

SAN MATEO COUNTY
DEFERRED COMPENSATION ADVISORY COMMITTEE
AGENDA – FEBRUARY 27, 2020 (9:00 AM– 12:00 PM)
ROOM 402, 4TH FLOOR COUNTY CENTER

Committee Members	Appointed As...
Lisa Okada, Chair	Human Resources Director Designee
Tiffany Htwe (alternate: Timothy San Juan)	Tax Collector-Treasurer Designee
Bridget Love	Non-Management Appointee
Laurel Finnegan	Non-Management Appointee
Robert Raw	Non-Management Appointee
Steve Perry	Non-Management Appointee
Lilibeth Dames	Management Appointee
Michael Wentworth	Management Appointee
Victoria Mejia	Management Appointee

Staff	MassMutual	NFP / SST Benefits
Kim Pearson	Bob Gleason	Paul Hackleman
Marife Viola	Patrick Washington	Vince Learned
Jay Castellano	Jeff Blanchard (by phone)	

CALL TO ORDER / ANNOUNCEMENTS

1. Review and Approve November 7, 2019, Retreat Minutes and Regular Agenda Meeting Minutes
2. Public Comments

ACTION/DECISION ITEMS

3. Presentation and Acceptance of Annual Plan Review (MassMutual)
4. Presentation and Acceptance of Quarterly Investment Review (MassMutual)
5. Acceptance of Attestation—Plan Document Review (MassMutual)
6. Approval of 2020 NAGDCA Conference (Seattle) Attendees (Staff)



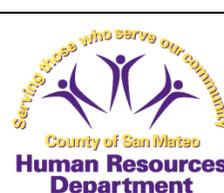
7. Review and Approval of Communication to Plan Participants Regarding CITs and Other Upcoming Changes to Investment Options Pursuant to Annual Performance Review on November 7, 2019 (MassMutual)
8. Discuss and Approve Date for 2020 Retreat (Staff)
9. Discuss and Provide Direction to Staff/NFP Regarding Administration Services Agreement—Extend Versus Request For Proposals (NFP)

INFORMATIONAL ITEMS

10. Presentation and Discussion of Conflict-of-Interest Requirements and Implementation for DCAC (Paul Okada, County Counsel)—TIME CERTAIN AT 9:05AM
11. Presentation on Fiduciary Briefcase: Items to be Included in Briefcase (NFP)
12. Presentation and Discussion of SECURE Act (MassMutual and NFP)
13. Discuss NAGDCA Award Considerations (All)
14. Review Participant Materials Regarding Asset Allocations in Down Market (MassMutual)
15. Discuss Potential New/Additional OBRA Investment Options (Staff/MassMutual)
16. Legislative Update (NFP and MassMutual)
17. Other Items / Issues

RECURRING QUARTERLY AGENDA ITEMS

<p>May 21, 2020</p> <ul style="list-style-type: none"> • Mass Mutual Quarterly Plan Review • MassMutual Quarterly Investment Review • Style Box Options 4 vs. 9 • CIT Comparisons • Electronic Enrollment Status • Finalize NAGDCA conference attendees • Provider Performance Review • Budget / Workplan • Fund Balance Policy • Reserve Policy • Status of New Target-Date Fund Options RFP 	<p>November 5, 2020</p> <ul style="list-style-type: none"> • MassMutual Quarterly Plan Review • NFP Annual Investment Review • Investment Policy Review • 2021 Education Plan for Participants • 2021 Education Plan for Committee • 2021 Meeting Dates • NAGDCA Highlights
<p>August 27, 2020</p> <ul style="list-style-type: none"> • MassMutual Quarterly Plan Review • MassMutual Quarterly Investment Review • Discussion of Survey Topics • Education Policy Review • Due Diligence – Special Services • Next Calendar Year’s Meeting Schedule • Year End Budget Report • Phone Call Status – Performance Update 	<p>February 25, 2021</p> <ul style="list-style-type: none"> • MassMutual Annual Plan Review • MassMutual Quarterly Investment Review • Final Education Plan for Committee and Participants • Plan Document Review • Fiduciary Briefcase • NAGDCA Participation / Award Consideration • RFP vs. Renegotiation
<p>Biennial Retreat</p>	



MassMutual@WORK

Your Plan Review

MassMutual @work for you

San Mateo County 2019 Annual Plan Review

Current Period: January 1, 2019 - December 31, 2019

Prior Period: January 1, 2018 - December 31, 2018

Executive Summary

Plan Statistics			
	12/31/2018	12/31/2019	Plan Trend
Total Plan Assets	\$443,030,729	\$528,071,612	▲ 19%
Total Outstanding Loan Balances	\$6,865,091	\$7,366,996	▲ 7%
Participant Contributions			
Participant	\$32,530,679	\$34,906,245	▲ 7%
EE Pre-Tax	\$25,887,919	\$27,239,054	
Roth	\$4,321,567	\$5,307,316	
Loan Repayment	\$2,321,193	\$2,359,875	
Rollover	\$3,405,070	\$4,735,963	▲ 39%
Transferred Assets	\$90,279	\$73,256	▼ 19%
Distributions			
Withdrawals	(\$5,846,558)	(\$6,193,895)	▲ 6%
Terminations	(\$20,269,596)	(\$22,840,756)	▲ 13%
Loans	(\$2,933,652)	(\$3,079,353)	▲ 5%
Expenses*	(\$264,927)	(\$316,905)	▲ 20%
Investment Income	(\$12,322,565)	\$77,488,324	▲ 729%
Notes	Terminations = termination and retirement Withdrawals = in-service withdrawal, death benefits, minimum distribution, installment payment, loan default		

*The expenses shown reflect expenses deducted from plan assets. Expenses billed directly to the plan sponsor or expenses related to the expense ratio of investments under the plan are not reflected. The Contribution data displays the combined dollar value of Contributions & Loan Repayments, if applicable.

Executive Summary

Participant Activity			
	12/31/2018	12/31/2019	Plan Trend
Total Participants	7,875	8,643	▲ 10%
Participation Rates: Average Percentage	82%	88%	▲ 2%
Deferral Rates: Average Percentage	7%	7%	◀ ▶ 0%
Average Account Balance	\$56,258	\$61,098	▲ 9%
Average Number of Investments	5.1	5.2	▲ 2%
Number of Outstanding Loans	671	681	▲ 1%
Percent of Participants With a Loan	8%	7%	▼ 13%
Average Loan Balance	\$10,231	\$10,818	▲ 6%
Total Calls to 800#	0	642	▲ 100%
Total Visits to Website	64,153	75,065	▲ 17%
Notes			
12/31/2018 eligible – 5726 (does not include extra help) total # contributing – 4669 – 82%			
12/31/2019 eligible – 5637 (does not include extra help) total # contributing – 4974 - 88%			

457 Plan Balances by Investment

Asset Allocation										
Investment Options	Balances as of 12/31/2018	Percentage*	Plan Activity January 01, 2019 through December 31, 2019						Balances as of 12/31/2019	Percentage*
			Contributions	Other Activity	Transfers	Distributions	Expenses**	Investment Income		
SAGIC Core Bond (61869)	\$145,343,321	32.81%	\$5,335,893	\$843,150	\$3,031,326	(\$12,485,526)	(\$95,952)	\$4,507,459	\$146,479,671	27.74%
PIMCO Long-Term Real Return Fund	\$2,748,623	0.62%	\$213,140	\$38,383	(\$65,499)	(\$360,979)	(\$1,744)	\$464,925	\$3,036,849	0.58%
PIMCO Total Return Fund	\$12,907,096	2.91%	\$547,782	\$34,517	(\$299,532)	(\$767,376)	(\$9,163)	\$1,051,995	\$13,465,321	2.55%
Vanguard Total Bond Mrkt Index Fund	\$4,078,827	0.92%	\$526,451	\$31,179	\$1,845,920	(\$114,863)	(\$6,608)	\$401,372	\$6,762,276	1.28%
Loomis Sayles Bond Fund	\$3,081,181	0.70%	\$20,795	\$2,483	(\$3,188,499)	(\$12,597)	(\$415)	\$97,053	\$0	0.00%
Premier High Yield Fund (Barings)	\$711,302	0.16%	\$45,018	\$5,158	\$44,082	(\$5,078)	(\$482)	\$100,033	\$900,034	0.17%
Invesco Oppenheimer Intl Bond Fd	\$1,202,755	0.27%	\$122,556	\$13,940	\$55,396	(\$53,954)	(\$1,507)	\$124,894	\$1,464,081	0.28%
Oakmark Equity & Income Fund	\$20,257,782	4.57%	\$81,974	\$16,509	(\$21,786,657)	(\$57,639)	(\$2,937)	\$1,490,967	\$0	0.00%
Vanguard Target Retirement 2015 Fd	\$5,622,159	1.27%	\$838,927	\$35,183	\$4,340,646	(\$736,040)	(\$6,220)	\$1,324,498	\$11,419,153	2.16%
Vanguard Target Retirement 2025 Fd	\$19,968,606	4.51%	\$3,902,564	\$226,425	\$7,536,368	(\$1,502,449)	(\$18,194)	\$5,117,566	\$35,230,886	6.67%
Vanguard Target Retirement 2035 Fd	\$14,233,435	3.21%	\$5,013,451	\$287,811	\$4,935,058	(\$1,223,636)	(\$14,413)	\$4,254,742	\$27,486,447	5.21%
Vanguard Target Retirement 2045 Fd	\$13,117,841	2.96%	\$5,023,905	\$200,456	\$1,097,103	(\$549,213)	(\$12,128)	\$3,893,068	\$22,771,033	4.31%
Vanguard Target Retirement 2055 Fd	\$7,277,854	1.64%	\$4,521,606	\$54,435	\$59,257	(\$443,125)	(\$6,934)	\$2,235,290	\$13,698,383	2.59%
Vanguard Target Retirement Incm Fd	\$1,224,548	0.28%	\$54,287	\$6,524	\$6,007,358	(\$665,404)	(\$3,687)	\$748,569	\$7,372,195	1.40%
American Funds American Mutual Fund	\$15,842,243	3.58%	\$743,116	\$94,893	(\$262,114)	(\$1,783,848)	(\$10,938)	\$3,396,264	\$18,019,615	3.41%
American Funds Fndmntl Invstrs Fnd	\$36,891,594	8.33%	\$1,719,371	\$142,208	(\$1,729,216)	(\$2,261,451)	(\$25,671)	\$10,037,776	\$44,774,612	8.48%
Closed Vanguard Total Stock Mk	\$8,466,653	1.91%	\$612,819	\$30,236	(\$10,874,280)	(\$149,880)	(\$4,062)	\$1,918,513	\$0	0.00%
Parnassus Core Equity Fund	\$3,235,698	0.73%	\$362,765	\$25,043	\$852,165	(\$96,669)	(\$2,669)	\$1,115,216	\$5,491,549	1.04%
Vanguard Institutional Index Fund	\$18,053,150	4.07%	\$1,047,481	\$72,005	(\$326,205)	(\$701,276)	(\$13,060)	\$5,627,248	\$23,759,343	4.50%
Vanguard Total Stock Mkt Index Fd	\$0	0.00%	\$413,072	\$16,489	\$11,821,927	(\$77,446)	(\$3,063)	\$843,895	\$13,014,873	2.46%

*Due to rounding, percentages may not total 100 percent.

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61869-1-San Mateo Deferred Compensation Plan

For Advisor and Plan Sponsor use only. Not for use with Plan Participants.

RS-41492-03

457 Plan Balances by Investment

Asset Allocation										
Investment Options	Balances as of 12/31/2018	Percentage*	Plan Activity January 01, 2019 through December 31, 2019						Balances as of 12/31/2019	Percentage*
			Contributions	Other Activity	Transfers	Distributions	Expenses**	Investment Income		
American Funds Grth Fund of America	\$29,528,542	6.67%	\$1,252,663	\$113,049	(\$1,449,178)	(\$2,165,934)	(\$20,670)	\$8,209,734	\$35,468,206	6.72%
American Century Mid Cap Value Fund	\$4,198,552	0.95%	\$279,397	\$29,691	(\$171,547)	(\$365,329)	(\$2,900)	\$1,210,309	\$5,178,173	0.98%
Vanguard Mid Cap Index Fund	\$4,421,881	1.00%	\$429,255	\$44,957	\$66,380	(\$147,230)	(\$3,870)	\$1,426,304	\$6,237,677	1.18%
Select Mid Cap Gr Fd (TRP/Frontier)	\$11,671,087	2.63%	\$543,802	\$45,403	(\$109,583)	(\$616,141)	(\$8,347)	\$3,778,737	\$15,304,958	2.90%
JP Morgan Small Cap Value Fund	\$326,865	0.07%	\$50,197	\$9,725	\$9,566	(\$19,138)	(\$302)	\$66,355	\$443,268	0.08%
Vanguard Small Cap Index Fund	\$7,693,600	1.74%	\$637,871	\$58,499	(\$47,167)	(\$359,803)	(\$5,541)	\$2,143,884	\$10,121,343	1.92%
Wells Fargo Small Company Growth Fd	\$8,823,434	1.99%	\$405,669	\$62,208	(\$737,486)	(\$1,130,580)	(\$5,777)	\$2,213,392	\$9,630,860	1.82%
American Fnds Cap Wld Gr and Inc Fd	\$9,060,185	2.05%	\$445,274	\$55,588	(\$518,549)	(\$408,914)	(\$6,335)	\$2,289,414	\$10,916,664	2.07%
Closed Vanguard Developed Mark	\$1,953,778	0.44%	\$198,845	\$12,915	(\$2,387,836)	(\$47,402)	(\$1,770)	\$271,469	\$0	0.00%
Vanguard Developed Markets Index Fd	\$0	0.00%	\$133,637	\$8,442	\$2,538,459	(\$14,290)	(\$1,230)	\$203,871	\$2,868,889	0.54%
Amer Funds EuroPacific Growth Fund	\$7,449,282	1.68%	\$442,883	\$77,985	(\$283,480)	(\$528,408)	(\$5,577)	\$2,021,373	\$9,174,059	1.74%
Invesco Oppenheimer Dvlpng Mrk Fd	\$2,628,274	0.59%	\$248,516	\$42,454	(\$190,762)	(\$120,496)	(\$2,631)	\$647,453	\$3,252,807	0.62%
Invesco Real Estate Fund	\$1,955,837	0.44%	\$213,920	\$18,504	\$269,859	(\$118,419)	(\$1,546)	\$579,526	\$2,917,681	0.55%
Bank of The West Savings	\$5,579,690	1.26%	\$182,931	\$25,681	\$231,347	(\$1,114,492)	(\$3,582)	\$113,359	\$5,014,934	0.95%
Hartford Healthcare HLS Fund	\$5,245,157	1.18%	\$321,078	\$24,127	(\$457,882)	(\$573,406)	(\$3,490)	\$1,639,459	\$6,195,043	1.17%
Schwab PCRA	\$3,093,900	0.70%	\$0	\$0	(\$36,924)	\$0	\$0	\$679,056	\$3,736,032	0.71%
Vanguard Utilities Index Fund	\$5,135,997	1.16%	\$217,608	\$26,693	\$180,178	(\$335,570)	(\$3,492)	\$1,243,283	\$6,464,697	1.22%
Total	\$443,030,730	100%	\$37,150,519	\$2,832,946	---	(\$32,114,003)	(\$316,905)	\$77,488,324	\$528,071,612	100%

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61869-1-San Mateo Deferred Compensation Plan

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RS-41492-03

401(a) Plan Balances by Investment

Asset Allocation										
Investment Options	Balances as of 12/31/2018	Percentage*	Plan Activity January 01, 2019 through December 31, 2019						Balances as of 12/31/2019	Percentage*
			Contributions	Other Activity	Transfers	Distributions	Expenses**	Investment Income		
SAGIC Core Bond (61869)	\$969,333	29.40%	\$11,530	(\$16,373)	(\$21,597)	(\$142,857)	(\$573)	\$29,017	\$828,481	16.06%
PIMCO Long-Term Real Return Fund	\$7,923	0.24%	\$621	(\$15)	(\$3,066)	\$0	(\$5)	\$1,382	\$6,840	0.13%
PIMCO Total Return Fund	\$8,664	0.26%	\$2,704	(\$30)	(\$1,061)	\$0	(\$11)	\$1,015	\$11,281	0.22%
Vanguard Total Bond Mrkt Index Fund	\$13,868	0.42%	\$4,323	(\$30)	\$26,652	\$0	(\$24)	\$1,562	\$46,351	0.90%
Invesco Oppenheimer Intl Bond Fd	\$2,003	0.06%	\$1,212	\$0	\$1,729	\$0	(\$4)	\$334	\$5,274	0.10%
Vanguard Target Retirement 2015 Fd	\$155,994	4.73%	\$72,755	(\$9,288)	\$0	(\$18,593)	(\$113)	\$26,291	\$227,046	4.40%
Vanguard Target Retirement 2025 Fd	\$269,839	8.19%	\$226,764	(\$12,751)	(\$2,892)	(\$6,269)	(\$232)	\$69,013	\$543,472	10.54%
Vanguard Target Retirement 2035 Fd	\$332,571	10.09%	\$276,855	(\$12,418)	(\$11,135)	(\$49,184)	(\$311)	\$90,787	\$627,164	12.16%
Vanguard Target Retirement 2045 Fd	\$591,291	17.94%	\$387,132	(\$22,318)	(\$3,385)	(\$20,540)	(\$491)	\$182,292	\$1,113,980	21.59%
Vanguard Target Retirement 2055 Fd	\$724,938	21.99%	\$538,677	(\$50,668)	(\$11,872)	(\$42,153)	(\$597)	\$221,349	\$1,379,675	26.74%
American Funds American Mutual Fund	\$9,290	0.28%	\$3,739	\$0	\$3,888	\$0	(\$12)	\$2,790	\$19,694	0.38%
American Funds Fndmntl Invstrs Fnd	\$8,476	0.26%	\$2,142	\$0	\$953	\$0	(\$10)	\$2,986	\$14,547	0.28%
Closed Vanguard Total Stock Mk	\$48,166	1.46%	\$5,902	(\$7,125)	(\$51,660)	(\$5,004)	(\$18)	\$9,739	\$0	0.00%
Parnassus Core Equity Fund	\$10,252	0.31%	\$3,008	\$0	(\$2,443)	\$0	(\$8)	\$3,536	\$14,346	0.28%
Vanguard Institutional Index Fund	\$27,565	0.84%	\$11,232	(\$2,614)	\$8,347	(\$0)	(\$27)	\$10,683	\$55,185	1.07%
Vanguard Total Stock Mkt Index Fd	\$0	0.00%	\$4,846	\$0	\$44,020	\$0	(\$12)	\$3,414	\$52,268	1.01%
American Funds Grth Fund of America	\$14,965	0.45%	\$7,943	\$0	\$4,077	\$0	(\$19)	\$5,808	\$32,773	0.64%
American Century Mid Cap Value Fund	\$2,013	0.06%	\$770	\$0	\$352	\$0	(\$2)	\$732	\$3,865	0.07%
Vanguard Mid Cap Index Fund	\$13,613	0.41%	\$3,568	\$0	(\$223)	\$0	(\$13)	\$4,720	\$21,665	0.42%
Select Mid Cap Gr Fd (TRP/Frontier)	\$4,521	0.14%	\$2,604	\$0	\$1,461	\$0	(\$5)	\$1,924	\$10,505	0.20%

*Due to rounding, percentages may not total 100 percent.

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61869-3-County of San Mateo 401(a) Retirement Plan

For Advisor and Plan Sponsor use only. Not for use with Plan Participants.

RS-41492-03

401(a) Plan Balances by Investment

Asset Allocation										
Investment Options	Balances as of 12/31/2018	Percentage*	Plan Activity January 01, 2019 through December 31, 2019						Balances as of 12/31/2019	Percentage*
			Contributions	Other Activity	Transfers	Distributions	Expenses**	Investment Income		
JP Morgan Small Cap Value Fund	\$1,344	0.04%	\$301	\$0	\$19	\$0	(\$1)	\$296	\$1,958	0.04%
Vanguard Small Cap Index Fund	\$38,539	1.17%	\$3,233	\$0	(\$122)	\$0	(\$29)	\$10,926	\$52,548	1.02%
Wells Fargo Small Company Growth Fd	\$2,297	0.07%	\$2,134	\$0	\$5,005	\$0	(\$3)	\$1,353	\$10,786	0.21%
American Fnds Cap Wld Gr and Inc Fd	\$7,226	0.22%	\$441	\$0	\$115	\$0	(\$5)	\$1,924	\$9,701	0.19%
Closed Vanguard Developed Mark	\$14,211	0.43%	\$3,654	\$0	(\$20,023)	\$0	(\$11)	\$2,169	\$0	0.00%
Vanguard Developed Markets Index Fd	\$0	0.00%	\$2,535	\$0	\$21,191	\$0	(\$10)	\$1,857	\$25,574	0.50%
Amer Funds EuroPacific Growth Fund	\$7,026	0.21%	\$1,924	\$0	(\$1,552)	\$0	(\$7)	\$2,093	\$9,483	0.18%
Invesco Oppenheimer Dvlpng Mrk Fd	\$6,238	0.19%	\$2,331	\$0	\$671	\$0	(\$9)	\$1,904	\$11,136	0.22%
Invesco Real Estate Fund	\$2,722	0.08%	\$622	\$0	(\$271)	\$0	(\$2)	\$812	\$3,884	0.08%
Bank of The West Savings	\$0	0.00%	\$4,590	\$0	\$8,857	\$0	(\$5)	\$54	\$13,496	0.26%
Hartford Healthcare HLS Fund	\$1,644	0.05%	\$1,012	\$0	\$2,264	(\$1,764)	(\$2)	\$784	\$3,938	0.08%
Vanguard Utilities Index Fund	\$0	0.00%	\$0	\$0	\$1,700	\$0	(\$0)	\$63	\$1,762	0.03%
Total	\$3,296,533	100%	\$1,591,103	(\$133,628)	----	(\$286,364)	(\$2,573)	\$693,608	\$5,158,678	100%

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61869-3-County of San Mateo 401(a) Retirement Plan

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RS-41492-03

OBRA Plan Balances by Investment

Asset Allocation									
Investment Options	Balances as of 12/30/2018	Percentage*	Plan Activity January 1, 2019 through December 31, 2019					Balances as of 12/30/2019	Percentage*
			Contributions	Transfers	Distributions	Expenses**	Investment Income		
457 OBRA									
SAGIC (61869OB)	\$6,881,454	100.00%	\$2,672,892	\$0	(\$577,164)	(\$4,822)	\$147,943	\$9,120,303	100.00%
Total	\$6,881,454	100%	\$2,672,892	----	(\$577,164)	(\$4,822)	\$147,943	\$9,120,303	100%
401(a) OBRA									
SAGIC (61869OB)	\$11,966,905	100.00%	\$0	\$0	(\$771,389)	(\$7,247)	\$217,210	\$11,405,479	100.00%
Total	\$11,966,905	100%	\$0	----	(\$771,389)	(\$7,247)	\$217,210	\$11,405,479	100%

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61869-2-San Mateo County 457 Part Time, Seasonal and Tempo

For Advisor and Plan Sponsor use only. Not for use with Plan Participants.

