

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML SMALL CAP GROWTH EQUITY FD	2,314,194.66	143,317		1.47	0	
MML INCOME & GROWTH FUND	EQUITY	BANK OF NEW YORK MELLON CORP	2,178,634.95	46,285		1.64	0	
MML INCOME & GROWTH FUND	EQUITY	PHILIP MORRIS INTERNATIONAL	1,272,912.92	19,067		0.96	0	
MML INCOME & GROWTH FUND	EQUITY	MERCK + CO. INC.	1,434,903.39	18,779		1.08	0	
MML INCOME & GROWTH FUND	EQUITY	DOLLAR GENERAL CORP	2,917,619.60	26,995		2.19	0	
MML INCOME & GROWTH FUND	EQUITY	BERKSHIRE HATHAWAY INC CL B	2,440,563.54	11,953		1.83	0	
MML INCOME & GROWTH FUND	EQUITY	STANLEY BLACK + DECKER INC	2,049,469.84	17,116		1.54	0	
MML INCOME & GROWTH FUND	EQUITY	LYONDELLBASELL INDU CL A	1,195,508.16	14,376		0.90	0	
MML INCOME & GROWTH FUND	EQUITY	E TRADE FINANCIAL CORP	1,692,232.20	38,565		1.27	0	
MML INCOME & GROWTH FUND	EQUITY	VERMILION ENERGY INC	1,412,490.66	67,038		1.06	0	
MML INCOME & GROWTH FUND	EQUITY	ROYAL CARIBBEAN CRUISES LTD	2,003,423.73	20,487		1.50	0	
MML INCOME & GROWTH FUND	EQUITY	DOMINION ENERGY INC	2,391,551.82	33,467		1.80	0	
MML INCOME & GROWTH FUND	EQUITY	KEYCORP	1,540,105.56	104,202		1.16	0	
MML INCOME & GROWTH FUND	EQUITY	LENNAR CORP A	1,120,668.75	28,625		0.84	0	
MML INCOME & GROWTH FUND	EQUITY	OCCIDENTAL PETROLEUM CORP	1,314,268.56	21,412		0.99	0	
MML INCOME & GROWTH FUND	EQUITY	VALERO ENERGY CORP	1,228,083.57	16,381		0.92	0	
MML INCOME & GROWTH FUND	EQUITY	AMERCO	1,605,114.12	4,892		1.21	0	
MML INCOME & GROWTH FUND	EQUITY	WABTEC CORP	1,404,789.25	19,997		1.05	0	
MML INCOME & GROWTH FUND	EQUITY	LIBERTY PROPERTY TRUST	1,460,648.76	34,877		1.10	0	
MML INCOME & GROWTH FUND	EQUITY	CVS HEALTH CORP	2,246,025.60	34,280		1.69	0	
MML INCOME & GROWTH FUND	EQUITY	GENERAL ELECTRIC CO	1,718,707.94	227,042		1.29	0	
MML INCOME & GROWTH FUND	EQUITY	MICROSOFT CORP	2,228,648.94	21,942		1.67	0	
MML INCOME & GROWTH FUND	EQUITY	O REILLY AUTOMOTIVE INC	1,101,856.00	3,200		0.83	0	
MML INCOME & GROWTH FUND	EQUITY	PHILLIPS 66	2,071,993.65	24,051		1.56	0	
MML INCOME & GROWTH FUND	EQUITY	NORWEGIAN CRUISE LINE HOLDIN	1,818,234.27	42,893		1.37	0	
MML INCOME & GROWTH FUND	EQUITY	ARAMARK	1,254,314.09	43,297		0.94	0	
MML INCOME & GROWTH FUND	EQUITY	NAVIENT CORP	827,100.42	93,882		0.62	0	
MML INCOME & GROWTH FUND	EQUITY	PARSLEY ENERGY INC CLASS A	984,639.66	61,617		0.74	0	
MML INCOME & GROWTH FUND	EQUITY	FIDELITY NATIONAL FINANCIAL	1,183,716.00	37,650		0.89	0	
MML INCOME & GROWTH FUND	EQUITY	ANTHEM INC	3,125,822.26	11,902		2.35	0	
MML INCOME & GROWTH FUND	EQUITY	MEDTRONIC PLC	2,608,278.00	28,675		1.96	0	
MML INCOME & GROWTH FUND	EQUITY	NIELSEN HOLDINGS PLC	1,361,795.43	58,371		1.02	0	
MML INCOME & GROWTH FUND	EQUITY	HEWLETT PACKARD ENTERPRISE	979,772.49	74,169		0.74	0	
MML INCOME & GROWTH FUND	EQUITY	WILLIS TOWERS WATSON PLC	2,294,604.60	15,110		1.72	0	
MML INCOME & GROWTH FUND	EQUITY	MGM GROWTH PROPERTIES LLC A	1,364,974.44	51,684		1.03	0	
MML INCOME & GROWTH FUND	EQUITY	COCA COLA EUROPEAN PARTNERS	2,026,707.55	44,203		1.52	0	
MML INCOME & GROWTH FUND	EQUITY	JOHNSON CONTROLS INTERNATION	1,451,248.90	48,946		1.09	0	
MML INCOME & GROWTH FUND	EQUITY	VERSUM MATERIALS INC	356,839.56	12,873		0.27	0	
MML INCOME & GROWTH FUND	EQUITY	DOWDUPONT INC	1,907,524.64	35,668		1.43	0	
MML INCOME & GROWTH FUND	EQUITY	BROADCOM INC	2,293,605.60	9,020		1.72	0	
MML INCOME & GROWTH FUND	EQUITY	LINDE PLC	2,281,148.76	14,619		1.71	0	
MML INCOME & GROWTH FUND	EQUITY	CIGNA CORP	3,013,248.50	15,866		2.26	0	
MML INCOME & GROWTH FUND	EQUITY	KOSMOS ENERGY LTD	814,940.17	200,231		0.61	0	
MML INCOME & GROWTH FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	3,140,251.69	3,140,252		2.36	1.25	1/2/2019
MML INCOME & GROWTH FUND	EQUITY	ORACLE CORP	2,066,064.00	45,760		1.55	0	
MML INCOME & GROWTH FUND	EQUITY	PFIZER INC	2,707,173.00	62,020		2.03	0	
MML INCOME & GROWTH FUND	EQUITY	WELLS FARGO + CO	2,195,804.16	47,652		1.65	0	
MML INCOME & GROWTH FUND	EQUITY	LOWE S COS INC	2,620,622.64	28,374		1.97	0	
MML INCOME & GROWTH FUND	EQUITY	TEXAS INSTRUMENTS INC	1,977,129.00	20,922		1.48	0	
MML INCOME & GROWTH FUND	EQUITY	BP PLC SPONS ADR	2,195,378.40	57,895		1.65	0	
MML INCOME & GROWTH FUND	EQUITY	STATE STREET CORP	1,776,681.90	28,170		1.33	0	
MML INCOME & GROWTH FUND	EQUITY	UNITED TECHNOLOGIES CORP	1,936,019.36	18,182		1.45	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML INCOME & GROWTH FUND	EQUITY	AMERICAN EXPRESS CO	2,729,583.52	28,636	2.05		0
MML INCOME & GROWTH FUND	EQUITY	AIR PRODUCTS + CHEMICALS INC	2,378,182.95	14,859	1.79		0
MML INCOME & GROWTH FUND	EQUITY	QUALCOMM INC	1,675,771.86	29,446	1.26		0
MML INCOME & GROWTH FUND	EQUITY	MGM RESORTS INTERNATIONAL	753,248.74	31,049	0.57		0
MML INCOME & GROWTH FUND	EQUITY	UNITEDHEALTH GROUP INC	3,154,606.56	12,663	2.37		0
MML INCOME & GROWTH FUND	EQUITY	TEVA PHARMACEUTICAL SP ADR	676,167.00	43,850	0.51		0
MML INCOME & GROWTH FUND	EQUITY	MICROCHIP TECHNOLOGY INC	1,619,638.40	22,520	1.22		0
MML INCOME & GROWTH FUND	EQUITY	EXELON CORP	2,297,439.10	50,941	1.73		0
MML INCOME & GROWTH FUND	EQUITY	NEW YORK COMMUNITY BANCORP	1,322,217.92	140,512	0.99		0
MML INCOME & GROWTH FUND	EQUITY	JPMORGAN CHASE + CO	2,685,916.68	27,514	2.02		0
MML INCOME & GROWTH FUND	EQUITY	US BANCORP	1,322,420.90	28,937	0.99		0
MML INCOME & GROWTH FUND	EQUITY	CHEVRON CORP	2,150,125.56	19,764	1.61		0
MML INCOME & GROWTH FUND	EQUITY	ADVANCE AUTO PARTS INC	2,054,695.54	13,049	1.54		0
MML INCOME & GROWTH FUND	EQUITY	SLM CORP	2,119,274.37	255,027	1.59		0
MML INCOME & GROWTH FUND	EQUITY	SANOFI ADR	1,470,947.85	33,885	1.10		0
MML INCOME & GROWTH FUND	EQUITY	CONOCOPHILLIPS	2,691,213.05	43,163	2.02		0
MML INCOME & GROWTH FUND	EQUITY	COMCAST CORP CLASS A	2,358,303.00	69,260	1.77		0
MML INCOME & GROWTH FUND	EQUITY	ALTRIA GROUP INC	1,331,603.79	26,961	1.00		0
MML INCOME & GROWTH FUND	EQUITY	HESS CORP	1,686,906.00	41,652	1.27		0
MML INCOME & GROWTH FUND	EQUITY	HANESBRANDS INC	818,447.07	65,319	0.61		0
MML INCOME & GROWTH FUND	EQUITY	OWENS CORNING	1,249,691.70	28,415	0.94		0
MML INCOME & GROWTH FUND	EQUITY	SPIRIT AEROSYSTEMS HOLD CL A	2,021,764.05	28,045	1.52		0
MML EQUITY INDEX FUND	EQUITY	DENTSPLY SIRONA INC	250,311.67	6,727	0.04		0
MML EQUITY INDEX FUND	EQUITY	UNDER ARMOUR INC CLASS C	90,083.07	5,571	0.01		0
MML EQUITY INDEX FUND	EQUITY	S+P GLOBAL INC	1,271,151.20	7,480	0.20		0
MML EQUITY INDEX FUND	EQUITY	CHARTER COMMUNICATIONS INC A	1,502,931.78	5,274	0.23		0
MML EQUITY INDEX FUND	EQUITY	FORTIVE CORP W/D	597,708.44	8,834	0.09		0
MML EQUITY INDEX FUND	EQUITY	IHS MARKIT LTD	515,245.77	10,741	0.08		0
MML EQUITY INDEX FUND	EQUITY	JOHNSON CONTROLS INTERNATION	821,601.50	27,710	0.13		0
MML EQUITY INDEX FUND	EQUITY	LAMB WESTON HOLDINGS INC	320,133.12	4,352	0.05		0
MML EQUITY INDEX FUND	EQUITY	ARCONIC INC	220,933.44	13,104	0.03		0
MML EQUITY INDEX FUND	EQUITY	L3 TECHNOLOGIES INC	412,442.50	2,375	0.06		0
MML EQUITY INDEX FUND	EQUITY	HILTON WORLDWIDE HOLDINGS IN	636,650.60	8,867	0.10		0
MML EQUITY INDEX FUND	EQUITY	TECHNIPFMC PLC	251,368.04	12,838	0.04		0
MML EQUITY INDEX FUND	EQUITY	SBA COMMUNICATIONS CORP	551,397.34	3,406	0.09		0
MML EQUITY INDEX FUND	EQUITY	DXC TECHNOLOGY CO	442,108.55	8,315	0.07		0
MML EQUITY INDEX FUND	EQUITY	XEROX CORP	121,761.12	6,162	0.02		0
MML EQUITY INDEX FUND	EQUITY	BAKER HUGHES A GE CO	335,013.00	15,582	0.05		0
MML EQUITY INDEX FUND	EQUITY	BRIGHTHOUSE FINANCIAL INC	107,990.64	3,543	0.02		0
MML EQUITY INDEX FUND	EQUITY	DOWDUPONT INC	3,660,812.96	68,452	0.57		0
MML EQUITY INDEX FUND	EQUITY	TAPESTRY INC	297,033.75	8,801	0.05		0
MML EQUITY INDEX FUND	EQUITY	IQVIA HOLDINGS INC	545,999.00	4,700	0.08		0
MML EQUITY INDEX FUND	EQUITY	FIRST REPUBLIC BANK/CA	425,114.80	4,892	0.07		0
MML EQUITY INDEX FUND	EQUITY	FLEETCOR TECHNOLOGIES INC	492,343.72	2,651	0.08		0
MML EQUITY INDEX FUND	EQUITY	MOTOROLA SOLUTIONS INC	562,660.64	4,891	0.09		0
MML EQUITY INDEX FUND	EQUITY	O REILLY AUTOMOTIVE INC	824,326.02	2,394	0.13		0
MML EQUITY INDEX FUND	EQUITY	KINDER MORGAN INC	871,538.46	56,667	0.14		0
MML EQUITY INDEX FUND	EQUITY	HCA HEALTHCARE INC	998,462.35	8,023	0.15		0
MML EQUITY INDEX FUND	EQUITY	TE CONNECTIVITY LTD	772,862.97	10,219	0.12		0
MML EQUITY INDEX FUND	EQUITY	HUNTINGTON INGALLS INDUSTRIE	243,025.87	1,277	0.04		0
MML EQUITY INDEX FUND	EQUITY	CITIGROUP INC	3,799,182.62	72,977	0.59		0
MML EQUITY INDEX FUND	EQUITY	MOSAIC CO/THE	312,313.32	10,692	0.05		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY INDEX FUND	EQUITY	PROLOGIS INC	1,101,469.76	18,758	0.17		0
MML EQUITY INDEX FUND	EQUITY	MARATHON PETROLEUM CORP	1,218,320.46	20,646	0.19		0
MML EQUITY INDEX FUND	EQUITY	HOLLYFRONTIER CORP	246,296.16	4,818	0.04		0
MML EQUITY INDEX FUND	EQUITY	PVH CORP	211,833.05	2,279	0.03		0
MML EQUITY INDEX FUND	EQUITY	RALPH LAUREN CORP	170,398.62	1,647	0.03		0
MML EQUITY INDEX FUND	EQUITY	FORTUNE BRANDS HOME + SECURI	163,964.84	4,316	0.03		0
MML EQUITY INDEX FUND	EQUITY	CBRE GROUP INC A	376,576.20	9,405	0.06		0
MML EQUITY INDEX FUND	EQUITY	XYLEM INC	355,083.84	5,322	0.06		0
MML EQUITY INDEX FUND	EQUITY	TRIPADVISOR INC	160,363.62	2,973	0.02		0
MML EQUITY INDEX FUND	EQUITY	MICHAEL KORS HOLDINGS LTD	168,099.36	4,433	0.03		0
MML EQUITY INDEX FUND	EQUITY	EXPEDIA GROUP INC	402,723.75	3,575	0.06		0
MML EQUITY INDEX FUND	EQUITY	AMERICAN TOWER CORP	2,077,034.70	13,130	0.32		0
MML EQUITY INDEX FUND	EQUITY	AON PLC	1,041,504.40	7,165	0.16		0
MML EQUITY INDEX FUND	EQUITY	PHILLIPS 66	1,093,329.65	12,691	0.17		0
MML EQUITY INDEX FUND	EQUITY	FACEBOOK INC CLASS A	9,408,591.48	71,772	1.46		0
MML EQUITY INDEX FUND	EQUITY	DUKE ENERGY CORP	1,832,062.70	21,229	0.28		0
MML EQUITY INDEX FUND	EQUITY	MONDELEZ INTERNATIONAL INC A	1,736,941.73	43,391	0.27		0
MML EQUITY INDEX FUND	EQUITY	DIAMONDBACK ENERGY INC	428,459.40	4,622	0.07		0
MML EQUITY INDEX FUND	EQUITY	EATON CORP PLC	888,048.44	12,934	0.14		0
MML EQUITY INDEX FUND	EQUITY	ABBVIE INC	4,137,487.20	44,880	0.64		0
MML EQUITY INDEX FUND	EQUITY	NORWEGIAN CRUISE LINE HOLDIN	276,721.92	6,528	0.04		0
MML EQUITY INDEX FUND	EQUITY	ZOETIS INC	1,224,162.94	14,311	0.19		0
MML EQUITY INDEX FUND	EQUITY	APTIV PLC	482,154.67	7,831	0.07		0
MML EQUITY INDEX FUND	EQUITY	BOOKING HOLDINGS INC	2,383,829.28	1,384	0.37		0
MML EQUITY INDEX FUND	EQUITY	BROADCOM INC	3,140,866.56	12,352	0.49		0
MML EQUITY INDEX FUND	FUTURE	S+P500 EMINI FUT MAR19	-	6,100	0.09		3/15/2019
MML EQUITY INDEX FUND	EQUITY	JEFFERIES FINANCIAL GROUP IN	148,184.96	8,536	0.02		0
MML EQUITY INDEX FUND	EQUITY	EVERGY INC	443,487.24	7,812	0.07		0
MML EQUITY INDEX FUND	CASH EQUIVALENT	TREASURY BILL	1,084,456.60	1,085,000	0.17		1/10/2019
MML EQUITY INDEX FUND	EQUITY	LINDE PLC	2,570,134.84	16,471	0.40		0
MML EQUITY INDEX FUND	EQUITY	CIGNA CORP	2,158,707.83	11,366	0.33		0
MML EQUITY INDEX FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	13,640,791.24	13,640,791	2.12	1.25	1/2/2019
MML EQUITY INDEX FUND	EQUITY	VIACOM INC CLASS B	268,308.00	10,440	0.04		0
MML EQUITY INDEX FUND	EQUITY	CBS CORP CLASS B NON VOTING	441,572.00	10,100	0.07		0
MML EQUITY INDEX FUND	EQUITY	CHIPOTLE MEXICAN GRILL INC	312,184.17	723	0.05		0
MML EQUITY INDEX FUND	EQUITY	FIDELITY NATIONAL INFO SERV	1,003,964.50	9,790	0.16		0
MML EQUITY INDEX FUND	EQUITY	L BRANDS INC	174,350.64	6,792	0.03		0
MML EQUITY INDEX FUND	EQUITY	COTY INC CL A	86,506.72	13,187	0.01		0
MML EQUITY INDEX FUND	EQUITY	NEWS CORP CLASS A	128,674.95	11,337	0.02		0
MML EQUITY INDEX FUND	EQUITY	TWENTY FIRST CENTURY FOX A	1,520,832.60	31,605	0.24		0
MML EQUITY INDEX FUND	EQUITY	NEWS CORP CLASS B	41,545.35	3,597	0.01		0
MML EQUITY INDEX FUND	EQUITY	TWENTY FIRST CENTURY FOX B	691,711.06	14,477	0.11		0
MML EQUITY INDEX FUND	EQUITY	INTERCONTINENTAL EXCHANGE IN	1,280,911.32	17,004	0.20		0
MML EQUITY INDEX FUND	EQUITY	TWITTER INC	623,658.00	21,700	0.10		0
MML EQUITY INDEX FUND	EQUITY	ALLEGION PLC	223,905.39	2,809	0.03		0
MML EQUITY INDEX FUND	EQUITY	AMERICAN AIRLINES GROUP INC	397,425.47	12,377	0.06		0
MML EQUITY INDEX FUND	EQUITY	PERRIGO CO PLC	147,598.75	3,809	0.02		0
MML EQUITY INDEX FUND	EQUITY	PENTAIR PLC	181,381.78	4,801	0.03		0
MML EQUITY INDEX FUND	EQUITY	ARISTA NETWORKS INC	323,845.90	1,537	0.05		0
MML EQUITY INDEX FUND	EQUITY	SYNCHRONY FINANCIAL	465,000.66	19,821	0.07		0
MML EQUITY INDEX FUND	EQUITY	CITIZENS FINANCIAL GROUP	418,776.78	14,086	0.06		0
MML EQUITY INDEX FUND	EQUITY	KEYSIGHT TECHNOLOGIES IN	345,785.60	5,570	0.05		0

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MML EQUITY INDEX FUND	EQUITY	ANTHEM INC	2,029,342.01	7,727	0.31		0
MML EQUITY INDEX FUND	EQUITY	CROWN CASTLE INTL CORP	1,342,340.91	12,357	0.21		0
MML EQUITY INDEX FUND	EQUITY	WALGREENS BOOTS ALLIANCE INC	1,641,559.92	24,024	0.25		0
MML EQUITY INDEX FUND	EQUITY	QORVO INC	227,190.93	3,741	0.04		0
MML EQUITY INDEX FUND	EQUITY	IRON MOUNTAIN INC	278,823.23	8,603	0.04		0
MML EQUITY INDEX FUND	EQUITY	EQUINIX INC	847,201.68	2,403	0.13		0
MML EQUITY INDEX FUND	EQUITY	MEDTRONIC PLC	3,652,680.72	40,157	0.57		0
MML EQUITY INDEX FUND	EQUITY	EVERSOURCE ENERGY	619,310.88	9,522	0.10		0
MML EQUITY INDEX FUND	EQUITY	MYLAN NV	417,740.40	15,246	0.06		0
MML EQUITY INDEX FUND	EQUITY	ALLERGAN PLC	1,267,497.78	9,483	0.20		0
MML EQUITY INDEX FUND	EQUITY	MONSTER BEVERAGE CORP	582,715.58	11,839	0.09		0
MML EQUITY INDEX FUND	EQUITY	WESTROCK CO	286,409.60	7,585	0.04		0
MML EQUITY INDEX FUND	EQUITY	WEC ENERGY GROUP INC	656,030.72	9,472	0.10		0
MML EQUITY INDEX FUND	EQUITY	KRAFT HEINZ CO/THE	796,196.96	18,499	0.12		0
MML EQUITY INDEX FUND	EQUITY	PAYPAL HOLDINGS INC	2,958,622.56	35,184	0.46		0
MML EQUITY INDEX FUND	EQUITY	AMERICAN WATER WORKS CO INC	488,614.91	5,383	0.08		0
MML EQUITY INDEX FUND	EQUITY	ACTIVISION BLIZZARD INC	1,065,894.16	22,888	0.17		0
MML EQUITY INDEX FUND	EQUITY	DISCOVERY INC A	114,199.84	4,616	0.02		0
MML EQUITY INDEX FUND	EQUITY	DISCOVERY INC C	246,956.00	10,700	0.04		0
MML EQUITY INDEX FUND	EQUITY	AMERICAN INTERNATIONAL GROUP	1,039,044.65	26,365	0.16		0
MML EQUITY INDEX FUND	EQUITY	INGERSOLL RAND PLC	669,080.82	7,334	0.10		0
MML EQUITY INDEX FUND	EQUITY	ACCENTURE PLC CL A	2,682,151.21	19,021	0.42		0
MML EQUITY INDEX FUND	EQUITY	VERISK ANALYTICS INC	534,405.04	4,901	0.08		0
MML EQUITY INDEX FUND	EQUITY	MERCK + CO. INC.	5,936,674.95	77,695	0.92		0
MML EQUITY INDEX FUND	EQUITY	DOLLAR GENERAL CORP	842,807.84	7,798	0.13		0
MML EQUITY INDEX FUND	EQUITY	FORTINET INC	300,947.39	4,273	0.05		0
MML EQUITY INDEX FUND	EQUITY	BERKSHIRE HATHAWAY INC CL B	11,867,349.96	58,122	1.84		0
MML EQUITY INDEX FUND	EQUITY	STANLEY BLACK + DECKER INC	536,554.94	4,481	0.08		0
MML EQUITY INDEX FUND	EQUITY	LYONDELLBASELL INDU CL A	780,706.08	9,388	0.12		0
MML EQUITY INDEX FUND	EQUITY	E TRADE FINANCIAL CORP	332,434.88	7,576	0.05		0
MML EQUITY INDEX FUND	EQUITY	NEXTERA ENERGY INC	2,479,020.84	14,262	0.38		0
MML EQUITY INDEX FUND	EQUITY	CBOE GLOBAL MARKETS INC	325,480.41	3,327	0.05		0
MML EQUITY INDEX FUND	EQUITY	GARMIN LTD	228,205.28	3,604	0.04		0
MML EQUITY INDEX FUND	EQUITY	SEAGATE TECHNOLOGY	299,805.71	7,769	0.05		0
MML EQUITY INDEX FUND	EQUITY	UNITED CONTINENTAL HOLDINGS	570,703.68	6,816	0.09		0
MML EQUITY INDEX FUND	EQUITY	GENERAL MOTORS CO	1,313,982.90	39,282	0.20		0
MML EQUITY INDEX FUND	EQUITY	NIELSEN HOLDINGS PLC	247,274.67	10,599	0.04		0
MML EQUITY INDEX FUND	EQUITY	WELLTOWER INC	779,543.71	11,231	0.12		0
MML EQUITY INDEX FUND	EQUITY	ALPHABET INC CL C	9,518,291.51	9,191	1.48		0
MML EQUITY INDEX FUND	EQUITY	ALPHABET INC CL A	9,332,537.76	8,931	1.45		0
MML EQUITY INDEX FUND	EQUITY	HEWLETT PACKARD ENTERPRISE	561,702.41	42,521	0.09		0
MML EQUITY INDEX FUND	EQUITY	HP INC	971,686.32	47,492	0.15		0
MML EQUITY INDEX FUND	EQUITY	WILLIS TOWERS WATSON PLC	592,254.00	3,900	0.09		0
MML EQUITY INDEX FUND	EQUITY	CHUBB LTD	1,779,712.86	13,777	0.28		0
MML EQUITY INDEX FUND	EQUITY	AMERISOURCEBERGEN CORP	348,192.00	4,680	0.05		0
MML EQUITY INDEX FUND	EQUITY	CHEVRON CORP	6,210,277.15	57,085	0.96		0
MML EQUITY INDEX FUND	EQUITY	PRINCIPAL FINANCIAL GROUP	347,971.26	7,878	0.05		0
MML EQUITY INDEX FUND	EQUITY	FOOT LOCKER INC	185,880.80	3,494	0.03		0
MML EQUITY INDEX FUND	EQUITY	TRANSDIGM GROUP INC	490,366.52	1,442	0.08		0
MML EQUITY INDEX FUND	EQUITY	HESS CORP	303,385.50	7,491	0.05		0
MML EQUITY INDEX FUND	EQUITY	MASTERCARD INC A	5,125,809.15	27,171	0.80		0
MML EQUITY INDEX FUND	EQUITY	HANESBRANDS INC	133,557.27	10,659	0.02		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY INDEX FUND	EQUITY	WESTERN UNION CO	223,298.34	13,089	0.03	0	
MML EQUITY INDEX FUND	EQUITY	IPG PHOTONICS CORP	118,841.21	1,049	0.02	0	
MML EQUITY INDEX FUND	EQUITY	TRAVELERS COS INC/THE	948,060.75	7,917	0.15	0	
MML EQUITY INDEX FUND	EQUITY	UDR INC	328,766.76	8,298	0.05	0	
MML EQUITY INDEX FUND	EQUITY	BROADRIDGE FINANCIAL SOLUTIO	335,623.75	3,487	0.05	0	
MML EQUITY INDEX FUND	EQUITY	PEOPLE S UNITED FINANCIAL	159,869.97	11,079	0.02	0	
MML EQUITY INDEX FUND	EQUITY	DELTA AIR LINES INC	934,826.60	18,734	0.15	0	
MML EQUITY INDEX FUND	EQUITY	MACY S INC	269,836.58	9,061	0.04	0	
MML EQUITY INDEX FUND	EQUITY	DISCOVER FINANCIAL SERVICES	591,333.48	10,026	0.09	0	
MML EQUITY INDEX FUND	EQUITY	BANK OF NEW YORK MELLON CORP	1,276,067.70	27,110	0.20	0	
MML EQUITY INDEX FUND	EQUITY	CME GROUP INC	2,011,002.80	10,690	0.31	0	
MML EQUITY INDEX FUND	EQUITY	CONCHO RESOURCES INC	612,011.66	5,954	0.09	0	
MML EQUITY INDEX FUND	EQUITY	HCP INC	399,706.23	14,311	0.06	0	
MML EQUITY INDEX FUND	EQUITY	ULTA BEAUTY INC	414,024.44	1,691	0.06	0	
MML EQUITY INDEX FUND	EQUITY	MSCI INC	388,183.19	2,633	0.06	0	
MML EQUITY INDEX FUND	EQUITY	INVESCO LTD	203,374.26	12,149	0.03	0	
MML EQUITY INDEX FUND	EQUITY	DISH NETWORK CORP A	169,096.84	6,772	0.03	0	
MML EQUITY INDEX FUND	EQUITY	DOLLAR TREE INC	645,697.68	7,149	0.10	0	
MML EQUITY INDEX FUND	EQUITY	PHILIP MORRIS INTERNATIONAL	3,099,600.04	46,429	0.48	0	
MML EQUITY INDEX FUND	EQUITY	VISA INC CLASS A SHARES	6,926,586.12	52,498	1.07	0	
MML EQUITY INDEX FUND	EQUITY	NETAPP INC	449,315.10	7,530	0.07	0	
MML EQUITY INDEX FUND	EQUITY	ADVANCE AUTO PARTS INC	344,837.40	2,190	0.05	0	
MML EQUITY INDEX FUND	EQUITY	PRUDENTIAL FINANCIAL INC	1,003,146.55	12,301	0.16	0	
MML EQUITY INDEX FUND	EQUITY	CENTENE CORP	709,325.60	6,152	0.11	0	
MML EQUITY INDEX FUND	EQUITY	3M CO	3,310,441.96	17,374	0.51	0	
MML EQUITY INDEX FUND	EQUITY	NOBLE ENERGY INC	268,812.04	14,329	0.04	0	
MML EQUITY INDEX FUND	EQUITY	YUM BRANDS INC	856,510.56	9,318	0.13	0	
MML EQUITY INDEX FUND	EQUITY	NETFLIX INC	3,487,877.46	13,031	0.54	0	
MML EQUITY INDEX FUND	EQUITY	JM SMUCKER CO/THE	314,126.40	3,360	0.05	0	
MML EQUITY INDEX FUND	EQUITY	SKYWORKS SOLUTIONS INC	353,195.40	5,270	0.05	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY INDEX FUND	EQUITY	CF INDUSTRIES HOLDINGS INC	300,306.02	6,902	0.05		0
MML EQUITY INDEX FUND	EQUITY	AMERIPRISE FINANCIAL INC	429,691.29	4,117	0.07		0
MML EQUITY INDEX FUND	EQUITY	C.H. ROBINSON WORLDWIDE INC	346,282.62	4,118	0.05		0
MML EQUITY INDEX FUND	EQUITY	AT+T INC	6,207,250.22	217,493	0.96		0
