART by JPMorgan 2035	Target-Date 2035	★★★	191	★★★	191	★★	167	★★★	111
MassMutual RetireSMART by JPMorgan 2040	Target-Date 2040	★★	194	★★★★	194	★★	168	★★	111
MassMutual RetireSMART by JPMorgan 2045	Target-Date 2045	★★★	191	★★★★	191	★★	167	★★★	111
MassMutual RetireSMART by JPMorgan 2050	Target-Date 2050	★★★	192	★★★★	192	★★	168	★★★	111
MassMutual RetireSMART by JPMorgan 2055	Target-Date 2055	★★★	191	★★★	191	★★	167	★★★	105
MassMutual RetireSMART by JPMorgan 2060	Target-Date 2060+	★★	190	★★★	190	★★	159	-	29
MassMutual RetireSMART by JPMorgan 2065	Target-Date 2065+	-	-	-	-	-	-	-	-

Generally, target retirement date (lifecycle) 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. Target retirement date (lifecycle) investment options 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.**

These materials and the platform of investments made available by MassMutual are offered without regard to the individualized needs of any plan, its participants, or beneficiaries. These materials are not intended as impartial investment advice or to give advice in a fiduciary capacity to any plan.

[1]**Morningstar Rating™: For each investment with at least a three-year history, Morningstar calculates a Morningstar Rating™ based on how an investment ranks on a Morningstar Risk-Adjusted Return measure against other investments in the category**. This measure takes into account variations in an investment's monthly performance after adjusting for sales loads (except for load-waived A shares), redemption fees, and the risk-free rate, placing more emphasis on downward variations and rewarding consistent performance. The top 10% of investments in each category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The **Overall Morningstar Rating** for an investment is derived from a weighted average of the ratings for the three-, five- and ten-year (if applicable) time periods. **The rating for 10-year period is an extended rating.** Morningstar provides adjusted historical returns and an Extended Performance Rating for some mutual funds in its universe. This means that any share class that doesn't have a 1-, 3-, 5-, or 10-year performance history may receive a hypothetical Morningstar Rating based on the oldest surviving share class of the fund. First, Morningstar computes the funds' new return stream by appending an adjusted return history of the oldest share class. Next, the Extended Performance Rating is determined by comparing the adjusted-historical returns to the current open-end mutual fund universe to identify placement in the bell curve used to assign the Morningstar Rating. ©2024 Morningstar, Inc. All Rights Reserved. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information.

[2] **Pre-Inception Returns:** The inception date listed is that of the of the Fund. The Class I inception date for the In Retirement, 2020, 2025, 2030, 2035, 2040, 2045, 2050, and 2055 Funds is 4/1/2014. The Class I inception date for the 2060 Fund is 11/23/2015. Performance for the 10-year period may be based on the performance of Service Class shares, adjusted to reflect Class I expenses. Inception dates vary by share classes, which accounts for any pre-inception performance shown. The expenses of the Class I shares used is lower than the expenses of the other share classes, which results in better performance. Past performance (before and after taxes) is not necessarily an indication of how the Fund will perform in the future. When pre-inception performance is shown, the Morningstar Rating is based on the oldest surviving share class of the fund and is represented by hollow stars.

Fund Risks: The Fund's Principal Risks include - Allocation Risk, Bank Loans Risk, Below Investment Grade Debt Securities Risk, Cash Position Risk, China Bond Risk, Commodities-Related Investments Risk, Convertible Securities Risk, Credit Risk, Currency Risk, Defaulted and Distressed Securities Risk, Derivatives Risk, Dollar Roll and Reverse Repurchase Agreement Transaction Risk, Emerging Markets Risk, Equity Securities Risk, Fixed Income Securities Risk, Foreign Investment Risk, Frequent Trading/Portfolio Turnover Risk, Geographic Focus Risk, Growth Company Risk, Hedging Risk, Index Funds Risk, Inflation Risk, Inflation-Linked Securities Risk, Large Company Risk, Liquidity Risk, Management Risk, Market Risk, Maturity Date and Redemption Risk, Mortgage- and Asset-Backed Securities Risk, Preferred Stock Risk, Real Estate Risk, REIT Risk, Repurchase Agreement Risk, Risk of Investment in other Funds or Pools, Sample Withdrawal Amount Risk, Sector Risk, Small and Mid-Cap Company Risk, Sovereign Debt Obligations Risk, Stock Connect Risk, Tactical Allocation Risk, U.S. Government Securities Risk, Valuation Risk, Value Company Risk, When-Issued, Delayed Delivery, TBA, and Forward Commitment Transaction Risk.

MassMutual has hired J.P. Morgan Asset Management Inc. as subadviser to the funds. J.P. Morgan Asset Management is the marketing name for the asset management businesses of JPMorgan Chase & Co. and its affiliates worldwide.

The **S&P Target Date Retirement Income Index** and 11 date-specific indexes corresponds to a specific target retirement date. Each index provides varying levels of exposure to equities and fixed income. Each target date allocation is created and retired according to a pre-determined schedule related to the respective target date. Each Index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.