RS-41492-03

Total Investment Balance

as of 12/31/2019

Participant Demographics								
Investment Options	PARTICIPANTS					Participants in Option as of 12/31/2018	Participants in Option as of 12/31/2019	Investment Selection Percentage*
	Active	Beneficiary	Retired	Terminated	QDRO			
SAGIC Core Bond (61869)	\$58,069,624	\$1,292,838	\$16,189,939	\$70,519,457	\$407,813	2,560	2,520	9.4%
PIMCO Long-Term Real Return Fund	\$2,052,341	\$0	\$88,777	\$895,731	\$0	327	350	0.3%
PIMCO Total Return Fund	\$7,056,441	\$71,252	\$1,126,400	\$5,180,523	\$30,706	836	808	0.9%
Vanguard Total Bond Mkt Index Fund	\$5,347,528	\$0	\$368,287	\$1,038,373	\$8,088	339	441	0.7%
Premier High Yield Fund (Barings)	\$530,799	\$0	\$352	\$368,884	\$0	79	99	0.1%
Invesco Oppenheimer Intl Bond Fd	\$1,122,735	\$0	\$18,040	\$321,976	\$1,330	348	391	0.2%
Vanguard Target Retirement 2015 Fd	\$4,527,860	\$6,523	\$1,443,336	\$5,433,448	\$7,987	224	374	1.9%
Vanguard Target Retirement 2025 Fd	\$25,305,258	\$82,495	\$560,248	\$9,258,421	\$24,465	766	1,058	9.5%
Vanguard Target Retirement 2035 Fd	\$22,955,516	\$27,968	\$108,354	\$4,375,169	\$19,441	960	1,317	14.4%
Vanguard Target Retirement 2045 Fd	\$20,525,141	\$23,714	\$6,532	\$2,195,072	\$20,573	1,245	1,532	18.4%
Vanguard Target Retirement 2055 Fd	\$12,277,091	\$31,928	\$0	\$1,389,364	\$0	1,512	1,945	26.8%
Vanguard Target Retirement Incm Fd	\$375,562	\$574,997	\$2,783,033	\$3,638,603	\$0	58	177	0.4%
American Funds American Mutual Fund	\$11,364,809	\$84,213	\$914,439	\$5,616,565	\$39,590	956	976	1.3%
American Funds Fndmntl Invstrs Fnd	\$22,321,010	\$386,368	\$4,014,954	\$17,993,822	\$58,458	1,350	1,334	2.2%
Parnassus Core Equity Fund	\$3,699,089	\$0	\$545,951	\$1,246,508	\$0	432	506	0.6%
Vanguard Institutional Index Fund	\$13,693,788	\$474,954	\$2,528,598	\$7,060,595	\$1,407	761	815	1.7%
Vanguard Total Stock Mkt Index Fd	\$10,296,266	\$56,321	\$122,695	\$2,539,591	\$0	0	616	1.3%

Total Participants 8643: 6141 Active, 40 Beneficiary, 236 Retired, 2212 Terminated, 14 QDRO

*The investment selection percentages reflect participants with an active status. Due to rounding the percentages may not total 100% Contracts with multiple plans may result in participants maintaining balances in more than one plan.

61869-1-San Mateo Deferred Compensation Plan

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RS-41492-03

Total Investment Balance

as of 12/31/2019

Participant Demographics								
Investment Options	PARTICIPANTS					Participants in Option as of 12/31/2018	Participants in Option as of 12/31/2019	Investment Selection Percentage*
	Active	Beneficiary	Retired	Terminated	QDRO			
American Funds Grth Fund of America	\$20,326,521	\$167,330	\$2,983,293	\$11,959,231	\$31,832	1,260	1,260	2.2%
American Century Mid Cap Value Fund	\$3,309,776	\$14,872	\$78,311	\$1,775,003	\$211	541	560	0.4%
Vanguard Mid Cap Index Fund	\$4,411,394	\$67,494	\$487,544	\$1,270,006	\$1,239	554	606	0.6%
Select Mid Cap Gr Fd (TRP/Frontier)	\$9,690,617	\$51,662	\$1,121,324	\$4,394,827	\$46,527	890	923	1.0%
JP Morgan Small Cap Value Fund	\$343,425	\$0	\$477	\$99,366	\$0	263	298	0.1%
Vanguard Small Cap Index Fund	\$6,854,355	\$61,713	\$518,768	\$2,679,613	\$6,894	767	805	0.9%
Wells Fargo Small Company Growth Fd	\$6,686,255	\$48,377	\$213,966	\$2,655,738	\$26,524	888	889	0.7%
American Fnds Cap Wld Gr and Inc Fd	\$7,586,552	\$54,793	\$414,461	\$2,844,741	\$16,117	771	770	0.7%
Vanguard Developed Markets Index Fd	\$2,302,194	\$0	\$107,813	\$456,552	\$2,330	0	436	0.6%
Amer Funds EuroPacific Growth Fund	\$5,560,349	\$10,259	\$453,870	\$3,133,143	\$16,438	793	803	0.7%
Invesco Oppenheimer Dvlpng Mrk Fd	\$2,524,461	\$394	\$74,922	\$652,434	\$597	548	591	0.4%
Invesco Real Estate Fund	\$1,885,447	\$816	\$138,599	\$884,442	\$8,377	496	549	0.3%
Bank of The West Savings	\$2,917,965	\$0	\$363,672	\$1,733,298	\$0	268	254	0.4%
Hartford Healthcare HLS Fund	\$3,684,413	\$14,416	\$200,523	\$2,295,690	\$0	376	370	0.4%
Schwab PCRA	\$1,337,807	\$0	\$449,115	\$1,949,110	\$0	52	51	
Vanguard Utilities Index Fund	\$3,742,882	\$5,836	\$555,453	\$2,158,437	\$2,089	392	408	0.5%
Total	\$304,685,270	\$3,611,531	\$38,982,048	\$180,013,731	\$779,033	-----	-----	100%

Total Participants 8643: 6141 Active, 40 Beneficiary, 236 Retired, 2212 Terminated, 14 QDRO

*The investment selection percentages reflect participants with an active status. Due to rounding the percentages may not total 100% Contracts with multiple plans may result in participants maintaining balances in more than one plan.

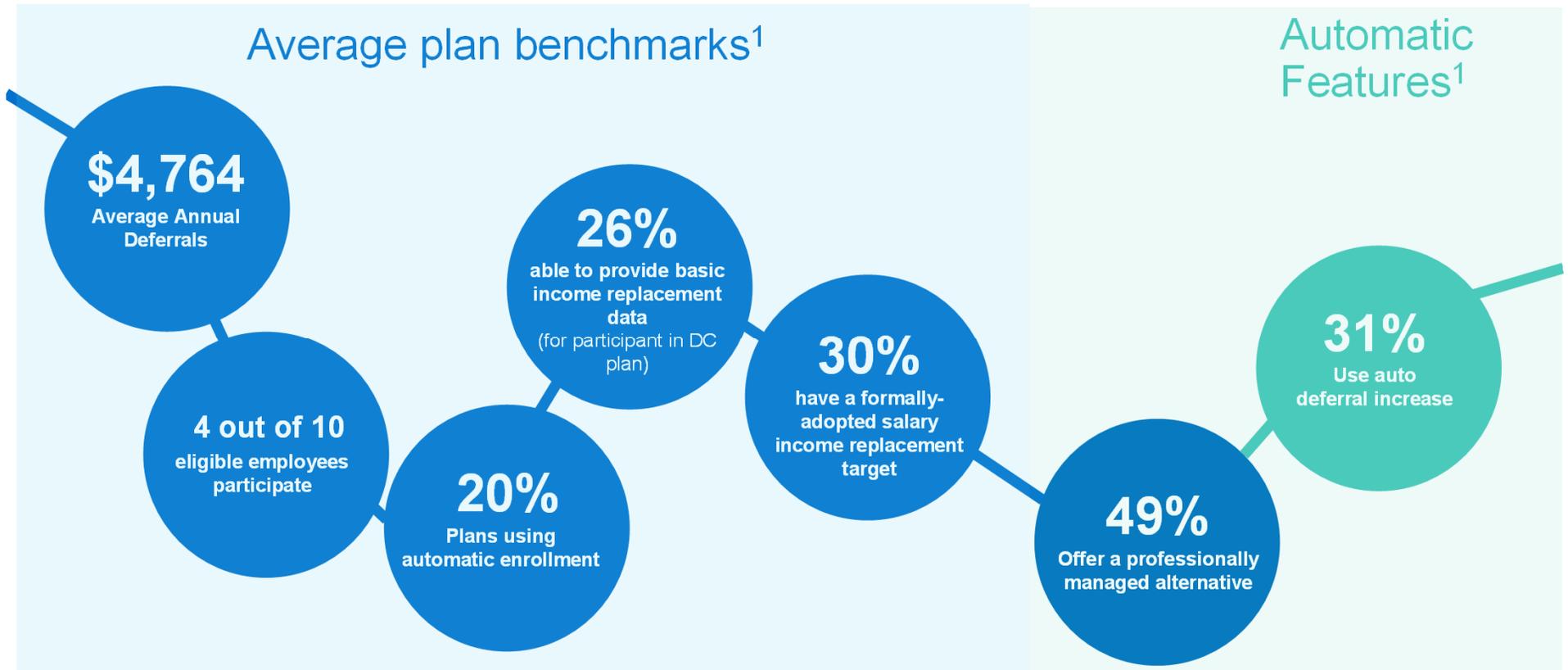
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RS-41492-03

The “average” retirement plan

A look back at the average 2016 plan experience

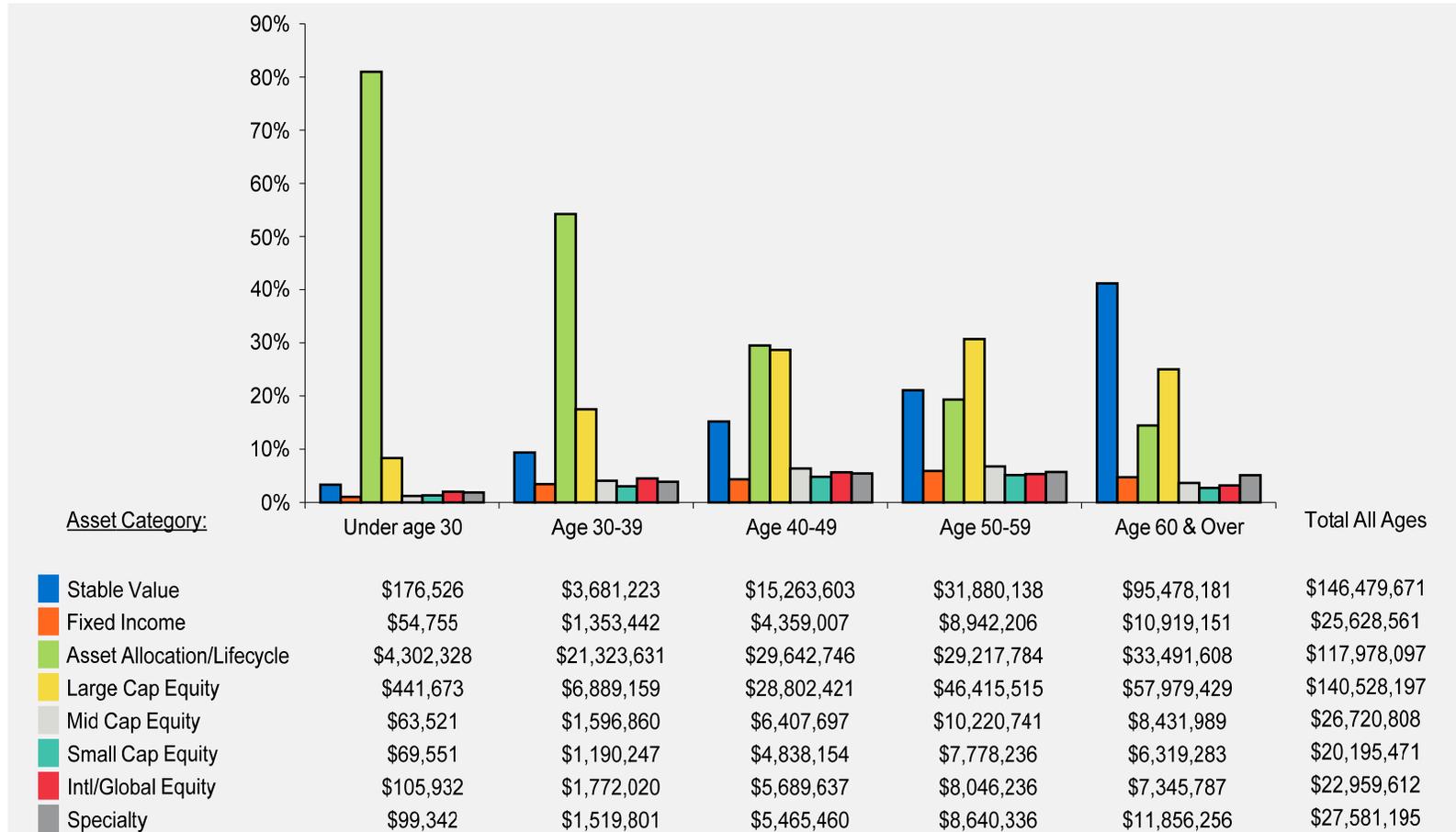


1 2017 National Association of Government Defined Contribution Administrators, Inc. - Perspectives in Practice – A Benchmarking Initiative for Public Sector Defined Contribution Plans

Balances by Age

as of 12/31/2019

Age	Under age 30	Age 30-39	Age 40-49	Age 50-59	Age 60 and Over	Total
Number of Participants	1,115	1,984	1,951	1,765	1,828	8,643
Group Balance	\$5,313,628	\$39,326,383	\$100,468,724	\$151,141,192	\$231,821,684	\$528,071,611
Average Account Balance	\$4,766	\$19,822	\$51,496	\$85,632	\$126,817	\$61,098



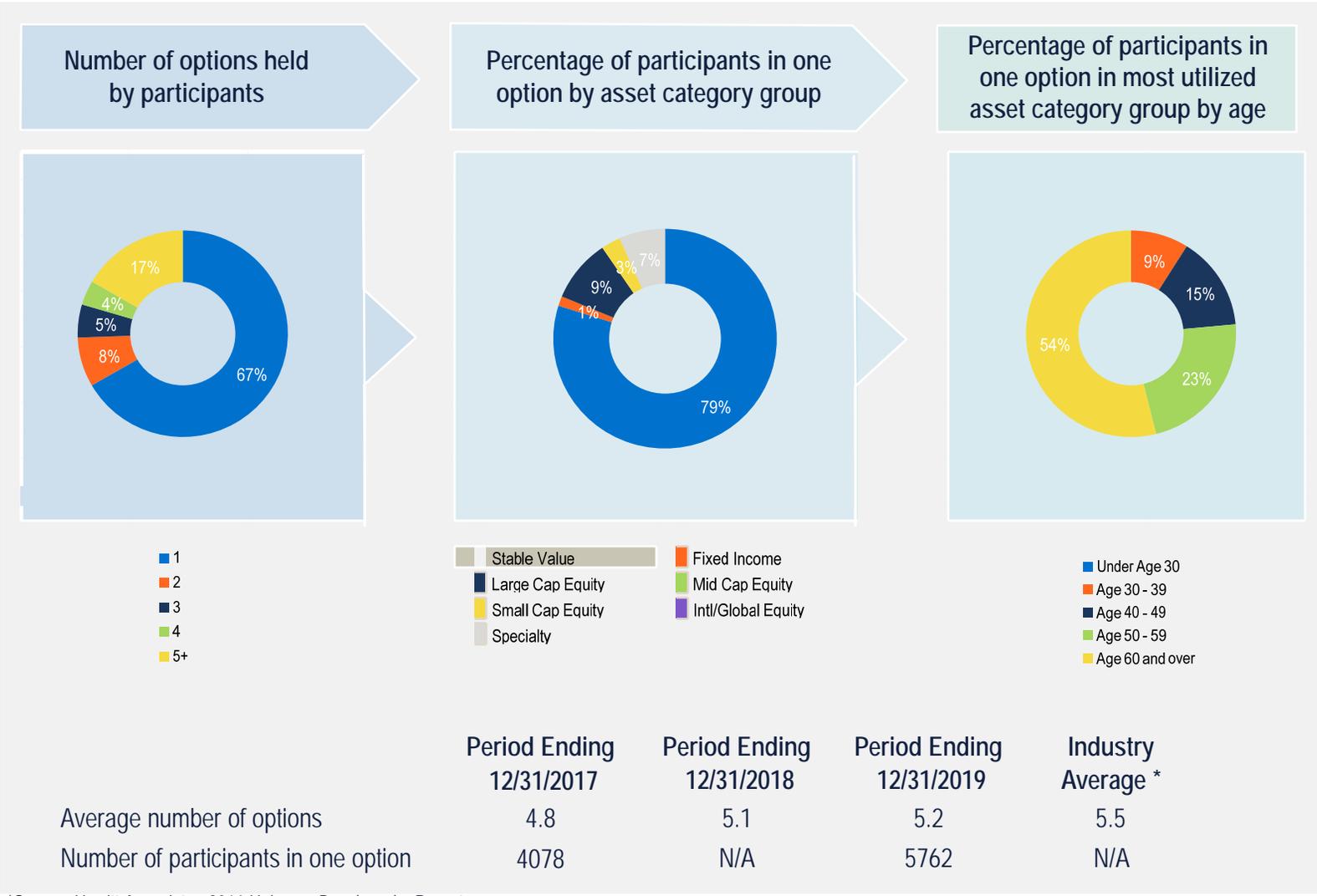
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Participant Diversification

As Of 12/31/2019

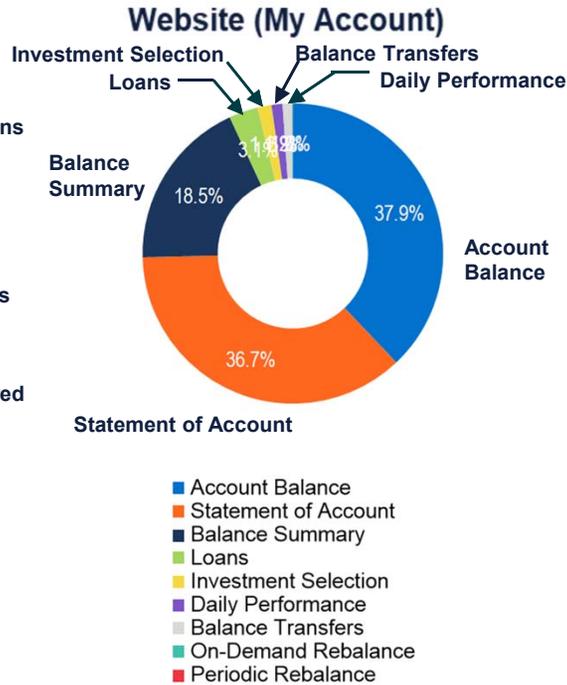
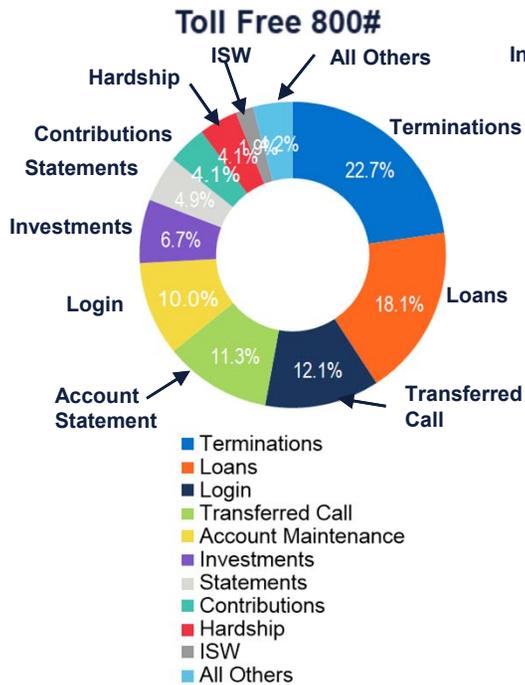


*Source: Hewitt Associates 2016 Universe Benchmarks Report

Participant Interactions

01/01/2019 through 12/31/2019

Total Visits	
Toll Free 800#	642
Call Center	2,234
Website	75,065



Highlights - Website

My Account	23318
Research	329

Highlights - Retirement Services Call Center

Loans	679
RSG-Retirement Options	623
Transferred Call	376
Investments	255
Statements	177

Loan Summary

Loan Data				
	Your Plan 12/31/2018	Your Plan 12/31/2019	MassMutual Average 12/31/2019	Industry Averages
Number of loans allowed	1	1	2.	1.2*
Average number of loans per participant with loans	1.1	1.1	1.2	Not available
Percentage of participants with loans	7.8%	7.5%	10.4%	14.6%*
Average loan balance	\$10,231	\$10,818	\$8,271	\$6,216*
Percentage of plan assets loaned	1.5%	1.4%	1.3%	0.7%*

	Your Plan 12/31/2018	Your Plan 12/31/2019
Total number of participants with loans	616	647
Total number of outstanding loans	671	681
Average account balance of participants with loans	\$65,409	\$75,487
Total value of outstanding loans	\$6,865,091	\$7,366,996

Current Loan Interest Rate = 5.75%

*Source: PSCA's 58th Annual Survey of PS and 401(k) Plans

Miscellaneous Statistics

Activity	Total #	Total \$
Total 2019 TRAK calculation	129	
Managed Accounts added in 4Q 2019	0	-
Total Managed Accounts	48	\$3,415,071.89
2019 Hardships Processed	29	\$98,368.34
Rollovers In	116	\$4,298,840.12
Purchase of Service Credit to SamCera	53	\$572,846.80
Rollovers Out	227	\$18,167,275.66
QDRO	3	\$1,500
401(a) Forfeiture Balance as of 12/31/2019	181	\$259,772.73