MML EQUITY INDEX FUND	EQUITY	EQUITY RESIDENTIAL	728,024.29	11,029	0.11		0
MML EQUITY INDEX FUND	EQUITY	HOST HOTELS + RESORTS INC	365,373.06	21,918	0.06		0
MML EQUITY INDEX FUND	EQUITY	SL GREEN REALTY CORP	197,304.60	2,495	0.03		0
MML EQUITY INDEX FUND	EQUITY	DUKE REALTY CORP	273,141.40	10,546	0.04		0
MML EQUITY INDEX FUND	EQUITY	PUBLIC STORAGE	906,594.39	4,479	0.14		0
MML EQUITY INDEX FUND	EQUITY	SIMON PROPERTY GROUP INC	1,547,691.87	9,213	0.24		0
MML EQUITY INDEX FUND	EQUITY	AIR PRODUCTS + CHEMICALS INC	1,047,047.10	6,542	0.16		0
MML EQUITY INDEX FUND	EQUITY	AUTOMATIC DATA PROCESSING	1,718,458.72	13,106	0.27		0
MML EQUITY INDEX FUND	EQUITY	CATERPILLAR INC	2,236,940.28	17,604	0.35		0
MML EQUITY INDEX FUND	EQUITY	COLGATE PALMOLIVE CO	1,545,198.72	25,961	0.24		0
MML EQUITY INDEX FUND	EQUITY	ECOLAB INC	1,122,659.65	7,619	0.17		0
MML EQUITY INDEX FUND	EQUITY	JACOBS ENGINEERING GROUP INC	208,409.90	3,565	0.03		0
MML EQUITY INDEX FUND	EQUITY	LABORATORY CRP OF AMER HLDGS	382,365.36	3,026	0.06		0
MML EQUITY INDEX FUND	EQUITY	CAMPBELL SOUP CO	187,746.09	5,691	0.03		0
MML EQUITY INDEX FUND	EQUITY	PARKER HANNIFIN CORP	586,567.62	3,933	0.09		0
MML EQUITY INDEX FUND	EQUITY	VF CORP	690,856.56	9,684	0.11		0
MML EQUITY INDEX FUND	EQUITY	TYSON FOODS INC CL A	470,026.80	8,802	0.07		0
MML EQUITY INDEX FUND	EQUITY	DANAHER CORP	1,900,914.08	18,434	0.29		0
MML EQUITY INDEX FUND	EQUITY	SEALED AIR CORP	166,047.44	4,766	0.03		0
MML EQUITY INDEX FUND	EQUITY	REPUBLIC SERVICES INC	465,917.67	6,463	0.07		0
MML EQUITY INDEX FUND	EQUITY	AKAMAI TECHNOLOGIES INC	297,887.16	4,877	0.05		0
MML EQUITY INDEX FUND	EQUITY	BLACKROCK INC	1,422,794.04	3,622	0.22		0
MML EQUITY INDEX FUND	EQUITY	MARTIN MARIETTA MATERIALS	320,021.94	1,862	0.05		0
MML EQUITY INDEX FUND	EQUITY	AGILENT TECHNOLOGIES INC	648,290.60	9,610	0.10		0
MML EQUITY INDEX FUND	EQUITY	PACCAR INC	594,598.84	10,406	0.09		0
MML EQUITY INDEX FUND	EQUITY	MICROCHIP TECHNOLOGY INC	509,984.72	7,091	0.08		0
MML EQUITY INDEX FUND	EQUITY	NATIONAL OILWELL VARCO INC	290,384.30	11,299	0.05		0
MML EQUITY INDEX FUND	EQUITY	STARBUCKS CORP	2,387,050.40	37,066	0.37		0
MML EQUITY INDEX FUND	EQUITY	RAYMOND JAMES FINANCIAL INC	283,650.92	3,812	0.04		0
MML EQUITY INDEX FUND	EQUITY	LEGGETT + PLATT INC	139,166.72	3,883	0.02		0
MML EQUITY INDEX FUND	EQUITY	VERIZON COMMUNICATIONS INC	6,941,202.30	123,465	1.08		0
MML EQUITY INDEX FUND	EQUITY	KANSAS CITY SOUTHERN	289,690.75	3,035	0.04		0
MML EQUITY INDEX FUND	EQUITY	JUNIPER NETWORKS INC	277,899.57	10,327	0.04		0
MML EQUITY INDEX FUND	EQUITY	NEWFIELD EXPLORATION CO	86,611.28	5,908	0.01		0
MML EQUITY INDEX FUND	EQUITY	KOHL'S CORP	330,107.84	4,976	0.05		0
MML EQUITY INDEX FUND	EQUITY	MAXIM INTEGRATED PRODUCTS	419,868.45	8,257	0.07		0
MML EQUITY INDEX FUND	EQUITY	PPG INDUSTRIES INC	735,340.39	7,193	0.11		0
MML EQUITY INDEX FUND	EQUITY	QUALCOMM INC	2,060,768.01	36,211	0.32		0
MML EQUITY INDEX FUND	EQUITY	ROCKWELL AUTOMATION INC	541,126.08	3,596	0.08		0
MML EQUITY INDEX FUND	EQUITY	SOUTHWEST AIRLINES CO	701,336.72	15,089	0.11		0
MML EQUITY INDEX FUND	EQUITY	SUNTRUST BANKS INC	677,812.72	13,438	0.11		0
MML EQUITY INDEX FUND	EQUITY	TJX COMPANIES INC	1,652,024.50	36,925	0.26		0
MML EQUITY INDEX FUND	EQUITY	UNITEDHEALTH GROUP INC	7,157,466.72	28,731	1.11		0
MML EQUITY INDEX FUND	EQUITY	AUTODESK INC	843,424.38	6,558	0.13		0
MML EQUITY INDEX FUND	EQUITY	UNDER ARMOUR INC CLASS A	97,202.67	5,501	0.02		0
MML EQUITY INDEX FUND	EQUITY	QUANTA SERVICES INC	133,222.60	4,426	0.02		0
MML EQUITY INDEX FUND	EQUITY	ILLUMINA INC	1,312,493.68	4,376	0.20		0
MML EQUITY INDEX FUND	EQUITY	FORD MOTOR CO	893,573.55	116,807	0.14		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY INDEX FUND	EQUITY	XCEL ENERGY INC	753,190.49	15,287	0.12		0
MML EQUITY INDEX FUND	EQUITY	MOODY S CORP	701,320.32	5,008	0.11		0
MML EQUITY INDEX FUND	EQUITY	CONSTELLATION BRANDS INC A	799,114.58	4,969	0.12		0
MML EQUITY INDEX FUND	EQUITY	NASDAQ INC	281,987.49	3,457	0.04		0
MML EQUITY INDEX FUND	EQUITY	DAVITA INC	194,415.88	3,778	0.03		0
MML EQUITY INDEX FUND	EQUITY	EXELON CORP	1,297,978.00	28,780	0.20		0
MML EQUITY INDEX FUND	EQUITY	FLUOR CORP	133,919.80	4,159	0.02		0
MML EQUITY INDEX FUND	EQUITY	T ROWE PRICE GROUP INC	659,534.08	7,144	0.10		0
MML EQUITY INDEX FUND	EQUITY	JPMORGAN CHASE + CO	9,698,254.14	99,347	1.50		0
MML EQUITY INDEX FUND	EQUITY	GLOBAL PAYMENTS INC	486,670.47	4,719	0.08		0
MML EQUITY INDEX FUND	EQUITY	ALIGN TECHNOLOGY INC	455,091.39	2,173	0.07		0
MML EQUITY INDEX FUND	EQUITY	REGENCY CENTERS CORP	294,573.60	5,020	0.05		0
MML EQUITY INDEX FUND	EQUITY	US BANCORP	2,069,981.50	45,295	0.32		0
MML EQUITY INDEX FUND	EQUITY	RAYTHEON COMPANY	1,302,861.60	8,496	0.20		0
MML EQUITY INDEX FUND	EQUITY	ALLIANCE DATA SYSTEMS CORP	214,014.08	1,426	0.03		0
MML EQUITY INDEX FUND	EQUITY	ZIMMER BIOMET HOLDINGS INC	633,418.04	6,107	0.10		0
MML EQUITY INDEX FUND	EQUITY	RESMED INC	480,759.14	4,222	0.07		0
MML EQUITY INDEX FUND	EQUITY	ROLLINS INC	158,009.70	4,377	0.02		0
MML EQUITY INDEX FUND	EQUITY	TAKE TWO INTERACTIVE SOFTWARE	348,246.02	3,383	0.05		0
MML EQUITY INDEX FUND	EQUITY	VARIAN MEDICAL SYSTEMS INC	306,616.86	2,706	0.05		0
MML EQUITY INDEX FUND	EQUITY	VERTEX PHARMACEUTICALS INC	1,268,344.34	7,654	0.20		0
MML EQUITY INDEX FUND	EQUITY	WESTERN DIGITAL CORP	320,308.08	8,664	0.05		0
MML EQUITY INDEX FUND	EQUITY	ALEXANDRIA REAL ESTATE EQUIT	371,764.24	3,226	0.06		0
MML EQUITY INDEX FUND	EQUITY	AMPHENOL CORP CL A	732,339.78	9,039	0.11		0
MML EQUITY INDEX FUND	EQUITY	GENERAL MILLS INC	691,691.22	17,763	0.11		0
MML EQUITY INDEX FUND	EQUITY	GOLDMAN SACHS GROUP INC	1,727,965.20	10,344	0.27		0
MML EQUITY INDEX FUND	EQUITY	PAYCHEX INC	626,286.95	9,613	0.10		0
MML EQUITY INDEX FUND	EQUITY	ROSS STORES INC	931,756.80	11,199	0.14		0
MML EQUITY INDEX FUND	EQUITY	SCHLUMBERGER LTD	1,493,856.32	41,404	0.23		0
MML EQUITY INDEX FUND	EQUITY	ADVANCED MICRO DEVICES	485,239.56	26,286	0.08		0
MML EQUITY INDEX FUND	EQUITY	AUTOZONE INC	630,431.68	752	0.10		0
MML EQUITY INDEX FUND	EQUITY	AVERY DENNISON CORP	233,917.32	2,604	0.04		0
MML EQUITY INDEX FUND	EQUITY	BOEING CO/THE	5,090,017.50	15,783	0.79		0
MML EQUITY INDEX FUND	EQUITY	CORNING INC	728,272.47	24,107	0.11		0
MML EQUITY INDEX FUND	EQUITY	DOVER CORP	311,186.70	4,386	0.05		0
MML EQUITY INDEX FUND	EQUITY	EQUIFAX INC	331,356.54	3,558	0.05		0
MML EQUITY INDEX FUND	EQUITY	FEDEX CORP	1,166,415.90	7,230	0.18		0
MML EQUITY INDEX FUND	EQUITY	FISERV INC	870,709.52	11,848	0.14		0
MML EQUITY INDEX FUND	EQUITY	HALLIBURTON CO	695,572.02	26,169	0.11		0
MML EQUITY INDEX FUND	EQUITY	HERSHEY CO/THE	453,264.22	4,229	0.07		0
MML EQUITY INDEX FUND	EQUITY	KLA TENCOR CORP	412,548.90	4,610	0.06		0
MML EQUITY INDEX FUND	EQUITY	VULCAN MATERIALS CO	386,209.20	3,909	0.06		0
MML EQUITY INDEX FUND	EQUITY	WEYERHAEUSER CO	486,472.44	22,254	0.08		0
MML EQUITY INDEX FUND	EQUITY	WILLIAMS COS INC	792,631.35	35,947	0.12		0
MML EQUITY INDEX FUND	EQUITY	XILINX INC	647,888.19	7,607	0.10		0
MML EQUITY INDEX FUND	EQUITY	VERISIGN INC	473,786.55	3,195	0.07		0
MML EQUITY INDEX FUND	EQUITY	HARTFORD FINANCIAL SVCS GRP	470,858.85	10,593	0.07		0
MML EQUITY INDEX FUND	EQUITY	ELECTRONIC ARTS INC	716,108.25	9,075	0.11		0
MML EQUITY INDEX FUND	EQUITY	AFLAC INC	1,032,981.88	22,673	0.16		0
MML EQUITY INDEX FUND	EQUITY	METLIFE INC	1,212,501.80	29,530	0.19		0
MML EQUITY INDEX FUND	EQUITY	MGM RESORTS INTERNATIONAL	359,314.86	14,811	0.06		0
MML EQUITY INDEX FUND	EQUITY	SCHWAB (CHARLES) CORP	1,494,249.40	35,980	0.23		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY INDEX FUND	EQUITY	ADOBE INC	3,295,411.84	14,566	0.51		0
MML EQUITY INDEX FUND	EQUITY	HORMEL FOODS CORP	350,786.92	8,219	0.05		0
MML EQUITY INDEX FUND	EQUITY	MCCORMICK + CO NON VTG SHRS	509,061.44	3,656	0.08		0
MML EQUITY INDEX FUND	EQUITY	UNITED TECHNOLOGIES CORP	2,584,482.56	24,272	0.40		0
MML EQUITY INDEX FUND	EQUITY	WASTE MANAGEMENT INC	1,047,056.34	11,766	0.16		0
MML EQUITY INDEX FUND	EQUITY	WHIRLPOOL CORP	203,907.96	1,908	0.03		0
MML EQUITY INDEX FUND	EQUITY	AMERICAN EXPRESS CO	1,990,853.52	20,886	0.31		0
MML EQUITY INDEX FUND	EQUITY	COCA COLA CO/THE	5,417,029.40	114,404	0.84		0
MML EQUITY INDEX FUND	EQUITY	MARRIOTT INTERNATIONAL CL A	919,394.64	8,469	0.14		0
MML EQUITY INDEX FUND	EQUITY	NIKE INC CL B	2,822,139.10	38,065	0.44		0
MML EQUITY INDEX FUND	EQUITY	ANALOG DEVICES INC	950,910.57	11,079	0.15		0
MML EQUITY INDEX FUND	EQUITY	CARDINAL HEALTH INC	397,341.40	8,909	0.06		0
MML EQUITY INDEX FUND	EQUITY	HARLEY DAVIDSON INC	167,972.76	4,923	0.03		0
MML EQUITY INDEX FUND	EQUITY	INTERPUBLIC GROUP OF COS INC	235,243.89	11,403	0.04		0
MML EQUITY INDEX FUND	EQUITY	KROGER CO	651,420.00	23,688	0.10		0
MML EQUITY INDEX FUND	EQUITY	PEPSICO INC	4,657,947.28	42,161	0.72		0
MML EQUITY INDEX FUND	EQUITY	UNITED PARCEL SERVICE CL B	2,025,893.16	20,772	0.31		0
MML EQUITY INDEX FUND	EQUITY	SHERWIN WILLIAMS CO/THE	970,665.82	2,467	0.15		0
MML EQUITY INDEX FUND	EQUITY	NEWELL BRANDS INC	240,443.06	12,934	0.04		0
MML EQUITY INDEX FUND	EQUITY	SNAP ON INC	243,215.46	1,674	0.04		0
MML EQUITY INDEX FUND	EQUITY	ANADARKO PETROLEUM CORP	658,608.32	15,023	0.10		0
MML EQUITY INDEX FUND	EQUITY	DEERE + CO	1,436,656.27	9,631	0.22		0
MML EQUITY INDEX FUND	EQUITY	KIMCO REALTY CORP	184,004.00	12,560	0.03		0
MML EQUITY INDEX FUND	EQUITY	TIFFANY + CO	260,932.91	3,241	0.04		0
MML EQUITY INDEX FUND	EQUITY	VORNADO REALTY TRUST	317,159.39	5,113	0.05		0
MML EQUITY INDEX FUND	EQUITY	ZIONS BANCORP NA	237,554.94	5,831	0.04		0
MML EQUITY INDEX FUND	EQUITY	AVALONBAY COMMUNITIES INC	720,044.85	4,137	0.11		0
MML EQUITY INDEX FUND	EQUITY	BOSTON PROPERTIES INC	522,907.30	4,646	0.08		0
MML EQUITY INDEX FUND	EQUITY	PFIZER INC	7,538,835.15	172,711	1.17		0
MML EQUITY INDEX FUND	EQUITY	WALMART INC	3,961,669.50	42,530	0.61		0
MML EQUITY INDEX FUND	EQUITY	WATERS CORP	426,914.95	2,263	0.07		0
MML EQUITY INDEX FUND	EQUITY	WELLS FARGO + CO	5,832,529.92	126,574	0.90		0
MML EQUITY INDEX FUND	EQUITY	BAXTER INTERNATIONAL INC	972,490.50	14,775	0.15		0
MML EQUITY INDEX FUND	EQUITY	H+R BLOCK INC	155,974.76	6,148	0.02		0
MML EQUITY INDEX FUND	EQUITY	GENUINE PARTS CO	416,726.80	4,340	0.06		0
MML EQUITY INDEX FUND	EQUITY	INTL FLAVORS + FRAGRANCES	403,884.16	3,008	0.06		0
MML EQUITY INDEX FUND	EQUITY	KIMBERLY CLARK CORP	1,177,228.08	10,332	0.18		0
MML EQUITY INDEX FUND	EQUITY	MASCO CORP	268,510.92	9,183	0.04		0
MML EQUITY INDEX FUND	EQUITY	PNC FINANCIAL SERVICES GROUP	1,613,474.91	13,801	0.25		0
MML EQUITY INDEX FUND	EQUITY	TORCHMARK CORP	232,906.25	3,125	0.04		0
MML EQUITY INDEX FUND	EQUITY	BANK OF AMERICA CORP	6,718,859.84	272,681	1.04		0
MML EQUITY INDEX FUND	EQUITY	EMERSON ELECTRIC CO	1,123,718.25	18,807	0.17		0
MML EQUITY INDEX FUND	EQUITY	WW GRAINGER INC	381,468.36	1,351	0.06		0
MML EQUITY INDEX FUND	EQUITY	HARRIS CORP	472,890.80	3,512	0.07		0
MML EQUITY INDEX FUND	EQUITY	INTL BUSINESS MACHINES CORP	3,083,526.09	27,127	0.48		0
MML EQUITY INDEX FUND	CASH	US DOLLAR	704,750.05	704,750	0.11		0
MML EQUITY INDEX FUND	EQUITY	EDWARDS LIFESCIENCES CORP	954,861.78	6,234	0.15		0
MML EQUITY INDEX FUND	EQUITY	ABBOTT LABORATORIES	3,795,950.73	52,481	0.59		0
MML EQUITY INDEX FUND	EQUITY	BRISTOL MYERS SQUIBB CO	2,535,428.46	48,777	0.39		0
MML EQUITY INDEX FUND	EQUITY	ILLINOIS TOOL WORKS	1,160,353.71	9,159	0.18		0
MML EQUITY INDEX FUND	EQUITY	LOWE S COS INC	2,214,700.44	23,979	0.34		0
MML EQUITY INDEX FUND	EQUITY	MARSH + MCLENNAN COS	1,196,808.25	15,007	0.19		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY INDEX FUND	EQUITY	MATTEL INC	101,638.26	10,174	0.02		0
MML EQUITY INDEX FUND	EQUITY	NUCOR CORP	487,480.29	9,409	0.08		0
MML EQUITY INDEX FUND	EQUITY	SYSCO CORP	898,105.78	14,333	0.14		0
MML EQUITY INDEX FUND	EQUITY	TEXAS INSTRUMENTS INC	2,711,583.00	28,694	0.42		0
MML EQUITY INDEX FUND	EQUITY	TEXTRON INC	330,024.24	7,176	0.05		0
MML EQUITY INDEX FUND	EQUITY	CADENCE DESIGN SYS INC	362,579.72	8,339	0.06		0
MML EQUITY INDEX FUND	EQUITY	COSTCO WHOLESALE CORP	2,666,971.32	13,092	0.41		0
MML EQUITY INDEX FUND	EQUITY	INTEL CORP	6,398,483.13	136,341	0.99		0
MML EQUITY INDEX FUND	EQUITY	JOHNSON + JOHNSON	10,340,389.35	80,127	1.60		0
MML EQUITY INDEX FUND	EQUITY	ELI LILLY + CO	3,259,716.68	28,169	0.51		0
MML EQUITY INDEX FUND	EQUITY	MCDONALD S CORP	4,093,876.35	23,055	0.64		0
MML EQUITY INDEX FUND	EQUITY	STATE STREET CORP	721,205.45	11,435	0.11		0
MML EQUITY INDEX FUND	EQUITY	SYNOPSIS INC	371,329.92	4,408	0.06		0
MML EQUITY INDEX FUND	EQUITY	TARGET CORP	1,033,845.87	15,643	0.16		0
MML EQUITY INDEX FUND	EQUITY	APARTMENT INVT + MGMT CO A	203,690.96	4,642	0.03		0
MML EQUITY INDEX FUND	EQUITY	BALL CORP	465,087.70	10,115	0.07		0
MML EQUITY INDEX FUND	EQUITY	ESSEX PROPERTY TRUST INC	488,213.11	1,991	0.08		0
MML EQUITY INDEX FUND	EQUITY	FEDERAL REALTY INVS TRUST	264,763.72	2,243	0.04		0
MML EQUITY INDEX FUND	EQUITY	GILEAD SCIENCES INC	2,414,054.70	38,594	0.37		0
MML EQUITY INDEX FUND	EQUITY	MACERICH CO/THE	138,885.52	3,209	0.02		0
MML EQUITY INDEX FUND	EQUITY	METTLER TOLEDO INTERNATIONAL	424,750.58	751	0.07		0
MML EQUITY INDEX FUND	EQUITY	NVIDIA CORP	2,433,304.50	18,227	0.38		0
MML EQUITY INDEX FUND	EQUITY	SYMANTEC CORP	361,159.03	19,114	0.06		0
MML EQUITY INDEX FUND	EQUITY	AFFILIATED MANAGERS GROUP	156,586.08	1,607	0.02		0
MML EQUITY INDEX FUND	EQUITY	ALEXION PHARMACEUTICALS INC	648,807.04	6,664	0.10		0
MML EQUITY INDEX FUND	EQUITY	AMETEK INC	473,629.20	6,996	0.07		0
MML EQUITY INDEX FUND	EQUITY	ANSYS INC	355,205.90	2,485	0.06		0
MML EQUITY INDEX FUND	EQUITY	APPLIED MATERIALS INC	956,957.46	29,229	0.15		0
MML EQUITY INDEX FUND	EQUITY	CABOT OIL + GAS CORP	288,113.85	12,891	0.04		0
MML EQUITY INDEX FUND	EQUITY	CELGENE CORP	1,339,865.54	20,906	0.21		0
MML EQUITY INDEX FUND	EQUITY	CERNER CORP	513,649.80	9,795	0.08		0
MML EQUITY INDEX FUND	EQUITY	CHURCH + DWIGHT CO INC	486,032.16	7,391	0.08		0
MML EQUITY INDEX FUND	EQUITY	COGNIZANT TECH SOLUTIONS A	1,101,631.92	17,354	0.17		0
MML EQUITY INDEX FUND	EQUITY	COOPER COS INC/THE	379,205.00	1,490	0.06		0
MML EQUITY INDEX FUND	EQUITY	FLIR SYSTEMS INC	176,728.86	4,059	0.03		0
MML EQUITY INDEX FUND	EQUITY	FLOWSERVE CORP	147,137.40	3,870	0.02		0
MML EQUITY INDEX FUND	EQUITY	ARTHUR J GALLAGHER + CO	407,929.50	5,535	0.06		0
MML EQUITY INDEX FUND	EQUITY	JACK HENRY + ASSOCIATES INC	290,236.88	2,294	0.05		0
MML EQUITY INDEX FUND	EQUITY	IDEXX LABORATORIES INC	477,885.38	2,569	0.07		0
MML EQUITY INDEX FUND	EQUITY	INCYTE CORP	330,922.36	5,204	0.05		0
MML EQUITY INDEX FUND	EQUITY	MID AMERICA APARTMENT COMM	321,552.00	3,360	0.05		0
MML EQUITY INDEX FUND	EQUITY	PERKINELMER INC	257,015.60	3,272	0.04		0
MML EQUITY INDEX FUND	EQUITY	REALTY INCOME CORP	557,021.44	8,836	0.09		0
MML EQUITY INDEX FUND	EQUITY	ROPER TECHNOLOGIES INC	821,681.16	3,083	0.13		0
MML EQUITY INDEX FUND	EQUITY	EVEREST RE GROUP LTD	263,925.12	1,212	0.04		0
MML EQUITY INDEX FUND	EQUITY	ALASKA AIR GROUP INC	221,859.10	3,646	0.03		0
MML EQUITY INDEX FUND	EQUITY	ALBEMARLE CORP	245,005.53	3,179	0.04		0
MML EQUITY INDEX FUND	EQUITY	ALLSTATE CORP	848,527.47	10,269	0.13		0
MML EQUITY INDEX FUND	EQUITY	AMEREN CORPORATION	479,766.65	7,355	0.07		0
MML EQUITY INDEX FUND	EQUITY	AMERICAN ELECTRIC POWER	1,101,368.64	14,736	0.17		0
MML EQUITY INDEX FUND	EQUITY	APACHE CORP	296,703.75	11,303	0.05		0
MML EQUITY INDEX FUND	EQUITY	ARCHER DANIELS MIDLAND CO	685,837.80	16,740	0.11		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY INDEX FUND	EQUITY	CMS ENERGY CORP	424,457.85	8,549	0.07	0	
MML EQUITY INDEX FUND	EQUITY	CSX CORP	1,490,995.74	23,998	0.23	0	
MML EQUITY INDEX FUND	EQUITY	CINCINNATI FINANCIAL CORP	352,028.74	4,547	0.05	0	
MML EQUITY INDEX FUND	EQUITY	CONSOLIDATED EDISON INC	712,224.90	9,315	0.11	0	
MML EQUITY INDEX FUND	EQUITY	CUMMINS INC	585,877.76	4,384	0.09	0	
MML EQUITY INDEX FUND	EQUITY	DR HORTON INC	352,076.28	10,158	0.05	0	
MML EQUITY INDEX FUND	EQUITY	DTE ENERGY COMPANY	601,686.50	5,455	0.09	0	
MML EQUITY INDEX FUND	EQUITY	DEVON ENERGY CORP	313,689.18	13,917	0.05	0	
MML EQUITY INDEX FUND	EQUITY	DOMINION ENERGY INC	1,400,044.32	19,592	0.22	0	
MML EQUITY INDEX FUND	EQUITY	EASTMAN CHEMICAL CO	308,743.53	4,223	0.05	0	
MML EQUITY INDEX FUND	EQUITY	ENTERGY CORP	470,114.34	5,462	0.07	0	
MML EQUITY INDEX FUND	EQUITY	FMC CORP	294,286.84	3,979	0.05	0	
MML EQUITY INDEX FUND	EQUITY	FIRSTENERGY CORP	544,963.15	14,513	0.08	0	
MML EQUITY INDEX FUND	EQUITY	GOODYEAR TIRE + RUBBER CO	144,788.54	7,094	0.02	0	
MML EQUITY INDEX FUND	EQUITY	HELMERICH + PAYNE	154,366.80	3,220	0.02	0	
MML EQUITY INDEX FUND	EQUITY	HUMANA INC	1,175,140.96	4,102	0.18	0	
MML EQUITY INDEX FUND	EQUITY	INTL PAPER CO	486,781.96	12,061	0.08	0	
MML EQUITY INDEX FUND	EQUITY	KEYCORP	454,115.50	30,725	0.07	0	
MML EQUITY INDEX FUND	EQUITY	LAM RESEARCH CORP	628,424.55	4,615	0.10	0	
MML EQUITY INDEX FUND	EQUITY	LENNAR CORP A	340,448.40	8,696	0.05	0	
MML EQUITY INDEX FUND	EQUITY	LOCKHEED MARTIN CORP	1,931,331.84	7,376	0.30	0	
MML EQUITY INDEX FUND	EQUITY	NORFOLK SOUTHERN CORP	1,218,451.92	8,148	0.19	0	
MML EQUITY INDEX FUND	EQUITY	NORTHROP GRUMMAN CORP	1,270,786.10	5,189	0.20	0	
MML EQUITY INDEX FUND	EQUITY	OCCIDENTAL PETROLEUM CORP	1,385,039.70	22,565	0.21	0	
MML EQUITY INDEX FUND	EQUITY	UNIVERSAL HEALTH SERVICES B	300,491.68	2,578	0.05	0	
MML EQUITY INDEX FUND	EQUITY	BECTON DICKINSON AND CO	1,806,165.12	8,016	0.28	0	
MML EQUITY INDEX FUND	EQUITY	CENTURYLINK INC	428,123.85	28,259	0.07	0	
MML EQUITY INDEX FUND	EQUITY	CLOROX COMPANY	590,510.34	3,831	0.09	0	
MML EQUITY INDEX FUND	EQUITY	CONAGRA BRANDS INC	310,702.56	14,546	0.05	0	
MML EQUITY INDEX FUND	EQUITY	FRANKLIN RESOURCES INC	259,673.30	8,755	0.04	0	
MML EQUITY INDEX FUND	EQUITY	GENERAL DYNAMICS CORP	1,311,288.61	8,341	0.20	0	
MML EQUITY INDEX FUND	EQUITY	HASBRO INC	282,750.00	3,480	0.04	0	
MML EQUITY INDEX FUND	EQUITY	HONEYWELL INTERNATIONAL INC	2,918,795.04	22,092	0.45	0	
MML EQUITY INDEX FUND	EQUITY	PROCTER + GAMBLE CO/THE	6,839,307.60	74,405	1.06	0	
MML EQUITY INDEX FUND	EQUITY	AES CORP	282,866.52	19,562	0.04	0	
MML EQUITY INDEX FUND	EQUITY	AMGEN INC	3,709,436.85	19,055	0.58	0	
MML EQUITY INDEX FUND	EQUITY	APPLE INC	21,243,476.76	134,674	3.30	0	
MML EQUITY INDEX FUND	EQUITY	BEST BUY CO INC	370,349.28	6,993	0.06	0	
MML EQUITY INDEX FUND	EQUITY	BOSTON SCIENTIFIC CORP	1,463,111.34	41,401	0.23	0	
MML EQUITY INDEX FUND	EQUITY	CVS HEALTH CORP	2,531,234.16	38,633	0.39	0	
MML EQUITY INDEX FUND	EQUITY	CAPITAL ONE FINANCIAL CORP	1,074,814.21	14,219	0.17	0	
MML EQUITY INDEX FUND	EQUITY	CISCO SYSTEMS INC	5,822,208.77	134,369	0.90	0	
MML EQUITY INDEX FUND	EQUITY	WALT DISNEY CO/THE	4,880,740.80	44,512	0.76	0	
MML EQUITY INDEX FUND	EQUITY	EXXON MOBIL CORP	8,624,807.58	126,482	1.34	0	
MML EQUITY INDEX FUND	EQUITY	GAP INC/THE	165,327.68	6,418	0.03	0	
MML EQUITY INDEX FUND	EQUITY	GENERAL ELECTRIC CO	1,967,662.53	259,929	0.31	0	
MML EQUITY INDEX FUND	EQUITY	HOME DEPOT INC	5,795,144.96	33,728	0.90	0	
MML EQUITY INDEX FUND	EQUITY	MICROSOFT CORP	23,452,513.00	230,900	3.64	0	