4th Quarter Onsite meeting results



Prescribe:
Targeted
messages,
meetings



One-to-One
Messaging



Diagnose:
The MassMutual
RetireSMART
Ready Tool

Date	Location	Group Meeting Attendees	Individual Meeting Attendees	Participant Action					
				Enroll	Save More	Asset Allocation	Consolidate	TRAK	RST
10/1	455 CC	9	4	3	6	4	2	3	2
10/1	SMMC		4		3	3		3	
10/4	HARBOR		3		3	3		2	2
10/7	455 CC	5			2	2	1		
10/8	455 CC	168		7	25	4	3		
10/9	SMMC	255		9	33	6	4		
10/9	455 CC		1			1		1	
10/10	HARBOR		5		5	3		2	3
10/15	455 CC	9	4	6	8	3		3	2
10/15	801		6		5	5	1	5	4
10/21	455 CC	11	1	5	6	3			
10/28	SMMC	17	2	4	8	2	1		
10/29	455 CC	12	9	3	7	5		6	5
10/29	YSC		7		5	6		5	3
10/30	2000 A		4		4	3		3	2
11	15	486	50	37	120	53	12	33	23

4th Quarter Onsite meeting results



Prescribe:
Targeted
messages,
meetings



One-to-One
Messaging



Diagnose:
The MassMutual
RetireSMART
Ready Tool

Date ⁴	Location	Group Meeting Attendees	Individual Meeting Attendees	Participant Action					
				Enroll	Save More	Asset Allocation	Consolidate	TRAK	RST
11/1	MAPLE		7		5	4	2	5	3
11/4	455 CC	7		4	3				
11/4	SMMC	14	8	6	5	6		6	4
11/5	YSC		10		4	5	3	7	6
11/12	455 CC		9		4	6		6	5
11/12	SMHS		5		3	4	1	4	4
11/13	455 CC	8		5					
11/14	SMMC	4		3					
11/14	HARBOR	12	6	3		4	1	5	4
11/18	455 CC	7		2					
11/18	2000		4		3	3		4	3
11/19	455 CC		10		6	8	1	8	6
11/19	MISSION		6		4	4		5	4
11/26	SMHS		2		2	2	1	2	2
11/26	455 CC		8		5	6		7	6
9	15	52	75	23	44	52	9	59	47

4th Quarter Onsite meeting results



Prescribe:
Targeted
messages,
meetings



One-to-One
Messaging



Diagnose:
The MassMutual
RetireSMART
Ready Tool

Date	Location	Group Meeting Attendees	Individual Meeting Attendees	Participant Action					
				Enroll	Save More	Asset Allocation	Consolidate	TRAK	RST
12/2	455 CC	13		5	4				
12/2	SMMC	36		4	5				
12/3	455 CC		6		4	4		4	2
12/3	SMMC		4		3	3	1	3	2
12/4	455 CC	8		4	2				
12/4	SMHS		4		1	2	1	3	3
12/5	HARBOR		5	1	2	3		4	4
12/10	455 CC	36		3	9	5	3		
12/12	YSC		8	3	4	5		3	5
12/12	2000 A		3		2	3	1	2	3
6	10	93	30	20	36	25	6	19	19

4th Quarter Onsite meeting results



Prescribe:
Targeted
messages,
meetings

Date	Location	Group Meeting Attendees	Individual Meeting Attendees	Participant Action					
				Enroll	Save More	Asset Allocation	Consolidate	TRAK	RST
OCT	15	486	50	37	120	53	12	33	23
NOV	15	52	75	23	44	52	9	59	47
DEC	10	93	30	20	36	25	6	19	19
Total	40	631	155	80	200	130	27	111	89



One-to-One
Messaging



Diagnose:
The MassMutual
RetireSMART
Ready Tool

2019 Education Results

# Account Interactions	# PPT in Group Seminars	# Participant Interactions*	# Participant Actions*	Action Ratio*	# of Rollover	RetireSMART Ready Tool
1095	662	1084	602	55%	51	138

Locations Visited:

Department, Location	Department, Location
HR, 455 County Center	Public Works, RWC and Tower Rd
BHRS, 2000 Alameda, Daly City, SSF	Health Systems, San Mateo, SSF
SMSO, Maguire and Maple St	Harbor Complex, HSA, Housing, BHRS
HSA, 1 Davis, SSF, Daly City	PCEA, Woodside Rd
SMMC, San Mateo, Coastside, SSF	Probation YSC, 1024 Mission Rd, EPA
Parks Dept; CCS, San Bruno	Environmental, 2000 Alameda

Benefits disconnected



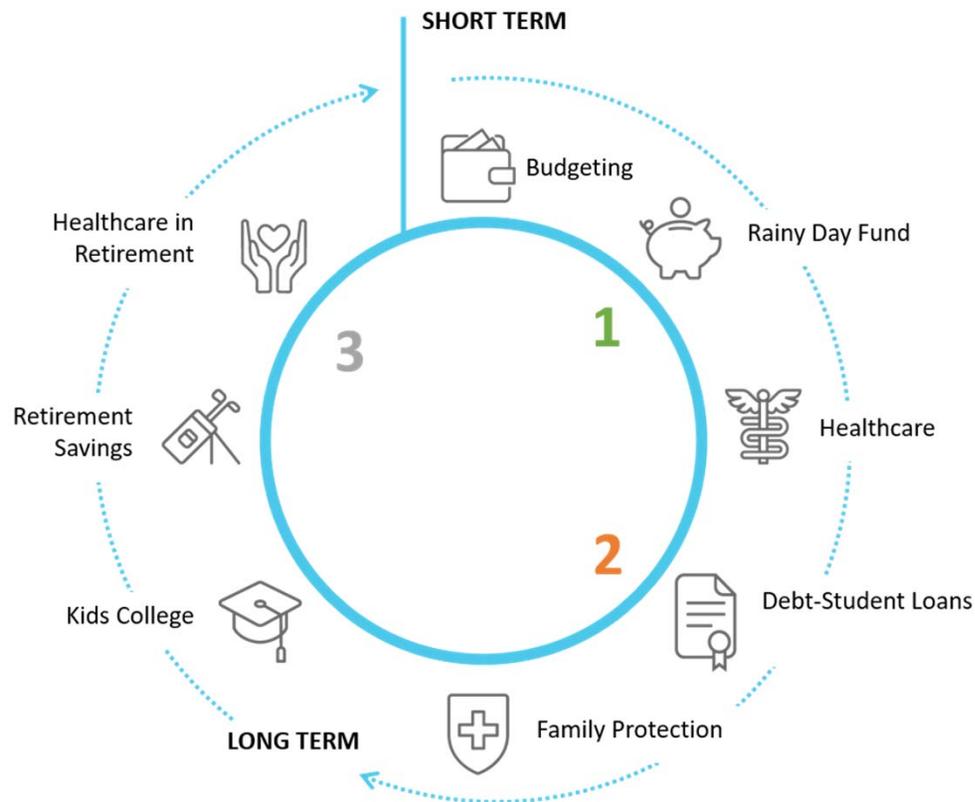
They need our help.

- ▶ Employees are taking on more responsibility for benefit decisions
- ▶ Choices are interdependent, but the process is fragmented
- ▶ The result: confusion and competition for limited dollars

1 GOBankingRates.com survey, “69% of Americans Have Less Than \$1,000 in Savings”, Cameron Huddleston, September 19,2016. <https://www.gobankingrates.com/personal-finance/data-americans-savings/>
2 2016 Insurance Barometer Study, LIMRA
3 2015 MassMutual Employee Benefits Security Study. Read more: massmutualatwork.com/intheknow

A dynamic solution for improving financial wellness

MapMyFINANCES Enables participants to make more informed decisions about their finances at every life stage.



ADVANTAGES

- Creates a unique financial wellness score to help participants gauge their current financial health.
- Delivers simple, actionable ways for your participants to improve their score.
- Makes your open-enrollment process smoother and more successful.
- Inspires participants to achieve better financial outcomes and ultimately, improve your organization's bottom line.

Help participants with a game plan tailored to their situation

1

We will help prioritize **GOALS**



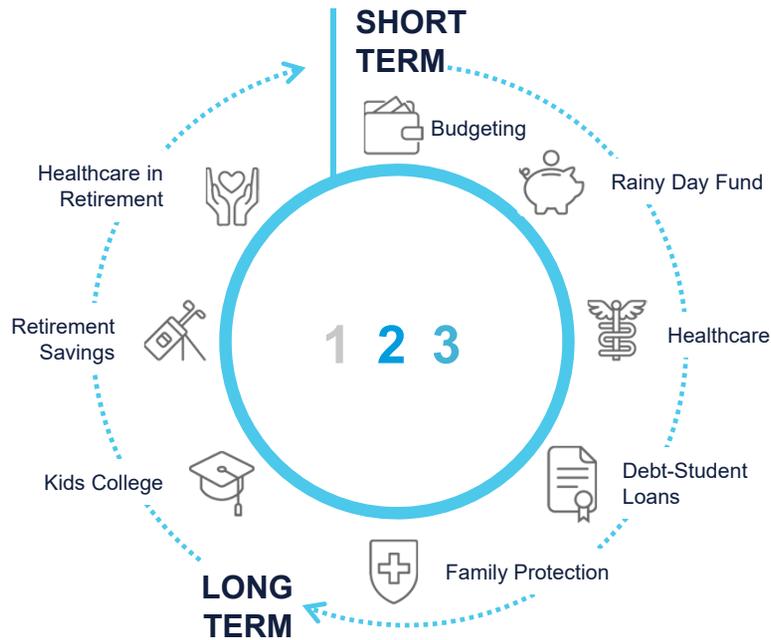
2

We will provide a current wellness **SCORE**



3

And show simple, actionable **WAYS TO IMPROVE** that score, through a “to-do” list



PROFILE 1
YOUR FINANCIAL WELLNESS SCORE

76

GOOD NEWS,
We have some suggestions on how you can increase your score:

PROFILE 1
HERE'S HOW YOU CAN GET TO:

96

LET'S TAKE A LOOK AT:

- EDUCATION
- SOLUTIONS

Guidance may not be available for certain products. Guidance is based on MapMyFinances assumptions and information provided by the employee and employer.

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RS-41492-03

mutualvoice – our commitment to you @work

Service centered around you.

- Real-time actionable feedback from you, advisors, TPA's, and participants
- Annual and periodic surveys
- Insights to create a better experience

HOW MUTUALVOICE WORKS



Through real-time actionable feedback, we gain valuable insights into how your plan is performing on many levels.

Cybersecurity

A comprehensive program in place to protect your data

MassMutual takes its responsibility to protect your data very seriously. While no cybersecurity program can protect against every eventuality, our Enterprise Information Risk Management Program helps to ensure the security and integrity of our customer data.

Training and Access

- Intensive employee training on privacy and IT security
- Restricted Access
- Multi-factor authentication

Ongoing Testing

- Tests and vulnerability assessments
- Internal auditing and regulatory oversight
- Security wellness checks

Multi-level defense

- Multiple firewalls, Intrusion detectors and protection sensors
- Antivirus technology
- Rapid response teams

Additional Safeguards

- Third-party vendors required to maintain data protection programs
- Cyber insurance
- Robust business continuity program

A Commitment to the Community

In 2016 MassMutual announced a **\$15 million dollar donation to the University of Massachusetts/Amherst** to strengthen its data science and cybersecurity programs

Our commitment to you @work

“Our commitment to you and your employees.”



Service



Performance



Retirement
outcomes



Continued
innovation

“We’re transforming every customer experience, everyday.”



County of San Mateo Quarterly Contribution Report

GA #	Calendar Year	Quarter	EE Pre-Tax	EE Roth	Sum
150018	2016	1	\$4,074,209.93	\$435,589.92	\$4,509,799.85
61869-1	2016	1	\$785,003.50	\$108,057.52	\$893,061.02
61869-1	2016	2	\$5,837,856.22	\$738,468.22	\$6,576,324.44
61869-1	2016	3	\$5,414,639.16	\$735,646.32	\$6,150,285.48
61869-1	2016	4	\$4,690,748.46	\$672,966.46	\$5,363,714.92
61869-1	2017	1	\$6,237,144.14	\$974,332.43	\$7,211,476.57
61869-1	2017	2	\$5,717,738.53	\$857,348.96	\$6,575,087.49
61869-1	2017	3	\$6,134,167.32	\$978,802.21	\$7,112,969.53
61869-1	2017	4	\$5,275,596.83	\$845,837.78	\$6,121,434.61
61869-1	2018	1	\$7,038,132.82	\$1,178,579.41	\$8,216,712.23
61869-1	2018	2	\$6,600,516.54	\$1,000,384.62	\$7,600,901.16
61869-1	2018	3	\$6,725,469.48	\$1,150,112.39	\$7,875,581.87
61869-1	2018	4	\$5,523,800.28	\$992,490.95	\$6,516,291.23
61869-1	2019	1	\$7,562,049.16	\$1,442,926.53	\$9,004,975.69
61869-1	2019	2	\$6,771,702.24	\$1,248,882.22	\$8,020,584.46
61869-1	2019	3	\$7,033,269.71	\$1,424,921.77	\$8,458,191.48
61869-1	2019	4	\$5,872,601.95	\$1,190,537.43	\$7,063,139.38
		Sub Total	\$97,294,646.27	\$15,975,885.14	
				Total	\$113,270,531.41

\$32,546,891.01

San Mateo County Rollovers Out Q4 2019

Plan Number	Subscriber Name	Payee Name	Post Date	Payee Type	Gross Amount of Distribution
1	1	SamCERA	12/24/2019	457(b) Plan to Plan Transfer	\$175,000.00
1	1	SamCERA	11/1/2019	457(b) Plan to Plan Transfer	\$32,934.28
1	1	SamCERA	10/8/2019	457(b) Plan to Plan Transfer	\$10,753.63
1	1	SamCERA	11/19/2019	457(b) Plan to Plan Transfer	\$9,794.16
1	1	SamCERA	11/25/2019	457(b) Plan to Plan Transfer	\$6,599.42
1	1	San Mateo County of Employees	11/21/2019	457(b) Plan to Plan Transfer	\$3,841.94
1	1	SamCERA	11/25/2019	457(b) Plan to Plan Transfer	\$2,478.23
1	1	SamCERA	12/4/2019	457(b) Plan to Plan Transfer	\$2,149.73
1	1	SamCERA	11/22/2019	457(b) Plan to Plan Transfer	\$1,988.87
1	1	SamCERA	11/19/2019	457(b) Plan to Plan Transfer	\$1,613.78
1	1	SamCERA	11/22/2019	457(b) Plan to Plan Transfer	\$875.00
1	1	SamCERA	11/25/2019	457(b) Plan to Plan Transfer	\$872.44
1	1	SamCERA	11/21/2019	457(b) Plan to Plan Transfer	\$724.91
1	1	SamCERA	11/1/2019	457(b) Plan to Plan Transfer	\$616.20
1	1	SamCERA	10/8/2019	457(b) Plan to Plan Transfer	\$410.69
1	1	SamCERA	11/26/2019	457(b) Plan to Plan Transfer	\$316.95
1	1	SamCERA	10/1/2019	457(b) Plan to Plan Transfer	\$61.16
1	1	SamCERA	11/26/2019	457(b) Plan to Plan Transfer	\$17.27
1	1	SamCERA	10/1/2019	457(b) Plan to Plan Transfer	(\$61.17)
1	1	SamCERA	10/8/2019	457(b) Plan to Plan Transfer	(\$410.85)
1	1	SamCERA	10/8/2019	457(b) Plan to Plan Transfer	(\$10,755.52)
Subtotal Rollover Out to SamCERA					\$239,821.12

Plan Number	Subscriber Name	Payee Name	Post Date	Payee Type	Gross Amount of Distribution
1	1	Allianz	10/17/2019	IRA Rollover	\$37,554.27
1	1	Allianz Life Insurance Company	10/18/2019	Roth IRA Rollover	\$20,510.66
1	1	Ameriprise Financial	11/05/2019	IRA Rollover	\$28,771.13
1	1	Charles Schwab	10/09/2019	IRA Rollover	\$529,847.18
1	1	Edward Jones	12/13/2019	IRA Rollover	\$75,098.45
1	1	Edward Jones	11/27/2019	IRA Rollover	\$32,483.40
1	1	Edward Jones	12/06/2019	IRA Rollover	\$452.29
1	1	FIDELITY & GUARANTY LIFE	11/15/2019	IRA Rollover	(\$424,167.05)
1	1	Fidelity Investments	10/21/2019	IRA Rollover	\$24,488.45
1	1	Fidelity Investments	11/11/2019	IRA Rollover	\$11,034.90
1	1	Fidelity Investments	10/23/2019	IRA Rollover	\$28.32
1	1	Fidelity Investments	11/11/2019	IRA Rollover	(\$11,034.90)
1	1	Fidelity Investments, Stanford	12/06/2019	IRA Rollover	\$42,369.76
1	1	Fidelity Investments.	10/23/2019	Roth IRA Rollover	\$449.28
1	1	FMTC	12/06/2019	IRA Rollover	\$1,585.13
1	1	FMTC	11/29/2019	IRA Rollover	\$196.34
1	1	FMTC	10/29/2019	IRA Rollover	\$81.35
1	1	FMTC ROTH IRA	12/16/2019	Roth IRA Rollover	\$55,242.14
1	1	FMTC Roth IRA	12/27/2019	Roth IRA Rollover	\$648.52
1	1	Jackson National	12/24/2019	IRA Rollover	\$18,951.74
1	1	Jackson National LIC	12/06/2019	IRA Rollover	\$39,095.86
1	1	Jackson National Life	10/09/2019	IRA Rollover	\$273.65
1	1	Jackson National Life	10/18/2019	IRA Rollover	\$273.65
1	1	Jackson National Life	10/18/2019	IRA Rollover	(\$273.65)
1	1	Jackson National Life.	10/09/2019	Roth IRA Rollover	\$20,510.66
1	1	Jackson National Life.	10/18/2019	Roth IRA Rollover	(\$20,510.66)
1	1	MassMutual	11/07/2019	IRA Rollover	\$42,988.49
1	1	MassMutual	11/07/2019	Roth IRA Rollover	\$2,955.26
1	1	MassMutual 62416-1-1	12/27/2019	Roth IRA Rollover	\$1,025.93
1	1	MassMutual-62416-1-1	12/27/2019	IRA Rollover	\$5,169.39
1	1	Morgan Stanley Smith Barney	10/31/2019	IRA Rollover	\$14.62
1	1	Nassau Re	11/18/2019	IRA Rollover	\$9.46
1	1	National Financial ServicesLLC	11/15/2019	IRA Rollover	\$174,092.05
1	1	NATIONWIDE	10/01/2019	IRA Rollover	\$57,775.46
1	1	Penn Mutual Life Insurance Co	11/15/2019	IRA Rollover	\$250,000.00

Plan Number	Subscriber Name	Payee Name	Post Date	Payee Type	Gross Amount of Distribution
1	1	PWC 401k Savings Plan	10/25/2019	IRA Rollover	\$403.17
1	1	PWC 401k Savings Plan	11/08/2019	IRA Rollover	\$403.17
1	1	PWC 401k Savings Plan	11/08/2019	IRA Rollover	(\$403.17)
1	1	Reliance Trust Co	12/18/2019	IRA Rollover	\$5,169.39
1	1	Reliance Trust Co	11/21/2019	IRA Rollover	\$701.59
1	1	Reliance Trust Co	12/27/2019	IRA Rollover	(\$5,169.39)
1	1	Reliance Trust Co.	12/18/2019	Roth IRA Rollover	\$1,025.93
1	1	Reliance Trust Co.	12/27/2019	Roth IRA Rollover	(\$1,025.93)
1	1	UBS	11/12/2019	IRA Rollover	\$170,157.01
1	1	UBS	11/22/2019	IRA Rollover	\$250.00
1	1	Vanguard	11/20/2019	Roth IRA Rollover	\$6,858.97
1	1	VantagePoint	11/12/2019	Roth IRA Rollover	\$506.96
1	1	VFTC	10/14/2019	Roth IRA Rollover	\$1,127.86
1	1	VFTC	10/30/2019	IRA Rollover	\$193.22
1	1	VFTC.	10/30/2019	Roth IRA Rollover	\$9,858.39
Subtotal Rollover Out to Other					\$1,208,048.70
Total Rollover Out					\$1,447,869.82



Investment Return & Risk

Prepared for

County of San Mateo

As of December ' 1, 2019

Section 1

Economic Slides

Section 2

Investment Performance

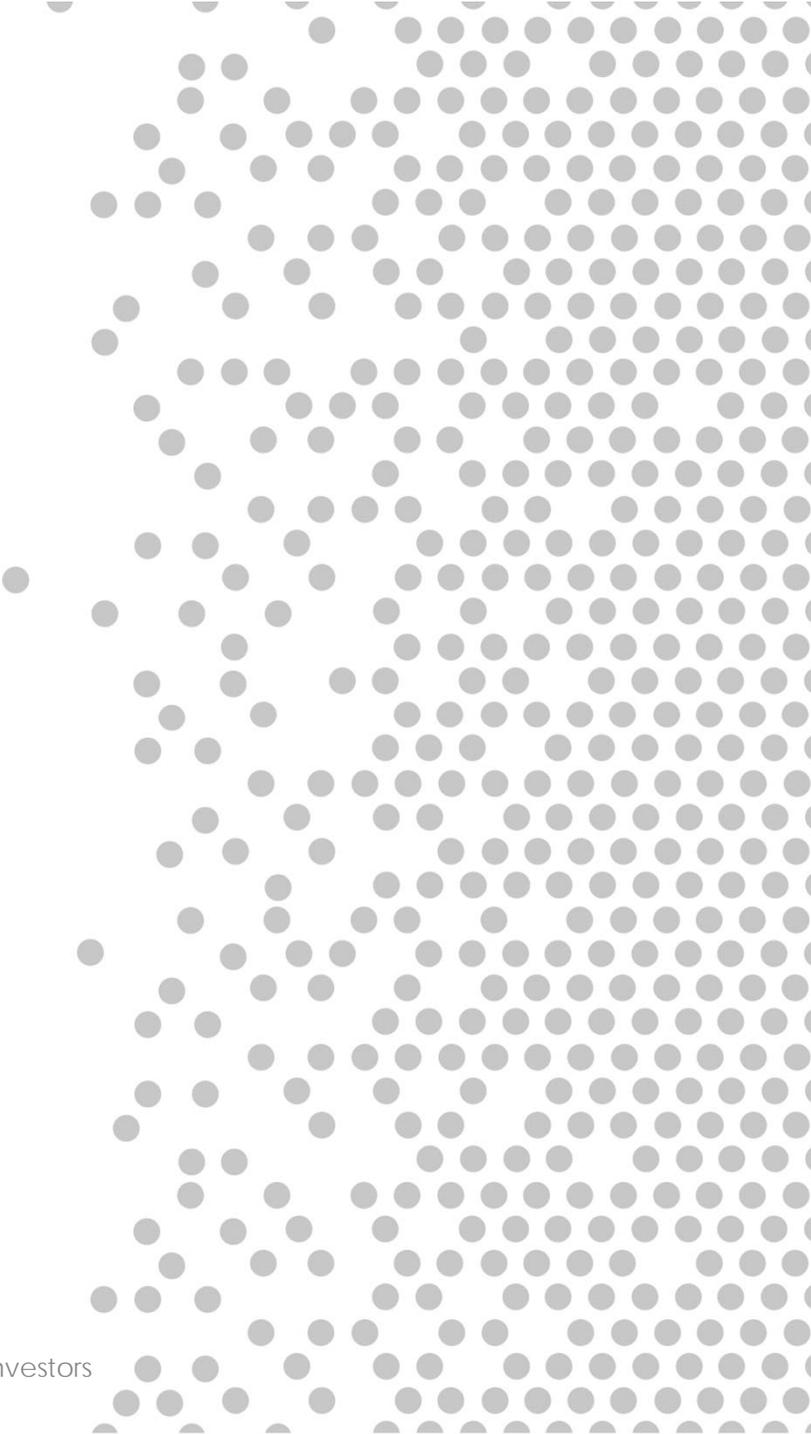
Section 2

Disclosures

Fourth Quarter 2019 Market & Economic Review



RS-41492-01 For Advisor and Plan Sponsor use only. Not for use with retail investors or plan participants.