MML EQUITY INDEX FUND	EQUITY	MICRON TECHNOLOGY INC	1,062,288.67	33,479	0.16	0	
MML EQUITY INDEX FUND	EQUITY	MORGAN STANLEY	1,550,989.05	39,117	0.24	0	
MML EQUITY INDEX FUND	EQUITY	OMNICOM GROUP	492,319.28	6,722	0.08	0	
MML EQUITY INDEX FUND	EQUITY	ORACLE CORP	3,436,998.60	76,124	0.53	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY INDEX FUND	EQUITY	CINTAS CORP	439,629.83	2,617	0.07		0
MML EQUITY INDEX FUND	EQUITY	ROBERT HALF INTL INC	209,066.00	3,655	0.03		0
MML EQUITY INDEX FUND	EQUITY	FASTENAL CO	444,883.32	8,508	0.07		0
MML EQUITY INDEX FUND	EQUITY	EBAY INC	759,574.20	27,060	0.12		0
MML EQUITY INDEX FUND	EQUITY	BROWN FORMAN CORP CLASS B	238,899.18	5,021	0.04		0
MML EQUITY INDEX FUND	EQUITY	ALLIANT ENERGY CORP	299,003.25	7,077	0.05		0
MML EQUITY INDEX FUND	EQUITY	BORGWARNER INC	216,256.50	6,225	0.03		0
MML EQUITY INDEX FUND	EQUITY	EOG RESOURCES INC	1,511,872.56	17,336	0.23		0
MML EQUITY INDEX FUND	EQUITY	EDISON INTERNATIONAL	556,970.47	9,811	0.09		0
MML EQUITY INDEX FUND	EQUITY	LINCOLN NATIONAL CORP	331,924.39	6,469	0.05		0
MML EQUITY INDEX FUND	EQUITY	LOEWS CORP	373,628.16	8,208	0.06		0
MML EQUITY INDEX FUND	EQUITY	NISOURCE INC	276,492.45	10,907	0.04		0
MML EQUITY INDEX FUND	EQUITY	ONEOK INC	663,746.85	12,303	0.10		0
MML EQUITY INDEX FUND	EQUITY	P G + E CORP	373,088.75	15,709	0.06		0
MML EQUITY INDEX FUND	EQUITY	PPL CORP	609,803.25	21,525	0.09		0
MML EQUITY INDEX FUND	EQUITY	PIONEER NATURAL RESOURCES CO	672,987.84	5,117	0.10		0
MML EQUITY INDEX FUND	EQUITY	PUBLIC SERVICE ENTERPRISE GP	787,568.55	15,131	0.12		0
MML EQUITY INDEX FUND	EQUITY	PULTEGROUP INC	201,916.31	7,769	0.03		0
MML EQUITY INDEX FUND	EQUITY	SCANA CORP	201,583.82	4,219	0.03		0
MML EQUITY INDEX FUND	EQUITY	THERMO FISHER SCIENTIFIC INC	2,693,760.23	12,037	0.42		0
MML EQUITY INDEX FUND	EQUITY	MARATHON OIL CORP	351,803.22	24,533	0.05		0
MML EQUITY INDEX FUND	EQUITY	UNION PACIFIC CORP	3,038,433.63	21,981	0.47		0
MML EQUITY INDEX FUND	EQUITY	UNITED RENTALS INC	253,556.69	2,473	0.04		0
MML EQUITY INDEX FUND	EQUITY	VALERO ENERGY CORP	955,492.65	12,745	0.15		0
MML EQUITY INDEX FUND	EQUITY	COPART INC	293,034.74	6,133	0.05		0
MML EQUITY INDEX FUND	EQUITY	HOLOGIC INC	331,882.50	8,075	0.05		0
MML EQUITY INDEX FUND	EQUITY	HUNT (JB) TRANSPRT SVCS INC	243,299.60	2,615	0.04		0
MML EQUITY INDEX FUND	EQUITY	QUEST DIAGNOSTICS INC	334,495.59	4,017	0.05		0
MML EQUITY INDEX FUND	EQUITY	REGENERON PHARMACEUTICALS	864,279.00	2,314	0.13		0
MML EQUITY INDEX FUND	EQUITY	HENRY SCHEIN INC	357,737.12	4,556	0.06		0
MML EQUITY INDEX FUND	EQUITY	TRACTOR SUPPLY COMPANY	301,218.40	3,610	0.05		0
MML EQUITY INDEX FUND	EQUITY	ABIOMED INC	433,603.36	1,334	0.07		0
MML EQUITY INDEX FUND	EQUITY	TOTAL SYSTEM SERVICES INC	407,181.61	5,009	0.06		0
MML EQUITY INDEX FUND	EQUITY	VENTAS INC	626,737.23	10,697	0.10		0
MML EQUITY INDEX FUND	EQUITY	RED HAT INC	932,999.68	5,312	0.14		0
MML EQUITY INDEX FUND	EQUITY	GARTNER INC	345,040.16	2,699	0.05		0
MML EQUITY INDEX FUND	EQUITY	F5 NETWORKS INC	292,950.24	1,808	0.05		0
MML EQUITY INDEX FUND	EQUITY	INTUIT INC	1,527,949.70	7,762	0.24		0
MML EQUITY INDEX FUND	EQUITY	HUNTINGTON BANCSHARES INC	379,258.64	31,817	0.06		0
MML EQUITY INDEX FUND	EQUITY	STRYKER CORP	1,456,050.75	9,289	0.23		0
MML EQUITY INDEX FUND	EQUITY	ESTEE LAUDER COMPANIES CL A	855,277.40	6,574	0.13		0
MML EQUITY INDEX FUND	EQUITY	CITRIX SYSTEMS INC	390,167.68	3,808	0.06		0
MML EQUITY INDEX FUND	EQUITY	NORTHERN TRUST CORP	554,368.88	6,632	0.09		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY INDEX FUND	EQUITY	BB+T CORP	999,132.48	23,064	0.16	0	
MML EQUITY INDEX FUND	EQUITY	COMERICA INC	330,192.83	4,807	0.05	0	
MML EQUITY INDEX FUND	EQUITY	SEMPRA ENERGY	881,099.36	8,144	0.14	0	
MML EQUITY INDEX FUND	EQUITY	PROGRESSIVE CORP	1,047,871.77	17,369	0.16	0	
MML EQUITY INDEX FUND	EQUITY	AMAZON.COM INC	18,429,171.90	12,270	2.86	0	
MML EQUITY INDEX FUND	EQUITY	MCKESSON CORP	641,720.23	5,809	0.10	0	
MML EQUITY INDEX FUND	EQUITY	MOHAWK INDUSTRIES INC	219,300.00	1,875	0.03	0	
MML EQUITY INDEX FUND	EQUITY	PINNACLE WEST CAPITAL	282,097.20	3,311	0.04	0	
MML EQUITY INDEX FUND	EQUITY	SOUTHERN CO/THE	1,348,519.68	30,704	0.21	0	
MML EQUITY INDEX FUND	EQUITY	UNUM GROUP	192,233.34	6,543	0.03	0	
MML EQUITY INDEX FUND	EQUITY	SMITH (A.O.) CORP	183,225.70	4,291	0.03	0	
MML EQUITY INDEX FUND	EQUITY	DARDEN RESTAURANTS INC	375,273.88	3,758	0.06	0	
MML MANAGED VOLATILITY FUND	EQUITY	HOLOGIC INC	78,953.10	1,921	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	HUNT (JB) TRANSPRT SVCS INC	55,544.88	597	0.03	0	
MML MANAGED VOLATILITY FUND	EQUITY	QUEST DIAGNOSTICS INC	79,439.58	954	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	REGENERON PHARMACEUTICALS	203,557.50	545	0.13	0	
MML MANAGED VOLATILITY FUND	EQUITY	DR HORTON INC	83,877.20	2,420	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	DTE ENERGY COMPANY	141,625.20	1,284	0.09	0	
MML MANAGED VOLATILITY FUND	EQUITY	DEVON ENERGY CORP	75,914.72	3,368	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	TOTAL SYSTEM SERVICES INC	94,946.72	1,168	0.06	0	
MML MANAGED VOLATILITY FUND	EQUITY	VENTAS INC	147,119.49	2,511	0.09	0	
MML MANAGED VOLATILITY FUND	EQUITY	RED HAT INC	220,603.84	1,256	0.14	0	
MML MANAGED VOLATILITY FUND	EQUITY	GARTNER INC	82,201.12	643	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	F5 NETWORKS INC	69,834.93	431	0.04	0	
MML MANAGED VOLATILITY FUND	EQUITY	INTUIT INC	372,833.90	1,894	0.23	0	
MML MANAGED VOLATILITY FUND	EQUITY	HUNTINGTON BANCSHARES INC	92,725.68	7,779	0.06	0	
MML MANAGED VOLATILITY FUND	EQUITY	STRYKER CORP	353,314.50	2,254	0.22	0	
MML MANAGED VOLATILITY FUND	EQUITY	ESTEE LAUDER COMPANIES CL A	205,297.80	1,578	0.13	0	
MML MANAGED VOLATILITY FUND	EQUITY	CITRIX SYSTEMS INC	92,931.22	907	0.06	0	
MML MANAGED VOLATILITY FUND	EQUITY	NORTHERN TRUST CORP	138,842.99	1,661	0.09	0	
MML MANAGED VOLATILITY FUND	EQUITY	NORDSTROM INC	38,546.47	827	0.02	0	
MML MANAGED VOLATILITY FUND	EQUITY	KELLOGG CO	100,394.61	1,761	0.06	0	
MML MANAGED VOLATILITY FUND	EQUITY	M + T BANK CORP	137,547.93	961	0.09	0	
MML MANAGED VOLATILITY FUND	EQUITY	PACKAGING CORP OF AMERICA	55,417.44	664	0.03	0	
MML MANAGED VOLATILITY FUND	EQUITY	EXPEDITORS INTL WASH INC	83,546.43	1,227	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	NEWMONT MINING CORP	130,387.95	3,763	0.08	0	
MML MANAGED VOLATILITY FUND	EQUITY	ROYAL CARIBBEAN CRUISES LTD	117,348.00	1,200	0.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	FIFTH THIRD BANCORP	116,308.79	4,943	0.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	FREEMPORT MCMORAN INC	111,698.54	10,834	0.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	BB+T CORP	242,028.84	5,587	0.15	0	
MML MANAGED VOLATILITY FUND	EQUITY	COMERICA INC	87,511.06	1,274	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	HENRY SCHEIN INC	84,016.40	1,070	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	TRACTOR SUPPLY COMPANY	70,590.24	846	0.04	0	
MML MANAGED VOLATILITY FUND	EQUITY	ABIOMED INC	96,536.88	297	0.06	0	
MML MANAGED VOLATILITY FUND	EQUITY	AFFILIATED MANAGERS GROUP	37,319.52	383	0.02	0	
MML MANAGED VOLATILITY FUND	EQUITY	ALEXION PHARMACEUTICALS INC	152,563.12	1,567	0.09	0	
MML MANAGED VOLATILITY FUND	EQUITY	AMETEK INC	110,351.00	1,630	0.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	ANSYS INC	84,620.48	592	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	APPLIED MATERIALS INC	238,772.82	7,293	0.15	0	
MML MANAGED VOLATILITY FUND	EQUITY	CABOT OIL + GAS CORP	71,095.35	3,181	0.04	0	
MML MANAGED VOLATILITY FUND	EQUITY	CELGENE CORP	326,538.55	5,095	0.20	0	
MML MANAGED VOLATILITY FUND	EQUITY	CERNER CORP	128,478.00	2,450	0.08	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED VOLATILITY FUND	EQUITY	CHURCH + DWIGHT CO INC	113,304.48	1,723	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	COGNIZANT TECH SOLUTIONS A	262,108.92	4,129	0.16		0
MML MANAGED VOLATILITY FUND	EQUITY	COOPER COS INC/THE	87,548.00	344	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	FLIR SYSTEMS INC	42,059.64	966	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	FLOWERVE CORP	34,218.00	900	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	ARTHUR J GALLAGHER + CO	94,778.20	1,286	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	JACK HENRY + ASSOCIATES INC	67,941.24	537	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	IDEXX LABORATORIES INC	113,844.24	612	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	INCYTE CORP	78,788.01	1,239	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	RESMED INC	114,439.35	1,005	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	ROLLINS INC	38,157.70	1,057	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	TAKE TWO INTERACTIVE SOFTWRE	82,866.70	805	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	VARIAN MEDICAL SYSTEMS INC	72,518.40	640	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	VERTEX PHARMACEUTICALS INC	297,449.45	1,795	0.18		0
MML MANAGED VOLATILITY FUND	EQUITY	UNION PACIFIC CORP	736,351.21	5,327	0.46		0
MML MANAGED VOLATILITY FUND	EQUITY	UNITED RENTALS INC	60,390.17	589	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	VALERO ENERGY CORP	227,608.92	3,036	0.14		0
MML MANAGED VOLATILITY FUND	EQUITY	COPART INC	67,895.38	1,421	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	EASTMAN CHEMICAL CO	73,475.55	1,005	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	ENTERGY CORP	109,308.90	1,270	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	FMC CORP	70,040.12	947	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	FIRSTENERGY CORP	136,081.20	3,624	0.08		0
MML MANAGED VOLATILITY FUND	EQUITY	GOODYEAR TIRE + RUBBER CO	34,247.98	1,678	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	HELMERICH + PAYNE	37,297.32	778	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	HUMANA INC	277,885.60	970	0.17		0
MML MANAGED VOLATILITY FUND	EQUITY	INTL PAPER CO	117,931.92	2,922	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	KEYCORP	110,539.62	7,479	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	LAM RESEARCH CORP	146,927.43	1,079	0.09		0
MML MANAGED VOLATILITY FUND	EQUITY	LENNAR CORP A	88,792.20	2,268	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	LOCKHEED MARTIN CORP	470,264.64	1,796	0.29		0
MML MANAGED VOLATILITY FUND	EQUITY	NORFOLK SOUTHERN CORP	297,584.60	1,990	0.18		0
MML MANAGED VOLATILITY FUND	EQUITY	NORTHROP GRUMMAN CORP	310,533.20	1,268	0.19		0
MML MANAGED VOLATILITY FUND	EQUITY	OCCIDENTAL PETROLEUM CORP	331,267.86	5,397	0.20		0
MML MANAGED VOLATILITY FUND	EQUITY	P G + E CORP	86,426.25	3,639	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	PPL CORP	151,395.52	5,344	0.09		0
MML MANAGED VOLATILITY FUND	EQUITY	PIONEER NATURAL RESOURCES CO	157,955.52	1,201	0.10		0
MML MANAGED VOLATILITY FUND	EQUITY	PUBLIC SERVICE ENTERPRISE GP	186,755.40	3,588	0.12		0
MML MANAGED VOLATILITY FUND	EQUITY	PULTEGROUP INC	48,523.33	1,867	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	SCANA CORP	46,346.60	970	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	THERMO FISHER SCIENTIFIC INC	651,676.48	2,912	0.40		0
MML MANAGED VOLATILITY FUND	EQUITY	MARATHON OIL CORP	86,154.72	6,008	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	SEMPRA ENERGY	216,055.43	1,997	0.13		0
MML MANAGED VOLATILITY FUND	EQUITY	PROGRESSIVE CORP	247,594.32	4,104	0.15		0
MML MANAGED VOLATILITY FUND	EQUITY	AMAZON.COM INC	4,444,329.23	2,959	2.75		0
MML MANAGED VOLATILITY FUND	EQUITY	MCKESSON CORP	159,297.74	1,442	0.10		0
MML MANAGED VOLATILITY FUND	EQUITY	MOHAWK INDUSTRIES INC	52,047.20	445	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	CINTAS CORP	102,305.91	609	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	ROBERT HALF INTL INC	49,764.00	870	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	FASTENAL CO	105,834.96	2,024	0.07		0
MML MANAGED VOLATILITY FUND	CASH	CANADIAN DOLLAR	25,037.07	34,181	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	EBAY INC	182,763.77	6,511	0.11		0
MML MANAGED VOLATILITY FUND	EQUITY	BROWN FORMAN CORP CLASS B	53,242.02	1,119	0.03		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED VOLATILITY FUND	EQUITY	ALLIANT ENERGY CORP	83,528.25	1,977	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	BORGWARNER INC	47,975.94	1,381	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	EOG RESOURCES INC	366,630.84	4,204	0.23		0
MML MANAGED VOLATILITY FUND	EQUITY	EDISON INTERNATIONAL	130,684.54	2,302	0.08		0
MML MANAGED VOLATILITY FUND	EQUITY	LINCOLN NATIONAL CORP	78,299.06	1,526	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	LOEWS CORP	95,409.92	2,096	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	NISOURCE INC	74,174.10	2,926	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	ONEOK INC	156,293.15	2,897	0.10		0
MML MANAGED VOLATILITY FUND	EQUITY	PINNACLE WEST CAPITAL	66,967.20	786	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	SOUTHERN CO/THE	324,041.76	7,378	0.20		0
MML MANAGED VOLATILITY FUND	EQUITY	UNUM GROUP	45,685.90	1,555	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	SMITH (A.O.) CORP	43,383.20	1,016	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	DARDEN RESTAURANTS INC	87,077.92	872	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	MID AMERICA APARTMENT COMM	75,985.80	794	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	PERKINELMER INC	61,033.35	777	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	REALTY INCOME CORP	141,903.04	2,251	0.09		0
MML MANAGED VOLATILITY FUND	EQUITY	ROPER TECHNOLOGIES INC	195,092.64	732	0.12		0
MML MANAGED VOLATILITY FUND	EQUITY	EVEREST RE GROUP LTD	62,714.88	288	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	ALASKA AIR GROUP INC	52,878.65	869	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	ALBEMARLE CORP	60,114.60	780	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	ALLSTATE CORP	206,409.74	2,498	0.13		0
MML MANAGED VOLATILITY FUND	EQUITY	AMEREN CORPORATION	112,456.52	1,724	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	AMERICAN ELECTRIC POWER	259,347.80	3,470	0.16		0
MML MANAGED VOLATILITY FUND	EQUITY	APACHE CORP	70,691.25	2,693	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	ARCHER DANIELS MIDLAND CO	161,585.68	3,944	0.10		0
MML MANAGED VOLATILITY FUND	EQUITY	CMS ENERGY CORP	110,769.15	2,231	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	CSX CORP	349,791.90	5,630	0.22		0
MML MANAGED VOLATILITY FUND	EQUITY	CINCINNATI FINANCIAL CORP	81,523.26	1,053	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	CONSOLIDATED EDISON INC	167,218.02	2,187	0.10		0
MML MANAGED VOLATILITY FUND	EQUITY	CUMMINS INC	136,713.72	1,023	0.08		0
MML MANAGED VOLATILITY FUND	EQUITY	WELLS FARGO + CO	1,401,984.00	30,425	0.87		0
MML MANAGED VOLATILITY FUND	EQUITY	BAXTER INTERNATIONAL INC	228,395.40	3,470	0.14		0
MML MANAGED VOLATILITY FUND	EQUITY	H+R BLOCK INC	37,319.27	1,471	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	GENUINE PARTS CO	99,188.66	1,033	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	INTL FLAVORS + FRAGRANCES	91,035.06	678	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	KIMBERLY CLARK CORP	280,520.28	2,462	0.17		0
MML MANAGED VOLATILITY FUND	EQUITY	MASCO CORP	73,129.24	2,501	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	PNC FINANCIAL SERVICES GROUP	387,089.01	3,311	0.24		0
MML MANAGED VOLATILITY FUND	EQUITY	TORCHMARK CORP	55,524.85	745	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	BANK OF AMERICA CORP	1,613,525.76	65,484	1.00		0
MML MANAGED VOLATILITY FUND	EQUITY	EMERSON ELECTRIC CO	265,170.50	4,438	0.16		0
MML MANAGED VOLATILITY FUND	EQUITY	WW GRAINGER INC	86,119.80	305	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	HARRIS CORP	112,702.05	837	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	INTL BUSINESS MACHINES CORP	743,401.80	6,540	0.46		0
MML MANAGED VOLATILITY FUND	CASH	US DOLLAR	925.42	925	0.00		0
MML MANAGED VOLATILITY FUND	EQUITY	EDWARDS LIFESCIENCES CORP	227,457.45	1,485	0.14		0
MML MANAGED VOLATILITY FUND	EQUITY	ABBOTT LABORATORIES	915,770.13	12,661	0.57		0
MML MANAGED VOLATILITY FUND	EQUITY	BRISTOL MYERS SQUIBB CO	612,532.32	11,784	0.38		0
MML MANAGED VOLATILITY FUND	EQUITY	ILLINOIS TOOL WORKS	272,003.43	2,147	0.17		0
MML MANAGED VOLATILITY FUND	EQUITY	LOWE S COS INC	534,672.04	5,789	0.33		0
MML MANAGED VOLATILITY FUND	EQUITY	MARSH + MCLENNAN COS	291,087.50	3,650	0.18		0
MML MANAGED VOLATILITY FUND	EQUITY	MATTEL INC	24,225.75	2,425	0.01		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED VOLATILITY FUND	EQUITY	NUCOR CORP	116,002.59	2,239	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	SYSCO CORP	211,540.16	3,376	0.13		0
MML MANAGED VOLATILITY FUND	EQUITY	EXXON MOBIL CORP	2,075,635.41	30,439	1.28		0
MML MANAGED VOLATILITY FUND	EQUITY	GAP INC/THE	39,464.32	1,532	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	GENERAL ELECTRIC CO	476,576.92	62,956	0.29		0
MML MANAGED VOLATILITY FUND	EQUITY	HOME DEPOT INC	1,392,601.10	8,105	0.86		0
MML MANAGED VOLATILITY FUND	EQUITY	MICROSOFT CORP	5,648,409.27	55,611	3.49		0
MML MANAGED VOLATILITY FUND	EQUITY	MICRON TECHNOLOGY INC	259,265.83	8,171	0.16		0
MML MANAGED VOLATILITY FUND	EQUITY	MORGAN STANLEY	375,247.60	9,464	0.23		0
MML MANAGED VOLATILITY FUND	EQUITY	OMNICOM GROUP	117,403.72	1,603	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	HONEYWELL INTERNATIONAL INC	702,217.80	5,315	0.43		0
MML MANAGED VOLATILITY FUND	EQUITY	PROCTER + GAMBLE CO/THE	1,647,298.32	17,921	1.02		0
MML MANAGED VOLATILITY FUND	EQUITY	AES CORP	67,239.00	4,650	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	AMGEN INC	897,234.03	4,609	0.55		0
MML MANAGED VOLATILITY FUND	EQUITY	APPLE INC	5,116,770.12	32,438	3.16		0
MML MANAGED VOLATILITY FUND	EQUITY	BEST BUY CO INC	91,991.52	1,737	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	BOSTON SCIENTIFIC CORP	356,262.54	10,081	0.22		0
MML MANAGED VOLATILITY FUND	EQUITY	CVS HEALTH CORP	611,367.12	9,331	0.38		0
MML MANAGED VOLATILITY FUND	EQUITY	CAPITAL ONE FINANCIAL CORP	260,709.91	3,449	0.16		0
MML MANAGED VOLATILITY FUND	EQUITY	CISCO SYSTEMS INC	1,403,068.73	32,381	0.87		0
MML MANAGED VOLATILITY FUND	EQUITY	WALT DISNEY CO/THE	1,175,119.05	10,717	0.73		0
MML MANAGED VOLATILITY FUND	EQUITY	WESTERN DIGITAL CORP	77,932.76	2,108	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	ALEXANDRIA REAL ESTATE EQUIT	100,604.52	873	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	AMPHENOL CORP CL A	172,329.54	2,127	0.11		0
MML MANAGED VOLATILITY FUND	EQUITY	APARTMENT INVT + MGMT CO A	48,750.68	1,111	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	BALL CORP	113,110.80	2,460	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	ESSEX PROPERTY TRUST INC	114,022.65	465	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	FEDERAL REALTY INVS TRUST	61,026.68	517	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	GILEAD SCIENCES INC	585,780.75	9,365	0.36		0