Quarterly Market Recap

as of 12/31/2019

Quarterly Data Center

Equities	Level	Index Returns (%)		
		QTD	YTD	1 Year
S&P 500	3,230.78	9.07	31.49	31.49
Russell 2000	1,668.47	9.94	25.52	25.52
MSCI EAFE	2,036.94	8.17	22.01	22.01
MSCI EM	1,114.66	11.84	18.42	18.42
NASDAQ	8,972.60	12.47	36.69	36.69

Fixed Income	YTM	QTD	YTD	1 Year
U.S. Aggregate	2.31	0.18	8.72	8.72
U.S. Corporates	2.84	1.18	14.54	14.54
Barclays U.S. High Yield	5.19	2.61	14.32	14.32
Citi WGBI Non-USD	1.01	-0.07	5.32	5.32

Other / Specialty	Level	QTD	YTD	1 Year
Bloomberg Commodity Index	80.89	4.42	7.69	7.69
FTSE NAREIT Equity REIT Index	726.38	-0.76	26.00	26.00
Gold	1,517.27	3.04	18.31	18.31
Brent Oil	66.00	8.59	22.68	22.68

Source: Bloomberg, 12/31/2019

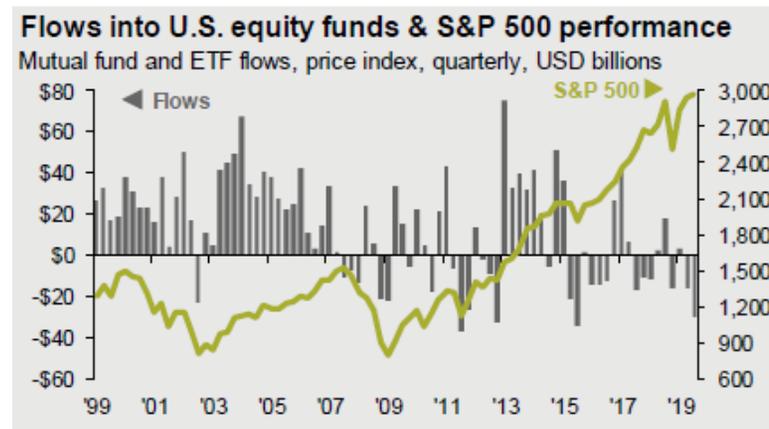
Morningstar Direct, 12/31/2019

Chart of the Quarter: Source: Strategic Insight Simfund, J.P. Morgan Asset Management.

Global Market Data	U.S.	EU	Japan	China
GDP Growth (YOY) (%)	2.30	1.20	0.60	6.00
CPI (YOY) (%)	2.10	1.20	0.50	4.30
Unemployment (%)	3.50	6.70	2.40	3.60
Central Bank Rate (Level)	1.75	0.25	-0.10	4.35
10 Year Govt. Yield (%)	1.92	0.50	-0.01	3.14

*Forecasted Q4 2020

Chart of the Quarter



Asset Class Returns

as of 12/31/2019

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
REITS 31.58	Emrg Mrkt Equity 34.00	REITS 35.06	Emrg Mrkt Equity 39.42	Fixed Income 5.24	Emrg Mrkt Equity 78.51	REITS 27.96	REITS 8.29	Emrg Mrkt Equity 18.22	Small Cap 38.82	REITS 30.14	REITS 3.20	Small Cap 21.31	EM Equity 37.28	Cash 1.82	Large Cap 31.49
Emrg Mrkt Equity 25.55	Comdty 21.36	Emrg Mrkt Equity 32.14	Comdty 16.23	Cash 1.77	High Yield 58.21	Small Cap 26.85	Fixed Income 7.84	REITS 18.06	Large Cap 32.39	Large Cap 13.69	Large Cap 1.38	High Yield 17.13	Int'l Equity 25.03	Fixed Income 0.01	REITS 26.00
Int'l Equity 20.25	Int'l Equity 13.54	Int'l Equity 26.34	Int'l Equity 11.17	Asset Allocation -23.27	Int'l Equity 31.78	Emrg Mrkt Equity 18.88	High Yield 4.98	Int'l Equity 17.32	Int'l Equity 22.78	Fixed Income 5.97	Fixed Income 0.55	Large Cap 11.96	Large Cap 21.83	High Yield -2.08	Small Cap 25.52
Small Cap 18.33	REITS 12.16	Small Cap 18.37	Asset Allocation 7.04	High Yield -26.16	REITS 27.99	Comdty 16.83	Large Cap 2.11	Small Cap 16.35	Asset Allocation 13.06	Asset Allocation 4.95	Cash 0.03	Comdty 11.77	Small Cap 14.65	Large Cap -4.38	Int'l Equity 22.01
Asset Allocation 12.28	Asset Allocation 7.86	Large Cap 15.79	Fixed Income 6.97	Small Cap -33.79	Small Cap 27.17	High Yield 15.12	Cash 0.07	Large Cap 16.00	High Yield 7.44	Small Cap 4.89	Int'l Equity -0.81	Emrg Mrkt Equity 11.19	Asset Allocation 13.28	REITS -4.62	EM Equity 18.42
High Yield 11.13	Large Cap 4.91	Asset Allocation 14.54	Large Cap 5.49	Comdty -35.65	Large Cap 26.46	Large Cap 15.06	Asset Allocation -0.38	High Yield 15.81	REITS 2.47	High Yield 2.45	Asset Allocation -2.16	REITS 8.52	High Yield 7.50	Asset Alloc. -5.58	Asset Alloc. 18.20
Large Cap 10.88	Small Cap 4.55	High Yield 11.85	Cash 4.78	Large Cap -37.00	Asset Allocation 23.74	Asset Allocation 12.77	Small Cap -4.18	Asset Allocation 11.25	Cash 0.05	Cash 0.02	Small Cap -4.41	Asset Allocation 7.91	REITS 5.23	Small Cap -11.01	High Yield 14.32
Comdty 9.15	Cash 3.00	Cash 4.80	High Yield 1.87	REITS -37.73	Comdty 18.91	Int'l Equity 7.75	Int'l Equity -12.14	Fixed Income 4.21	Fixed Income -2.02	Emrg Mrkt Equity -2.19	High Yield -4.47	Fixed Income 2.65	Fixed Income 3.54	Comdty -11.25	Fixed Income 8.72
Fixed Income 4.34	High Yield 2.74	Fixed Income 4.33	Small Cap -1.57	Int'l Equity -43.38	Fixed Income 5.93	Fixed Income 6.54	Comdty -13.32	Cash 0.08	Emrg Mrkt Equity -2.60	Int'l Equity -4.90	Emrg Mrkt Equity -14.92	Int'l Equity 1.00	Comdty 1.70	Int'l Equity -13.79	Comdty 7.69
Cash 1.24	Fixed Income 2.43	Comdty 2.07	REITS -15.69	Emrg Mrkt Equity -53.33	Cash 0.15	Cash 0.13	Emrg Mrkt Equity -18.42	Comdty -1.06	Comdty -9.52	Comdty -17.01	Comdty -24.66	Cash 0.26	Cash 0.82	EM Equity -14.58	Cash 2.21

Diversification does not guarantee a profit or protect against loss.

Source: Morningstar Direct, 12/31/2019. Large cap: S&P 500, Small cap: Russell 2000, EM Equity: MSCI EME, DM Equity: MSCI EAFE, Comdty: Bloomberg Commodity Index, High Yield: Barclays High Yield Index, Fixed Income: Barclays Capital Aggregate, REITS: NAREIT Equity REIT Index. The "Asset Allocation" portfolio assumes the following weights (60% Equity, 40% Bonds): 20% in the S&P 500, 10% in the Russell 2000, 15% in the MSCI, 5% in the MSCI EME, 30% in the Barclays Capital aggregate, 5% in the Barclays 1-3m Treasury, 5% in the Barclays High Yield Index, 5% in the Bloomberg Commodity Index and 5% in the NAREIT Equity REIT index. Balanced portfolio assumes annual rebalancing. All data represents total return for stated period. Past performance is not indicative of future returns.

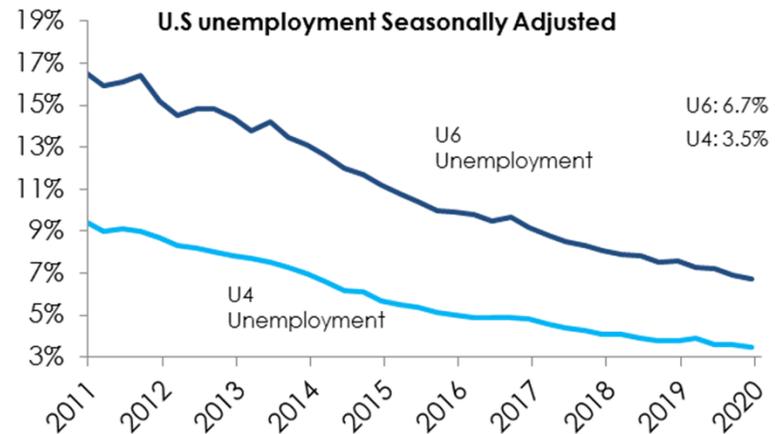
Past performance does not guarantee future results.



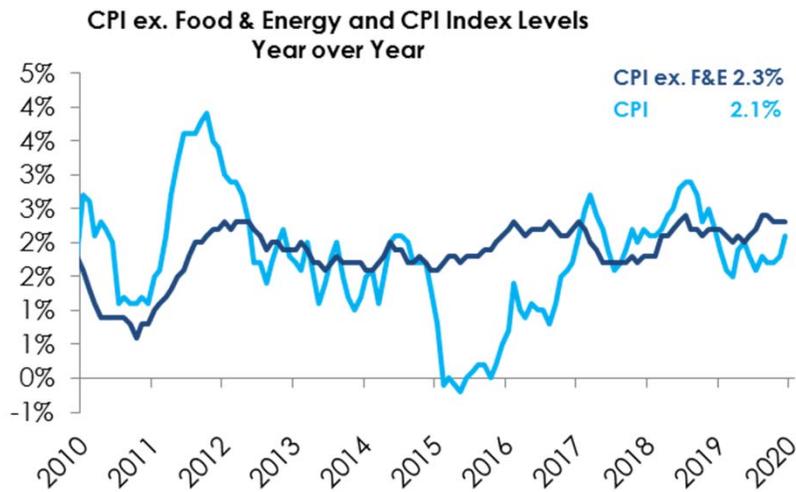
U.S. Economic Data



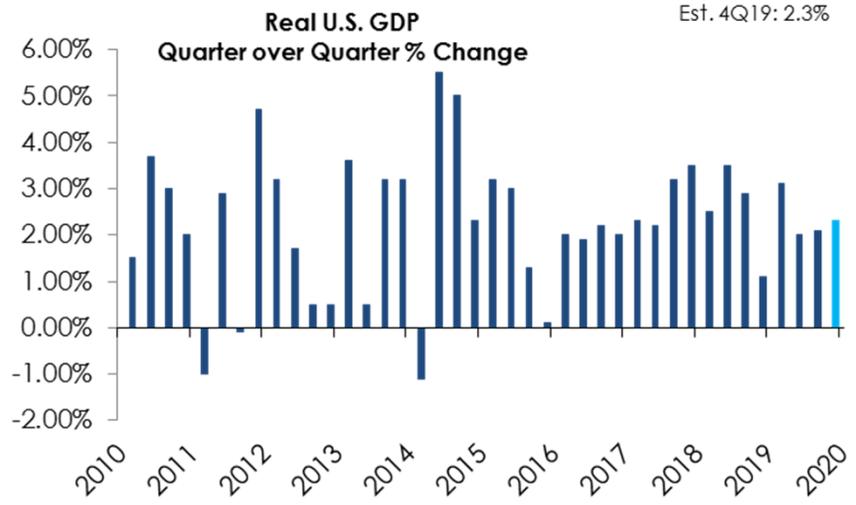
Source: Bloomberg, 12/31/2019



Source: Bloomberg, 12/31/2019



Source: Bloomberg, 12/31/2019



Source: Bloomberg, 12/31/2019

Source: Bloomberg, Bureau of Labor Statistics and Bureau of Economic Analysis.



Equity Overview

U.S. Equity Size and Style Returns (%)

as of 12/31/2019

Quarter 4

	Value	Core	Growth
Large	7.41	9.04	10.62
Mid	6.36	7.06	8.17
Small	8.49	9.94	11.39

Year To Date

	Value	Core	Growth
Large	26.54	31.43	36.39
Mid	27.06	30.54	35.47
Small	22.39	25.52	28.48

Key	
	Highest
	Lowest

1 Year (Annualized)

	Value	Core	Growth
Large	26.54	31.43	36.39
Mid	27.06	30.54	35.47
Small	22.39	25.52	28.48

3 Year (Annualized)

	Value	Core	Growth
Large	9.68	15.05	20.49
Mid	8.10	12.06	17.36
Small	4.77	8.59	12.49

5 Year (Annualized)

	Value	Core	Growth
Large	8.29	11.48	14.63
Mid	7.62	9.33	11.60
Small	6.99	8.23	9.34

10 Year (Annualized)

	Value	Core	Growth
Large	11.80	13.54	15.22
Mid	12.41	13.19	14.24
Small	10.56	11.83	13.01

Diversification does not guarantee a profit or protect against loss.

Source: Morningstar Direct, 12/31/2019. Equity style boxes are based on targeted equity styles as determined by valuation measures. The Russell 1000 Value Index, Russell 1000 Index and Russell 1000 Growth Index are unmanaged indices that measure the performance of large-capitalization value stocks, large-capitalization stocks and large capitalization growth stocks, respectively. The Russell Midcap Value Index, Russell Midcap Index and the Russell Midcap Growth Index are unmanaged indices that measure the performance of mid-cap value stocks, mid-cap stocks and mid-cap growth stocks, respectively. The Russell 2000 Value Index, Russell 2000 Index and Russell 2000 Growth Index are unmanaged indices that measure the performance of small-cap value stocks, small-cap stocks and small-cap growth stocks, respectively. Each index includes reinvested dividends and cannot be purchased directly by investors. Index performance is shown for illustrative purposes only and does not predict or depict the performance of any particular investment. **Past performance does not guarantee future results.**



S&P 500 Index and Sector Returns (%)

as of 12/31/2019

Sector	Weight	4Q 2019	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Consumer Discretionary	9.75	4.47	27.94	0.83	22.98	6.03	10.11	9.68	43.08	23.92	6.13	27.66
Consumer Staples	7.20	3.51	27.61	-8.38	13.49	5.38	6.60	15.98	26.14	10.76	13.99	14.11
Energy	4.35	5.49	11.81	-18.10	-1.01	27.36	-21.12	-7.78	25.07	4.61	4.72	20.46
Financials	12.95	10.47	32.13	-13.03	22.18	22.80	-1.53	15.20	35.63	28.82	-17.06	12.13
Healthcare	14.20	14.37	20.82	6.47	22.08	-2.69	6.89	25.34	41.46	17.89	12.73	2.90
Industrials	9.05	5.53	29.37	-13.29	21.03	18.86	-2.53	9.83	40.68	15.35	-0.59	26.73
Information Technology	23.20	9.00	32.69	-0.29	38.83	13.85	5.92	20.12	28.43	14.82	2.41	10.19
Materials	2.66	6.38	24.58	-14.70	23.84	16.69	-8.38	6.91	25.60	14.97	-9.75	22.20
Real Estate	2.93	-0.54	29.01	-2.22	10.85	3.39	4.68	30.19	1.60	19.74	11.39	32.32
Comm. Services	10.39	9.00	32.69	-12.53	-1.25	23.49	3.40	2.99	11.47	18.31	6.27	18.97
Utilities	3.32	0.75	26.35	4.11	12.11	16.29	-4.85	28.98	13.21	1.29	19.91	5.46
S&P 500 Index	100%	9.07	31.49	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	2.11	15.06

Source of chart data: Morningstar Direct, 12/31/2019. The Global Industry Classification Standard (GICS) methodology has been widely accepted as an industry analysis framework for investment research, portfolio management and asset allocation. The GICS structure consists of 10 sectors. The S&P 500 Index is a broad-based measure of domestic stock market performance that includes the reinvestment of dividends. The index is unmanaged and cannot be purchased directly by investors. Index performance is shown for illustrative purposes only and does not predict or depict the performance of any particular investment. In Q3 2018 there were changes to GICS sector methodology that resulted in the Telecommunications sector being removed and the Communication Services sector being added. Annual performance shown for Communication Services before 2018 is linked to the historical performance of the Telecommunications sector. **Past performance does not guarantee future results.**



Best & Worst S&P 500 Stocks During 4Q Based on Contribution to Return

as of 12/31/2019

Best S&P 500 Stocks	Average Weight	Total Return	Contribution to Return		Worst S&P 500 Stocks	Average Weight	Total Return	Contribution to Return
Apple Inc	4.14	31.50	1.21		Boeing Co	0.77	-13.89	-0.11
Microsoft Corp	4.36	13.82	0.59		The Home Depot Inc	0.99	-5.28	-0.05
UnitedHealth Group Inc	0.93	35.80	0.30		McDonald's Corp	0.61	-7.37	-0.05
JPMorgan Chase & Co	1.58	19.40	0.29		International Business Machines Corp	0.48	-6.74	-0.04
Facebook Inc A	1.81	15.26	0.27		Twitter Inc	0.10	-22.21	-0.03
Bank of America Corp	1.03	21.40	0.21		Ventas Inc	0.10	-19.85	-0.02
Amazon.com Inc	2.91	6.45	0.19		DuPont de Nemours Inc	0.20	-9.56	-0.02
Johnson & Johnson	1.39	13.53	0.19		Dollar Tree Inc	0.10	-17.62	-0.02
Intel Corp	0.97	16.78	0.16		Northrop Grumman Corp	0.22	-7.88	-0.02
NVIDIA Corp	0.47	35.27	0.15		Cisco Systems Inc	0.80	-2.21	-0.02
Total/Average	19.59	20.92	3.56		Total/Average	4.37	-11.26	-0.38

The mention of specific companies does not constitute a recommendation.