MML MANAGED VOLATILITY FUND	EQUITY	MACERICH CO/THE	33,109.20	765	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	METTLER TOLEDO INTERNATIONAL	101,238.82	179	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	NVIDIA CORP	589,402.50	4,415	0.36		0
MML MANAGED VOLATILITY FUND	EQUITY	SYMANTEC CORP	82,665.63	4,375	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	UNIVERSAL HEALTH SERVICES B	71,334.72	612	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	BECTON DICKINSON AND CO	438,698.04	1,947	0.27		0
MML MANAGED VOLATILITY FUND	EQUITY	CENTURYLINK INC	104,807.70	6,918	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	CLOROX COMPANY	140,575.68	912	0.09		0
MML MANAGED VOLATILITY FUND	EQUITY	CONAGRA BRANDS INC	79,907.76	3,741	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	FRANKLIN RESOURCES INC	69,701.00	2,350	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	GENERAL DYNAMICS CORP	306,087.87	1,947	0.19		0
MML MANAGED VOLATILITY FUND	EQUITY	HASBRO INC	65,162.50	802	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	DOMINION ENERGY INC	339,935.22	4,757	0.21		0
MML MANAGED VOLATILITY FUND	EQUITY	NOBLE ENERGY INC	64,271.76	3,426	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	YUM BRANDS INC	210,037.20	2,285	0.13		0
MML MANAGED VOLATILITY FUND	EQUITY	NETFLIX INC	843,931.98	3,153	0.52		0
MML MANAGED VOLATILITY FUND	EQUITY	JM SMUCKER CO/THE	73,670.12	788	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	SKYWORKS SOLUTIONS INC	86,723.88	1,294	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	CONOCOPHILLIPS	516,569.75	8,285	0.32		0
MML MANAGED VOLATILITY FUND	EQUITY	CENTERPOINT ENERGY INC	103,237.11	3,657	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	CIMAREX ENERGY CO	40,997.25	665	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	CARMAX INC	79,792.56	1,272	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	WYNN RESORTS LTD	74,281.41	751	0.05		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED VOLATILITY FUND	EQUITY	COMCAST CORP CLASS A	1,113,128.55	32,691	0.69		0
MML MANAGED VOLATILITY FUND	EQUITY	NEKTAR THERAPEUTICS	37,307.45	1,135	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	ALTRIA GROUP INC	670,321.08	13,572	0.41		0
MML MANAGED VOLATILITY FUND	EQUITY	CARNIVAL CORP	141,934.70	2,879	0.09		0
MML MANAGED VOLATILITY FUND	EQUITY	INTUITIVE SURGICAL INC	400,377.12	836	0.25		0
MML MANAGED VOLATILITY FUND	EQUITY	LKQ CORP	51,707.67	2,179	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	BIOGEN INC	440,847.80	1,465	0.27		0
MML MANAGED VOLATILITY FUND	EQUITY	NRG ENERGY INC	83,397.60	2,106	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	ASSURANT INC	33,003.36	369	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	SALESFORCE.COM INC	764,018.66	5,578	0.47		0
MML MANAGED VOLATILITY FUND	EQUITY	WELLCARE HEALTH PLANS INC	81,923.23	347	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	REGIONS FINANCIAL CORP	97,767.66	7,307	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	EXTRA SPACE STORAGE INC	80,436.72	889	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	DIGITAL REALTY TRUST INC	156,202.30	1,466	0.10		0
MML MANAGED VOLATILITY FUND	EQUITY	CELANESE CORP	92,219.25	1,025	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	MOLSON COORS BREWING CO B	73,176.48	1,303	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	SVB FINANCIAL GROUP	71,030.08	374	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	CF INDUSTRIES HOLDINGS INC	71,530.44	1,644	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	AMERIPRISE FINANCIAL INC	107,187.99	1,027	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	C.H. ROBINSON WORLDWIDE INC	83,249.10	990	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	UNDER ARMOUR INC CLASS A	23,695.47	1,341	0.01		0
MML MANAGED VOLATILITY FUND	EQUITY	AT+T INC	1,493,013.02	52,313	0.92		0
MML MANAGED VOLATILITY FUND	EQUITY	VIACOM INC CLASS B	63,967.30	2,489	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	CBS CORP CLASS B NON VOTING	105,234.04	2,407	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	CHIPOTLE MEXICAN GRILL INC	74,267.88	172	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	FIDELITY NATIONAL INFO SERV	245,504.70	2,394	0.15		0
MML MANAGED VOLATILITY FUND	EQUITY	TRANSDIGM GROUP INC	116,640.58	343	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	HESS CORP	67,230.00	1,660	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	MASTERCARD INC A	1,233,959.65	6,541	0.76		0
MML MANAGED VOLATILITY FUND	EQUITY	HANESBRANDS INC	31,776.08	2,536	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	WESTERN UNION CO	55,342.64	3,244	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	IPG PHOTONICS CORP	29,908.56	264	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	AGILENT TECHNOLOGIES INC	151,919.92	2,252	0.09		0
MML MANAGED VOLATILITY FUND	EQUITY	PACCAR INC	141,478.64	2,476	0.09		0
MML MANAGED VOLATILITY FUND	EQUITY	MICROCHIP TECHNOLOGY INC	118,955.68	1,654	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	NATIONAL OILWELL VARCO INC	69,107.30	2,689	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	STARBUCKS CORP	576,444.40	8,951	0.36		0
MML MANAGED VOLATILITY FUND	EQUITY	RAYMOND JAMES FINANCIAL INC	67,638.69	909	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	LEGGETT + PLATT INC	32,972.80	920	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	VERIZON COMMUNICATIONS INC	1,671,308.16	29,728	1.03		0
MML MANAGED VOLATILITY FUND	EQUITY	KANSAS CITY SOUTHERN	70,442.10	738	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	JUNIPER NETWORKS INC	66,333.15	2,465	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	NEWFIELD EXPLORATION CO	20,597.30	1,405	0.01		0
MML MANAGED VOLATILITY FUND	EQUITY	QUANTA SERVICES INC	31,695.30	1,053	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	ILLUMINA INC	310,727.48	1,036	0.19		0
MML MANAGED VOLATILITY FUND	EQUITY	FORD MOTOR CO	211,897.35	27,699	0.13		0
MML MANAGED VOLATILITY FUND	EQUITY	XCEL ENERGY INC	187,570.89	3,807	0.12		0
MML MANAGED VOLATILITY FUND	EQUITY	MOODY S CORP	164,687.04	1,176	0.10		0
MML MANAGED VOLATILITY FUND	EQUITY	CONSTELLATION BRANDS INC A	190,250.06	1,183	0.12		0
MML MANAGED VOLATILITY FUND	EQUITY	NASDAQ INC	67,132.11	823	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	ORACLE CORP	828,321.90	18,346	0.51		0
MML MANAGED VOLATILITY FUND	EQUITY	PFIZER INC	1,816,625.70	41,618	1.12		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED VOLATILITY FUND	EQUITY	WALMART INC	953,669.70	10,238	0.59	0	
MML MANAGED VOLATILITY FUND	EQUITY	WATERS CORP	104,889.40	556	0.06	0	
MML MANAGED VOLATILITY FUND	EQUITY	HORMEL FOODS CORP	81,518.80	1,910	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	MCCORMICK + CO NON VTG SHRS	118,214.76	849	0.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	UNITEDHEALTH GROUP INC	1,725,405.12	6,926	1.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	AUTODESK INC	199,731.33	1,553	0.12	0	
MML MANAGED VOLATILITY FUND	EQUITY	JACOBS ENGINEERING GROUP INC	49,574.08	848	0.03	0	
MML MANAGED VOLATILITY FUND	EQUITY	LABORATORY CRP OF AMER HLDGS	91,105.56	721	0.06	0	
MML MANAGED VOLATILITY FUND	EQUITY	CAMPBELL SOUP CO	44,239.59	1,341	0.03	0	
MML MANAGED VOLATILITY FUND	EQUITY	PARKER HANNIFIN CORP	139,893.32	938	0.09	0	
MML MANAGED VOLATILITY FUND	EQUITY	VF CORP	164,724.06	2,309	0.10	0	
MML MANAGED VOLATILITY FUND	EQUITY	TYSON FOODS INC CL A	112,086.60	2,099	0.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	DANAHER CORP	461,152.64	4,472	0.29	0	
MML MANAGED VOLATILITY FUND	EQUITY	SEALED AIR CORP	38,672.40	1,110	0.02	0	
MML MANAGED VOLATILITY FUND	EQUITY	TEXAS INSTRUMENTS INC	654,696.00	6,928	0.40	0	
MML MANAGED VOLATILITY FUND	EQUITY	TEXTRON INC	82,965.96	1,804	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	CADENCE DESIGN SYS INC	86,351.28	1,986	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	COSTCO WHOLESALE CORP	645,556.99	3,169	0.40	0	
MML MANAGED VOLATILITY FUND	EQUITY	INTEL CORP	1,540,805.76	32,832	0.95	0	
MML MANAGED VOLATILITY FUND	EQUITY	JOHNSON + JOHNSON	2,491,439.30	19,306	1.54	0	
MML MANAGED VOLATILITY FUND	EQUITY	ELI LILLY + CO	788,400.36	6,813	0.49	0	
MML MANAGED VOLATILITY FUND	EQUITY	MCDONALD S CORP	984,625.65	5,545	0.61	0	
MML MANAGED VOLATILITY FUND	EQUITY	STATE STREET CORP	176,091.44	2,792	0.11	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED VOLATILITY FUND	EQUITY	ALIGN TECHNOLOGY INC	107,228.16	512	0.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	REGENCY CENTERS CORP	80,274.24	1,368	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	US BANCORP	498,541.30	10,909	0.31	0	
MML MANAGED VOLATILITY FUND	EQUITY	RAYTHEON COMPANY	318,507.95	2,077	0.20	0	
MML MANAGED VOLATILITY FUND	EQUITY	ALLIANCE DATA SYSTEMS CORP	50,877.12	339	0.03	0	
MML MANAGED VOLATILITY FUND	EQUITY	ZIMMER BIOMET HOLDINGS INC	148,527.04	1,432	0.09	0	
MML MANAGED VOLATILITY FUND	EQUITY	AMERISOURCEBERGEN CORP	85,708.80	1,152	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	CHEVRON CORP	1,494,230.65	13,735	0.92	0	
MML MANAGED VOLATILITY FUND	EQUITY	PRINCIPAL FINANCIAL GROUP	82,818.75	1,875	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	FOOT LOCKER INC	44,262.40	832	0.03	0	
MML MANAGED VOLATILITY FUND	EQUITY	ADVANCE AUTO PARTS INC	81,879.20	520	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	PRUDENTIAL FINANCIAL INC	242,937.45	2,979	0.15	0	
MML MANAGED VOLATILITY FUND	EQUITY	CENTENE CORP	166,608.50	1,445	0.10	0	
MML MANAGED VOLATILITY FUND	EQUITY	3M CO	797,409.90	4,185	0.49	0	
MML MANAGED VOLATILITY FUND	EQUITY	REPUBLIC SERVICES INC	117,218.34	1,626	0.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	AKAMAI TECHNOLOGIES INC	73,418.16	1,202	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	BLACKROCK INC	341,360.58	869	0.21	0	
MML MANAGED VOLATILITY FUND	EQUITY	MARTIN MARIETTA MATERIALS	76,310.28	444	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	TRAVELERS COS INC/THE	228,123.75	1,905	0.14	0	
MML MANAGED VOLATILITY FUND	EQUITY	UDR INC	90,412.84	2,282	0.06	0	
MML MANAGED VOLATILITY FUND	EQUITY	BROADRIDGE FINANCIAL SOLUTIO	79,021.25	821	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	PEOPLE S UNITED FINANCIAL	52,958.10	3,670	0.03	0	
MML MANAGED VOLATILITY FUND	EQUITY	DELTA AIR LINES INC	229,939.20	4,608	0.14	0	
MML MANAGED VOLATILITY FUND	EQUITY	MACY S INC	64,235.46	2,157	0.04	0	
MML MANAGED VOLATILITY FUND	EQUITY	DISCOVER FINANCIAL SERVICES	137,010.54	2,323	0.08	0	
MML MANAGED VOLATILITY FUND	EQUITY	BANK OF NEW YORK MELLON CORP	307,084.68	6,524	0.19	0	
MML MANAGED VOLATILITY FUND	EQUITY	VORNADO REALTY TRUST	75,676.60	1,220	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	ZIONS BANCORP NA	55,528.62	1,363	0.03	0	
MML MANAGED VOLATILITY FUND	EQUITY	AVALONBAY COMMUNITIES INC	182,578.45	1,049	0.11	0	
MML MANAGED VOLATILITY FUND	EQUITY	BOSTON PROPERTIES INC	122,454.40	1,088	0.08	0	
MML MANAGED VOLATILITY FUND	EQUITY	EQUITY RESIDENTIAL	171,361.96	2,596	0.11	0	
MML MANAGED VOLATILITY FUND	EQUITY	HOST HOTELS + RESORTS INC	87,084.08	5,224	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	SL GREEN REALTY CORP	49,266.84	623	0.03	0	
MML MANAGED VOLATILITY FUND	EQUITY	DUKE REALTY CORP	65,034.90	2,511	0.04	0	
MML MANAGED VOLATILITY FUND	EQUITY	PUBLIC STORAGE	213,744.96	1,056	0.13	0	
MML MANAGED VOLATILITY FUND	EQUITY	SIMON PROPERTY GROUP INC	375,625.64	2,236	0.23	0	
MML MANAGED VOLATILITY FUND	EQUITY	AIR PRODUCTS + CHEMICALS INC	247,277.25	1,545	0.15	0	
MML MANAGED VOLATILITY FUND	EQUITY	AUTOMATIC DATA PROCESSING	415,650.40	3,170	0.26	0	
MML MANAGED VOLATILITY FUND	EQUITY	CATERPILLAR INC	544,113.74	4,282	0.34	0	
MML MANAGED VOLATILITY FUND	EQUITY	COLGATE PALMOLIVE CO	375,095.04	6,302	0.23	0	
MML MANAGED VOLATILITY FUND	EQUITY	ECOLAB INC	271,566.05	1,843	0.17	0	
MML MANAGED VOLATILITY FUND	EQUITY	GENERAL MILLS INC	162,924.96	4,184	0.10	0	
MML MANAGED VOLATILITY FUND	EQUITY	GOLDMAN SACHS GROUP INC	417,792.05	2,501	0.26	0	
MML MANAGED VOLATILITY FUND	EQUITY	PAYCHEX INC	146,782.95	2,253	0.09	0	
MML MANAGED VOLATILITY FUND	EQUITY	ROSS STORES INC	229,715.20	2,761	0.14	0	
MML MANAGED VOLATILITY FUND	EQUITY	SCHLUMBERGER LTD	363,938.96	10,087	0.23	0	
MML MANAGED VOLATILITY FUND	EQUITY	ADVANCED MICRO DEVICES	107,141.84	5,804	0.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	AUTOZONE INC	156,769.58	187	0.10	0	
MML MANAGED VOLATILITY FUND	EQUITY	AVERY DENNISON CORP	55,694.60	620	0.03	0	
MML MANAGED VOLATILITY FUND	EQUITY	BOEING CO/THE	1,225,822.50	3,801	0.76	0	
MML MANAGED VOLATILITY FUND	EQUITY	CORNING INC	179,266.14	5,934	0.11	0	
MML MANAGED VOLATILITY FUND	EQUITY	DOVER CORP	82,089.15	1,157	0.05	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED VOLATILITY FUND	EQUITY	EQUIFAX INC	79,439.89	853	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	FEDEX CORP	286,360.75	1,775	0.18	0	
MML MANAGED VOLATILITY FUND	EQUITY	FISERV INC	215,399.19	2,931	0.13	0	
MML MANAGED VOLATILITY FUND	EQUITY	HALLIBURTON CO	164,104.92	6,174	0.10	0	
MML MANAGED VOLATILITY FUND	EQUITY	HERSHEY CO/THE	105,357.94	983	0.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	KLA TENCOR CORP	98,081.04	1,096	0.06	0	
MML MANAGED VOLATILITY FUND	EQUITY	KOHL'S CORP	78,546.56	1,184	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	MAXIM INTEGRATED PRODUCTS	107,903.70	2,122	0.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	PPG INDUSTRIES INC	184,422.92	1,804	0.11	0	
MML MANAGED VOLATILITY FUND	EQUITY	QUALCOMM INC	497,336.49	8,739	0.31	0	
MML MANAGED VOLATILITY FUND	EQUITY	ROCKWELL AUTOMATION INC	124,898.40	830	0.08	0	
MML MANAGED VOLATILITY FUND	EQUITY	SOUTHWEST AIRLINES CO	164,074.40	3,530	0.10	0	
MML MANAGED VOLATILITY FUND	EQUITY	SUNTRUST BANKS INC	165,241.44	3,276	0.10	0	
MML MANAGED VOLATILITY FUND	EQUITY	TJX COMPANIES INC	395,591.08	8,842	0.24	0	
MML MANAGED VOLATILITY FUND	EQUITY	VULCAN MATERIALS CO	92,081.60	932	0.06	0	
MML MANAGED VOLATILITY FUND	EQUITY	WEYERHAEUSER CO	117,672.38	5,383	0.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	WILLIAMS COS INC	197,325.45	8,949	0.12	0	
MML MANAGED VOLATILITY FUND	EQUITY	XILINX INC	151,943.28	1,784	0.09	0	
MML MANAGED VOLATILITY FUND	EQUITY	VERISIGN INC	122,339.25	825	0.08	0	
MML MANAGED VOLATILITY FUND	EQUITY	HARTFORD FINANCIAL SVCS GRP	112,191.80	2,524	0.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	ELECTRONIC ARTS INC	170,524.51	2,161	0.11	0	
MML MANAGED VOLATILITY FUND	EQUITY	AFLAC INC	248,757.60	5,460	0.15	0	
MML MANAGED VOLATILITY FUND	EQUITY	METLIFE INC	292,552.50	7,125	0.18	0	
MML MANAGED VOLATILITY FUND	EQUITY	MGM RESORTS INTERNATIONAL	85,516.50	3,525	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	SCHWAB (CHARLES) CORP	351,302.27	8,459	0.22	0	
MML MANAGED VOLATILITY FUND	EQUITY	ADOBE INC	799,984.64	3,536	0.49	0	
MML MANAGED VOLATILITY FUND	EQUITY	DUKE ENERGY CORP	439,267.00	5,090	0.27	0	
MML MANAGED VOLATILITY FUND	EQUITY	MONDELEZ INTERNATIONAL INC A	422,036.29	10,543	0.26	0	
MML MANAGED VOLATILITY FUND	EQUITY	DIAMONDBACK ENERGY INC	106,883.10	1,153	0.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	EATON CORP PLC	222,527.06	3,241	0.14	0	
MML MANAGED VOLATILITY FUND	EQUITY	ABBVIE INC	999,339.60	10,840	0.62	0	
MML MANAGED VOLATILITY FUND	EQUITY	NORWEGIAN CRUISE LINE HOLDIN	61,635.06	1,454	0.04	0	
MML MANAGED VOLATILITY FUND	FIXED INCOME	SINO FOREST CORPORATION	-	359,000	0.00	5	8/1/2049
MML MANAGED VOLATILITY FUND	EQUITY	ZOETIS INC	291,605.86	3,409	0.18	0	
MML MANAGED VOLATILITY FUND	EQUITY	L BRANDS INC	43,895.70	1,710	0.03	0	
MML MANAGED VOLATILITY FUND	EQUITY	COTY INC CL A	21,838.24	3,329	0.01	0	
MML MANAGED VOLATILITY FUND	EQUITY	NEWS CORP CLASS A	31,621.10	2,786	0.02	0	
MML MANAGED VOLATILITY FUND	EQUITY	TWENTY FIRST CENTURY FOX A	369,657.84	7,682	0.23	0	
MML MANAGED VOLATILITY FUND	EQUITY	NEWS CORP CLASS B	8,985.90	778	0.01	0	
MML MANAGED VOLATILITY FUND	EQUITY	TWENTY FIRST CENTURY FOX B	164,936.56	3,452	0.10	0	
MML MANAGED VOLATILITY FUND	EQUITY	INTERCONTINENTAL EXCHANGE IN	312,092.19	4,143	0.19	0	
MML MANAGED VOLATILITY FUND	EQUITY	TWITTER INC	142,981.50	4,975	0.09	0	
MML MANAGED VOLATILITY FUND	EQUITY	ALLEGION PLC	53,166.57	667	0.03	0	
MML MANAGED VOLATILITY FUND	EQUITY	AMERICAN AIRLINES GROUP INC	94,307.07	2,937	0.06	0	
MML MANAGED VOLATILITY FUND	EQUITY	PERRIGO CO PLC	35,146.25	907	0.02	0	
MML MANAGED VOLATILITY FUND	EQUITY	PENTAIR PLC	43,069.20	1,140	0.03	0	
MML MANAGED VOLATILITY FUND	EQUITY	ARISTA NETWORKS INC	83,437.20	396	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	SYNCHRONY FINANCIAL	108,619.80	4,630	0.07	0	
MML MANAGED VOLATILITY FUND	EQUITY	CITIZENS FINANCIAL GROUP	101,527.95	3,415	0.06	0	
MML MANAGED VOLATILITY FUND	EQUITY	KEYSIGHT TECHNOLOGIES IN	82,380.16	1,327	0.05	0	
MML MANAGED VOLATILITY FUND	EQUITY	ANTHEM INC	494,269.66	1,882	0.31	0	
MML MANAGED VOLATILITY FUND	EQUITY	CROWN CASTLE INTL CORP	317,634.12	2,924	0.20	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED VOLATILITY FUND	EQUITY	WALGREENS BOOTS ALLIANCE INC	397,612.27	5,819	0.25		0
MML MANAGED VOLATILITY FUND	EQUITY	QORVO INC	54,110.43	891	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	IRON MOUNTAIN INC	64,301.44	1,984	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	EQUINIX INC	197,433.60	560	0.12		0
MML MANAGED VOLATILITY FUND	EQUITY	MEDTRONIC PLC	879,310.32	9,667	0.54		0
MML MANAGED VOLATILITY FUND	EQUITY	EVERSOURCE ENERGY	145,169.28	2,232	0.09		0
MML MANAGED VOLATILITY FUND	EQUITY	MYLAN NV	99,489.40	3,631	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	ALLERGAN PLC	307,952.64	2,304	0.19		0
MML MANAGED VOLATILITY FUND	EQUITY	MONSTER BEVERAGE CORP	145,100.56	2,948	0.09		0
MML MANAGED VOLATILITY FUND	EQUITY	WESTROCK CO	68,156.80	1,805	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	ACTIVISION BLIZZARD INC	249,754.91	5,363	0.15		0
MML MANAGED VOLATILITY FUND	EQUITY	DISCOVERY INC A	27,164.52	1,098	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	DISCOVERY INC C	55,622.80	2,410	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	AMERICAN INTERNATIONAL GROUP	249,425.89	6,329	0.15		0
MML MANAGED VOLATILITY FUND	EQUITY	INGERSOLL RAND PLC	159,287.58	1,746	0.10		0
MML MANAGED VOLATILITY FUND	EQUITY	ACCENTURE PLC CL A	646,107.82	4,582	0.40		0
MML MANAGED VOLATILITY FUND	EQUITY	VERISK ANALYTICS INC	136,736.16	1,254	0.08		0
MML MANAGED VOLATILITY FUND	EQUITY	MERCK + CO. INC.	1,430,013.15	18,715	0.88		0
MML MANAGED VOLATILITY FUND	EQUITY	DOLLAR GENERAL CORP	209,459.04	1,938	0.13		0
MML MANAGED VOLATILITY FUND	EQUITY	FORTINET INC	80,924.07	1,149	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	BERKSHIRE HATHAWAY INC CL B	2,853,823.86	13,977	1.76		0
MML MANAGED VOLATILITY FUND	EQUITY	STANLEY BLACK + DECKER INC	129,678.42	1,083	0.08		0
MML MANAGED VOLATILITY FUND	EQUITY	LYONDELLBASELL INDU CL A	188,357.40	2,265	0.12		0
MML MANAGED VOLATILITY FUND	EQUITY	E TRADE FINANCIAL CORP	81,441.28	1,856	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	NEXTERA ENERGY INC	595,854.96	3,428	0.37		0
MML MANAGED VOLATILITY FUND	EQUITY	CBOE GLOBAL MARKETS INC	77,481.36	792	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	CME GROUP INC	485,913.96	2,583	0.30		0
MML MANAGED VOLATILITY FUND	EQUITY	CONCHO RESOURCES INC	151,718.04	1,476	0.09		0
MML MANAGED VOLATILITY FUND	EQUITY	HCP INC	92,615.88	3,316	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	ULTA BEAUTY INC	98,670.52	403	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	MSCI INC	92,880.90	630	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	INVESCO LTD	47,558.34	2,841	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	DISH NETWORK CORP A	40,276.61	1,613	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	DOLLAR TREE INC	151,556.96	1,678	0.09		0
MML MANAGED VOLATILITY FUND	EQUITY	PHILIP MORRIS INTERNATIONAL	749,247.48	11,223	0.46		0
MML MANAGED VOLATILITY FUND	EQUITY	VISA INC CLASS A SHARES	1,666,402.20	12,630	1.03		0
MML MANAGED VOLATILITY FUND	EQUITY	NETAPP INC	112,835.97	1,891	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	AMERICAN WATER WORKS CO INC	113,553.27	1,251	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	L3 TECHNOLOGIES INC	95,513.00	550	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	HILTON WORLDWIDE HOLDINGS IN	161,621.80	2,251	0.10		0
MML MANAGED VOLATILITY FUND	EQUITY	TECHNIPFMC PLC	59,797.32	3,054	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	SBA COMMUNICATIONS CORP	131,454.68	812	0.08		0
MML MANAGED VOLATILITY FUND	EQUITY	DXC TECHNOLOGY CO	106,659.02	2,006	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	XEROX CORP	29,738.80	1,505	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	BAKER HUGHES A GE CO	82,603.00	3,842	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	BRIGHTHOUSE FINANCIAL INC	25,694.64	843	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	WEC ENERGY GROUP INC	155,419.44	2,244	0.10		0
MML MANAGED VOLATILITY FUND	EQUITY	KRAFT HEINZ CO/THE	196,864.96	4,574	0.12		0
MML MANAGED VOLATILITY FUND	EQUITY	PAYPAL HOLDINGS INC	715,942.26	8,514	0.44		0
MML MANAGED VOLATILITY FUND	EQUITY	NIELSEN HOLDINGS PLC	55,012.14	2,358	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	WELLTOWER INC	193,306.85	2,785	0.12		0
MML MANAGED VOLATILITY FUND	EQUITY	ALPHABET INC CL C	2,289,733.71	2,211	1.42		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED VOLATILITY FUND	EQUITY	ALPHABET INC CL A	2,249,798.88	2,153	1.39		0
MML MANAGED VOLATILITY FUND	EQUITY	HEWLETT PACKARD ENTERPRISE	133,064.33	10,073	0.08		0
MML MANAGED VOLATILITY FUND	EQUITY	HP INC	235,535.52	11,512	0.15		0
MML MANAGED VOLATILITY FUND	EQUITY	WILLIS TOWERS WATSON PLC	146,544.90	965	0.09		0
MML MANAGED VOLATILITY FUND	EQUITY	CHUBB LTD	429,006.78	3,321	0.27		0
MML MANAGED VOLATILITY FUND	EQUITY	DENTSPLY SIRONA INC	59,536.00	1,600	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	UNDER ARMOUR INC CLASS C	20,891.64	1,292	0.01		0
MML MANAGED VOLATILITY FUND	EQUITY	S+P GLOBAL INC	300,963.74	1,771	0.19		0
MML MANAGED VOLATILITY FUND	EQUITY	CHARTER COMMUNICATIONS INC A	365,331.54	1,282	0.23		0
MML MANAGED VOLATILITY FUND	EQUITY	FORTIVE CORP W/D	146,957.52	2,172	0.09		0
MML MANAGED VOLATILITY FUND	EQUITY	IHS MARKIT LTD	119,829.06	2,498	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	JOHNSON CONTROLS INTERNATION	193,377.30	6,522	0.12		0
MML MANAGED VOLATILITY FUND	EQUITY	LAMB WESTON HOLDINGS INC	80,916.00	1,100	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	ARCONIC INC	50,461.98	2,993	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	GARMIN LTD	60,154.00	950	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	SEAGATE TECHNOLOGY	68,111.35	1,765	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	UNITED CONTINENTAL HOLDINGS	139,159.26	1,662	0.09		0
MML MANAGED VOLATILITY FUND	EQUITY	GENERAL MOTORS CO	321,253.80	9,604	0.20		0
MML MANAGED VOLATILITY FUND	EQUITY	FLEETCOR TECHNOLOGIES INC	117,560.76	633	0.07		0
MML MANAGED VOLATILITY FUND	EQUITY	MOTOROLA SOLUTIONS INC	130,570.40	1,135	0.08		0
MML MANAGED VOLATILITY FUND	EQUITY	O REILLY AUTOMOTIVE INC	201,088.72	584	0.12		0
MML MANAGED VOLATILITY FUND	EQUITY	KINDER MORGAN INC	205,707.50	13,375	0.13		0
MML MANAGED VOLATILITY FUND	EQUITY	HCA HEALTHCARE INC	243,548.65	1,957	0.15		0
MML MANAGED VOLATILITY FUND	EQUITY	TE CONNECTIVITY LTD	193,461.54	2,558	0.12		0
MML MANAGED VOLATILITY FUND	EQUITY	HUNTINGTON INGALLS INDUSTRIE	60,328.27	317	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	CITIGROUP INC	912,299.44	17,524	0.56		0
MML MANAGED VOLATILITY FUND	EQUITY	MOSAIC CO/THE	72,177.91	2,471	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	PROLOGIS INC	260,364.48	4,434	0.16		0
MML MANAGED VOLATILITY FUND	EQUITY	MARATHON PETROLEUM CORP	297,528.42	5,042	0.18		0
MML MANAGED VOLATILITY FUND	EQUITY	HOLLYFRONTIER CORP	55,209.60	1,080	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	PVH CORP	49,728.25	535	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	RALPH LAUREN CORP	40,556.32	392	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	FORTUNE BRANDS HOME + SECURI	38,787.79	1,021	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	CBRE GROUP INC A	85,285.20	2,130	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	XYLEM INC	84,467.52	1,266	0.05		0
MML MANAGED VOLATILITY FUND	EQUITY	TRIPADVISOR INC	42,450.78	787	0.03		0
MML MANAGED VOLATILITY FUND	EQUITY	MICHAEL KORS HOLDINGS LTD	40,081.44	1,057	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	EXPEDIA GROUP INC	96,315.75	855	0.06		0
MML MANAGED VOLATILITY FUND	EQUITY	AMERICAN TOWER CORP	503,202.39	3,181	0.31		0
MML MANAGED VOLATILITY FUND	EQUITY	AON PLC	250,455.28	1,723	0.15		0
MML MANAGED VOLATILITY FUND	EQUITY	PHILLIPS 66	268,529.55	3,117	0.17		0
MML MANAGED VOLATILITY FUND	EQUITY	FACEBOOK INC CLASS A	2,269,430.08	17,312	1.40		0
MML MANAGED VOLATILITY FUND	EQUITY	DOWDUPONT INC	886,484.48	16,576	0.55		0
MML MANAGED VOLATILITY FUND	EQUITY	TAPESTRY INC	68,478.75	2,029	0.04		0
MML MANAGED VOLATILITY FUND	EQUITY	IQVIA HOLDINGS INC	133,479.33	1,149	0.08		0
MML MANAGED VOLATILITY FUND	EQUITY	APTIV PLC	115,505.32	1,876	0.07		0
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	179,400.00	7,800	0.11		0
MML MANAGED VOLATILITY FUND	EQUITY	BOOKING HOLDINGS INC	566,676.18	329	0.35		0
MML MANAGED VOLATILITY FUND	EQUITY	BROADCOM INC	762,077.16	2,997	0.47		0
MML MANAGED VOLATILITY FUND	EQUITY	JEFFERIES FINANCIAL GROUP IN	37,098.32	2,137	0.02		0
MML MANAGED VOLATILITY FUND	EQUITY	EVERGY INC	108,146.85	1,905	0.07		0
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	149,580.00	5,400	0.09		3/15/2019

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED VOLATILITY FUND	EQUITY	LINDE PLC	621,663.36	3,984	0.38	0	
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	35,275.00	8,500	0.02	0	1/18/2019
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	262,890.00	6,900	0.16	0	2/15/2019
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	195,840.00	6,400	0.12	0	2/15/2019
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	(157,950.00)	(6,500)	0.10	0	2/15/2019
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	(151,900.00)	(7,000)	0.09	0	1/18/2019
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	(196,800.00)	(6,000)	0.12	0	2/15/2019
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	(208,650.00)	(6,500)	0.13	0	1/11/2019
MML MANAGED VOLATILITY FUND	EQUITY	CIGNA CORP	525,487.94	2,767	0.32	0	
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	66,300.00	7,800	0.04	0	2/15/2019
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	(401,580.00)	(6,900)	0.25	0	1/18/2019
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	150,025.00	8,500	0.09	0	2/15/2019
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	(497,080.00)	(6,800)	0.31	0	1/18/2019
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	(261,800.00)	(6,800)	0.16	0	1/18/2019
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	(785,970.00)	(7,100)	0.49	0	1/25/2019
MML MANAGED VOLATILITY FUND	OPTIONS	S+P 500 INDEX	(468,000.00)	(6,500)	0.29	0	2/15/2019
MML MANAGED VOLATILITY FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	6,278,177.15	6,278,177	3.88	1.25	1/2/2019
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	JAMES RIVER GROUP HOLDINGS L	870,090.48	23,812	1.03	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	SPARK THERAPEUTICS INC	206,854.90	5,285	0.25	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	XENIA HOTELS + RESORTS INC	739,118.40	42,972	0.88	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	NEXPOINT RESIDENTIAL	698,336.20	19,924	0.83	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ADURO BIOTECH INC	51,424.56	19,479	0.06	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	AEROJET ROCKETDYNE HOLDINGS	903,015.36	25,632	1.07	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	BLUEPRINT MEDICINES CORP	400,173.93	7,423	0.47	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	TELADOC HEALTH INC	287,704.28	5,804	0.34	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	LINDBLAD EXPEDITIONS HOLDING	1,014,924.38	75,403	1.20	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	SPX FLOW INC	647,337.60	21,280	0.77	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	PERFORMANCE FOOD GROUP CO	1,233,811.18	38,234	1.46	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	BMC STOCK HOLDINGS INC	700,036.56	45,222	0.83	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ACACIA COMMUNICATIONS INC	528,162.00	13,899	0.63	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CARDTRONICS PLC A	817,674.00	31,449	0.97	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	LIFE STORAGE INC	861,738.33	9,267	1.02	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	FIRSTCASH INC	996,042.45	13,767	1.18	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ACUSHNET HOLDINGS CORP	931,146.51	44,193	1.10	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CRISPR THERAPEUTICS AG	219,160.47	7,671	0.26	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CLOUDERA INC	694,512.70	62,795	0.82	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	G1 THERAPEUTICS INC	298,740.00	15,600	0.35	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	DELEK US HOLDINGS INC	551,239.56	16,956	0.65	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	BANCORPSOUTH BANK	924,624.08	35,372	1.10	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	SAILPOINT TECHNOLOGIES HOLDI	713,132.91	30,359	0.84	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	AVANOS MEDICAL INC	443,421.00	9,900	0.53	0	
MML SMALL CAP GROWTH EQUITY FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	1,752,827.14	1,752,827	2.08	1.25	1/2/2019
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	HMS HOLDINGS CORP	717,736.95	25,515	0.85	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	MOLINA HEALTHCARE INC	795,409.68	6,844	0.94	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	TEXAS CAPITAL BANCSHARES INC	715,311.09	14,001	0.85	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ASSURED GUARANTY LTD	1,162,984.68	30,381	1.38	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ENERSYS	310,440.00	4,000	0.37	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	LHC GROUP INC	915,517.76	9,752	1.08	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	POTLATCHDELTIC CORP	720,411.16	22,769	0.85	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	VONAGE HOLDINGS CORP	526,497.57	60,309	0.62	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CHART INDUSTRIES INC	1,062,265.05	16,335	1.26	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CIENA CORP	800,615.10	23,610	0.95	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	EHEALTH INC	1,094,240.02	28,481	1.30		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	FIRST SOLAR INC	981,050.14	23,108	1.16		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ARGAN INC	924,128.48	24,422	1.09		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CINEMARK HOLDINGS INC	1,147,569.00	32,055	1.36		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	INSULET CORP	1,315,839.48	16,589	1.56		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	TRUEBLUE INC	897,743.00	40,348	1.06		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	GRAPHIC PACKAGING HOLDING CO	826,185.36	77,649	0.98		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	JOHN BEAN TECHNOLOGIES CORP	753,717.76	10,496	0.89		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	KENNEDY WILSON HOLDINGS INC	867,835.54	47,762	1.03		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	FIRST INTERSTATE BANCYSYS A	816,128.88	22,323	0.97		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	REDWOOD TRUST INC	872,507.79	57,897	1.03		0
MML SMALL CAP GROWTH EQUITY FUND	CASH	US DOLLAR	3,543.00	3,543	0.00		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	NEW YORK TIMES CO A	967,987.83	43,427	1.15		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	MINERALS TECHNOLOGIES INC	660,540.44	12,866	0.78		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	POLYONE CORPORATION	472,958.20	16,537	0.56		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ACTUANT CORP A	797,745.94	38,006	0.95		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	OMNICELL INC	634,446.40	10,360	0.75		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	MFA FINANCIAL INC	680,358.00	101,850	0.81		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	AIR LEASE CORP	779,871.15	25,815	0.92		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	SPIRIT AIRLINES INC	838,797.44	14,482	0.99		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	KEMPER CORP	856,368.38	12,901	1.01		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	GLOBUS MEDICAL INC A	941,686.24	21,758	1.12		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	TOWER SEMICONDUCTOR LTD	687,444.12	46,638	0.81		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	NATIONAL BANK HOLD CL A	832,996.08	26,984	0.99		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	AMBARELLA INC	451,976.58	12,921	0.54		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	TRI POINTE GROUP INC	792,512.44	72,508	0.94		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ISHARES RUSSELL 2000 ETF	2,072,504.20	15,478	2.46		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ENTEGRIS INC	1,072,200.12	38,437	1.27		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	METHANEX CORP	522,403.65	10,845	0.62		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	SKECHERS USA INC CL A	427,402.08	18,672	0.51		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	FIRST FINANCIAL BANCORP	768,385.68	32,394	0.91		0
MML SMALL CAP GROWTH EQUITY FUND	CASH	POUND STERLING	6.36	5	0.00		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	MCGRATH RENTCORP	833,976.00	16,200	0.99		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CARPENTER TECHNOLOGY	855,423.42	24,022	1.01		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	GATX CORP	630,209.00	8,900	0.75		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	TENNECO INC CLASS A	642,542.01	23,459	0.76		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CALLON PETROLEUM CO	613,064.87	94,463	0.73		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CLEAN HARBORS INC	788,810.40	15,984	0.93		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	DECKERS OUTDOOR CORP	860,975.55	6,729	1.02		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	LA Z BOY INC	913,598.70	32,970	1.08		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	SKYLINE CHAMPION CORP	532,380.29	36,241	0.63		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	WATTS WATER TECHNOLOGIES A	790,750.62	12,254	0.94		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	AMEDISYS INC	893,666.41	7,631	1.06		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	BLACK HILLS CORP	1,046,982.06	16,677	1.24		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CHEESECAKE FACTORY INC/THE	738,625.76	16,976	0.88		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CHICO S FAS INC	539,913.40	96,070	0.64		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CHILDREN S PLACE INC/THE	714,143.43	7,927	0.85		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	COHU INC	784,296.35	48,805	0.93		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	FERRO CORP	800,887.36	51,077	0.95		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	MKS INSTRUMENTS INC	19,383.00	300	0.02		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	NU SKIN ENTERPRISES INC A	926,328.32	15,104	1.10		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	PS BUSINESS PARKS INC/CA	970,579.00	7,409	1.15		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	HANNON ARMSTRONG SUSTAINABLE	928,020.75	48,715	1.10		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	REXFORD INDUSTRIAL REALTY IN	930,250.02	31,566	1.10		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	PATTERN ENERGY GROUP INC A	965,540.10	51,855	1.14		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	STERLING BANCORP/DE	922,100.01	55,851	1.09		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	WIX.COM LTD	899,154.02	9,953	1.07		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	NMI HOLDINGS INC CLASS A	949,298.70	53,182	1.12		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	SEACOAST BANKING CORP/FL	1,019,515.64	39,182	1.21		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CASTLIGHT HEALTH INC B	240,653.00	110,900	0.29		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	TRINET GROUP INC	1,049,085.60	25,008	1.24		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	2U INC	865,177.72	17,401	1.03		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	UNION BANKSHARES CORP	712,722.81	25,247	0.84		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ZENDESK INC	664,308.97	11,381	0.79		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	TRUECAR INC	579,368.88	63,948	0.69		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	VIPER ENERGY PARTNERS LP	749,274.96	28,774	0.89		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	SOUTH STATE CORP	735,406.65	12,267	0.87		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ORION ENGINEERED CARBONS SA	901,004.48	35,641	1.07		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ADVANCED DRAINAGE SYSTEMS IN	988,357.25	40,757	1.17		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	HUBSPOT INC	880,235.73	7,001	1.04		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	PRA GROUP INC	821,415.22	33,706	0.97		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	MOLINA HEALTHCARE