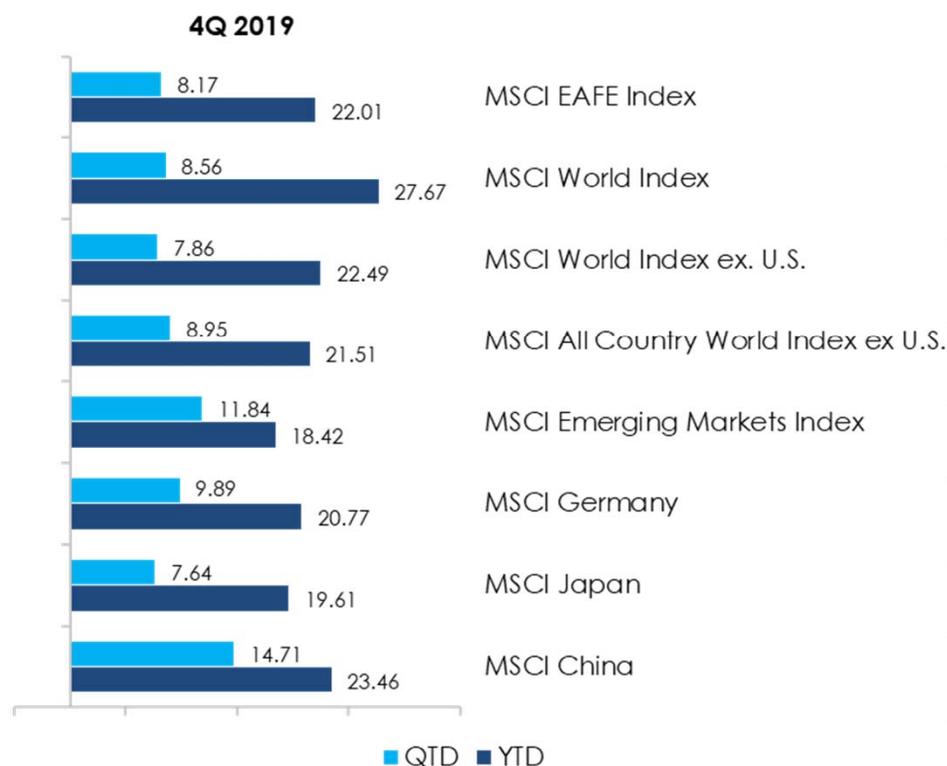
Source of chart data: Morningstar Direct, 12/31/2019. The Global Industry Classification Standard (GICS) methodology has been widely accepted as an industry analysis framework for investment research, portfolio management and asset allocation. The GICS structure consists of 10 sectors. The S&P 500 Index is a broad-based measure of domestic stock market performance that includes the reinvestment of dividends. The index is unmanaged and cannot be purchased directly by investors. Index performance is shown for illustrative purposes only and does not predict or depict the performance of any particular investment. **Past performance does not guarantee future results.**



Global Equity Market Returns (%)

as of 12/31/2019

MSCI Indexes



MSCI Indexes: Total Net Return as of 12/31/2019

* 3-Year, 5-Year, and 10-Year returns are annualized

	1-Year	3-Year*	5-Year*	10-Year*
MSCI EAFE Index	22.01	9.56	5.67	5.50
MSCI World Index	27.67	12.57	8.74	9.47
MSCI World Index ex. U.S.	22.49	9.34	5.42	5.32
MSCI All Country World Index ex U.S.	21.51	9.87	5.51	4.97
MSCI Emerging Markets Index	18.42	11.57	5.61	3.68
MSCI Germany	20.77	6.27	3.89	5.18
MSCI Japan	19.61	8.92	7.70	6.59
MSCI China	23.46	15.56	7.49	5.34

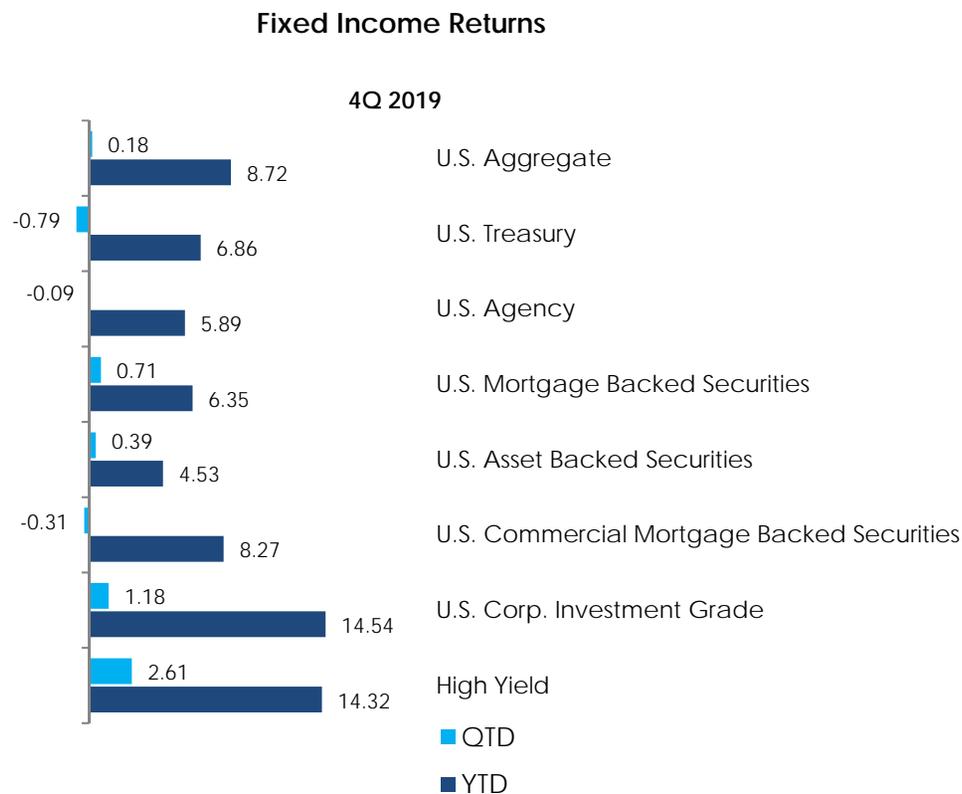
Source: Morningstar Direct, 12/31/2019. The MSCI All Country World Index (ACWI) is a free-float-adjusted, market-capitalization-weighted index that is designed to measure the equity market performance of developed and emerging markets. The MSCI Frontier Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of frontier markets. The MSCI Emerging Markets Index is designed to measure equity market performance of emerging markets. The MSCI EAFE Index (Europe, Australasia, Far East) is designed to measure the equity market performance of developed markets, excluding the U.S. and Canada. The MSCI World Index ex U.S. is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets and excludes the U.S. The MSCI World Index is designed to measure the equity market performance of developed markets. Each index is unmanaged, includes the reinvestment of dividends and cannot be purchased directly by investors. Index performance is shown for illustrative purposes only and does not predict or depict the performance of any particular investment. **Past performance does not guarantee future results.**



Fixed Income Overview

Fixed Income Returns

as of 12/31/2019



MSCI Indexes: Total Net Return as of 12/31/2019
 * 3 Year, 5 Year, and 10 year returns are annualized

	1-Year	3-Year*	5-Year*	10-Year*	Duration	YTM
U.S. Aggregate	8.72	4.03	3.05	3.75	5.87	2.31
U.S. Treasury	6.86	3.31	2.36	3.13	6.48	1.80
U.S. Agency	5.89	3.08	2.32	2.50	5.85	2.41
U.S. Mortgage Backed Securities	6.35	3.25	2.58	3.15	3.21	2.54
U.S. Asset Backed Securities	4.53	2.61	2.22	2.72	2.13	2.05
U.S. Commercial Mortgage Backed Securities	8.27	4.22	3.41	5.74	5.21	2.57
U.S. Corp. Investment Grade	14.54	5.92	4.60	5.54	7.89	2.84
High Yield	14.32	6.37	6.13	7.57	3.05	5.19

Source: Morningstar, 12/31/2019. Chart and Annual Returns
 Bloomberg, 12/31/2019. Duration and YTM
Past performance does not guarantee future results.



Investment Performance

The MassMutual Investment Program

Performance as of 12/31/2019

Notwithstanding some of the terms used in these materials (e.g., plan sponsor or employer), these materials are directed to and are intended for use by the referenced plan's independent fiduciary adviser based on MassMutual's understanding that (a) the independent fiduciary has under management or control total assets of at least \$50 million, or is a broker-dealer, investment adviser, insurance carrier, or bank, as defined in 29 CFR section 2510.3-21(c)(1), (b) the independent fiduciary is responsible for exercising independent judgment in evaluating any transaction between the plan and MassMutual and (c) the independent fiduciary is capable of evaluating investment risks independently, both in general and with regard to particular transactions and investment strategies. Unless you tell us otherwise, MassMutual will assume that our understanding of the independent fiduciary's role and qualifications is correct. MassMutual is not undertaking to provide impartial investment advice, or give advice in a fiduciary capacity, in connection with any investment by, or other transaction of, the plan. MassMutual and its affiliates have a financial interest in any investment made by the plan while a client of MassMutual's and may receive 12(b)(1) fees, sub-transfer agency fees, shareholder servicing fees, revenue sharing, investment advisory fees, administrative fees, asset charges, float, optional services fees and other fees and revenue as a result of any investment by the plan. MassMutual will provide the plan with a complete description of all such fees prior to any investment by the plan and upon request.

The performance data given represents past performance and should not be considered indicative of future results. Current performance may be lower or higher than return data quoted herein. For more current information, including month-end performance, please visit www.massmutual.com/retire or call 1-877-474-5016. Principal value and investment return will fluctuate, so an investor's shares/units when redeemed may be worth more or less than the original investment. Investment portfolio statistics change over time and there are no assurances investment objectives will be achieved.

Investors should carefully consider investment objectives, risks, charges and expenses. This and other important information is contained in the fund prospectuses and summary prospectuses, which can be obtained by calling 1-888-309-3539 and should be read carefully before investing.

Investment results assume all investment distributions are reinvested and reflect applicable fees and expenses. When applicable, investment results reflect fee waivers and/or expense reimbursements, without which the results would have been lower. **Maximum sales charge for investments, including Class A shares, represented is 5.75%. The Maximum sales charge is generally waived for retirement plan accounts.**

Morningstar Rating™ Details - 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. Load-waived A share star ratings do not include any front-end sales load and are intended for those investors who have access to such purchase terms, such as participants in MassMutual-serviced retirement plans. The Overall Morningstar Rating for an investment option is derived from a weighted average of the ratings for the 3-, 5-, and 10-year (if applicable) time periods. Load-waived A share star ratings do not include any front-end sales load and are intended for those investors who have access to such purchase terms, such as participants in MassMutual-serviced retirement plans.

Retail Money Market and Government Money Market Investments - You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. The fund may impose a fee upon the sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Target Date Funds - Generally target retirement date (lifecyle) 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 (lifecyle) 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.**

Performance As of: 12-31-2019

Average Annual Total Returns (%)
Performance less than 1 year is not annualized

Inv. Type	Name / Benchmark & Morningstar Category Info	Share Class Type	Ticker	Overall Morningstar Rating™	Gross Exp Ratio (%)	Net Exp Ratio ¹ (%)	3-Mo	YTD	1-Yr	3-Yr	5-Yr	10-Yr/ Since Incep*	Perf Incep Date	3-Yr Risk
US Fund Money Market - Taxable														
	MassMutual Premier US Govt Mny Mkt R5	S	MKSXX		0.50	0.50	0.32	1.71	1.71	1.15	0.69	0.35	09/30/1994	0.18
	Morningstar Ratings													
	# of Funds in Category								550	512	438	395		
	Morningstar Peer Rating %													
	ICE BofA USD 3M Dep OR CM TR USD						0.54	2.60	2.60	1.93	1.33	0.83	12/30/1994	0.21
	US Fund Money Market - Taxable				0.54	0.46	0.34	1.78	1.78	1.23	0.75	0.38	10/1/1972	0.17
US OE Intermediate Core Bond														
MF	Vanguard Total Bond Market Index I	Inst	VBTIX	★★★★	0.04	0.04	0.03	8.73	8.73	4.03	3.01	3.70	09/18/1995	2.94
	Morningstar Ratings									★★★★	★★★★	★★★		
	# of Funds in Category								430	382	327	251		
	Morningstar Peer Rating %								33	28	31	46		
	BBgBarc US Agg Bond TR USD						0.18	8.72	8.72	4.03	3.05	3.75	01/01/1976	2.91
	US Fund Intermediate Core Bond				1.05	0.67	0.12	8.06	8.06	3.59	2.72	3.55	11/01/1954	2.52
US OE Intermediate Core-Plus Bond														
MF	PIMCO Total Return Instl	Inst	PTRX	★★★	0.71	0.71	-0.30	8.26	8.26	4.31	3.25	4.19	5/11/1987	2.75
	Morningstar Ratings									★★★	★★★	★★★		
	# of Funds in Category								613	530	444	332		
	Morningstar Peer Rating %								73	36	45	54		
	BBgBarc US Universal TR USD						0.45	9.29	9.29	4.30	3.44	4.12	12/31/1998	2.66
	US Fund Intermediate Core-Plus Bond				1.17	0.79	0.38	8.94	8.94	4.12	3.14	4.27	04/24/1928	2.41
US OE Inflation-Protected Bond														
MF	PIMCO Long-Term Real Return Instl	Inst	PRAIX	★★★★★	1.27	1.27	-0.81	17.10	17.10	6.01	3.71	5.52	11/12/2001	8.16
	Morningstar Ratings									★★★★★	★★★★★	★★★★★		
	# of Funds in Category								221	194	163	104		
	Morningstar Peer Rating %								3	1	1	3		
	BBgBarc US Treasury US TIPS TR USD						0.79	8.43	8.43	3.32	2.62	3.36	04/15/1998	3.00
	US Fund Inflation-Protected Bond				1.96	0.85	0.89	7.92	7.92	2.90	2.15	2.80	04/01/1988	2.59
US OE World Bond														
MF	Invesco Oppenheimer International Bd R6	Inst	OIBIX	★★★★	0.63	0.62	4.61	10.05	10.05	4.93	3.59	3.30	01/27/2012	6.81
	Morningstar Ratings									★★★★	★★★★	★★★★		
	# of Funds in Category								210	181	171	102		
	Morningstar Peer Rating %								7	17	8	25		
	BBgBarc Global Aggregate TR USD						0.49	6.84	6.84	4.27	2.31	2.48	1/1/1990	3.58
	US Fund World Bond				1.62	0.98	1.23	6.73	6.73	3.92	1.78	2.21	02/01/1981	2.89

Performance As of: 12-31-2019

Inv. Type	Name / Benchmark & Morningstar Category Info	Share Class Type	Ticker	Overall Morningstar Rating™	Gross Exp Ratio (%)	Net Exp Ratio ¹ (%)	3-Mo	YTD	1-Yr	3-Yr	5-Yr	10-Yr/ Since Incep*	Perf Incep Date	3-Yr Risk
US OE High Yield Bond														
MF	MassMutual Premier High Yield I	Inst	MPHZX	★★★★★	0.54	0.54	1.91	13.50	13.50	5.93	6.35	8.12	03/01/2011	4.15
	Morningstar Ratings									★★★★	★★★★★	★★★★★		
	# of Funds in Category								711	616	539	339		
	Morningstar Peer Rating %								48	29	5	2		
	ICE BofA US High Yield TR USD						2.61	14.41	14.41	6.32	6.13	7.50	8/29/1986	4.19
	US Fund High Yield Bond				1.37	1.02	2.31	12.62	12.62	5.31	4.87	6.42	9/1/1935	3.72
US OE Target-Date Retirement														
MF	Vanguard Target Retirement Income Inv	Inv	VTINX	★★★★	0.12	0.12	2.60	13.16	13.16	6.36	4.80	5.82	10/27/2003	3.55
	Morningstar Ratings									★★★★	★★★★	★★★★		
	# of Funds in Category								183	157	131	88		
	Morningstar Peer Rating %								49	36	28	23		
	Morningstar Lifetime Mod Incm TR USD						3.23	13.27	13.27	6.34	4.70	5.68	02/18/2009	4.09
	US Fund Target-Date Retirement				3.65	0.76	2.51	12.85	12.85	5.89	4.28	5.13	03/01/1994	3.78
US OE Target-Date 2015														
MF	Vanguard Target Retirement 2015 Inv	Inv	VTVXV	★★★★	0.13	0.13	3.20	14.81	14.81	7.50	5.59	7.25	10/27/2003	4.57
	Morningstar Ratings									★★★	★★★	★★★★		
	# of Funds in Category								128	99	73	47		
	Morningstar Peer Rating %								69	38	43	33		
	Morningstar Lifetime Mod 2015 TR USD						3.57	16.29	16.29	7.71	5.63	7.11	2/18/2009	5.08
	US Fund Target-Date 2015				5.43	0.67	3.73	15.45	15.45	7.33	5.39	6.83	9/1/1990	4.97
US OE Target-Date 2025														
MF	Vanguard Target Retirement 2025 Inv	Inv	VTVX	★★★★★	0.13	0.13	5.22	19.63	19.63	9.57	6.99	8.59	10/27/2003	7.05
	Morningstar Ratings									★★★★	★★★★	★★★★★		
	# of Funds in Category								232	196	157	83		
	Morningstar Peer Rating %								22	16	14	12		
	Morningstar Lifetime Mod 2025 TR USD						4.50	19.36	19.36	9.14	6.66	8.36	2/18/2009	6.53
	US Fund Target-Date 2025				2.27	0.73	4.75	18.25	18.25	8.64	6.17	7.70	10/01/2003	6.60
US OE Target-Date 2035														
MF	Vanguard Target Retirement 2035 Inv	Inv	VTHX	★★★★	0.14	0.14	6.68	22.44	22.44	10.86	7.81	9.54	10/27/2003	8.79
	Morningstar Ratings									★★★★	★★★★	★★★★		
	# of Funds in Category								229	193	154	80		
	Morningstar Peer Rating %								42	30	28	15		
	Morningstar Lifetime Mod 2035 TR USD						6.29	23.04	23.04	10.76	7.82	9.47	02/18/2009	8.86
	US Fund Target-Date 2035				2.71	0.76	6.41	22.04	22.04	10.30	7.28	8.75	10/1/2003	8.76

Performance As of: 12-31-2019

Inv. Type	Name / Benchmark & Morningstar Category Info	Share Class Type	Ticker	Overall Morningstar Rating™	Gross Exp Ratio (%)	Net Exp Ratio ¹ (%)	3-Mo	YTD	1-Yr	3-Yr	5-Yr	10-Yr/ Since Incep*	Perf Incep Date	3-Yr Risk
US OE Target-Date 2045														
MF	Vanguard Target Retirement 2045 Inv	Inv	VTIVX	★★★★	0.15	0.15	8.00	24.94	24.94	11.80	8.41	9.98	10/27/2003	10.32
	Morningstar Ratings									★★★★	★★★★	★★★★		
	# of Funds in Category								229	193	154	79		
	Morningstar Peer Rating %								43	26	22	15		
	Morningstar Lifetime Mod 2045 TR USD						7.57	24.97	24.97	11.42	8.26	9.69	02/18/2009	10.28
	US Fund Target-Date 2045				2.74	0.76	7.53	24.35	24.35	11.17	7.83	9.20	10/1/2003	10.10
US OE Target-Date 2055														
MF	Vanguard Target Retirement 2055 Inv	Inv	VFFVX	★★★★	0.15	0.15	8.02	24.98	24.98	11.80	8.38	10.69	08/18/2010	10.32
	Morningstar Ratings									★★★	★★★★			
	# of Funds in Category								229	191	149	15		
	Morningstar Peer Rating %								51	39	33			
	Morningstar Lifetime Mod 2055 TR USD						7.78	25.05	25.05	11.41	8.19	9.50	02/18/2009	10.45
	US Fund Target-Date 2055				3.35	0.77	7.81	24.91	24.91	11.38	8.01	9.19	3/1/2001	10.45
US OE Large Value														
MF	American Funds American Mutual R6	Retirement	RMFGX	★★★★★	0.28	0.28	5.79	22.12	22.12	12.27	9.57	11.80	05/01/2009	9.00
	Morningstar Ratings									★★★★★	★★★★★	★★★★		
	# of Funds in Category								1209	1091	945	690		
	Morningstar Peer Rating %								83	15	17	28		
	Russell 1000 Value TR USD						7.41	26.54	26.54	9.68	8.29	11.80	12/31/1978	12.02
	US Fund Large Value				1.24	0.99	7.38	25.04	25.04	9.97	7.99	10.90	5/1/1931	11.96
US OE Large Blend														
MF	American Funds Fundamental Invs R6	Retirement	RFNGX	★★★★	0.30	0.30	11.07	28.02	28.02	14.05	11.67	12.73	05/01/2009	11.85
	Morningstar Ratings									★★★	★★★★★	★★★		
	# of Funds in Category								1387	1203	1058	808		
	Morningstar Peer Rating %								68	47	10	40		
MF	Vanguard Institutional Index I	Inst	VINIX	★★★★★	0.04	0.04	9.06	31.46	31.46	15.24	11.67	13.53	07/31/1990	12.10
	Morningstar Ratings									★★★★	★★★★	★★★★★		
	# of Funds in Category								1387	1203	1058	808		
	Morningstar Peer Rating %								24	17	10	8		
MF	Vanguard Total Stock Mkt Idx Adm	Inst	VTSAX	★★★★	0.04	0.04	9.01	30.80	30.80	14.55	11.19	13.42	11/13/2000	12.38
	Morningstar Ratings									★★★	★★★★	★★★★		
	# of Funds in Category								1387	1203	1058	808		
	Morningstar Peer Rating %								39	36	26	13		
MF	Parnassus Core Equity Institutional	Inst	PRILX	★★★★	0.63	0.63	6.32	30.96	30.96	15.24	11.03	12.97	04/28/2006	10.73
	Morningstar Ratings									★★★★	★★★★	★★★★		
	# of Funds in Category								1387	1203	1058	808		
	Morningstar Peer Rating %								36	17	32	33		
	Russell 1000 TR USD						9.04	31.43	31.43	15.05	11.48	13.54	12/31/1978	12.22
	US Fund Large Blend				1.47	0.93	8.15	28.78	28.78	13.26	9.78	12.03	7/1/1924	11.85

Performance As of: 12-31-2019

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US OE Large Growth														
MF	American Funds Growth Fund of Amer R6	Retirement	RGAGX	★★★	0.31	0.31	11.32	28.54	28.54	16.57	12.75	13.31	05/01/2009	13.11
	Morningstar Ratings									★★★	★★★	★★★		
	# of Funds in Category								1360	1218	1086	811		
	Morningstar Peer Rating %								80	67	44	56		
	Russell 1000 Growth TR USD						10.62	36.39	36.39	20.49	14.63	15.22	12/31/1978	13.26
	US Fund Large Growth				1.47	1.07	9.36	31.90	31.90	18.09	12.10	13.40	12/1/1925	13.01
US OE Mid-Cap Value														
MF	American Century Mid Cap Value R6	Retirement	AMDVX	★★★★	0.63	0.63	6.79	29.31	29.31	8.14	9.00	12.45	7/26/2013	13.27
	Morningstar Ratings									★★★	★★★★★	★★★★★		
	# of Funds in Category								422	377	342	233		
	Morningstar Peer Rating %								22	35	11	12		
	Russell Mid Cap Value TR USD						6.36	27.06	27.06	8.10	7.62	12.41	12/31/1985	12.97
	US Fund Mid-Cap Value				1.45	1.09	7.23	25.18	25.18	7.33	6.90	10.86	07/01/1949	13.65
US OE Mid-Cap Blend														
MF	Vanguard Mid Cap Index Institutional	Inst	VMCIX	★★★★★	0.04	0.04	6.87	31.04	31.04	12.37	9.26	13.09	5/21/1998	13.00
	Morningstar Ratings									★★★★	★★★★	★★★★★		
	# of Funds in Category								404	361	292	220		
	Morningstar Peer Rating %								13	11	17	7		
	Russell Mid Cap TR USD						7.06	30.54	30.54	12.06	9.33	13.19	12/31/1978	13.08
	US Fund Mid-Cap Blend				1.24	1.06	7.07	26.21	26.21	9.15	7.15	11.09	7/1/1938	13.18
US OE Mid-Cap Growth														
MF	MassMutual Select Mid Cap Growth I	Inst	MEFZX	★★★★	0.71	0.71	7.01	32.22	32.22	16.89	12.44	14.85	11/15/2010	12.86
	Morningstar Ratings									★★★★	★★★★	★★★★★		
	# of Funds in Category								618	565	501	385		
	Morningstar Peer Rating %								52	38	21	10		
	Russell Mid Cap Growth TR USD						8.17	35.47	35.47	17.36	11.60	14.24	12/31/1985	14.07
	US Fund Mid-Cap Growth				1.58	1.17	8.05	32.52	32.52	15.57	10.45	12.79	9/1/1935	13.98
US OE Small Value														
MF	JPMorgan Small Cap Value R6	Retirement	JSVUX	★★★	0.77	0.76	7.34	19.42	19.42	2.08	5.16	10.37	02/22/2005	15.75
	Morningstar Ratings									★★	★★★	★★★		
	# of Funds in Category								419	387	346	237		
	Morningstar Peer Rating %								73	78	54	40		
	Russell 2000 Value TR USD						8.49	22.39	22.39	4.77	6.99	10.56	12/31/1978	15.90
	US Fund Small Value				1.86	1.23	8.02	21.43	21.43	3.66	5.40	9.82	06/01/1968	16.03