INC	932,433.06	8,023	1.12		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	TEXAS CAPITAL BANCSHARES INC	441,928.50	8,650	0.53		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CARTER S INC	1,345,505.70	16,485	1.62		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ENERSYS	1,612,968.63	20,783	1.94		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	DEXCOM INC	425,769.20	3,554	0.51		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	IROBOT CORP	880,693.58	10,517	1.06		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	UNDER ARMOUR INC CLASS A	79,408.98	4,494	0.10		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CENTERSTATE BANK CORP	513,144.56	24,389	0.62		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	VONAGE HOLDINGS CORP	516,222.36	59,132	0.62		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ARGAN INC	786,958.48	20,797	0.95		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	INSULET CORP	2,123,793.00	26,775	2.55		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	AMICUS THERAPEUTICS INC	450,432.44	47,018	0.54		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	HILL ROM HOLDINGS INC	1,227,568.65	13,863	1.48		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	GRAND CANYON EDUCATION INC	837,475.54	8,711	1.01		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	KENNEDY WILSON HOLDINGS INC	916,204.08	50,424	1.10		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	GREEN DOT CORP CLASS A	872,970.56	10,978	1.05		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	BOINGO WIRELESS INC	602,639.29	29,297	0.72		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	GALAPAGOS NV SPON ADR	571,173.24	6,226	0.69		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	MARRIOTT VACATIONS WORLD	1,313,107.73	18,623	1.58		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	INGEVITY CORP	628,595.59	7,511	0.76		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ITT INC	1,450,803.12	30,056	1.74		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	FLOOR + DECOR HOLDINGS INC A	464,102.10	17,919	0.56		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	EVERBRIDGE INC	854,692.08	15,058	1.03		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	TRADE DESK INC/THE CLASS A	668,505.60	5,760	0.80		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CENTENNIAL RESOURCE DEVELO A	572,356.76	51,938	0.69		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	RA PHARMACEUTICALS INC	404,604.20	22,231	0.49		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	DOCUSIGN SERIES E F ESCROW S	5,852.25	2,601	0.01		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	RH	676,144.26	5,643	0.81		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	AXON ENTERPRISE INC	463,793.75	10,601	0.56		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	VERACODE INC PP	5,814.27	10,688	0.01		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	G1 THERAPEUTICS INC	283,400.85	14,799	0.34	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	REGENXBIO INC	343,025.15	8,177	0.41	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	PENUMBRA INC	979,555.20	8,016	1.18	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	PERFORMANCE FOOD GROUP CO	1,153,846.12	35,756	1.39	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CYTOMX THERAPEUTICS INC	111,589.00	7,390	0.13	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	MYOKARDIA INC	554,805.30	11,355	0.67	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ARENA PHARMACEUTICALS INC	587,132.30	15,074	0.71	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	NIGHTSTAR THERAPEUTICS PLC	341,625.60	29,655	0.41	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	RHYTHM PHARMACEUTICALS INC	462,900.48	17,221	0.56	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	BANCORPSOUTH BANK	670,569.42	25,653	0.81	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	SLEEP NUMBER CORP	623,811.80	19,660	0.75	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	SYNEOS HEALTH INC	847,126.80	21,528	1.02	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	PIVOTAL SOFTWARE INC CL A	555,850.95	33,997	0.67	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	LIVERAMP HOLDINGS INC	537,111.52	13,904	0.65	0	
MML SMALL CAP GROWTH EQUITY FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	3,388,485.98	3,388,486	4.07	1.25	1/2/2019
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	SANGAMO THERAPEUTICS INC	346,994.48	30,226	0.42	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ENTEGRIS INC	874,368.78	31,345	1.05	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	AGREE REALTY CORP	1,148,524.24	19,427	1.38	0	
MML SMALL CAP GROWTH EQUITY FUND	CASH	POUND STERLING	3.14	2	0.00	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	LOXO ONCOLOGY INC	677,658.66	4,838	0.81	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	WAYFAIR INC CLASS A	999,797.92	11,099	1.20	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	HUBSPOT INC	787,698.45	6,265	0.95	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	PRA HEALTH SCIENCES INC	875,551.16	9,521	1.05	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	DRAFTKINGS INC PP	201,170.48	78,904	0.24	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	XENIA HOTELS + RESORTS INC	729,090.80	42,389	0.88	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	NEXPOINT RESIDENTIAL	738,573.60	21,072	0.89	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ETSY INC	950,971.87	19,991	1.14	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	MARKLOGIC CORPORATION	229,660.00	22,966	0.28	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	WINGSTOP INC	402,599.68	6,272	0.48	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ABEONA THERAPEUTICS INC	237,690.60	33,290	0.29	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	TELADOC HEALTH INC	346,494.30	6,990	0.42	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	/US/99Z03QI47 HONEST CO/THE	147,951.98	4,027	0.18	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	PLANET FITNESS INC CL A	1,797,932.22	33,531	2.16	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	MGP INGREDIENTS INC	889,694.75	15,595	1.07	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	GUIDEWIRE SOFTWARE INC	698,321.92	8,704	0.84	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	EPAM SYSTEMS INC	737,127.54	6,354	0.89	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	REXNORD CORP	1,045,923.30	45,574	1.26	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	FIVE BELOW	1,066,992.96	10,428	1.28	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	GLOBUS MEDICAL INC A	894,814.00	20,675	1.08	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	TOWER SEMICONDUCTOR LTD	455,451.26	30,899	0.55	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	HANNON ARMSTRONG SUSTAINABLE	828,313.05	43,481	1.00	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	PORTOLA PHARMACEUTICALS INC	239,783.68	12,284	0.29	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	VEEVA SYSTEMS INC CLASS A	990,469.48	11,089	1.19	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	AERIE PHARMACEUTICALS INC	499,948.90	13,849	0.60	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	STERLING BANCORP/DE	830,089.78	50,278	1.00	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	KARYOPHARM THERAPEUTICS INC	285,785.00	30,500	0.34	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	WIX.COM LTD	753,616.28	8,342	0.91	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	HERON THERAPEUTICS INC	470,084.68	18,122	0.57	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	REVANCE THERAPEUTICS INC	197,757.12	9,824	0.24	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	TRINET GROUP INC	940,477.05	22,419	1.13	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	2U INC	594,999.24	11,967	0.72	0	
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	FIVE9 INC	1,168,810.48	26,734	1.41	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	UNION BANKSHARES CORP	773,812.53	27,411	0.93		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ZENDESK INC	445,538.21	7,633	0.54		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	VIPER ENERGY PARTNERS LP	607,200.72	23,318	0.73		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	GLOBANT SA	1,418,869.76	25,193	1.71		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	MIMECAST LTD	1,139,552.55	33,885	1.37		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	UNDER ARMOUR INC CLASS C	901,849.41	55,773	1.08		0
MML SMALL CAP GROWTH EQUITY FUND	CASH	HONG KONG DOLLAR	1.46	11	0.00		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CARPENTER TECHNOLOGY	1,041,129.57	29,237	1.25		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	BOYD GAMING CORP	722,250.46	34,757	0.87		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	MERIT MEDICAL SYSTEMS INC	1,485,606.39	26,619	1.79		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	SKYLINE CHAMPION CORP	720,720.78	49,062	0.87		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	AMEDISYS INC	959,599.34	8,194	1.15		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	COSTAR GROUP INC	723,931.64	2,146	0.87		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	FAIR ISAAC CORP	950,521.00	5,083	1.14		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	FERRO CORP	681,452.80	43,460	0.82		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	HAEMONETICS CORP/MASS	1,065,932.70	10,654	1.28		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ZEBRA TECHNOLOGIES CORP CL A	1,414,280.86	8,882	1.70		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	MGIC INVESTMENT CORP	843,714.06	80,661	1.01		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	CABOT CORP	1,011,580.52	23,558	1.22		0
MML SMALL CAP GROWTH EQUITY FUND	CASH	US DOLLAR	0.76	1	0.00		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	ACTUANT CORP A	1,112,805.84	53,016	1.34		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	EXACT SCIENCES CORP	960,255.80	15,218	1.15		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	OMNICELL INC	1,375,082.96	22,454	1.65		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	MANTECH INTERNATIONAL CORP A	812,873.48	15,544	0.98		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	JETBLUE AIRWAYS CORP	344,133.68	21,428	0.41		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	HMS HOLDINGS CORP	1,081,260.94	38,438	1.30		0
MML SMALL CAP GROWTH EQUITY FUND	EQUITY	BRINK S CO/THE	1,396,957.20	21,608	1.68		0
MML LARGE CAP GROWTH FUND	EQUITY	EXPEDITORS INTL WASH INC	2,832,748.27	41,603	2.97		0
MML LARGE CAP GROWTH FUND	CASH	US DOLLAR	6.00	6	0.00		0
MML LARGE CAP GROWTH FUND	EQUITY	REGENERON PHARMACEUTICALS	3,426,489.00	9,174	3.59		0
MML LARGE CAP GROWTH FUND	EQUITY	CERNER CORP	2,033,937.84	38,786	2.13		0
MML LARGE CAP GROWTH FUND	EQUITY	VARIAN MEDICAL SYSTEMS INC	1,697,497.11	14,981	1.78		0
MML LARGE CAP GROWTH FUND	EQUITY	FACTSET RESEARCH SYSTEMS INC	1,657,276.53	8,281	1.73		0
MML LARGE CAP GROWTH FUND	EQUITY	SEI INVESTMENTS COMPANY	1,993,437.60	43,148	2.09		0
MML LARGE CAP GROWTH FUND	EQUITY	PROCTER + GAMBLE CO/THE	2,979,586.80	32,415	3.12		0
MML LARGE CAP GROWTH FUND	EQUITY	AMGEN INC	1,855,983.78	9,534	1.94		0
MML LARGE CAP GROWTH FUND	EQUITY	CISCO SYSTEMS INC	2,780,572.76	64,172	2.91		0
MML LARGE CAP GROWTH FUND	EQUITY	AMERICAN EXPRESS CO	1,051,379.60	11,030	1.10		0
MML LARGE CAP GROWTH FUND	EQUITY	COCA COLA CO/THE	2,615,803.40	55,244	2.74		0
MML LARGE CAP GROWTH FUND	EQUITY	UNITED PARCEL SERVICE CL B	887,132.88	9,096	0.93		0
MML LARGE CAP GROWTH FUND	EQUITY	DEERE + CO	2,666,562.92	17,876	2.79		0
MML LARGE CAP GROWTH FUND	EQUITY	AUTOMATIC DATA PROCESSING	907,350.40	6,920	0.95		0
MML LARGE CAP GROWTH FUND	EQUITY	COLGATE PALMOLIVE CO	1,920,829.44	32,272	2.01		0
MML LARGE CAP GROWTH FUND	EQUITY	SCHLUMBERGER LTD	1,624,429.84	45,023	1.70		0
MML LARGE CAP GROWTH FUND	EQUITY	QUALCOMM INC	2,677,160.22	47,042	2.80		0
MML LARGE CAP GROWTH FUND	EQUITY	NOVARTIS AG SPONSORED ADR	1,740,570.04	20,284	1.82		0
MML LARGE CAP GROWTH FUND	EQUITY	NOVO NORDISK A/S SPONS ADR	2,736,281.58	59,394	2.86		0
MML LARGE CAP GROWTH FUND	EQUITY	AUTODESK INC	3,845,953.44	29,904	4.03		0
MML LARGE CAP GROWTH FUND	EQUITY	STARBUCKS CORP	3,132,609.20	48,643	3.28		0
MML LARGE CAP GROWTH FUND	EQUITY	YUM BRANDS INC	1,864,505.28	20,284	1.95		0
MML LARGE CAP GROWTH FUND	EQUITY	VISA INC CLASS A SHARES	5,973,319.62	45,273	6.25		0
MML LARGE CAP GROWTH FUND	EQUITY	DANONE SPONS ADR	2,636,362.38	188,581	2.76		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML LARGE CAP GROWTH FUND	EQUITY	MERCK + CO. INC.	1,245,635.82	16,302	1.30	0	
MML LARGE CAP GROWTH FUND	EQUITY	FACEBOOK INC CLASS A	4,571,894.84	34,876	4.79	0	
MML LARGE CAP GROWTH FUND	EQUITY	ALIBABA GROUP HOLDING SP ADR	4,801,973.31	35,033	5.03	0	
MML LARGE CAP GROWTH FUND	EQUITY	MONSTER BEVERAGE CORP	3,059,318.32	62,156	3.20	0	
MML LARGE CAP GROWTH FUND	EQUITY	ALPHABET INC CL C	2,797,182.61	2,701	2.93	0	
MML LARGE CAP GROWTH FUND	EQUITY	ALPHABET INC CL A	2,815,122.24	2,694	2.95	0	
MML LARGE CAP GROWTH FUND	EQUITY	YUM CHINA HOLDINGS INC	1,237,860.54	36,918	1.30	0	
MML LARGE CAP GROWTH FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	3,488,874.88	3,488,875	3.65	1.25	1/2/2019
MML LARGE CAP GROWTH FUND	EQUITY	MICROSOFT CORP	3,232,871.53	31,829	3.38	0	
MML LARGE CAP GROWTH FUND	EQUITY	ORACLE CORP	4,615,142.70	102,218	4.83	0	
MML LARGE CAP GROWTH FUND	EQUITY	AMAZON.COM INC	6,131,041.54	4,082	6.42	0	
MML EQUITY INCOME FUND	EQUITY	GLAXOSMITHKLINE PLC	3,049,783.18	160,687	0.71	0	
MML EQUITY INCOME FUND	EQUITY	JPMORGAN CHASE + CO	14,854,835.40	152,170	3.44	0	
MML EQUITY INCOME FUND	EQUITY	US BANCORP	6,228,910.00	136,300	1.44	0	
MML EQUITY INCOME FUND	EQUITY	ZIMMER BIOMET HOLDINGS INC	414,880.00	4,000	0.10	0	
MML EQUITY INCOME FUND	EQUITY	CHEVRON CORP	4,112,262.00	37,800	0.95	0	
MML EQUITY INCOME FUND	EQUITY	AMERIPRISE FINANCIAL INC	751,464.00	7,200	0.17	0	
MML EQUITY INCOME FUND	EQUITY	AT+T INC	1,999,169.92	70,048	0.46	0	
MML EQUITY INCOME FUND	EQUITY	HESS CORP	3,450,600.00	85,200	0.80	0	
MML EQUITY INCOME FUND	EQUITY	TOTAL SA	9,098,358.50	172,226	2.11	0	
MML EQUITY INCOME FUND	EQUITY	DELTA AIR LINES INC	1,966,060.00	39,400	0.46	0	
MML EQUITY INCOME FUND	EQUITY	BANK OF NEW YORK MELLON CORP	3,003,066.00	63,800	0.70	0	
MML EQUITY INCOME FUND	EQUITY	PHILIP MORRIS INTERNATIONAL	4,726,608.00	70,800	1.10	0	
MML EQUITY INCOME FUND	EQUITY	EQT CORP	213,079.20	11,280	0.05	0	
MML EQUITY INCOME FUND	EQUITY	AMERICAN INTERNATIONAL GROUP	5,261,037.95	133,495	1.22	0	
MML EQUITY INCOME FUND	EQUITY	MERCK + CO. INC.	5,891,211.00	77,100	1.37	0	
MML EQUITY INCOME FUND	EQUITY	NXP SEMICONDUCTORS NV	776,768.00	10,600	0.18	0	
MML EQUITY INCOME FUND	EQUITY	TE CONNECTIVITY LTD	665,544.00	8,800	0.15	0	
MML EQUITY INCOME FUND	EQUITY	CITIGROUP INC	3,283,736.56	63,076	0.76	0	
MML EQUITY INCOME FUND	EQUITY	DUKE ENERGY CORP	2,519,960.00	29,200	0.58	0	
MML EQUITY INCOME FUND	EQUITY	L BRANDS INC	1,771,230.00	69,000	0.41	0	
MML EQUITY INCOME FUND	EQUITY	COTY INC CL A	499,038.88	76,073	0.12	0	
MML EQUITY INCOME FUND	EQUITY	NEWS CORP CLASS A	2,965,596.10	261,286	0.69	0	
MML EQUITY INCOME FUND	EQUITY	TWENTY FIRST CENTURY FOX B	10,726,610.00	224,500	2.49	0	
MML EQUITY INCOME FUND	EQUITY	PENTAIR PLC	1,042,728.00	27,600	0.24	0	
MML EQUITY INCOME FUND	EQUITY	ANTHEM INC	8,272,845.00	31,500	1.92	0	
MML EQUITY INCOME FUND	EQUITY	MEDTRONIC PLC	6,226,121.04	68,449	1.44	0	
MML EQUITY INCOME FUND	EQUITY	NIELSEN HOLDINGS PLC	3,993,022.82	171,154	0.93	0	
MML EQUITY INCOME FUND	EQUITY	HEWLETT PACKARD ENTERPRISE	780,711.00	59,100	0.18	0	
MML EQUITY INCOME FUND	EQUITY	WILLIS TOWERS WATSON PLC	2,435,986.26	16,041	0.56	0	
MML EQUITY INCOME FUND	EQUITY	CHUBB LTD	7,411,185.78	57,371	1.72	0	
MML EQUITY INCOME FUND	EQUITY	NEXTERA ENERGY INC	3,824,586.92	66,353	0.89	0	
MML EQUITY INCOME FUND	EQUITY	JOHNSON CONTROLS INTERNATION	6,113,800.35	206,199	1.42	0	
MML EQUITY INCOME FUND	EQUITY	ADIENT PLC	489,163.86	32,481	0.11	0	
MML EQUITY INCOME FUND	EQUITY	EQUITY RESIDENTIAL	3,993,605.00	60,500	0.93	0	
MML EQUITY INCOME FUND	EQUITY	SL GREEN REALTY CORP	2,421,508.68	30,621	0.56	0	
MML EQUITY INCOME FUND	EQUITY	BOEING CO/THE	7,965,750.00	24,700	1.85	0	
MML EQUITY INCOME FUND	EQUITY	KOHL'S CORP	2,328,534.00	35,100	0.54	0	
MML EQUITY INCOME FUND	EQUITY	PPG INDUSTRIES INC	511,150.00	5,000	0.12	0	
MML EQUITY INCOME FUND	EQUITY	NVENT ELECTRIC PLC	783,854.00	34,900	0.18	0	
MML EQUITY INCOME FUND	EQUITY	NISOURCE INC PP	510,599.70	20,142	0.12	0	
MML EQUITY INCOME FUND	FIXED INCOME	AXA SA	780,378.25	895,000	0.18	7.25	5/15/2021

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY INCOME FUND	EQUITY	EVERGY INC	2,191,322.00	38,600	0.51	0	
MML EQUITY INCOME FUND	EQUITY	SEMPRA ENERGY	660,421.12	6,848	0.15	0	
MML EQUITY INCOME FUND	EQUITY	EQUITRANS MIDSTREAM CORP	502,982.48	25,124	0.12	0	
MML EQUITY INCOME FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	4,970,050.05	4,970,050	1.15	1.25	1/2/2019
MML EQUITY INCOME FUND	EQUITY	COMCAST CORP CLASS A	4,657,869.75	136,795	1.08	0	
MML EQUITY INCOME FUND	EQUITY	TRANSCANADA CORP	6,008,310.00	168,300	1.39	0	
MML EQUITY INCOME FUND	EQUITY	LAS VEGAS SANDS CORP	3,992,235.00	76,700	0.93	0	
MML EQUITY INCOME FUND	EQUITY	CF INDUSTRIES HOLDINGS INC	4,233,523.00	97,300	0.98	0	
MML EQUITY INCOME FUND	EQUITY	DTE ENERGY CO	800,988.30	15,505	0.19	0	
MML EQUITY INCOME FUND	EQUITY	BECTON DICKINSON AND CO	3,664,870.83	63,549	0.85	0	
MML EQUITY INCOME FUND	EQUITY	BRIGHTHOUSE FINANCIAL INC	2,158,776.48	70,826	0.50	0	
MML EQUITY INCOME FUND	EQUITY	DOWDUPONT INC	9,220,754.20	172,415	2.14	0	
MML EQUITY INCOME FUND	FIXED INCOME	MATTEL INC	1,505,124.53	1,687,000	0.35	6.75	12/31/2025
MML EQUITY INCOME FUND	EQUITY	SEMPRA ENERGY	2,094,512.42	22,022	0.49	0	
MML EQUITY INCOME FUND	EQUITY	EDISON INTERNATIONAL	2,971,909.50	52,350	0.69	0	
MML EQUITY INCOME FUND	EQUITY	LOEWS CORP	4,955,443.76	108,863	1.15	0	
MML EQUITY INCOME FUND	EQUITY	NISOURCE INC	5,804,643.00	228,980	1.35	0	
MML EQUITY INCOME FUND	EQUITY	SOUTHERN CO/THE	8,846,673.84	201,427	2.05	0	
MML EQUITY INCOME FUND	EQUITY	ALASKA AIR GROUP INC	2,567,870.00	42,200	0.60	0	
MML EQUITY INCOME FUND	EQUITY	APACHE CORP	1,705,882.50	64,986	0.40	0	
MML EQUITY INCOME FUND	CASH EQUIVALENT	ROWE T PRICE GOV RES FD	1,046.58	1,047	0.00	0.01	9/19/2034
MML EQUITY INCOME FUND	EQUITY	NORTHERN TRUST CORP	1,228,773.00	14,700	0.28	0	
MML EQUITY INCOME FUND	EQUITY	KELLOGG CO	855,150.00	15,000	0.20	0	
MML EQUITY INCOME FUND	EQUITY	FIFTH THIRD BANCORP	5,456,607.00	231,900	1.26	0	
MML EQUITY INCOME FUND	EQUITY	SEMPRA ENERGY	1,151,141.60	10,640	0.27	0	
MML EQUITY INCOME FUND	EQUITY	MATTEL INC	1,735,263.00	173,700	0.40	0	
MML EQUITY INCOME FUND	EQUITY	ARCHER DANIELS MIDLAND CO	2,097,664.00	51,200	0.49	0	
MML EQUITY INCOME FUND	EQUITY	INTL PAPER CO	3,886,668.00	96,300	0.90	0	
MML EQUITY INCOME FUND	EQUITY	KEYCORP	1,470,107.48	99,466	0.34	0	
MML EQUITY INCOME FUND	EQUITY	NUCOR CORP	1,258,983.00	24,300	0.29	0	
MML EQUITY INCOME FUND	EQUITY	TEXAS INSTRUMENTS INC	3,210,448.50	33,973	0.74	0	
MML EQUITY INCOME FUND	EQUITY	JOHNSON + JOHNSON	8,943,165.00	69,300	2.07	0	
MML EQUITY INCOME FUND	EQUITY	STATE STREET CORP	5,398,792.00	85,600	1.25	0	
MML EQUITY INCOME FUND	EQUITY	PEPSICO INC	2,132,264.00	19,300	0.49	0	
MML EQUITY INCOME FUND	EQUITY	UNITED PARCEL SERVICE CL B	5,503,812.96	56,432	1.28	0	
MML EQUITY INCOME FUND	EQUITY	NORTHROP GRUMMAN CORP	367,350.00	1,500	0.09	0	
MML EQUITY INCOME FUND	EQUITY	OCCIDENTAL PETROLEUM CORP	4,265,910.00	69,500	0.99	0	
MML EQUITY INCOME FUND	EQUITY	P G + E CORP	1,610,345.00	67,804	0.37	0	
MML EQUITY INCOME FUND	EQUITY	RAYONIER INC	2,476,621.29	89,441	0.57	0	
MML EQUITY INCOME FUND	EQUITY	APPLIED MATERIALS INC	2,170,662.00	66,300	0.50	0	
MML EQUITY INCOME FUND	EQUITY	FLOWSERVE CORP	234,355.28	6,164	0.05	0	
MML EQUITY INCOME FUND	EQUITY	STERICYCLE INC	1,786,876.38	48,702	0.41	0	
MML EQUITY INCOME FUND	EQUITY	WESTERN DIGITAL CORP	658,066.00	17,800	0.15	0	
MML EQUITY INCOME FUND	EQUITY	GILEAD SCIENCES INC	5,354,280.00	85,600	1.24	0	
MML EQUITY INCOME FUND	EQUITY	AKZO NOBEL	859,772.04	10,696	0.20	0	
MML EQUITY INCOME FUND	EQUITY	TELEFONICA SA	2,752,845.78	326,157	0.64	0	
MML EQUITY INCOME FUND	EQUITY	BECTON DICKINSON AND CO	1,554,708.00	6,900	0.36	0	
MML EQUITY INCOME FUND	EQUITY	CENTURYLINK INC	775,755.75	51,205	0.18	0	
MML EQUITY INCOME FUND	EQUITY	CONAGRA BRANDS INC	2,089,841.04	97,839	0.48	0	
MML EQUITY INCOME FUND	EQUITY	FRANKLIN RESOURCES INC	3,903,256.00	131,600	0.90	0	
MML EQUITY INCOME FUND	EQUITY	CVS HEALTH CORP	4,239,340.56	64,703	0.98	0	
MML EQUITY INCOME FUND	EQUITY	CISCO SYSTEMS INC	7,188,447.00	165,900	1.67	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY INCOME FUND	EQUITY	WALT DISNEY CO/THE	1,600,890.00	14,600	0.37	0	
MML EQUITY INCOME FUND	EQUITY	EXXON MOBIL CORP	10,654,141.98	156,242	2.47	0	
MML EQUITY INCOME FUND	EQUITY	GENERAL ELECTRIC CO	2,469,334.00	326,200	0.57	0	
MML EQUITY INCOME FUND	EQUITY	MICROSOFT CORP	8,572,508.00	84,400	1.99	0	
MML EQUITY INCOME FUND	EQUITY	MORGAN STANLEY	7,057,700.00	178,000	1.64	0	
MML EQUITY INCOME FUND	EQUITY	PFIZER INC	9,225,602.10	211,354	2.14	0	
MML EQUITY INCOME FUND	EQUITY	WALMART INC	4,853,115.00	52,100	1.12	0	
MML EQUITY INCOME FUND	EQUITY	WELLS FARGO + CO	14,091,264.00	305,800	3.27	0	
MML EQUITY INCOME FUND	EQUITY	KIMBERLY CLARK CORP	7,269,372.00	63,800	1.68	0	
MML EQUITY INCOME FUND	EQUITY	PNC FINANCIAL SERVICES GROUP	4,349,052.00	37,200	1.01	0	
MML EQUITY INCOME FUND	EQUITY	BANK OF AMERICA CORP	344,393.28	13,977	0.08	0	
MML EQUITY INCOME FUND	EQUITY	EMERSON ELECTRIC CO	2,533,400.00	42,400	0.59	0	
MML EQUITY INCOME FUND	EQUITY	HARRIS CORP	6,589,097.75	48,935	1.53	0	
MML EQUITY INCOME FUND	CASH	US DOLLAR	106.81	107	0.00	0	
MML EQUITY INCOME FUND	EQUITY	BRISTOL MYERS SQUIBB CO	2,754,940.00	53,000	0.64	0	
MML EQUITY INCOME FUND	EQUITY	ILLINOIS TOOL WORKS	658,788.00	5,200	0.15	0	
MML EQUITY INCOME FUND	EQUITY	MARSH + MCLENNAN COS	1,866,150.00	23,400	0.43	0	
MML EQUITY INCOME FUND	EQUITY	QUALCOMM INC	8,502,354.00	149,400	1.97	0	
MML EQUITY INCOME FUND	EQUITY	SOUTHWEST AIRLINES CO	1,543,136.00	33,200	0.36	0	
MML EQUITY INCOME FUND	EQUITY	VULCAN MATERIALS CO	2,104,440.00	21,300	0.49	0	
MML EQUITY INCOME FUND	EQUITY	WEYERHAEUSER CO	2,532,940.06	115,871	0.59	0	
MML EQUITY INCOME FUND	EQUITY	METLIFE INC	5,924,958.00	144,300	1.37	0	
MML EQUITY INCOME FUND	EQUITY	GLAXOSMITHKLINE PLC SPON ADR	1,482,548.00	38,800	0.34	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MID CAP VALUE FUND	EQUITY	JOHNSON CONTROLS INTERNATION	6,028,793.80	203,332	1.56	0	
MML MID CAP VALUE FUND	EQUITY	BAKER HUGHES A GE CO	4,270,437.50	198,625	1.11	0	
MML MID CAP VALUE FUND	EQUITY	APTIV PLC	809,337.65	13,145	0.21	0	
MML MID CAP VALUE FUND	EQUITY	SIEMENS HEALTHINEERS AG	1,898,574.15	45,345	0.49	0	
MML MID CAP VALUE FUND	EQUITY	NVENT ELECTRIC PLC	2,803,367.36	124,816	0.73	0	
MML MID CAP VALUE FUND	EQUITY	ATLAS COPCO AB B SHS	3,142,586.35	143,333	0.81	0	
MML MID CAP VALUE FUND	EQUITY	ARTHUR J GALLAGHER + CO	1,635,992.60	22,198	0.42	0	
MML MID CAP VALUE FUND	EQUITY	HEARTLAND EXPRESS INC	4,099,511.10	224,017	1.06	0	
MML MID CAP VALUE FUND	EQUITY	MSC INDUSTRIAL DIRECT CO A	5,295,018.96	68,838	1.37	0	
MML MID CAP VALUE FUND	EQUITY	TERADYNE INC	1,958,582.70	62,415	0.51	0	
MML MID CAP VALUE FUND	EQUITY	EQUITRANS MIDSTREAM CORP	2,444,902.46	122,123	0.63	0	
MML MID CAP VALUE FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	13,258,393.62	13,258,394	3.43	1.25	1/2/2019
MML MID CAP VALUE FUND	EQUITY	KELLOGG CO	2,266,603.58	39,758	0.59	0	
MML MID CAP VALUE FUND	EQUITY	M + T BANK CORP	5,286,506.55	36,935	1.37	0	
MML MID CAP VALUE FUND	EQUITY	BB+T CORP	8,430,115.32	194,601	2.18	0	
MML MID CAP VALUE FUND	EQUITY	COMERICA INC	1,201,456.79	17,491	0.31	0	
MML MID CAP VALUE FUND	EQUITY	MCKESSON CORP	4,222,715.75	38,225	1.09	0	
MML MID CAP VALUE FUND	CASH	POUND STERLING	(0.03)	(0)	0.00	0	
MML MID CAP VALUE FUND	EQUITY	BORGWARNER INC	3,334,171.50	95,975	0.86	0	
MML MID CAP VALUE FUND	EQUITY	EDISON INTERNATIONAL	2,714,344.01	47,813	0.70	0	
MML MID CAP VALUE FUND	EQUITY	PINNACLE WEST CAPITAL	4,894,143.60	57,443	1.27	0	
MML MID CAP VALUE FUND	EQUITY	AMEREN CORPORATION	4,221,359.45	64,715	1.09	0	
MML MID CAP VALUE FUND	EQUITY	CUMMINS INC	4,931,316.00	36,900	1.28	0	
MML MID CAP VALUE FUND	EQUITY	DEVON ENERGY CORP	3,538,261.58	156,977	0.92	0	
MML MID CAP VALUE FUND	EQUITY	LAM RESEARCH CORP	3,082,071.78	22,634	0.80	0	
MML MID CAP VALUE FUND	EQUITY	PULTEGROUP INC	4,497,985.34	173,066	1.16	0	
MML MID CAP VALUE FUND	EQUITY	UMB FINANCIAL CORP	5,350,483.32	87,756	1.38	0	
MML MID CAP VALUE FUND	EQUITY	HOLOGIC INC	2,562,502.80	62,348	0.66	0	
MML MID CAP VALUE FUND	EQUITY	QUEST DIAGNOSTICS INC	4,503,324.87	54,081	1.17	0	
MML MID CAP VALUE FUND	EQUITY	THOR INDUSTRIES INC	2,411,240.00	46,370	0.62	0	
MML MID CAP VALUE FUND	EQUITY	APPLIED MATERIALS INC	2,365,334.04	72,246	0.61	0	
MML MID CAP VALUE FUND	EQUITY	ATMOS ENERGY CORP	2,826,940.08	30,489	0.73	0	
MML MID CAP VALUE FUND	EQUITY	BROWN + BROWN INC	2,245,368.32	81,472	0.58	0	
MML MID CAP VALUE FUND	EQUITY	CERNER CORP	2,999,463.12	57,198	0.78	0	
MML MID CAP VALUE FUND	EQUITY	WESTAMERICA BANCORPORATION	4,411,916.16	79,237	1.14	0	
MML MID CAP VALUE FUND	EQUITY	SCHNEIDER ELECTRIC SE	3,157,028.37	46,388	0.82	0	
MML MID CAP VALUE FUND	EQUITY	CONAGRA BRANDS INC	4,007,328.24	187,609	1.04	0	
MML MID CAP VALUE FUND	EQUITY	GENUINE PARTS CO	3,259,398.90	33,945	0.84	0	
MML MID CAP VALUE FUND	EQUITY	KIMBERLY CLARK CORP	4,162,342.14	36,531	1.08	0	
MML MID CAP VALUE FUND	EQUITY	TORCHMARK CORP	1,288,921.82	17,294	0.33	0	
MML MID CAP VALUE FUND	EQUITY	EMERSON ELECTRIC CO	3,381,133.00	56,588	0.87	0	
MML MID CAP VALUE FUND	EQUITY	SONOCO PRODUCTS CO	5,407,943.31	101,787	1.40	0	
MML MID CAP VALUE FUND	CASH	US DOLLAR	10,003.86	10,004	0.00	0	
MML MID CAP VALUE FUND	EQUITY	SYSCO CORP	3,804,151.26	60,711	0.98	0	
MML MID CAP VALUE FUND	EQUITY	TEXTRON INC	1,488,512.34	32,366	0.39	0	
MML MID CAP VALUE FUND	EQUITY	STATE STREET CORP	3,085,195.19	48,917	0.80	0	
MML MID CAP VALUE FUND	EQUITY	TARGET CORP	2,539,111.71	38,419	0.66	0	
MML MID CAP VALUE FUND	EQUITY	CARDINAL HEALTH INC	5,624,684.40	126,114	1.46	0	
MML MID CAP VALUE FUND	EQUITY	ANADARKO PETROLEUM CORP	2,756,571.52	62,878	0.71	0	
MML MID CAP VALUE FUND	CASH	EURO CURRENCY	0.66	1	0.00	0	
MML MID CAP VALUE FUND	EQUITY	HALLIBURTON CO	2,780,879.34	104,623	0.72	0	
MML MID CAP VALUE FUND	EQUITY	MAXIM INTEGRATED PRODUCTS	5,350,996.35	105,231	1.38	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MID CAP VALUE FUND	EQUITY	SOUTHWEST AIRLINES CO	4,987,304.00	107,300	1.29	0	
MML MID CAP VALUE FUND	EQUITY	SUNTRUST BANKS INC	4,172,951.64	82,731	1.08	0	
MML MID CAP VALUE FUND	EQUITY	WEYERHAEUSER CO	6,868,827.34	314,219	1.78	0	
MML MID CAP VALUE FUND	EQUITY	AFLAC INC	2,482,928.88	54,498	0.64	0	
MML MID CAP VALUE FUND	EQUITY	HONDA MOTOR CO LTD SPONS ADR	3,446,064.70	130,286	0.89	0	
MML MID CAP VALUE FUND	EQUITY	REPUBLIC SERVICES INC	2,507,001.84	34,776	0.65	0	
MML MID CAP VALUE FUND	EQUITY	PACCAR INC	2,416,907.72	42,298	0.63	0	
MML MID CAP VALUE FUND	EQUITY	MICROCHIP TECHNOLOGY INC	3,910,721.92	54,376	1.01	0	
MML MID CAP VALUE FUND	EQUITY	NATIONAL OILWELL VARCO INC	2,225,183.10	86,583	0.58	0	
MML MID CAP VALUE FUND	EQUITY	XCEL ENERGY INC	7,390,105.84	149,992	1.91	0	
MML MID CAP VALUE FUND	EQUITY	SODEXO SA	3,565,062.83	34,858	0.92	0	
MML MID CAP VALUE FUND	EQUITY	PROASSURANCE CORP	1,945,379.28	47,963	0.50	0	
MML MID CAP VALUE FUND	EQUITY	ZIMMER BIOMET HOLDINGS INC	13,047,976.00	125,800	3.38	0	
MML MID CAP VALUE FUND	EQUITY	ADVANCE AUTO PARTS INC	3,977,124.68	25,258	1.03	0	
MML MID CAP VALUE FUND	EQUITY	ISHARES RUSSELL MID CAP VALUE	6,860,276.55	89,853	1.78	0	
MML MID CAP VALUE FUND	EQUITY	BANK OF HAWAII CORP	1,013,973.84	15,062	0.26	0	
MML MID CAP VALUE FUND	EQUITY	NOBLE ENERGY INC	3,839,402.84	204,659	0.99	0	
MML MID CAP VALUE FUND	EQUITY	JM SMUCKER CO/THE	1,986,662.50	21,250	0.51	0	
MML MID CAP VALUE FUND	EQUITY	CIMAREX ENERGY CO	3,130,402.05	50,777	0.81	0	
MML MID CAP VALUE FUND	EQUITY	CARNIVAL CORP	2,602,990.70	52,799	0.67	0	
MML MID CAP VALUE FUND	EQUITY	NORTHWESTERN CORP	6,104,725.76	102,704	1.58	0	
MML MID CAP VALUE FUND	EQUITY	MOLSON COORS BREWING CO B	1,933,644.96	34,431	0.50	0	
MML MID CAP VALUE FUND	EQUITY	AMERIPRISE FINANCIAL INC	5,330,384.64	51,072	1.38	0	
MML MID CAP VALUE FUND	EQUITY	TRAVELERS COS INC/THE	1,155,827.00	9,652	0.30	0	
MML INCOME & GROWTH FUND	EQUITY	LOEWS CORP	2,793,744.48	61,374	2.13	0	
MML INCOME & GROWTH FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	757,532.60	757,533	0.58	1.25	1/2/2019
MML INCOME & GROWTH FUND	EQUITY	ENTERGY CORP	4,615,073.40	53,620	3.51	0	
MML INCOME & GROWTH FUND	EQUITY	OCCIDENTAL PETROLEUM CORP	2,539,720.26	41,377	1.93	0	
MML INCOME & GROWTH FUND	EQUITY	CVS HEALTH CORP	4,029,611.04	61,502	3.07	0	
MML INCOME & GROWTH FUND	EQUITY	GENERAL ELECTRIC CO	3,297,363.31	435,583	2.51	0	
MML INCOME & GROWTH FUND	EQUITY	ORACLE CORP	2,674,686.00	59,240	2.04	0	
MML INCOME & GROWTH FUND	EQUITY	PFIZER INC	4,140,115.20	94,848	3.15	0	
MML INCOME & GROWTH FUND	EQUITY	WALMART INC	2,106,680.40	22,616	1.60	0	
MML INCOME & GROWTH FUND	EQUITY	WELLS FARGO + CO	4,489,850.88	97,436	3.42	0	
MML INCOME & GROWTH FUND	EQUITY	BANK OF AMERICA CORP	3,834,057.92	155,603	2.92	0	
MML INCOME & GROWTH FUND	EQUITY	INTL BUSINESS MACHINES CORP	2,694,774.69	23,707	2.05	0	
MML INCOME & GROWTH FUND	CASH	US DOLLAR	1.87	2	0.00	0	
MML INCOME & GROWTH FUND	EQUITY	LOWE S COS INC	1,399,900.52	15,157	1.07	0	
MML INCOME & GROWTH FUND	EQUITY	BP PLC SPONS ADR	2,005,550.88	52,889	1.53	0	
MML INCOME & GROWTH FUND	EQUITY	JOHNSON + JOHNSON	3,184,437.80	24,676	2.42	0	
MML INCOME & GROWTH FUND	EQUITY	STATE STREET CORP	3,760,548.75	59,625	2.86	0	
MML INCOME & GROWTH FUND	EQUITY	UNITED TECHNOLOGIES CORP	3,622,769.04	34,023	2.76	0	
MML INCOME & GROWTH FUND	EQUITY	WHIRLPOOL CORP	1,337,691.79	12,517	1.02	0	
MML INCOME & GROWTH FUND	EQUITY	AMERICAN EXPRESS CO	3,714,620.40	38,970	2.83	0	
MML INCOME & GROWTH FUND	EQUITY	CARDINAL HEALTH INC	1,750,996.00	39,260	1.33	0	
MML INCOME & GROWTH FUND	EQUITY	SCHLUMBERGER LTD	2,946,797.92	81,674	2.24	0	
MML INCOME & GROWTH FUND	EQUITY	QUALCOMM INC	2,846,979.66	50,026	2.17	0	
MML INCOME & GROWTH FUND	EQUITY	SOUTHWEST AIRLINES CO	2,537,715.04	54,598	1.93	0	
MML INCOME & GROWTH FUND	EQUITY	TYSON FOODS INC CL A	1,369,336.20	25,643	1.04	0	
MML INCOME & GROWTH FUND	EQUITY	VERIZON COMMUNICATIONS INC	3,804,632.28	67,674	2.90	0	
MML INCOME & GROWTH FUND	EQUITY	EXELON CORP	4,656,800.50	103,255	3.55	0	
MML INCOME & GROWTH FUND	EQUITY	JPMORGAN CHASE + CO	4,556,120.64	46,672	3.47	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML INCOME & GROWTH FUND	EQUITY	US BANCORP	4,021,325.80	87,994	3.06		0
MML INCOME & GROWTH FUND	EQUITY	CHEVRON CORP	3,343,769.44	30,736	2.55		0
MML INCOME & GROWTH FUND	EQUITY	SANOFI ADR	3,007,748.67	69,287	2.29		0
MML INCOME & GROWTH FUND	EQUITY	CONOCOPHILLIPS	4,028,807.60	64,616	3.07		0
MML INCOME & GROWTH FUND	EQUITY	ALTRIA GROUP INC	2,824,268.37	57,183	2.15		0
MML INCOME & GROWTH FUND	EQUITY	AT+T INC	2,626,193.72	92,018	2.00		0
MML INCOME & GROWTH FUND	EQUITY	HCP INC	3,744,603.03	134,071	2.85		0
MML INCOME & GROWTH FUND	EQUITY	PHILIP MORRIS INTERNATIONAL	2,649,237.08	39,683	2.02		0
MML INCOME & GROWTH FUND	EQUITY	STANLEY BLACK + DECKER INC	4,097,862.02	34,223	3.12		0
MML INCOME & GROWTH FUND	EQUITY	PHILLIPS 66	4,075,756.50	47,310	3.10		0
MML INCOME & GROWTH FUND	EQUITY	JOHNSON CONTROLS INTERNATION	3,668,416.60	123,724	2.79		0
MML INCOME & GROWTH FUND	EQUITY	ADIANT PLC	94,230.42	6,257	0.07		0
MML INCOME & GROWTH FUND	EQUITY	DOWDUPONT INC	4,093,680.08	76,546	3.12		0
MML INCOME & GROWTH FUND	EQUITY	LINDE PLC	3,496,232.24	22,406	2.66		0
MML INCOME & GROWTH FUND	EQUITY	DOMINION ENERGY INC	4,102,518.60	57,410	3.12		0
MML BLUE CHIP GROWTH FUND	EQUITY	DOWDUPONT INC	69,524.00	1,300	0.02		0
MML BLUE CHIP GROWTH FUND	EQUITY	APTIV PLC	1,684,986.19	27,367	0.47		0
MML BLUE CHIP GROWTH FUND	EQUITY	WORLDPAY INC CLASS A	1,718,452.12	22,484	0.48		0
MML BLUE CHIP GROWTH FUND	EQUITY	BOOKING HOLDINGS INC	10,613,552.04	6,162	2.95		0
MML BLUE CHIP GROWTH FUND	EQUITY	BROADCOM INC	308,187.36	1,212	0.09		0
MML BLUE CHIP GROWTH FUND	EQUITY	CIGNA CORP	6,184,554.88	32,564	1.72		0
MML BLUE CHIP GROWTH FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	6,952,414.97	6,952,415	1.94	1.25	1/2/2019
MML BLUE CHIP GROWTH FUND	EQUITY	ANT INTERNATIONAL CO. LIMITED	775,038.33	138,153	0.22		0
MML BLUE CHIP GROWTH FUND	EQUITY	HONEYWELL INTERNATIONAL INC	2,093,969.88	15,849	0.58		0
MML BLUE CHIP GROWTH FUND	EQUITY	INTUITIVE SURGICAL INC	6,006,614.64	12,542	1.67		0
MML BLUE CHIP GROWTH FUND	EQUITY	BIOGEN INC	19,860.72	66	0.01		0
MML BLUE CHIP GROWTH FUND	EQUITY	CTRIIP.COM INTERNATIONAL ADR	41,672.40	1,540	0.01		0
MML BLUE CHIP GROWTH FUND	EQUITY	SALESFORCE.COM INC	7,307,349.50	53,350	2.03		0
MML BLUE CHIP GROWTH FUND	EQUITY	WELLCARE HEALTH PLANS INC	1,782,479.50	7,550	0.50		0
MML BLUE CHIP GROWTH FUND	EQUITY	AMERIPRISE FINANCIAL INC	41,748.00	400	0.01		0
MML BLUE CHIP GROWTH FUND	EQUITY	TD AMERITRADE HOLDING CORP	5,403,078.72	110,357	1.50		0
MML BLUE CHIP GROWTH FUND	EQUITY	FIDELITY NATIONAL INFO SERV	1,884,151.15	18,373	0.52		0
MML BLUE CHIP GROWTH FUND	EQUITY	MASTERCARD INC A	10,309,533.85	54,649	2.87		0
MML BLUE CHIP GROWTH FUND	EQUITY	DELTA AIR LINES INC	1,557,029.70	31,203	0.43		0
MML BLUE CHIP GROWTH FUND	EQUITY	VMWARE INC CLASS A	1,594,959.03	11,631	0.44		0
MML BLUE CHIP GROWTH FUND	EQUITY	ULTA BEAUTY INC	146,904.00	600	0.04		0
MML BLUE CHIP GROWTH FUND	EQUITY	PHILIP MORRIS INTERNATIONAL	33,380.00	500	0.01		0
MML BLUE CHIP GROWTH FUND	EQUITY	VISA INC CLASS A SHARES	12,440,886.48	94,292	3.46		0
MML BLUE CHIP GROWTH FUND	EQUITY	ACTIVISION BLIZZARD INC	552,692.76	11,868	0.15		0
MML BLUE CHIP GROWTH FUND	EQUITY	IAC/INTERACTIVECORP	845,827.84	4,621	0.24		0
MML BLUE CHIP GROWTH FUND	EQUITY	AMERICAN INTERNATIONAL GROUP	508,467.82	12,902	0.14		0
MML BLUE CHIP GROWTH FUND	EQUITY	MERCK + CO. INC.	1,466,613.54	19,194	0.41		0
MML BLUE CHIP GROWTH FUND	EQUITY	DOLLAR GENERAL CORP	3,580,798.48	33,131	1.00		0
MML BLUE CHIP GROWTH FUND	EQUITY	NEXTERA ENERGY INC	34,764.00	200	0.01		0
MML BLUE CHIP GROWTH FUND	EQUITY	TESLA INC	4,152,345.60	12,477	1.16		0
MML BLUE CHIP GROWTH FUND	EQUITY	UNITED CONTINENTAL HOLDINGS	1,790,147.40	21,380	0.50		0
MML BLUE CHIP GROWTH FUND	EQUITY	FLEETCOR TECHNOLOGIES INC	572,389.04	3,082	0.16		0
MML BLUE CHIP GROWTH FUND	EQUITY	MOTOROLA SOLUTIONS INC	184,064.00	1,600	0.05		0
MML BLUE CHIP GROWTH FUND	EQUITY	HCA HEALTHCARE INC	891,062.00	7,160	0.25		0
MML BLUE CHIP GROWTH FUND	EQUITY	CITIGROUP INC	88,502.00	1,700	0.02		0
MML BLUE CHIP GROWTH FUND	EQUITY	XYLEM INC	146,784.00	2,200	0.04		0
MML BLUE CHIP GROWTH FUND	EQUITY	AMERICAN TOWER CORP	85,897.17	543	0.02		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLUE CHIP GROWTH FUND	EQUITY	SPLUNK INC	1,595,712.15	15,219	0.44		0
MML BLUE CHIP GROWTH FUND	EQUITY	FACEBOOK INC CLASS A	13,617,629.20	103,880	3.79		0
MML BLUE CHIP GROWTH FUND	EQUITY	SERVICENOW INC	5,903,781.90	33,158	1.64		0
MML BLUE CHIP GROWTH FUND	EQUITY	WORKDAY INC CLASS A	4,133,476.48	25,886	1.15		0
MML BLUE CHIP GROWTH FUND	EQUITY	NORWEGIAN CRUISE LINE HOLDIN	319,917.33	7,547	0.09		0
MML BLUE CHIP GROWTH FUND	EQUITY	ZOETIS INC	248,066.00	2,900	0.07		0
MML BLUE CHIP GROWTH FUND	EQUITY	INTERCONTINENTAL EXCHANGE IN	2,637,604.62	35,014	0.73		0
MML BLUE CHIP GROWTH FUND	EQUITY	AMERICAN AIRLINES GROUP INC	480,590.37	14,967	0.13		0
MML BLUE CHIP GROWTH FUND	EQUITY	TENCENT HOLDINGS LTD	7,777,176.97	196,200	2.16		0
MML BLUE CHIP GROWTH FUND	EQUITY	ALIBABA GROUP HOLDING SP ADR	10,445,967.63	76,209	2.91		0
MML BLUE CHIP GROWTH FUND	EQUITY	ANTHEM INC	5,416,481.12	20,624	1.51		0
MML BLUE CHIP GROWTH FUND	EQUITY	RESTAURANT BRANDS INTERN	952,173.80	18,206	0.27		0
MML BLUE CHIP GROWTH FUND	EQUITY	PAYPAL HOLDINGS INC	6,110,483.94	72,666	1.70		0
MML BLUE CHIP GROWTH FUND	EQUITY	ALPHABET INC CL C	15,634,604.17	15,097	4.35		0
MML BLUE CHIP GROWTH FUND	EQUITY	MICROCHIP TECHNOLOGY INC	48,042.56	668	0.01		0
MML BLUE CHIP GROWTH FUND	EQUITY	RAYMOND JAMES FINANCIAL INC	352,703.40	4,740	0.10		0
MML BLUE CHIP GROWTH FUND	EQUITY	KANSAS CITY SOUTHERN	84,759.60	888	0.02		0
MML BLUE CHIP GROWTH FUND	EQUITY	ILLUMINA INC	402,805.99	1,343	0.11		0
MML BLUE CHIP GROWTH FUND	EQUITY	CONSTELLATION BRANDS INC A	128,656.00	800	0.04		0
MML BLUE CHIP GROWTH FUND	EQUITY	JPMORGAN CHASE + CO	1,197,992.64	12,272	0.33		0
MML BLUE CHIP GROWTH FUND	EQUITY	GLOBAL PAYMENTS INC	3,937,606.53	38,181	1.10		0
MML BLUE CHIP GROWTH FUND	EQUITY	CANADIAN PACIFIC RAILWAY LTD	918,117.78	5,169	0.26		0
MML BLUE CHIP GROWTH FUND	EQUITY	CENTENE CORP	1,993,882.90	17,293	0.55		0
MML BLUE CHIP GROWTH FUND	EQUITY	YUM BRANDS INC	1,550,690.40	16,870	0.43		0
MML BLUE CHIP GROWTH FUND	EQUITY	NETFLIX INC	4,466,710.08	16,688	1.24		0
MML BLUE CHIP GROWTH FUND	EQUITY	WYNN RESORTS LTD	44,608.41	451	0.01		0
MML BLUE CHIP GROWTH FUND	CASH EQUIVALENT	ROWE T PRICE GOV RES FD	1,046.58	1,047	0.00	0.01	9/19/2034
MML BLUE CHIP GROWTH FUND	EQUITY	RED HAT INC	627,034.80	3,570	0.17		0
MML BLUE CHIP GROWTH FUND	CASH	SOUTH KOREAN WON	0.09	96	0.00		0
MML BLUE CHIP GROWTH FUND	EQUITY	INTUIT INC	5,771,248.30	29,318	1.61		0
MML BLUE CHIP GROWTH FUND	EQUITY	STRYKER CORP	6,854,991.00	43,732	1.91		0
MML BLUE CHIP GROWTH FUND	EQUITY	NORTHERN TRUST CORP	41,795.00	500	0.01		0
MML BLUE CHIP GROWTH FUND	EQUITY	ROYAL CARIBBEAN CRUISES LTD	1,659,691.88	16,972	0.46		0
MML BLUE CHIP GROWTH FUND	EQUITY	SEMPRA ENERGY	408,309.06	3,774	0.11		0