Performance As of: 12-31-2019

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US OE Small Blend														
MF	Vanguard Small Cap Index I	Inst	VSCIX	★★★★★	0.04	0.04	8.14	27.40	27.40	10.33	8.90	12.83	07/07/1997	14.94
	Morningstar Ratings									★★★★★	★★★★	★★★★★		
	# of Funds in Category								702	630	507	367		
	Morningstar Peer Rating %								18	7	17	9		
	Russell 2000 TR USD						9.94	25.52	25.52	8.59	8.23	11.83	12/31/1978	15.93
	US Fund Small Blend				2.20	1.13	8.02	23.75	23.75	6.84	7.12	11.17	06/01/1956	15.19
US OE Small Growth														
MF	Wells Fargo Small Company Growth Inst	Inst	WSCGX	★★★	0.99	0.95	11.46	26.46	26.46	13.70	8.65	13.94	03/31/2008	17.42
	Morningstar Ratings									★★★	★★	★★★		
	# of Funds in Category								640	571	505	379		
	Morningstar Peer Rating %								55	51	71	28		
	Russell 2000 Growth TR USD						11.39	28.48	28.48	12.49	9.34	13.01	12/31/1978	16.60
	US Fund Small Growth				1.45	1.25	9.46	27.68	27.68	13.66	9.92	12.68	06/01/1946	15.86
US OE Foreign Large Blend														
MF	Vanguard Developed Markets Index Admiral	Inst	VTMGX	★★★★	0.07	0.07	8.36	22.05	22.05	9.69	6.18	5.74	08/17/1999	11.40
	Morningstar Ratings									★★★	★★★★	★★★★		
	# of Funds in Category								732	628	495	372		
	Morningstar Peer Rating %								42	38	21	26		
	MSCI ACWI Ex USA NR USD						8.92	21.51	21.51	9.87	5.51	4.97	1/1/2001	11.50
	US Fund Foreign Large Blend				1.36	1.01	8.39	21.59	21.59	9.09	5.37	5.15	12/01/1961	11.09
US OE Foreign Large Growth														
MF	American Funds Europacific Growth R6	Retirement	RERGX	★★★	0.49	0.49	10.09	27.40	27.40	12.45	7.41	6.73	05/01/2009	12.25
	Morningstar Ratings									★★★	★★★	★★★		
	# of Funds in Category								469	405	338	246		
	Morningstar Peer Rating %								59	47	44	55		
	MSCI ACWI Ex USA Growth NR USD						9.58	27.34	27.34	12.89	7.30	6.24	1/1/2001	11.66
	US Fund Foreign Large Growth				1.63	1.13	9.37	27.83	27.83	12.69	7.25	6.90	05/01/1981	11.65
US OE Diversified Emerging Mkts														
MF	Invesco Oppenheimer Developing Mkts R6	Inst	ODVIX	★★★★	0.83	0.83	11.88	24.53	24.53	14.13	6.62	6.12	12/29/2011	13.45
	Morningstar Ratings									★★★★	★★★★	★★★★★		
	# of Funds in Category								835	712	577	242		
	Morningstar Peer Rating %								20	13	21	6		
	MSCI EM NR USD						11.84	18.42	18.42	11.57	5.61	3.68	12/29/2000	14.37
	US Fund Diversified Emerging Mkts				2.21	1.33	10.33	19.25	19.25	10.49	4.84	3.75	09/01/1989	13.05

Performance As of: 12-31-2019

Inv. Type	Name / Benchmark & Morningstar Category Info	Share Class Type	Ticker	Overall Morningstar Rating™	Gross Exp Ratio (%)	Net Exp Ratio ¹ (%)	3-Mo	YTD	1-Yr	3-Yr	5-Yr	10-Yr/ Since Incep*	Perf Incep Date	3-Yr Risk
US OE World Large Stock														
MF	American Funds Capital World Gr&Inc R6	Retirement	RWIGX	★★★	0.44	0.44	9.35	25.74	25.74	12.29	8.22	8.81	05/01/2009	10.87
	Morningstar Ratings									★★★	★★★	★★★		
	# of Funds in Category								873	722	605	362		
	Morningstar Peer Rating %								51	43	44	51		
	MSCI ACWI NR USD						8.95	26.60	26.60	12.44	8.41	8.79	1/1/2001	11.38
	US Fund World Large Stock				2.26	1.14	8.18	25.68	25.68	12.09	8.10	8.59	11/01/1954	11.15
US OE Real Estate														
MF	Invesco Real Estate R5	Retirement	IARIX	★★★★	0.88	0.88	0.09	28.22	28.22	9.75	7.46	11.37	04/30/2004	11.27
	Morningstar Ratings									★★★★	★★★★	★★★		
	# of Funds in Category								256	221	197	136		
	Morningstar Peer Rating %								37	27	30	52		
	S&P United States REIT TR USD						-0.80	24.45	24.45	7.70	6.80	11.79	12/31/1992	12.25
	US Fund Real Estate				2.52	1.21	0.63	27.28	27.28	8.38	6.81	11.30	03/01/1985	11.31
US OE Utilities														
MF	Vanguard Utilities Index Adm	Inst	VUIAX	★★★★	0.10	0.10	0.32	24.95	24.95	13.66	10.42	12.00	04/28/2004	9.83
	Morningstar Ratings									★★★★	★★★★★	★★★★		
	# of Funds in Category								60	55	52	45		
	Morningstar Peer Rating %								21	19	3	16		
	S&P 1500 Utilities TR						0.50	25.20	25.20	13.60	10.51	12.15	1/28/2011	9.92
	US Fund Utilities				1.22	1.12	0.92	22.87	22.87	12.11	8.66	10.76	10/01/1948	8.92
US OE Health														
MF	Hartford Healthcare HLS IA	Inst	HIAHX	★★★★	0.89	0.89	19.36	33.95	33.95	16.81	10.58	16.19	05/01/2000	15.52
	Morningstar Ratings									★★★	★★★★	★★★★		
	# of Funds in Category								145	135	125	102		
	Morningstar Peer Rating %								11	39	28	30		
	S&P 1500 Health Care TR						14.21	20.87	20.87	16.46	10.69	15.17	1/28/2011	13.10
	US Fund Health				1.39	1.26	18.64	26.23	26.23	15.97	8.75	14.90	7/1/1981	16.14

Net Expense Ratio Details

Name	Waiver Type	Expiration Date
Invesco Oppenheimer International Bd R6	Contractual	6/30/2021
JPMorgan Small Cap Value R6	Contractual	10/31/2020
Wells Fargo Small Company Growth Inst	Contractual	9/30/2020

Expense waivers and expense reimbursements are listed above, if applicable. Please see the most recent prospectus for details.

The Net Expense Ratio reflects expense waivers and the removal of interest and dividend expense, as reported in the investment's prospectus. Expense Waivers may be voluntary or contractual, and can be set to expire at a particular date or timeframe. Waivers are assumed to be voluntary if no disclosure is made in the prospectus to the contrary. Waiver expiration dates are provided if they are disclosed in the prospectus. All available information about investment expense waivers is current and complete as of the date of this report. If information regarding the waivers is incomplete, it is because our third-party data provider was unable to make the information available. For more information, please see the investment profile or the prospectus that corresponds to the investment, which are both available from MassMutual. Contact your MassMutual Retirement Services professional or call 1-877-474-5496.

The Gross Expense Ratio for each investment option (expressed as an annualized percentage of fund assets) refers to the amount paid from the investment's assets for investment management and other services and expenses (including any 12b-1 fees). Portfolio or brokerage costs, as well as initial or deferred sales charges are not included in the expense ratio.

Denotes a since-inception return comprising fewer than 10 years of performance. The Since Inception time period provided is based on the Share Class Inception Date shown, unless otherwise noted in the "Investment Disclosures" below.

SV = Fixed Rate Stable Value

UI = Unitized Investment

SIA = Separate Investment Account

STK = Company Stock Account

MF = Mutual Fund

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Fixed income investing involves credit risk and interest rate risk (when interest rates rise, bond prices generally fall). Below-investment-grade ("junk" or "high yield") bonds are more at risk of default and are subject to liquidity risk.

Asset-backed and mortgage-backed securities are also subject to prepayment risk.

Senior loans are typically lower-rated (more at risk of default) and may be illiquid investments (which may not have a ready market).

A portion of a municipal bond fund's distributions may be taxable and may increase taxes for investors subject to the alternative minimum tax (AMT). Capital gains distributions are taxable as capital gains.

Investing in the commodity markets involves potentially higher volatility and greater risk of loss of principal than traditional equity or debt securities. Commodity-linked investments are considered speculative and have substantial risks, including the risk of loss of a significant portion of their principal value.

Investing in a limited number of sectors, such as gold, oil and real estate, can increase volatility and exposure to issues affecting that sector.

Inflation-indexed debt securities are bonds structured to seek to provide protection against inflation. If inflation declines, the principal amount or the interest rate of an inflation-indexed bond will be adjusted downward. This will result in reduced income and may result in a decline in the bond's price which could cause losses for the fund. Interest payments on inflation-protected debt securities can be unpredictable and will vary as the principal or interest rate is adjusted for inflation. Inflation-indexed debt securities are also subject to the risks associated with investments in fixed income securities.

There is no guarantee that the issuers of dividend paying stocks will declare dividends in the future, or that if dividends are declared, they will remain at their current levels or increase over time.

Diversification does not assure a profit or protect against loss.

This report does not provide individually tailored investment advice. It has been prepared without regard to the individual investment circumstances and objectives of the persons who receive it. The investments discussed in this report may not be suitable for all investors. MassMutual recommends that investors independently evaluate particular investments and strategies, and that investors seek the advice of a financial adviser. The appropriateness of a particular investment or strategy will depend on an investor's individual circumstances and objectives.



About MassMutual



Founded in 1851, MassMutual is a leading mutual life insurance company that is run for the benefit of its members and participating policyholders. The company has a long history of financial strength and strong performance, and although dividends are not guaranteed, MassMutual has paid dividends to eligible participating policyholders consistently since the 1860s.

With whole life insurance as its foundation, MassMutual provides products to help meet the financial needs of clients, such as life insurance, disability income insurance, long term care insurance, retirement/401(k) plan services, and annuities. In addition, the company's strong and growing network of financial professionals helps clients make good financial decisions for the long-term.



¹



22 PSCA Signature Awards (2013-2015) for Educational Excellence



MassMutual Named 2016 Insurer of the Year



²



ContactCenterWorld top-performing call center 9 years in a row (2008-2016)



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²Ethisphere Institute, an independent center of research promoting best practices in corporate ethics and governance, March 2016.

Disclosures

Morningstar Rating™: for each fund with at least a three-year history, rating is based on a Morningstar risk adjusted return measure that accounts for variation in a fund's monthly performance (including the effects of sales charges, loads, and redemption fees), placing more emphasis on downward variations and rewarding consistent performance. These ratings change monthly. The top 10% of funds in an investment 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 a fund is derived from a weighted average of the performance figures associated with its 3-, 5-, and 10- year (if applicable) Morningstar Ratings. A fund's total-return percentile rank is relative to all funds that have the same Morningstar Category (peers). The highest (or most favorable) percentile rank is 1 and the lowest (or least favorable) percentile rank is 100. The top-performing fund in a category will always receive a rank of 1. The percentile rank by category figures allow for a direct comparison of a fund's performance within its Morningstar Category.

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Beta is a measure of sensitivity to market movements. The beta of the market is 1.00. A beta of 1.10 shows that the fund's excess return is expected to be 10% better than the market's excess return in an up market or 10% worse in a down market. A beta of .85 indicates that the fund's excess return is expected to perform 15% less than the market's excess return during up markets and 15% greater during down markets.

Standard deviation is a statistical measurement, which for a mutual fund depicts how widely the returns varied over a certain period of time. When a fund has a high standard deviation, performance is wide, implying greater volatility.

R-squared measures the degree of relationship between the performance of the fund and that of the index. The higher the R- squared, the more related the fund's performance is to its index.

Sharpe ratio measures risk adjusted performance; it is calculated as the real total return of the fund (total return-risk free rate) divided by the risk of the fund (standard deviation).

Disclosures

Expense Ratio is the percentage of fund assets paid for operating expenses and management fees as per a fund's most recent prospectus. The expense ratio typically includes the following types of fees: accounting, administrator, advisor, auditor, board of directors, custodial, distribution (12b-1), legal, organizational, professional, registration, shareholder reporting, sub-advisor, and transfer agency. The expense ratio does not reflect the fund's brokerage costs or any investor sales charges.

Gross Expense Ratio does not reflect any fee waivers in effect during the time period, in contrast to the net expense ratio. Also known as the Total Annual Fund Operating Expense Ratio, Morningstar pulls the prospectus gross expense ratio from the fund's most recent prospectus. Prospectus expense ratios reflect material changes to the expense structure for the current period.

Net Expense Ratio is the net operating expenses are the expenses you are currently paying to own the Fund. If the net operating expenses shown are lower than the gross operating expenses, then the net operating expenses reflect voluntary fee waivers and/or expense reimbursements from the investment advisor that may be discontinued at any time. For more information on fee waivers and/or expense reimbursements, please see the expense table in the prospectus.

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 is possible to lose money by investing in a money market option.

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.

Risks of investing in bond and 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).

Disclosures

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 for investment.

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 may be subject to the expenses of those underlying investments in addition to those of the investment itself.

The Barclays U.S. 1-3 Year Government Bond Index is an unmanaged index of U.S. government bonds with one to three years remaining to the scheduled payment of principal.

The Barclays U.S. Aggregate Bond Index is an unmanaged index of fixed-rate investment-grade securities with at least one year to maturity, combining the Barclays U.S. Treasury Bond Index, the Barclays U.S. Government-Related Bond Index, the Barclays U.S. Corporate Bond Index, and the Barclays U.S. Securitized Bond Index.

The Barclays U.S. Treasury Inflation Protected Securities (TIPS) Index (Series-L) is an unmanaged index that measures the broad performance of U.S. Treasury inflation-indexed bonds.

The Barclays U.S. Corporate High-Yield Bond Index covers the universe of fixed rate, non-investment-grade debt from corporate sectors.

Disclosures

The S&P Target Date® Index Series consists of 11 multi-asset class indexes: the S&P Target Date Retirement Income Index and 10 indexes, each of which corresponds to a specific target retirement date (ranging from 2010 through 2055+). The benchmark asset allocation and glide path represent a market consensus across the universe of target date fund managers. The index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.

The S&P 500® Index is a widely recognized, unmanaged index representative of common stocks of larger capitalized U.S. companies.

The Russell 1000® Index is a widely recognized, unmanaged index representing the performance of common stocks of larger capitalized U.S. companies.

The Russell 1000 Value Index is an unmanaged index consisting of those Russell 1000 securities (representing the 1,000 largest U.S. companies, based on market capitalization) with greater than average value orientation that tend to exhibit lower price-to-book ratios and lower forecasted growth rates than securities in the growth universe.

The Russell 1000 Growth Index is an unmanaged index consisting of those Russell 1000 securities (representing the 1,000 largest U.S. companies based on market capitalization) with greater than average growth orientation that tend to exhibit higher price-to-book ratios and higher forecasted growth rates than securities in the value universe.

The S&P Midcap 400® Index is a widely recognized, unmanaged index representative of common stocks of mid-capitalized U.S. companies.

The Russell Midcap® Value Index is a widely recognized, unmanaged index that measures the performance of those Russell Midcap companies (representing mid-capitalization U.S. common stocks) with lower price-to-book ratios and lower forecasted growth rates than securities in the growth universe.

Russell Midcap® Growth Index is a widely recognized, unmanaged index that measures the performance of those Russell Midcap companies (representing mid-capitalization U.S. common stocks) with higher price-to-book ratios and higher forecasted growth rates than securities in the value universe.

The Russell 2000 Index is a widely recognized, unmanaged index representative of common stocks of smaller capitalized U.S. companies.

The Russell 2000 Value Index is a widely recognized, unmanaged index that measures the performance of those Russell 2000 Index Companies (representing small-capitalization U.S. common stocks) with lower price-to-book ratios and lower forecasted growth rates than securities in the growth universe.

The Russell 2000 Growth Index is a widely recognized, unmanaged index that measures the performance of those Russell 2000 Index companies (representing small-capitalization U.S. common stocks) with higher price-to-book ratios and higher forecasted growth rates than securities in the value universe.

The MSCI EAFE Index is a widely recognized, unmanaged index representative of equity securities in developed markets, excluding the U.S. and Canada.

Disclosures

The MSCI EAFE Value Index is a subset of the widely recognized, unmanaged MSCI EAFE Index and constituents of the Index include securities from Europe, Australasia, and the Far East.

The MSCI All Country World Index (ACWI) is an unmanaged index representative of stocks domiciled in global developed and emerging markets, including the United States.

The MSCI All Country World Index (ACWI) ex USA is an unmanaged index representative of stocks domiciled in global developed and emerging markets, excluding the United States.

The FTSE World Index is an unmanaged, market-capitalization weighted index representing the performance of the large and mid cap stocks from the Developed and Advanced Emerging segments of the FTSE Global Equity Index Series that covers 90%-95% of the investable market capitalization.

The MSCI Emerging Markets (EM) Index is an unmanaged market capitalization-weighted index of equity securities of companies domiciled in various countries. The Index is designed to represent the performance of emerging stock markets throughout the world and excludes certain market segments unavailable to U.S.-based investors.



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From: [Gleason, Robert](#)
To: [Lisa Okada](#); [Jay Castellano](#); [Kim Pearson](#)
Cc: [Paul Hackleman \(paulhackleman@ssibenefits.com\)](#); [Tugaw, Bill](#); [Gleason, Robert](#); [Scussel, Sharon](#)
Subject: 2020 San Mateo Plan Compliance Review (61869)
Date: Thursday, February 6, 2020 5:42:07 PM

Hello Lisa and Jay,

Per our existing agreement, MassMutual provides the County with an annual written notice that confirms that MassMutual has reviewed each of the County's defined contribution plan documents to assure that the documents are maintained up to current compliance standards. Sharon Scussel performed this review in February 2020, and her comments are summarized in the chart below.

Compliance Review Chart for the 2020 Plan Year

Plan	Plan Name	Type of Plan	Status of Plan	Plan Document Type	Plan Document is current for changes in law due to key and other applicable guidance	Plan Restatement and Discretionary Plan Amendments
61869-1	San Mateo Deferred Compensation Plan	457(b)	Active	Specimen	There are no required 2020 Interim Amendments to the 457(b) Plan. In the future, the following Interim Amendment will be forthcoming: <ul style="list-style-type: none"> SECURE Act Bipartisan Miners Act 	Restatement – January 1, 2019 Restatement - November 14, 2016 Restatement - March 21, 2016 Amendment #1 - March 21, 2016
61869-2	San Mateo County 457 Part Time, Seasonal and Temporary Plan	457(b) OBRA	Active (as of 3/21/16)	Specimen	There are no required 2020 Interim Amendments to the 457(b) Plan. In the future, the following Interim Amendment will be forthcoming: <ul style="list-style-type: none"> SECURE Act Bipartisan Miners Act 	Restatement - March 21, 2016 Amendment #1 - March 21, 2016
61869-3	County of San Mateo 401(a) Retirement Plan	401(a) PS	Active	Pre-Approved	Required Interim Amendment in 2020: <ul style="list-style-type: none"> Final Hardship Regulations (issued 9/23/19) <ul style="list-style-type: none"> Includes changes in law under the Tax Cuts and Jobs Act of 2017 and the Bipartisan Budget Act of 2018 Adoption deadline extended to December 31, 2021 Communication from MassMutual will be forthcoming 1st Quarter in 2020 In the future, the following Interim Amendment will be forthcoming: <ul style="list-style-type: none"> SECURE Act 	Restatement - January 1, 2016 Amendment #1 - March 21, 2016 Amendment #2 - November 14, 2016 Amendment #3 – June 1, 2019 Amendment#4 – June 1, 2019
61869-4	County of San Mateo Part Time, Seasonal and Temporary Retirement Plan	401(a) PS OBRA	Frozen (as of 3/21/16)	Pre-Approved	Required Interim Amendment in 2020: <ul style="list-style-type: none"> Final Hardship Regulations (issued 9/23/19) <ul style="list-style-type: none"> Includes changes in law under the Tax Cuts and Jobs Act of 2017 and the Bipartisan Budget Act of 2018 Adoption deadline extended to December 31, 2021 Communication from MassMutual will be forthcoming 1st Quarter in 2020 In the future, the following Interim Amendment will be forthcoming: <ul style="list-style-type: none"> SECURE Act 	Restatement - January 1, 2016 Amendment #1 - January 1, 2016

Best Regards,
Robert Gleason

Director, Client Management | Workplace Solutions

MassMutual

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INVESTMENT CHANGES TO THE SAN MATEO COUNTY 457 DEFERRED COMPENSATION & 401(A) RETIREMENT PLANS

Effective date for changes to your plan – April 30, 2020

Effective April 30, 2020 the new investment option(s) listed below are being added to the plan and effective April 30, 2020 certain investment options in the plan will be discontinued and transferred as displayed below. If you have monies invested in options that are being discontinued and you do not want to have your account invested in the replacement options, you can transfer your account to one of the Plan's other investment options before the effective date of the change. To change your investment options for future contributions, or transfer existing balances between investment options log on to the participant website at www.retiresmart.com or call 1-800-743-5274.

INVESTMENT OPTIONS

Variable Return Investment												
Fund Name	Average Annual Total Return as of 12/31/2019			Benchmark			Name of Benchmark	Gross Total Annual Operating Expenses		Net Total Annual Operating Expenses**		Investment Close/ Open/ Freeze Date
	1Year	5Year	10Year or *Since Fund Inception if less than 10 Years	1Year	5Year	10Year or *Since Fund Inception if less than 10 Years		As a %	Per \$1000	As a %	Per \$1000	
Invesco Oppenheimer Intl Bond Fd (MF-1573) www.MassMutual.com/FF/oibix.PDF Inception Date: 06/16/1995	10.04%	3.59%	3.30%	5.32%	1.87%	1.36%	FTSE WGBI Non-USD	0.57%	\$5.70	0.56%	\$5.60	This investment will be closing as of 4/30/2020
JP Morgan Small Cap Value Fund (MF-2026) www.MassMutual.com/FF/ismvx.PDF Inception Date: 02/23/2005	19.42%	5.16%	10.37%	22.39%	6.99%	10.56%	Russell 2000® Value Idx	0.76%	\$7.60	0.74%	\$7.40	This investment will be closing as of 4/30/2020
Wells Fargo Small Company Growth Fd (MF-2218) www.MassMutual.com/FF/wscgx.PDF Inception Date: 04/01/2008	26.46%	8.65%	13.94%	28.50%	9.34%	13.01%	Russell 2000® Growth Index	0.99%	\$9.90	0.95%	\$9.50	This investment will be closing as of 4/30/2020

Small Cap Growth CIT (MF-4630) www.MassMutual.com/FF/mr4630.PDF Inception Date: 08/30/2019	NULL	-	1.69%	28.50%	9.34%	13.01%	Russell 2000® Growth Index	0.59%	\$5.90	0.59%	\$5.90	This investment will be available as of 4/30/2020
Small Cap Value CIT (MF-4713) www.MassMutual.com/FF/mr4713.PDF Inception Date: 08/10/2019	NULL	-	12.25%	22.39%	6.99%	10.56%	Russell 2000® Value Idx	0.40%	\$4.00	0.40%	\$4.00	This investment will be available as of 4/30/2020

*The benchmark since inception return is calculated from the month-end of the investment's inception.

**The Net Total Annual Operating Expenses include any investment expense waiver/reimbursement arrangements documented in the investment's prospectus and may be lower than the Gross Total Annual Operating Expenses due to the indicated expense waivers or reimbursements, which may be subject to expiration. Additional information regarding investment expense waivers specific to each investment is included in this document, if available, including whether the waiver is contractual or voluntary and its date of expiration. All available information about investment expense waivers is current and complete as of the date of this report. If information regarding the waivers is incomplete, it is because our third-party data provider was unable to make the information available. For some investments, the Net Total Annual Operating Expense ratio figure reflects the subtraction of interest expense, which results from an investment's use of certain other investments. This expense is required to be treated as an investment expense for accounting purposes, but is not payable to the investment adviser or subadvisor (if applicable). For more information, please see the investment profile or the prospectus that corresponds to the investment, which are both available from MassMutual. Contact the MassMutual Participant Information Center at 1-888-606-7343.

Discontinued Investment Option	New Investment Option
Invesco Oppenheimer Intl Bond Fd (MF-1573)	Vanguard Target Retirement Fund Based on Age
Wells Fargo Small Company Growth Fd (MF-2218)	Small Cap Growth CIT (MF-4630)
JP Morgan Small Cap Value Fund (MF-2026)	Small Cap Value CIT (MF-4713)

CITs (Collective Investment Trusts)

CITs are tax-exempt, pooled investment vehicles. They're maintained by a bank or trust company exclusively for qualified retirement plans and certain types of government plans. With lower marketing, overhead and compliance-related costs than comparable mutual funds, they're more economical for investors. Originally, plans used CITs mainly for stable-value and passive portfolios, but they're now offered for a full range of investment mandates. Only separately managed accounts, which require much higher asset minimums for most managers, may be less expensive.

With CITs, dedicated share classes for individual plans allow larger sponsors to benefit from flexible pricing, just as they do in a separately managed account. A dedicated share class provides customized pricing, which allows sponsors to benefit from economies of scale in advisory fees and from the lower operating costs that come with a larger investment pool. *

* Excerpt from A-B Article, "What's Old is New Again", Jennifer DeLong

Vanguard Target Series – Asset Allocation Investments in Motion

The Vanguard Target Series are a way for participants to have a professionally managed portfolio designed for their retirement time horizon. Each option in this series follows its own asset allocation path ("glide path") to progressively reduce its equity exposure and become more conservative over time, reaching its most conservative allocation 10 years after the year specified by the target date. Generally target date 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 (assuming a retirement age of 65) and likely would stop making new contributions to the investment option. However, an investor may choose a date other than their presumed retirement date to be more conservative or aggressive depending on their own risk tolerance.

These investment options are designed for participants who plan to withdraw the value of their accounts *gradually* after retirement. 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 your retirement.

Any money remaining in the **Oppenheimer International Bond Fund** and any investment selections for contributions designated to the **Oppenheimer International Bond Fund** on or after **April 30, 2020** will be moved as follows:

PARTICIPANT YEAR OF BIRTH RANGE	VANGUARD TARGET OPTION
on or before 1947	Vanguard Target Retirement Income
between 1948-1954.....>	Vanguard Target Retirement 2015
between 1955-1964.....>	Vanguard Target Retirement 2025
between 1965-1974.....>	Vanguard Target Retirement 2035
between 1975-1984.....>	Vanguard Target Retirement 2045
on or after 1985	Vanguard Target Retirement 2055

The date ranges currently applicable to these investments may change over time. Please contact your MassMutual Retirement Services Representative for additional information.

If you would like to change your investment percentages or are not currently participating in the plan and wish to enroll*, please visit the participant website at www.retiresmart.com or call 1-800-743-5274 for information or assistance. If your plan requires paper forms, please contact your Benefits Department to obtain the correct forms. If you do not wish to enroll at this time, you may disregard this change notice.

Looking for additional information?

In light of these changes, this may be a good time to review your investments. MassMutual offers retirement planning educational tools and information to help you make investment decisions and manage your retirement savings. Visit our participant website at www.retiresmart.com to find the information you need. You may also call our automated phone line at 1-800-743-5274 to access account information anytime. Customer Service Representatives are available via the automated phone line, Monday-Friday 8 a.m. to 8 p.m. ET to answer your questions and guide you through transactions.

*Receipt of this communication does not imply eligibility for participation in the plan. For questions regarding eligibility, please contact your plan's sponsor.

This notice describes changes being made by your plan sponsor to the Plan's investment options. As a result, these changes will alter how your account is invested after the effective date of the change. The new investment options that were selected to replace the existing investment options have characteristics, including level of risk and rate of return, that are reasonably similar to the characteristics of the existing investment options. With information previously or concurrently provided to you regarding the plan's existing and new investment options, you may consider whether you want to have the existing investments in your account automatically transferred to the new investment options. If you do not want to invest in the comparable new investment options, then you can make changes to the investment of your account prior to the transition as described in this notice. If you have previously exercised discretion over the investment of your account and you do not provide affirmative investment instructions contrary to the change prior to the effective date of the change, you will be treated as having affirmatively elected to invest your account in the new investment options. | Please consider an investment option's objectives, risks, fees and expenses carefully before investing. This and other information about the investment option can be found in the applicable prospectuses or summary prospectuses, if any, or fact sheets for the investment options listed, which are available from your Plan sponsor, the participant web site at www.retiresmart.com, or by contacting our Participant Information Center at 1-800-743-5274 between 8:00 a.m. and 8:00 p.m. ET, Monday through Friday. Please read them carefully before investing. | RISK DISCLOSURES FOR CERTAIN ASSET CATEGORIES – PLEASE NOTE THAT YOUR PLAN MAY NOT OFFER ALL OF THE INVESTMENT OPTIONS DISCUSSED BELOW. | If a retirement plan fully or partially terminates its investment in the Guaranteed Interest Account (GIA), SF Guaranteed, Fixed Interest Account or SAGIC investment options, the plan receives the liquidation value of its investment, which may be more or less than the book value of its investment. As a result of this adjustment, a participant's account balance may be either increased or decreased if the plan fully or partially terminates the contract with MassMutual. | 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 is possible to lose money by investing in a money market option. | 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. | Investment option(s) that track a benchmark index are professionally managed investments. However, the benchmark index itself is unmanaged and does not incur fees or expenses and cannot be purchased directly for investment. | 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. Participants must submit purchase transactions for global and international investment options before 2:30 p.m. ET in order to receive that day's price. Other trading restrictions may apply. Please see the investment's prospectus for more details. | A significant percentage of the underlying investments in aggressive asset allocation portfolio options have a higher than average risk exposure. Investors should consider their risk tolerance carefully before choosing such a strategy. | An investment option with underlying investments (multi-investment options, which may include RetireSMART Target Date funds and any other offered proprietary or non-proprietary asset-allocation, lifestyle, lifecycle or custom blended options) may be subject to the expenses of those underlying investments in addition to those of the investment option itself. | Investments may reside in the specialty category

2/24/2020

Contract No. 061869-0001-0000
061869-0003-0000

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 option 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 investment options if they have transferred into and out of the same option within the previous 60 days. Certain stable value, guaranteed interest, fixed income and other investment options are not subject to this rule. This rule does not prohibit participants from transferring out of any option at any time.

SAN MATEO COUNTY BOARDS AND COMMISSIONS CONFLICT OF INTEREST CODE

The purposes of this Conflict of Interest Code are to provide for the disclosure of investments, real property, income and business positions of designated members of San Mateo County Boards and Commissions that may be materially affected by their official actions and to provide for the disqualification of designated officials from participation in decisions in which they may have a financial interest.

Background

The Political Reform Act of 1974 (Government Code Sections 81000 et seq.) requires state and local government agencies to adopt and promulgate conflict of interest codes. The Fair Political Practices Commission ("FPPC") has adopted a regulation, California Code of Regulations Section 18730, which contains the terms of a standard conflict of interest code. This regulation and any amendments thereto may be incorporated by reference by local agencies and, together with the designation of employees and disclosure categories, meets the requirements of the Political Reform Act.

Adoption of Conflict of Interest Code

The terms of Title 2 California Code of Regulations Section 18730 are hereby incorporated by reference and, along with the attached Appendix in which officials are designated and disclosure categories are set forth, constitute the Conflict of Interest Code of the San Mateo County Boards and Commissions.

Pursuant to the Political Reform Act and its regulations, all designated officers shall file statements of economic interests with the San Mateo County Clerk, which shall be the filing officer. The San Mateo County Board of Supervisors shall be the code reviewing body.

Subsequent amendments to Title 2 California Code of Regulations Section 18730 duly adopted by the Fair Political Practices Commission, after public notice and hearings, are also incorporated by reference unless the San Mateo County Board of Supervisors, within 90 days after the date on which an amendment to Section 18730 becomes effective, adopts a resolution providing that the amendment is not to be incorporated into this Code.

**SAN MATEO COUNTY BOARDS AND COMMISSIONS
CONFLICT OF INTEREST CODE**

List of Designated Members and Officers/ Description of Financial Disclosure Categories

Each person holding any position listed below must file FPPC Form 700 – Statement of Economic Interests[†] disclosing the kinds of financial interest shown for the designated employee’s position. Statements must be filed at the times and on the forms prescribed by law. Failure to file statements on time may result in penalties including but not limited to late fines. Each person holding a position who must file a Statements of Economic Interest in accordance with Government Code section 87200 *et seq* and California Code of Regulations shall file in accordance with those statutes, with the proviso that the original statements will be filed with the Clerk of the San Mateo County Board of Supervisors and with a copy to County Clerk. The County Clerk does not need to forward the Statement of Economic Interest to the Fair Political Practices Commission.

<u>Designated</u>	<u>Disclosure Category</u>	<u>Filing Official</u>
Arts Commission Members and Alternate Members	1, 2, 3, 4	Clerk of the San Mateo County Board of Supervisors
Assessment Appeals Board Members and Alternate Members	1, 2, 3, 4	Clerk of the San Mateo County Board of Supervisors
Board of Building Permit Appeals Members and Alternate Members	1, 2, 3, 4	Director of Building and Planning
Community Corrections Partnership Members	1, 2, 3, 4	Chief Probation Officer
<u>Deferred Compensation Advisory Committee</u>	<u>1, 2, 3, 4</u>	<u>Director of Human Resources</u>
Design Review Committee Members and Alternate Members	1, 2, 3, 4	Director of Building and Planning
Juvenile Justice Coordinating Council and Alternate Members	1, 2, 3, 4	Chief Probation Officer
Licensing Board Members and Alternate Members	1, 2, 3, 4	Director of Building and Planning
Treasury Oversight Committee Members and Alternate Members	1, 2, 3, 4	County Treasurer
San Mateo County Civil Service Commission Members and Alternate Members	1, 2, 3, 4	Director of Human Resources
San Mateo County Parks and Recreation Commission Members and Alternate Members	1, 2, 3, 4	Director of Parks and Recreation
Consultants ^{**}	1, 2, 3, 4	Department, Agency or Division Director
Hearing Officers ^{***}	1, 2, 3, 4	Department, Agency or Division Director

[†]Each filer shall file his or her financial statement with the Filing Officials listed above.

^{**}Those consultants who, within the meaning of Code of Regulations 18700(a)(2), are required to file statements of economic interests, shall do so. During each calendar year, the Boards and Commissions shall maintain a list of such consultants for public inspection in the same manner and location as this Conflict of Interest Code. Nothing herein excuses any consultant from any other provision of the Conflict of Interest Code, specifically those dealing with disqualification.

^{***}Each Department, Division or Agency after consultation with the County Counsel, shall review the duties and authority of all hearing officers retained by the above listed Boards and Commissions.

Disclosure Categories

Category 1. A designated official or employee assigned to Category 1 is required to disclose direct or indirect investments in any business entity that may foreseeably be affected materially by any decision made or participated in by the designated official or employee by virtue of his or her position.

Category 2. A designated official or employee assigned to Category 2 is required to disclose interests in any real property that may foreseeably be affected materially by any decision made or participated in by the designated official or employee by virtue of his or her position.

Category 3. A designated official or employee assigned to Category 3 is required to disclose any source of income that may foreseeably be affected materially by any decision made or participated in by the designated official or employee by virtue of his or her position.

Category 4. A designated official or employee assigned to Category 4 is required to disclose any business entity in which the designated official or employee is a director, officer, partner, trustee, employee or holds any position of management that may foreseeably be affected materially by any decision made or participated in by the designated official or employee by virtue of his or her position.

Deferred Compensation Advisory Committee

List of Designated Positions and Applicable Disclosure Categories

Each person holding any position listed below must file statements disclosing the kinds of financial interests shown for the designated employee's position. Statements must be filed at the times and on the forms prescribed by law. Failure to file statements on time may result in penalties including but not limited to late fines.

<u>Designated Employees</u>	<u>Disclosure Category</u>
Regular Member	1, 2, 3, 4
Alternate Member	1, 2, 3, 4
Legal Counsel	1, 2, 3, 4
Consultants	1, 2, 3, 4

**"Consultants" are those contractors who have been determined by the Director of Human Resources to perform the functions of employees who, pursuant to California Code of regulations section 18700 (a)(2), are required to file statements of economic interests. The Director of Human Resources shall further determine the applicable disclosure categories.*

The SECURE Act has Arrived

MassMutual's Regulatory Advisory Services

FOR FINANCIAL PROFESSIONAL AND EMPLOYER USE ONLY.

The wait is finally over! This long anticipated retirement plan legislation is now the law.

Overview

The Setting Every Community Up for Retirement Enhancement (SECURE) Act was included in a broader spending package, the Further Consolidated Appropriations Act, 2020 (H.R. 1865, as amended) that was signed by the President on December 20, 2019. Clearing both the House and Senate on a largely bipartisan basis, the SECURE Act represents

one of the most significant pieces of retirement legislation impacting plan administration in over a decade. While largely known for its establishment of pooled employer plans (allowing unrelated employers to participate in a multiple employer plan), there are actually many more provisions of the SECURE Act that will have a major impact on ongoing plan administration.

What's included?

The SECURE Act expands retirement access to both employers and employees. Also be aware that there are provisions in the Act intended to offset some of the costs of this new legislation. For example, there are significant increases in penalties for late filing of retirement plan returns and related notices.

We have included at the end of this white paper a list of the key changes that we believe are most meaningful to you in your capacity as plan administrator. Be mindful, however, that it is not a full recitation of the Act.

When are these changes effective?

Different provisions have different effective dates. Refer to the table below for specific dates. The table is broken down into three parts:



- Provisions that became effective immediately upon enactment of the law, or have an effective date no later than January 1, 2020.
- Provisions that are dependent upon the start of the plan's plan year, or the employer's tax year, beginning after December 31, 2019. *For plans that operate on a calendar year basis, the effective date for these provisions is January 1, 2020. The effective date for off-calendar year plans will be sometime after January 1, 2020, depending upon the plan year start date.*
- Provisions that will have an effective date later than either of the first two categories, or an effective date has yet to be determined.

Other Changes

There was other legislation included in the appropriations bill that was not part of SECURE Act, but does impact retirement plan administration.

Reduction in minimum age for allowable in-service distributions

Section 104 of the Bipartisan American Miners Act changes the voluntary in-service distribution age for defined benefit plans, money purchase pension plans, and governmental 457(b) plans from age 62 to age 59 1/2. This change is effective for plan years beginning after December 31, 2019.

Disaster Tax Relief

The Taxpayer Certainty and Disaster Tax Relief Act extends certain expired or expiring tax provisions and also offers additional disaster relief to individuals impacted by a presidentially-declared natural disaster. This relief applies to individuals who suffered losses in a qualified disaster area beginning on January 1, 2018 and ending 60 days after the President signed the Act into law (i.e., ending on February 18, 2020). Relief under the Act is not extended to California wildfire disaster areas. Disaster tax relief includes:

Special disaster-related rules for use of retirement funds, including: (i) a provision that extends the waiver of the 10% additional income tax penalty for qualified disaster distributions from retirement plans up to \$100,000. Individuals can include in income ratably over a three year period and are permitted to repay the amount back to the plan; (ii) hardship distributions taken from a retirement plan for a first-time home purchase in a disaster area whose transaction was terminated due to the disaster can recontribute the amount back into the plan without tax penalty (subject to certain timing restrictions); and (iii) loan limits can be increased from \$50,000 to \$100,000 and a one-year repayment extension is available.

Automatic extension of filing deadlines in case of certain taxpayers affected by Federally declared disasters. This provision provides individuals who are impacted by natural disasters a 60-day extension to file returns, pay taxes, and to accomplish



certain plan (or IRA) related tasks, including making contributions to qualified plans and IRAs and completing rollovers.

Next Steps

As is often the case when new legislation is introduced, Congress provides a remedial amendment period affording employers a period of time to amend their plans for the new changes. Most plans have until the last day of the plan year that begins in 2022 to adopt amendments relative to the SECURE Act. Governmental plans and collectively bargained plans have until the last day of the plan year that begins in 2024.

MassMutual continues to monitor the impact to plan sponsors of these legislative changes and will offer additional administrative support, as appropriate.

If you have questions about the information in this white paper, or are wondering what your 'next steps' might be with respect to the SECURE Act, please contact your MassMutual representative.

The information provided is not written or intended as specific tax or legal advice. MassMutual, its subsidiaries, employees and representatives are not authorized to give tax or legal advice. Individuals are encouraged to seek advice from their own tax or legal counsel. The information provided here is current as of January 1, 2020, is provided for information purposes only and is subject to change at any time.



Key Provisions of the SECURE Act

Effective Immediately. Below are key provisions from the SECURE Act that became effective immediately (as of the date the Act was signed into law), or have an effective date no later than January 1, 2020.

PROVISION	DESCRIPTION	EFFECTIVE DATE	REQUIRED OR OPTIONAL
Fiduciary safe harbor for selection of lifetime income provider	<p>Creates a new fiduciary safe harbor related to the Plan Sponsor's selection of a lifetime income provider. To meet the safe harbor, a fiduciary must consider (i) the financial capability of the insurer and (ii) the cost in relation to the benefits and product features of the contract and administrative services to be provided. Other key aspects of the safe harbor include:</p> <ul style="list-style-type: none"> Fiduciary must obtain written representations from insurers regarding their status under state insurance law for purposes of considering the insurers' financial capabilities. Specifies that a fiduciary is not required to select the lowest-cost contract but may consider the value provided by other features and benefits and attributes of the insurer. Clarifies that fiduciaries are not required to review the appropriateness of a selection after the purchase of a contract for a participant. Deems fiduciaries to have conducted a periodic review if the fiduciary obtains annual written representations from the insurer. 	12/20/2019 (Became effective as of the date the SECURE Act was signed into law)	This is an optional safe harbor intended to help fiduciaries meet the prudent person requirements of ERISA §404.
Modification of nondiscrimination rules to protect older, longer service participants	<p>Defined benefit plans that were closed to new hires were subsequently forced to freeze completely because the grandfathered group of employees still accruing benefits became too small or were disproportionately highly paid, resulting in nondiscrimination failures. To avoid these "hard" freezes, closed defined benefit plans that meet certain requirements may be aggregated and tested on a benefits basis with one or more defined contribution plans. The modifications provide testing relief for these plans and are aimed to protect the benefits for older, longer service employees as they near retirement.</p>	12/20/2019 (Became effective as of the date the SECURE Act was signed into law, without regard to when the plans are modified) Plan Sponsor can elect to apply to plan years beginning after December 31, 2013.	Optional
Increase in age for required minimum distributions	<p>The provision increases the required beginning date for required minimum distributions from age 70 ½ to 72.</p> <p>Example: A terminating participant who turned age 70 ½ in 2019 is not subject to this new requirement and must take the first required minimum distribution no later than April 1, 2020.</p>	Distributions made after 12/31/2019 for individuals who attain age 70 ½ after such date.	Required
Penalty-free withdrawals for individuals in case of birth or adoption	<p>Permits plan distributions used for childbirth or adoption expenses up to \$5,000. Such distributions are not subject to the 10% early withdrawal tax.</p> <p>A qualified birth or adoption distribution would be any distribution during the one-year period beginning on the date on which the child is born or adopted.</p>	Distributions made after 12/31/2019.	Optional. If a plan offers qualified birth or adoption distributions, it must also allow repayments.
Modification of required distribution rules for designated beneficiaries	<p>Upon death of a participant, a non-spouse beneficiary is required to take a distribution of his/her entire inherited interest within ten years. This rule does not apply to any portion of the distribution payable to an "eligible designated beneficiary." An eligible designated beneficiary is any designated beneficiary who is:</p> <ul style="list-style-type: none"> The surviving spouse A child under the age of majority (the 10-year rule applies as of the date the child attains the age of majority) Disabled or chronically ill individuals Any other person who is not more than 10 years younger than the participant. 	Applies to distributions with respect to employees who die after 12/31/2019 (12/31/2021 for governmental plans and collectively bargained plans)	Required



PROVISION	DESCRIPTION	EFFECTIVE DATE	REQUIRED OR OPTIONAL
Increased penalties for failure to file retirement plan returns	Failure to file penalties modified as follows: Form 5500. \$250 per day not to exceed \$150,000. Annual registration statement regarding separated, deferred vested participants. \$10 per participant, multiplied by the number of days the failure continues, not to exceed \$50,000. Notification of change status in a plan's registration information. \$10 per day, not to exceed \$10,000. Withholding notices. \$100 for each failure, not to exceed \$50,000.	Applies to returns, statements, and notifications required to be filed, and notices required to be provided, after 12/31/2019.	Required
Treatment of custodial accounts on termination of section 403(b) plans	Within six months from the date the SECURE Act was enacted, the Secretary of the Treasury shall issue guidance to provide that if an employer terminates the 403(b) plan under which amounts are contributed to a custodial account, the plan administrator or custodian may distribute an individual custodial account in-kind to a participant or beneficiary of the plan and the distributed custodial account shall be maintained by the custodian on a tax-deferred basis as a section 403(b)(7) custodial account, until amounts are actually paid to the participant or beneficiary.	Awaiting guidance from Treasury. Such guidance shall be retroactively effective for taxable years beginning after December 31, 2008.	Awaiting guidance from Treasury.

[Effective Dates that are Dependent upon Plan Year or Tax Year Beginning after 12/31/2019.](#) Implementation of these requirements are dependent upon the start of the plan's plan year, or the employer's tax year beginning after December 31, 2019.

PROVISION	DESCRIPTION	EFFECTIVE DATE	REQUIRED OR OPTIONAL
Increase in 10% cap for automatic enrollment safe harbor after 1st plan year	This provision raises the escalation cap for automatic deferral increases from 10% of pay to 15% of pay. In the first plan year the default contribution rate cannot exceed 10% of pay.	Plan years beginning after 12/31/2019	Optional
Rules relating to election of safe harbor 401(k) status	<ol style="list-style-type: none"> Eliminates the safe harbor notice requirement for plans satisfying the ADP test safe harbor by making a nonelective contribution. A plan may be amended to become a safe harbor plan with nonelective contributions at any time before the 30th day before the close of the plan year; or, the plan may be amended on or after the 30th day before the close of the plan year, as long as the amendment is made by the last day for distributing excess contributions (generally the close of the following plan year) and the nonelective contribution is at least 4% of employee's compensation. 	Plan years beginning after 12/31/2019	This is a rule change affecting all safe harbor 401(k) plans that satisfy the safe harbor by making a nonelective contribution.
Increase in credit limitation for small employer pension plan startup costs	For employers with up to 100 employees, the annual tax credit previously capped at \$500 is increased to the greater of 1 or 2: <ol style="list-style-type: none"> \$500, or The lesser of: (a) \$250 for each employee of the eligible employer who is not a highly compensated employee and who is eligible to participate in the eligible employer plan maintained by the eligible employer, or (b) \$5,000. <p>The credit applies for up to three years.</p>	Tax years beginning after 12/31/2019	Work with your tax adviser or ERISA counsel to determine if this credit is available to your organization.
Small employer automatic enrollment credit	This is a new tax credit for small employers of up to \$500 per year available to a plan that includes an automatic enrollment feature. The credit is in addition to the plan startup credit allowed under present law and is available for three years. The credit is also available to employers that convert an existing plan to an automatic enrollment design.	Tax years beginning after 12/31/2019	Work with your tax adviser or ERISA counsel to determine if this credit is available to your organization.
Portability of lifetime income options	Participants in qualified defined contribution plans, 403(b) plans or governmental 457(b) plans are allowed to take a distribution (or make a direct trustee-to-trustee transfer to another employer-sponsored retirement plan) of a lifetime income investment without regard to any in-service distribution restrictions if the lifetime income investment is no longer authorized to be held in the plan.	Plan years beginning after 12/31/2019	This is a rule change that allows the employee to preserve a lifetime income investment when such investment may no longer be available as an option under the plan.



PROVISION	DESCRIPTION	EFFECTIVE DATE	REQUIRED OR OPTIONAL
Plan adopted by filing due date for year may be treated as in effect as of close of year	Extends the plan adoption deadline from the last day of the employer's taxable year to the employer's tax filing due date (including extensions) for that year.	Applies to plans adopted for tax years beginning after 12/31/2019	This rule change extends the plan adoption deadline.

Delayed Effective Dates. *The below listed provisions have effective dates that are either:*

- *later than plan year (or tax year) beginning after December 31, 2019; or*
- *the effective date is yet to be determined.*

PROVISION	DESCRIPTION	EFFECTIVE DATE	REQUIRED OR OPTIONAL
Multiple Employer Plans / Pooled Employer Plans	<p>Allows unrelated employers to participate in a multiple employer plan, called a "pooled employer plan," that would be treated as a single plan for ERISA purposes. Treatment as a pooled employer plan is conditioned on the plan using a "pooled plan provider" (PPP). The PPP is responsible for performing all administrative duties necessary to ensure that the plan complies with ERISA and the Code.</p> <p>A PPP must be a named fiduciary, the plan administrator, and is subject to registration, audit, examination, and investigation by Treasury and the Department of Labor.</p> <p>Except with respect to the administrative duties of the PPP, each employer in a pooled employer plan is treated as the plan sponsor with respect to the portion of the plan attributable to the employees of such employer.</p>	Plan years beginning after 12/31/2020	This is a new plan design option that removes the "nexus" requirement that previously applied to multiple employer plans.
Qualified cash or deferred arrangements must allow long-term, part-time employees to participate	<p>Except in the case of collectively bargained plans, employers maintaining a 401(k) plan are required to have a dual eligibility requirement under which an employee must complete either:</p> <ul style="list-style-type: none"> • One year of service (with the 1,000 hour rule), or • Three consecutive years of service where the employee completes at least 500 hours of service each year. <p>In the case of employees who are eligible solely by reason of the three consecutive years / 500 hours rule:</p> <ul style="list-style-type: none"> • An employer shall not be required to make nonelective or matching contributions on behalf of such employees even if such contributions are made on behalf of other employees eligible to participate in the arrangement. • The employer may elect to exclude such employees from testing under the nondiscrimination and coverage rules, and from the application of the top-heavy rules. • Each 12-month period for which the employee has at least 500 hours of service shall be treated as a year of service for vesting purposes and shall not be treated as a 1-year break in service. 	Plan years beginning after 12/31/2020 (service during 12-month periods beginning before 1/1/2021 shall not be taken into account)	Required
Combined annual report for group of plans	<p>A group of similar plans (individual account plans or defined contribution plans) shall be permitted to file a single consolidated Form 5500 if all plans in the group:</p> <ul style="list-style-type: none"> • Have the same trustee, named fiduciary (or named fiduciaries), and administrator. • Use the same plan year. • Provide the same investments or investment options to participants and beneficiaries. 	Shall be implemented not later than 1/1/2022, and shall apply to returns and reports for plan years beginning after 12/31/2021	Optional. Upon implementation, the combined filing option will offer employers an opportunity to reduce administrative costs.



PROVISION	DESCRIPTION	EFFECTIVE DATE	REQUIRED OR OPTIONAL
Disclosure regarding lifetime income	The required lifetime income disclosure on benefit statements will illustrate the amount of monthly payments a participant would receive if the participant's total accrued benefits under the plan were used to provide lifetime income streams, including a qualified joint and survivor annuity for the participant and the participant's surviving spouse, and a single life annuity.	Shall apply to pension benefit statements furnished more than 12 months after the latest of the issuance by the Secretary of: (1) interim final rules, (2) a model disclosure, or (3) permissible assumptions.	Defined contribution plan benefit statements will be required to include a lifetime income disclosure.

The information provided is not written or intended as specific tax or legal advice. MassMutual, its subsidiaries, employees and representatives are not authorized to give tax or legal advice. Individuals are encouraged to seek advice from their own tax or legal counsel. The information provided here is current as of January 1, 2020, is provided for information purposes only and is subject to change at any time.





Stock market changes and your investment strategy.

There are two fundamental truths about the stock market. It goes up. It goes down.

**FEELING UNCOMFORTABLE WITH
THE UPS AND DOWNS OF THE
STOCK MARKET?**

**YOU'RE NOT ALONE. STOCK
MARKET VOLATILITY CAN
UNSETTLE MANY PEOPLE,
ESPECIALLY WHEN IT INVOLVES
THEIR HARD EARNED MONEY.**



What causes market volatility?

While many things contribute to stock market movement — good news, bad news, earnings reports, consumer sentiment, and economic changes — the important thing to remember is that with the stock market, volatility is the norm. Fluctuations in price and potential gains or losses are what the stock market is all about.

The market has weathered many serious events during its history. Since 1929, there have been 16 bear markets — including the one in 2008.¹

Yet since 1969, the stock market has had a positive return in 37 out of 45 calendar years.² So while understanding that volatility in the stock market is normal, it is also important not to react, or overreact, to every headline or market swing.

History says: stay invested

The chart (on the next page) demonstrates a hypothetical investment of \$10,000 invested in the stock market, as measured by the S&P 500 Index, in 1980, and how the investment would have grown to \$484,093 by the end of 2014.

However, if you had cashed out your investment each time the stock market dropped by 20%, and invested in 90-day T-Bills for one year before reentering the market, the hypothetical \$10,000 invested would have grown to only \$272,904.

¹ A bear market history lesson, Gerri Willis, CNN, 10/8/08

² Morningstar EnCorr. Stock market represented by S&P 500 R Index

Review your goals and risk tolerance

As you review your investment objectives, ask yourself, have your goals changed? How do you feel about risk? For example, if the idea of losing some of your money in a down market keeps you up at night, you may want to reduce the amount of money you have in stocks.

Be sure to consider both investment risk AND inflation risk. Inflation risk is the risk that your choice of investments won't earn enough to keep pace with inflation. If you invest solely in short-term investments (i.e. cash), you subject your account to inflation risk. Remember that even relatively low inflation can erode the value of your portfolio over time.

Diversify to spread your risk

Your best defense in volatile markets is diversification, which means to spread your money within a variety of investments to reduce your risk and enhance your return. Diversifying your investments is an essential part of a solid investment strategy.

Diversification does not assure a profit and does not protect against loss in a declining market.

Consider lifestyle or target date investment options, if available

If you don't have the time or confidence to select individual investment options to diversify your portfolio, you may want to consider a lifestyle or target date investment option, if your plan offers them.

A lifestyle option tailors its investment approach to your individual tolerance for risk by offering conservative, moderate or aggressive risk styles. It is automatically diversified across investment types (stocks, bonds, and cash instruments) and different fund managers. You pick the option that most closely matches your risk profile, and professional investment managers do the rest. It's an easy-to-use, single solution investment.

A target date investment option is similar to a lifestyle option, except that it links its portfolio to your expected retirement date. Its portfolio will gradually become more conservative in its mix of investments as your year of retirement approaches.

Generally target retirement date (lifecycle) investment options are designed to be held beyond the presumed retirement date to offer a continuing investment option



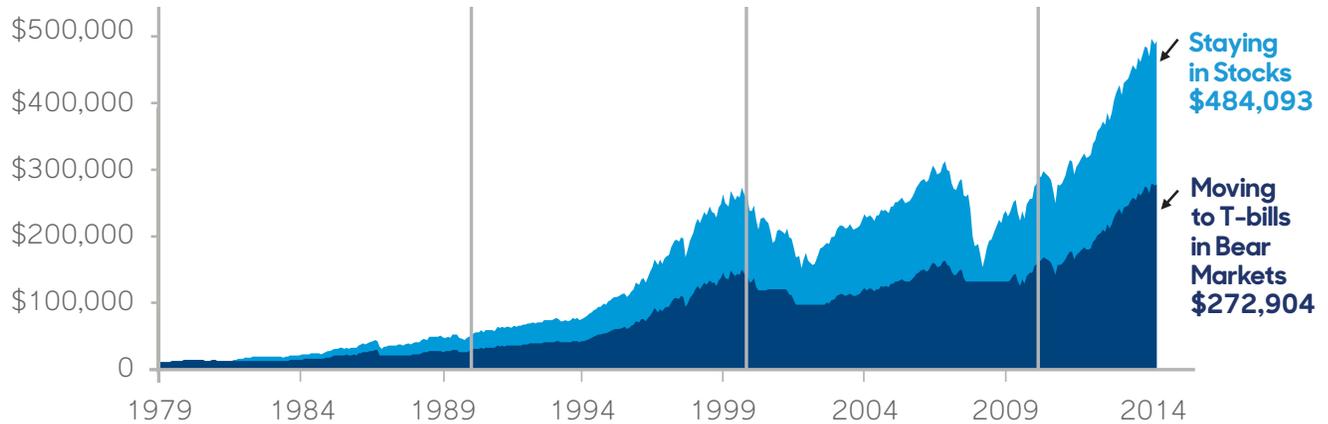
for the investor in retirement. The year in the investment option name refers to the approximate year an investor in the option would plan to retire and likely would stop making new contributions to the investment option. However, investors may choose a date other than their presumed retirement date 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. A target retirement date investment option may not achieve its objective and/or you could lose money on your investment in the fund. You may experience losses near, at, or after the target date. There is no guarantee of the fund’s principal value, including at the target date, or that the fund will provide adequate income at and through your retirement.

VALUE OF STAYING THE COURSE

Staying in Stocks vs. Moving to T-bills in Bear Markets Growth of \$10,000 (1980 – 2014)³



1980s

- Reagan shot
- U.S. becomes debtor nation
- Challenger disaster
- Insider trading scandal
- S&L bailout
- Exxon Valdez disaster
- Black Monday

1990s

- Gulf War
- Oklahoma City bombing
- Government shutdown
- Asian economic crisis
- Impeachment Trial
- Russian bond default

2000s

- Crash of the dot-coms
- Corporate accounting scandals
- Wars in Iraq and Afghanistan
- Tsunami/Hurricanes
- Oil prices
- Credit market turmoil
- Recession

2010s

- Slow economic recovery
- Rise of Isis
- Russia in Ukraine
- European sovereign debt woes
- Worldwide central bank action

³ Source of chart data: Ned Davis Research, 12/31/14. The chart depicts the growth of a \$10,000 hypothetical investment in the stocks in the S&P 500 Index on 1/2/80 held to 12/31/14. The chart also depicts the growth if an investor had cashed out of the market following each 20% decline in the market, invested in a 90-day Treasury Bill for one year and then re-entered the market. The S&P 500 Index is a broad-based measure of domestic stock market performance that includes the reinvestment of dividends. The index is unmanaged and cannot be purchased directly by investors. Index performance is shown for illustrative purposes only and does not predict or depict the performance of any investment. Past performance does not guarantee future results. Due to ongoing market volatility, current performance may be more or less than the results shown in this presentation. The performance information does not show the effects of income taxes on an individual's investment. Taxes may reduce your actual investment returns or any gains you may realize if you sell your investment. An investor's shares, when redeemed, may be worth more or less than the original cost.



Invest regularly and stay the course

When you invest regularly each pay period, as you do in your retirement plan, you take advantage of what is called dollar cost averaging. You buy fewer shares when the price is high, and more when the price is low. (Dollar cost averaging does not ensure a profit or protect against loss in declining markets.) Of course, past performance may not be indicative of future results.

Learn more

Understanding how the stock market works is a big step towards being able to stay true to your investment course. Visit www.retiresmart.com to use the resources and planning tools available to you or call the Participant Information Center at **1-800-743-5274**. We also suggest that you talk to a financial advisor for assistance in developing your investment strategy.



Past performance is no guarantee of future results.

The information provided is not written or intended as specific tax or legal advice. MassMutual, its subsidiaries, employees and representatives are not authorized to give tax or legal advice. Individuals are encouraged to seek advice from their own tax or legal counsel.

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Public Sector Retirement News & Views | Q1 2020



WASHINGTON UPDATE

In late December, the U.S. Senate approved an appropriations bill funding most domestic programs for the remainder of the fiscal year, and the President signed. This is great news for retirement savings plans, as it included important provisions from the SECURE Act, which passed the House last May but was stalled in the Senate until now.

The key provisions in SECURE pertaining to governmental retirement savings plans include:

- Raising the age for Required Minimum Distributions to 72, effective for all distributions required after 2019;
- Governmental 457(b) and 401(a) plans may begin offering in-service distributions at age 59 ¹/₂; and
- Participants will be allowed to take penalty-free withdrawals or loans.

Most of the provisions in SECURE are effective January 1, 2020; however, because the Act was passed so late in the year it is anticipated that enforcement will not begin until plan sponsors have a reasonable opportunity to implement the changes.

Passage of the SECURE Act offers meaningful reforms to pension provisions, and we are optimistic that this will help continue to pave the way for added reforms. Senators Rob Portman (R-Oh) and Ben Cardin (D-MD), who are widely credited for the passage of significant reforms in the past two decades, introduced the Retirement Security and Savings Act (RSSA) last May. RSSA includes numerous additional pension reform provisions of interest to governmental plans:

- Elimination of the §457 Deferred Compensation “first of the month rule”, for implementing new enrollments and deferral increases;
- Exempting Roth accounts from the Required Minimum Distribution calculation;
- Allowing Roth IRAs to be rolled into existing accounts; and
- Establishing a new catch-up limit of \$10,000 for participants over age 60.

We will continue to closely monitor any and all activity related to governmental pension reform and report to you, including recommendations for practical implementation of changes. Please consult your NFP Advisor if you have questions or would like additional information.

For the full text of the Retirement Security and Savings Act, click [here](#).

CYBERSECURITY

Cybersecurity is constantly evolving, and continues to be of extreme importance in protecting participant retirement plan assets. Plan providers have and will continue to invest significant resources to establish tools that participants and plan sponsors can use to help prevent breaches or other incidents that could result in loss of assets.

For participants, some of the simplest steps can provide high levels of security. For example, participants should register their account online and establish unique security identifications, including unique, strong, and complex passwords. In addition, they are advised to keep their anti-virus and malware protections updated at all times. Participants should be careful about what information they post on social media - hackers can use their city of residence, employer, political opinions and other seemingly insignificant or irrelevant pieces of information to hack into their accounts.

Participants who do not register their accounts online are particularly vulnerable to cyberattacks. Hackers have been known to determine where there is an account that has not been registered online...then, they register the account themselves! This has resulted in a small number of accounts having funds directed to the hacker, simply because the participant did not take precautions to personally register their account online. *Registering every account is of paramount importance.*

Most providers have implemented two- or multi-factor authentication (2FA or MFA) to further improve security. These methods require multiple steps to sign in to an account, often requiring the use of multiple devices or security questions to complete the sign-in process. While this does provide a significant increase in security protection, some participants may find it to be inconvenient. Yes, it may be inconvenient, but it is a small price to pay for the added security and protection of hard earned and responsibility saved retirement assets.

Many providers are implementing other security measures, in addition to 2FA or MFA. Often, certain elements of phone calls will be monitored, including the caller's voice, device or number being used to place the call, and the geographic origin of the call. Enhanced security questions are being used to screen calls for authenticity, using information only the participant is likely to know (e.g., former addresses or employers, and names of the family members). Bank information is being validated to verify that the retirement account owner matches the bank account owner. Finally, fraud monitoring for unusual or irregular activity is used to identify other suspicious threats.

NFP recommends that plan sponsors engage in active dialogue with their providers to determine what security tools are being used and any others that are available. Further, plan sponsors and providers can work together to educate employees about the importance of account security, encouraging and helping them to take the steps necessary to protect their retirement savings. Please let your NFP advisor know if you need help facilitating these discussions or exploring options.



PLAN LEAKAGE

Federal Law encourages workers to save for their retirement by allowing employers to offer tax deferred savings plans. The law also allows workers to withdraw funds from their accounts while they are still employed, under certain circumstances. While early access to retirement savings has been shown to encourage participation, such in-service withdrawals, and pre-retirement withdrawals upon separation from service, can easily derail a participant's retirement readiness.

What is Plan Leakage? Withdrawals for other than retirement purposes are known as “*plan leakage*”, and strategies to minimize plan leakage should be on the radar of plan sponsors. Typical examples of plan leakage distributions are unforeseeable emergency withdrawals, plan loans (particularly where plans allow multiple loans, or when participants take loans repeatedly throughout their career), plan loan defaults, and post-employment withdrawals taken before retirement age.

In 2013 (the most recent year for which complete data is available) the Government Accountability Office (GAO) found that plans held retirement savings investments worth nearly \$17 trillion*. From these investments, approximately \$70 billion* was withdrawn for purposes other than retirement, by individuals in their prime working years (age 25-55). Nearly \$40 billion* were early withdrawals - monies taken before retirement age - and approximately \$30 billion* was withdrawn for hardships, lump sum cash-outs at separation, and unpaid loan balances. *The early withdrawals (\$40 billion) exceeded the amounts workers had saved in that year.*

Why should a plan sponsor care? An employer's and plan sponsor's primary responsibility is to design a plan with a focus on the best interests of their participants and their beneficiaries. In doing so, you take great care to offer a strong investment lineup, robust participant services, and a variety of options that help employees save towards a secure retirement. Withdrawals for purposes other than retirement income - plan leakage - can detrimentally affect a participant's long-term retirement security. These withdrawals will reduce assets, inhibit growth, and may increase the participant's taxable income. Moreover, plan leakage can drain assets in your plan, thereby reducing plan asset size and average account balances, and potentially **reducing your plan's overall buying power.**

What strategies can a plan sponsor implement to minimize plan leakage? In order to reduce potential negative impact to the plan, sponsors can take a few simple steps:

- Make sure terminating employees understand their options: they can leave their money in the plan, or they can transfer their money to other allowable plans at any time.
- Limit the number of emergency withdrawals in a given time period.
- Allow contributions to resume automatically after the end of any suspension period.
- Consider limiting the number and amount of loans. Many plans allow participants to have only one loan at a time, but some plans allow as many as five.
- Allow contributions to resume automatically once loans are repaid.
- Look at your loan origination fee. A recent study found that the average outstanding loan balance was \$4,600 higher for loans charging a \$50 fee, than for loans charging \$100.
- Limit non-real estate loans to a short repayment period (less than 5 years). Second, review plan leakage activity to determine if there are any trends, e.g., multiple emergency withdrawal requests by a single participant.

In addition to the action steps described above, plan sponsors can also target educational messages to help employees understand the downsides of early withdrawals, including taxation, the loss of tax-advantaged growth, and reduced retirement income. Education about the need for and how to establish an emergency fund may also be in order. If your organization offers a financial wellness program, these elements could easily be added.

Your NFP advisor is available to help you strategize about how to minimize plan leakage. If you are interested in reading the full GAO report, click [here](#).

**The figures in the GAO report includes retirement savings for 401(k) and IRA accounts only. The concepts and solutions in this article are, however, applicable to all supplemental retirement savings plans.*

IRS Authorizes New Contribution Limits for 2020

The Internal Revenue Service has authorized an increase to the amount a person can contribute to retirement savings plans. The new limits are

Plan	Normal Limit	"Age 50" Catch-up Limit	"Pre-retirement" Catch-up Limit
457	\$19,500	\$6,500	\$19,500
401(a)	\$57,000	N/A	N/A
401(k)	\$19,500	\$6,500	N/A
403(b)	\$19,500	\$6,500	\$15,500 lifetime cap

NFP GOVERNMENTAL RETIREMENT PLAN EXPERTISE



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