MML BLUE CHIP GROWTH FUND	EQUITY	PROGRESSIVE CORP	397,454.04	6,588	0.11		0
MML BLUE CHIP GROWTH FUND	EQUITY	AMAZON.COM INC	35,389,417.14	23,562	9.85		0
MML BLUE CHIP GROWTH FUND	EQUITY	CINTAS CORP	353,450.96	2,104	0.10		0
MML BLUE CHIP GROWTH FUND	EQUITY	ROPER TECHNOLOGIES INC	2,583,644.88	9,694	0.72		0
MML BLUE CHIP GROWTH FUND	EQUITY	ALASKA AIR GROUP INC	418,952.25	6,885	0.12		0
MML BLUE CHIP GROWTH FUND	EQUITY	CSX CORP	1,439,738.49	23,173	0.40		0
MML BLUE CHIP GROWTH FUND	EQUITY	HUMANA INC	2,281,526.72	7,964	0.64		0
MML BLUE CHIP GROWTH FUND	EQUITY	LAM RESEARCH CORP	54,468.00	400	0.02		0
MML BLUE CHIP GROWTH FUND	EQUITY	NORFOLK SOUTHERN CORP	229,394.36	1,534	0.06		0
MML BLUE CHIP GROWTH FUND	EQUITY	NORTHROP GRUMMAN CORP	2,448,755.10	9,999	0.68		0
MML BLUE CHIP GROWTH FUND	EQUITY	THERMO FISHER SCIENTIFIC INC	3,882,085.13	17,347	1.08		0
MML BLUE CHIP GROWTH FUND	EQUITY	UNION PACIFIC CORP	552,920.00	4,000	0.15		0
MML BLUE CHIP GROWTH FUND	EQUITY	ALEXION PHARMACEUTICALS INC	2,056,535.28	21,123	0.57		0
MML BLUE CHIP GROWTH FUND	EQUITY	CELGENE CORP	18,265.65	285	0.01		0
MML BLUE CHIP GROWTH FUND	EQUITY	COSTAR GROUP INC	229,728.54	681	0.06		0
MML BLUE CHIP GROWTH FUND	EQUITY	VERTEX PHARMACEUTICALS INC	6,048,912.13	36,503	1.68		0
MML BLUE CHIP GROWTH FUND	EQUITY	BALL CORP	565,599.98	12,301	0.16		0
MML BLUE CHIP GROWTH FUND	EQUITY	NVIDIA CORP	993,507.00	7,442	0.28		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLUE CHIP GROWTH FUND	EQUITY	BECTON DICKINSON AND CO	7,105,240.88	31,534	1.98	0	
MML BLUE CHIP GROWTH FUND	EQUITY	APPLE INC	1,719,208.26	10,899	0.48	0	
MML BLUE CHIP GROWTH FUND	EQUITY	MICROSOFT CORP	20,334,517.14	200,202	5.66	0	
MML BLUE CHIP GROWTH FUND	EQUITY	MORGAN STANLEY	3,711,953.70	93,618	1.03	0	
MML BLUE CHIP GROWTH FUND	EQUITY	PFIZER INC	397,215.00	9,100	0.11	0	
MML BLUE CHIP GROWTH FUND	EQUITY	HARRIS CORP	1,349,327.65	10,021	0.38	0	
MML BLUE CHIP GROWTH FUND	CASH	US DOLLAR	290,148.25	290,148	0.08	0	
MML BLUE CHIP GROWTH FUND	EQUITY	ABBOTT LABORATORIES	1,115,039.28	15,416	0.31	0	
MML BLUE CHIP GROWTH FUND	EQUITY	MARSH + MCLENNAN COS	547,164.75	6,861	0.15	0	
MML BLUE CHIP GROWTH FUND	EQUITY	TEXAS INSTRUMENTS INC	1,823,755.50	19,299	0.51	0	
MML BLUE CHIP GROWTH FUND	EQUITY	ELI LILLY + CO	2,697,548.92	23,311	0.75	0	
MML BLUE CHIP GROWTH FUND	EQUITY	MCDONALD S CORP	1,649,447.73	9,289	0.46	0	
MML BLUE CHIP GROWTH FUND	EQUITY	STATE STREET CORP	239,539.86	3,798	0.07	0	
MML BLUE CHIP GROWTH FUND	EQUITY	MARRIOTT INTERNATIONAL CL A	2,120,611.04	19,534	0.59	0	
MML BLUE CHIP GROWTH FUND	EQUITY	SHERWIN WILLIAMS CO/THE	759,377.80	1,930	0.21	0	
MML BLUE CHIP GROWTH FUND	EQUITY	AIR PRODUCTS + CHEMICALS INC	262,962.15	1,643	0.07	0	
MML BLUE CHIP GROWTH FUND	EQUITY	AUTOMATIC DATA PROCESSING	314,688.00	2,400	0.09	0	
MML BLUE CHIP GROWTH FUND	EQUITY	GOLDMAN SACHS GROUP INC	16,705.00	100	0.00	0	
MML BLUE CHIP GROWTH FUND	EQUITY	ROSS STORES INC	3,137,472.00	37,710	0.87	0	
MML BLUE CHIP GROWTH FUND	EQUITY	BOEING CO/THE	13,625,947.50	42,251	3.79	0	
MML BLUE CHIP GROWTH FUND	EQUITY	CORNING INC	71,658.12	2,372	0.02	0	
MML BLUE CHIP GROWTH FUND	EQUITY	FISERV INC	2,497,410.67	33,983	0.70	0	
MML BLUE CHIP GROWTH FUND	EQUITY	MAXIM INTEGRATED PRODUCTS	1,614,029.85	31,741	0.45	0	
MML BLUE CHIP GROWTH FUND	EQUITY	XILINX INC	692,943.12	8,136	0.19	0	
MML BLUE CHIP GROWTH FUND	EQUITY	ELECTRONIC ARTS INC	260,245.18	3,298	0.07	0	
MML BLUE CHIP GROWTH FUND	EQUITY	SCHWAB (CHARLES) CORP	2,739,152.68	65,956	0.76	0	
MML BLUE CHIP GROWTH FUND	EQUITY	UNITEDHEALTH GROUP INC	11,430,123.84	45,882	3.18	0	
MML BLUE CHIP GROWTH FUND	EQUITY	DANAHER CORP	3,717,682.24	36,052	1.03	0	
MML BLUE CHIP GROWTH FUND	EQUITY	AGILENT TECHNOLOGIES INC	269,840.00	4,000	0.08	0	
MML BLUE CHIP GROWTH FUND	EQUITY	ALPHABET INC CL A	5,866,405.44	5,614	1.63	0	
MML BLUE CHIP GROWTH FUND	EQUITY	FERRARI NV	337,598.80	3,395	0.09	0	
MML BLUE CHIP GROWTH FUND	EQUITY	WILLIS TOWERS WATSON PLC	2,787,086.58	18,353	0.78	0	
MML BLUE CHIP GROWTH FUND	EQUITY	CHUBB LTD	607,146.00	4,700	0.17	0	
MML BLUE CHIP GROWTH FUND	EQUITY	S+P GLOBAL INC	957,611.90	5,635	0.27	0	
MML BLUE CHIP GROWTH FUND	EQUITY	FORTIVE CORP W/D	1,261,453.04	18,644	0.35	0	
MML BLUE CHIP GROWTH FUND	EQUITY	IHS MARKIT LTD	55,069.56	1,148	0.02	0	
MML BLUE CHIP GROWTH FUND	EQUITY	L3 TECHNOLOGIES INC	45,325.26	261	0.01	0	
MML BLUE CHIP GROWTH FUND	EQUITY	HILTON WORLDWIDE HOLDINGS IN	1,277,250.20	17,789	0.36	0	
MML FOREIGN FUND	EQUITY	SAMSUNG ELECTRONICS CO LTD	8,141,538.08	235,300	2.69	0	
MML FOREIGN FUND	EQUITY	TAIWAN SEMICONDUCTOR MANUFAC	4,655,193.25	641,275	1.54	0	
MML FOREIGN FUND	CASH	US DOLLAR	0.68	1	0.00	0	
MML FOREIGN FUND	EQUITY	TEVA PHARMACEUTICAL SP ADR	4,557,658.56	295,568	1.51	0	
MML FOREIGN FUND	EQUITY	VESTAS WIND SYSTEMS A/S	5,085,121.70	66,972	1.68	0	
MML FOREIGN FUND	EQUITY	SUMITOMO RUBBER INDUSTRIES	1,448,372.46	121,700	0.48	0	
MML FOREIGN FUND	EQUITY	STANDARD CHARTERED PLC	7,589,171.68	981,823	2.51	0	
MML FOREIGN FUND	EQUITY	ROCHE HOLDING AG GENUSSCHEIN	6,815,372.67	27,562	2.26	0	
MML FOREIGN FUND	EQUITY	NOVARTIS AG REG	5,129,995.33	59,896	1.70	0	
MML FOREIGN FUND	EQUITY	AXA SA	3,913,761.20	181,650	1.30	0	
MML FOREIGN FUND	EQUITY	ENI SPA	5,522,936.56	350,704	1.83	0	
MML FOREIGN FUND	EQUITY	CREDIT AGRICOLE SA	1,205,295.23	112,057	0.40	0	
MML FOREIGN FUND	EQUITY	BNP PARIBAS	6,196,939.85	137,593	2.05	0	
MML FOREIGN FUND	EQUITY	COMPAGNIE DE SAINT GOBAIN	2,798,630.79	84,080	0.93	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML FOREIGN FUND	EQUITY	CHINA TELECOM CORP LTD H	5,616,485.01	11,037,643	1.86	0	
MML FOREIGN FUND	EQUITY	SUMITOMO MITSUI FINANCIAL GR	2,209,447.79	67,000	0.73	0	
MML FOREIGN FUND	EQUITY	KINGFISHER PLC	3,352,138.74	1,267,063	1.11	0	
MML FOREIGN FUND	EQUITY	YARA INTERNATIONAL ASA	2,989,014.26	77,872	0.99	0	
MML FOREIGN FUND	EQUITY	SES	4,712,175.56	246,017	1.56	0	
MML FOREIGN FUND	EQUITY	SINGAPORE TELECOMMUNICATIONS	4,754,568.38	2,216,600	1.57	0	
MML FOREIGN FUND	EQUITY	LANXESS AG	2,751,145.22	59,730	0.91	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML FOREIGN FUND	EQUITY	HSBC HOLDINGS PLC	4,770,172.97	578,800	1.58	0	
MML FOREIGN FUND	EQUITY	CHINA MOBILE LTD	4,625,864.30	480,000	1.53	0	
MML FOREIGN FUND	EQUITY	BANGKOK BANK PCL FOREIGN REG	4,517,787.90	709,700	1.50	0	
MML FOREIGN FUND	EQUITY	UBS GROUP AG REG	5,707,908.65	457,256	1.89	0	
MML FOREIGN FUND	EQUITY	CK HUTCHISON HOLDINGS LTD	4,656,341.35	487,254	1.54	0	
MML FOREIGN FUND	EQUITY	ALAMOS GOLD INC CLASS A	1,102,356.00	306,210	0.36	0	
MML FOREIGN FUND	EQUITY	JOHNSON MATTHEY PLC	3,441,947.08	96,470	1.14	0	
MML FOREIGN FUND	EQUITY	ING GROEP NV	4,343,690.20	405,315	1.44	0	
MML FOREIGN FUND	EQUITY	UNICREDIT SPA	1,822,844.03	160,689	0.60	0	
MML FOREIGN FUND	EQUITY	QIAGEN N.V.	2,781,123.74	81,562	0.92	0	
MML FOREIGN FUND	EQUITY	BANK OF IRELAND GROUP PLC	3,176,084.74	572,268	1.05	0	
MML FOREIGN FUND	EQUITY	WHEATON PRECIOUS METALS CORP	1,877,915.32	96,200	0.62	0	
MML FOREIGN FUND	EQUITY	LANDIS GYR GROUP AG	1,436,056.08	25,523	0.48	0	
MML FOREIGN FUND	EQUITY	CK ASSET HOLDINGS LTD	3,288,683.37	452,254	1.09	0	
MML FOREIGN FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	12,665,502.36	12,665,502	4.19	1.25	1/2/2019
MML GLOBAL FUND	EQUITY	STATE STREET CORP	3,204,586.70	50,810	1.54	0	
MML GLOBAL FUND	EQUITY	UNITED TECHNOLOGIES CORP	2,022,800.56	18,997	0.97	0	
MML GLOBAL FUND	EQUITY	AMERICAN EXPRESS CO	2,883,430.00	30,250	1.38	0	
MML GLOBAL FUND	EQUITY	HARLEY DAVIDSON INC	666,261.24	19,527	0.32	0	
MML GLOBAL FUND	EQUITY	UNITED PARCEL SERVICE CL B	3,358,348.02	34,434	1.61	0	
MML GLOBAL FUND	EQUITY	GRUPO FINANCIERO BANORTE O	571,906.67	117,158	0.27	0	
MML GLOBAL FUND	CASH	EURO CURRENCY	109.40	95	0.00	0	
MML GLOBAL FUND	EQUITY	COLGATE PALMOLIVE CO	2,354,432.64	39,557	1.13	0	
MML GLOBAL FUND	EQUITY	GOLDMAN SACHS GROUP INC	1,797,625.05	10,761	0.86	0	
MML GLOBAL FUND	EQUITY	SCHLUMBERGER LTD	894,567.52	24,794	0.43	0	
MML GLOBAL FUND	EQUITY	CHECK POINT SOFTWARE TECH	2,720,840.90	26,506	1.31	0	
MML GLOBAL FUND	EQUITY	AUTOZONE INC	902,053.84	1,076	0.43	0	
MML GLOBAL FUND	EQUITY	PPG INDUSTRIES INC	2,392,386.46	23,402	1.15	0	
MML GLOBAL FUND	EQUITY	MICROCHIP TECHNOLOGY INC	816,435.84	11,352	0.39	0	
MML GLOBAL FUND	EQUITY	NATIONAL OILWELL VARCO INC	437,491.10	17,023	0.21	0	
MML GLOBAL FUND	EQUITY	LVMH MOET HENNESSY LOUIS VUI	4,560,192.23	15,519	2.19	0	
MML GLOBAL FUND	EQUITY	KANSAS CITY SOUTHERN	3,627,290.90	38,002	1.74	0	
MML GLOBAL FUND	EQUITY	DEUTSCHE BOERSE AG	881,846.41	7,333	0.42	0	
MML GLOBAL FUND	EQUITY	ROCHE HOLDING AG GENUSSSCHEIN	3,622,320.38	14,649	1.74	0	
MML GLOBAL FUND	EQUITY	ADECCO GROUP AG REG	982,372.54	20,977	0.47	0	
MML GLOBAL FUND	EQUITY	NESTLE SA REG	5,497,238.03	67,616	2.64	0	
MML GLOBAL FUND	EQUITY	ZIMMER BIOMET HOLDINGS INC	3,718,880.60	35,855	1.78	0	
MML GLOBAL FUND	EQUITY	SONOVA HOLDING AG REG	680,576.54	4,174	0.33	0	
MML GLOBAL FUND	EQUITY	3M CO	3,526,895.40	18,510	1.69	0	
MML GLOBAL FUND	EQUITY	BURBERRY GROUP PLC	1,122,936.98	51,040	0.54	0	
MML GLOBAL FUND	EQUITY	WYNN RESORTS LTD	359,933.49	3,639	0.17	0	
MML GLOBAL FUND	EQUITY	COMCAST CORP CLASS A	5,823,741.75	171,035	2.79	0	
MML GLOBAL FUND	EQUITY	HEINEKEN NV	1,897,156.21	21,525	0.91	0	
MML GLOBAL FUND	EQUITY	ERSTE GROUP BANK AG	757,303.94	22,728	0.36	0	
MML GLOBAL FUND	CASH	SOUTH KOREAN WON	0.03	34	0.00	0	
MML GLOBAL FUND	EQUITY	HERMES INTERNATIONAL	460,134.71	832	0.22	0	
MML GLOBAL FUND	EQUITY	STRYKER CORP	3,681,273.75	23,485	1.77	0	
MML GLOBAL FUND	EQUITY	CANADIAN NATL RAILWAY CO	3,734,625.23	50,393	1.79	0	
MML GLOBAL FUND	EQUITY	KELLOGG CO	1,894,214.26	33,226	0.91	0	
MML GLOBAL FUND	CASH	JAPANESE YEN	(0.03)	(3)	0.00	0	
MML GLOBAL FUND	EQUITY	EBAY INC	1,544,102.63	55,009	0.74	0	
MML GLOBAL FUND	EQUITY	THERMO FISHER SCIENTIFIC INC	6,282,232.88	28,072	3.01	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML GLOBAL FUND	EQUITY	COGNIZANT TECH SOLUTIONS A	2,289,152.28	36,061	1.10		0
MML GLOBAL FUND	EQUITY	COOPER COS INC/THE	2,603,535.00	10,230	1.25		0
MML GLOBAL FUND	EQUITY	DIAGEO PLC	4,638,642.28	130,506	2.23		0
MML GLOBAL FUND	EQUITY	CARLSBERG AS B	1,398,902.72	13,149	0.67		0
MML GLOBAL FUND	EQUITY	AMPHENOL CORP CL A	1,125,367.80	13,890	0.54		0
MML GLOBAL FUND	EQUITY	PERNOD RICARD SA	4,210,186.06	25,641	2.02		0
MML GLOBAL FUND	EQUITY	MERCK KGAA	1,708,845.29	16,562	0.82		0
MML GLOBAL FUND	EQUITY	SCHNEIDER ELECTRIC SE	4,168,695.77	61,253	2.00		0
MML GLOBAL FUND	EQUITY	BAYER AG REG	4,253,732.94	61,345	2.04		0
MML GLOBAL FUND	EQUITY	AKZO NOBEL	2,960,972.62	36,836	1.42		0
MML GLOBAL FUND	EQUITY	SAMSUNG ELECTRONICS CO LTD	1,658,687.00	47,938	0.80		0
MML GLOBAL FUND	EQUITY	KASIKORNBANK PCL FOREIGN	457,928.25	80,700	0.22		0
MML GLOBAL FUND	EQUITY	FRANKLIN RESOURCES INC	745,296.48	25,128	0.36		0
MML GLOBAL FUND	EQUITY	HONEYWELL INTERNATIONAL INC	4,735,973.52	35,846	2.27		0
MML GLOBAL FUND	EQUITY	HOYA CORP	1,503,608.24	24,600	0.72		0
MML GLOBAL FUND	EQUITY	KUBOTA CORP	2,268,420.91	161,100	1.09		0
MML GLOBAL FUND	EQUITY	OLYMPUS CORP	1,602,296.01	52,400	0.77		0
MML GLOBAL FUND	EQUITY	WPP PLC	2,230,157.32	207,644	1.07		0
MML GLOBAL FUND	EQUITY	COTY INC CL A	883,067.84	134,614	0.42		0
MML GLOBAL FUND	EQUITY	CIE FINANCIERE RICHEMONT REG	1,943,575.78	30,242	0.93		0
MML GLOBAL FUND	EQUITY	MTU AERO ENGINES AG	1,330,813.21	7,327	0.64		0
MML GLOBAL FUND	EQUITY	LEGRAND SA	1,845,763.68	32,794	0.89		0
MML GLOBAL FUND	EQUITY	SALLY BEAUTY HOLDINGS INC	539,052.80	31,616	0.26		0
MML GLOBAL FUND	EQUITY	WHITBREAD PLC	1,405,939.10	24,152	0.67		0
MML GLOBAL FUND	EQUITY	DANONE	3,680,929.24	52,227	1.77		0
MML GLOBAL FUND	EQUITY	AIR LIQUIDE SA	2,246,572.35	18,146	1.08		0
MML GLOBAL FUND	EQUITY	BANK OF NEW YORK MELLON CORP	3,359,150.55	71,365	1.61		0
MML GLOBAL FUND	EQUITY	RECKITT BENCKISER GROUP PLC	4,640,762.06	60,770	2.23		0
MML GLOBAL FUND	EQUITY	VISA INC CLASS A SHARES	6,313,856.76	47,854	3.03		0
MML GLOBAL FUND	EQUITY	AMBEV SA	698,224.91	176,131	0.33		0
MML GLOBAL FUND	EQUITY	NOW INC	115,829.64	9,951	0.06		0
MML GLOBAL FUND	EQUITY	UBS GROUP AG REG	2,192,182.64	175,614	1.05		0
MML GLOBAL FUND	EQUITY	MEDTRONIC PLC	6,312,533.04	69,399	3.03		0
MML GLOBAL FUND	EQUITY	AENA SME SA	2,477,650.74	15,980	1.19		0
MML GLOBAL FUND	EQUITY	PAYPAL HOLDINGS INC	1,365,957.96	16,244	0.66		0
MML GLOBAL FUND	EQUITY	COMPASS GROUP PLC	2,333,579.80	111,151	1.12		0
MML GLOBAL FUND	EQUITY	ESSITY AKTIEBOLAG B	4,685,579.40	190,671	2.25		0
MML GLOBAL FUND	EQUITY	LINDE PLC	3,284,666.92	20,686	1.58		0
MML GLOBAL FUND	EQUITY	APTIV PLC	888,578.24	14,432	0.43		0
MML GLOBAL FUND	EQUITY	RESIDEO TECHNOLOGIES INC	125,478.30	6,106	0.06		0
MML GLOBAL FUND	EQUITY	LINDE PLC	945,758.44	6,061	0.45		0
MML GLOBAL FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	4,240,368.98	4,240,369	2.03	1.25	1/2/2019
MML GLOBAL FUND	EQUITY	ACCENTURE PLC CL A	4,950,861.10	35,110	2.38		0
MML GLOBAL FUND	EQUITY	JULIUS BAER GROUP LTD	796,970.49	22,303	0.38		0
MML GLOBAL FUND	EQUITY	SANDS CHINA LTD	396,675.74	91,600	0.19		0
MML GLOBAL FUND	EQUITY	BRENTAG AG	1,003,234.90	23,245	0.48		0
MML GLOBAL FUND	EQUITY	AON PLC	2,267,761.36	15,601	1.09		0
MML GLOBAL FUND	EQUITY	CISCO SYSTEMS INC	1,910,636.35	44,095	0.92		0
MML GLOBAL FUND	EQUITY	WALT DISNEY CO/THE	4,420,978.35	40,319	2.12		0
MML GLOBAL FUND	EQUITY	OMNICOM GROUP	1,199,012.04	16,371	0.58		0
MML GLOBAL FUND	EQUITY	ORACLE CORP	3,265,834.95	72,333	1.57		0
MML GLOBAL FUND	EQUITY	WATERS CORP	1,858,391.15	9,851	0.89		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML GLOBAL FUND	CASH	US DOLLAR		1.22	1	0.00	0
MML GLOBAL FUND	EQUITY	ABBOTT LABORATORIES	3,390,034.77	46,869	1.63		0
MML GLOBAL FUND	EQUITY	JOHNSON + JOHNSON	877,410.95	6,799	0.42		0
MML MID CAP GROWTH FUND	EQUITY	ELANCO ANIMAL HEALTH INC	378,360.00	12,000	0.09		0
MML MID CAP GROWTH FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	16,035,412.80	16,035,413	3.81	1.25	1/2/2019
MML MID CAP GROWTH FUND	EQUITY	BLACK KNIGHT INC	3,064,080.00	68,000	0.73		0
MML MID CAP GROWTH FUND	EQUITY	ROOFOODS LTD (DELIVEROO) PP	976,515.95	1,915	0.23		0
MML MID CAP GROWTH FUND	EQUITY	MAXAR TECHNOLOGIES LTD	334,880.00	28,000	0.08		0
MML MID CAP GROWTH FUND	EQUITY	TAPESTRY INC	6,108,750.00	181,000	1.45		0
MML MID CAP GROWTH FUND	EQUITY	IQVIA HOLDINGS INC	1,742,550.00	15,000	0.41		0
MML MID CAP GROWTH FUND	EQUITY	APTIV PLC	3,509,490.00	57,000	0.83		0
MML MID CAP GROWTH FUND	EQUITY	WORLDPAY INC CLASS A	6,037,970.00	79,000	1.44		0
MML MID CAP GROWTH FUND	EQUITY	VENTURE GLOBAL LNG INC SR B P	109,200.00	21	0.03		0
MML MID CAP GROWTH FUND	EQUITY	SENSATA TECHNOLOGIES HOLDING	6,367,280.00	142,000	1.51		0
MML MID CAP GROWTH FUND	EQUITY	DOCUSIGN INC	761,479.92	18,999	0.18		0
MML MID CAP GROWTH FUND	EQUITY	CERIDIAN HCM HOLDING INC	413,880.00	12,000	0.10		0
MML MID CAP GROWTH FUND	EQUITY	AMNEAL PHARMACEUTICALS INC	1,474,770.00	109,000	0.35		0
MML MID CAP GROWTH FUND	EQUITY	KKR + CO INC A	1,786,330.00	91,000	0.42		0
MML MID CAP GROWTH FUND	EQUITY	SLACK TECHNOLOGIES INC.	317,633.40	26,680	0.08		0
MML MID CAP GROWTH FUND	EQUITY	ELECTRONIC ARTS INC	473,460.00	6,000	0.11		0
MML MID CAP GROWTH FUND	EQUITY	MGM RESORTS INTERNATIONAL	4,196,980.00	173,000	1.00		0
MML MID CAP GROWTH FUND	EQUITY	SEALED AIR CORP	2,578,160.00	74,000	0.61		0
MML MID CAP GROWTH FUND	EQUITY	IDEX CORP	5,555,440.00	44,000	1.32		0
MML MID CAP GROWTH FUND	EQUITY	MARTIN MARIETTA MATERIALS	1,890,570.00	11,000	0.45		0
MML MID CAP GROWTH FUND	EQUITY	AGILENT TECHNOLOGIES INC	7,150,760.00	106,000	1.70		0
MML MID CAP GROWTH FUND	EQUITY	MICROCHIP TECHNOLOGY INC	8,198,880.00	114,000	1.95		0
MML MID CAP GROWTH FUND	EQUITY	MARVELL TECHNOLOGY GROUP LTD	2,817,060.00	174,000	0.67		0
MML MID CAP GROWTH FUND	EQUITY	KANSAS CITY SOUTHERN	2,863,500.00	30,000	0.68		0
MML MID CAP GROWTH FUND	EQUITY	GLOBAL PAYMENTS INC	1,959,470.00	19,000	0.47		0
MML MID CAP GROWTH FUND	EQUITY	EXACT SCIENCES CORP	1,640,600.00	26,000	0.39		0
MML MID CAP GROWTH FUND	EQUITY	SEATTLE GENETICS INC	1,473,160.00	26,000	0.35		0
MML MID CAP GROWTH FUND	EQUITY	SLM CORP	1,138,470.00	137,000	0.27		0
MML MID CAP GROWTH FUND	EQUITY	SKYWORKS SOLUTIONS INC	2,278,680.00	34,000	0.54		0
MML MID CAP GROWTH FUND	EQUITY	CARMAX INC	2,634,660.00	42,000	0.63		0
MML MID CAP GROWTH FUND	EQUITY	AXIS CAPITAL HOLDINGS LTD	1,342,640.00	26,000	0.32		0
MML MID CAP GROWTH FUND	EQUITY	BRUKER CORP	4,175,123.42	140,246	0.99		0
MML MID CAP GROWTH FUND	EQUITY	ASSURANT INC	2,146,560.00	24,000	0.51		0
MML MID CAP GROWTH FUND	EQUITY	ALNYLAM PHARMACEUTICALS INC	1,385,290.00	19,000	0.33		0
MML MID CAP GROWTH FUND	EQUITY	MARKETAXESS HOLDINGS INC	1,479,170.00	7,000	0.35		0
MML MID CAP GROWTH FUND	EQUITY	TREEHOUSE FOODS INC	2,687,630.00	53,000	0.64		0
MML MID CAP GROWTH FUND	EQUITY	TD AMERITRADE HOLDING CORP	6,120,000.00	125,000	1.46		0
MML MID CAP GROWTH FUND	EQUITY	FIDELITY NATIONAL INFO SERV	3,076,500.00	30,000	0.73		0
MML MID CAP GROWTH FUND	EQUITY	ZILLOW GROUP INC A	220,010.00	7,000	0.05		0
MML MID CAP GROWTH FUND	EQUITY	SHOPIFY INC CLASS A	692,250.00	5,000	0.16		0
MML MID CAP GROWTH FUND	EQUITY	BWX TECHNOLOGIES INC	1,835,040.00	48,000	0.44		0
MML MID CAP GROWTH FUND	EQUITY	TRANSUNION	3,408,000.00	60,000	0.81		0
MML MID CAP GROWTH FUND	EQUITY	ZILLOW GROUP INC C	757,920.00	24,000	0.18		0
MML MID CAP GROWTH FUND	EQUITY	ATLASSIAN CORP PLC CLASS A	3,381,240.00	38,000	0.80		0
MML MID CAP GROWTH FUND	EQUITY	FERRARI NV	397,760.00	4,000	0.09		0
MML MID CAP GROWTH FUND	EQUITY	WILLIS TOWERS WATSON PLC	7,289,280.00	48,000	1.73		0
MML MID CAP GROWTH FUND	EQUITY	FORTIVE CORP W/D	4,330,240.00	64,000	1.03		0
MML MID CAP GROWTH FUND	EQUITY	WASTE CONNECTIONS INC	3,044,250.00	41,000	0.72		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MID CAP GROWTH FUND	EQUITY	IHS MARKIT LTD	2,734,290.00	57,000	0.65		0
MML MID CAP GROWTH FUND	EQUITY	VALVOLINE INC	2,012,400.00	104,000	0.48		0
MML MID CAP GROWTH FUND	EQUITY	CENTENNIAL RESOURCE DEVELO A	815,480.00	74,000	0.19		0
MML MID CAP GROWTH FUND	EQUITY	CONAGRA BRANDS INC	1,602,000.00	75,000	0.38		0
MML MID CAP GROWTH FUND	EQUITY	HARRIS CORP	6,867,150.00	51,000	1.63		0
MML MID CAP GROWTH FUND	CASH	US DOLLAR	7,493.64	7,494	0.00		0
MML MID CAP GROWTH FUND	EQUITY	TEXTRON INC	7,174,440.00	156,000	1.71		0
MML MID CAP GROWTH FUND	EQUITY	MARRIOTT INTERNATIONAL CL A	3,256,800.00	30,000	0.77		0
MML MID CAP GROWTH FUND	EQUITY	CONTINENTAL RESOURCES INC/OK	1,527,220.00	38,000	0.36		0
MML MID CAP GROWTH FUND	EQUITY	CONCHO RESOURCES INC	3,083,700.00	30,000	0.73		0
MML MID CAP GROWTH FUND	EQUITY	ATHENAHEALTH INC	527,720.00	4,000	0.13		0
MML MID CAP GROWTH FUND	EQUITY	ULTA BEAUTY INC	1,958,720.00	8,000	0.47		0
MML MID CAP GROWTH FUND	EQUITY	FRANCO NEVADA CORP	2,105,100.00	30,000	0.50		0
MML MID CAP GROWTH FUND	EQUITY	DOLLAR TREE INC	3,703,120.00	41,000	0.88		0
MML MID CAP GROWTH FUND	EQUITY	COLFAX CORP	1,881,000.00	90,000	0.45		0
MML MID CAP GROWTH FUND	EQUITY	IAC/INTERACTIVECORP	6,406,400.00	35,000	1.52		0
MML MID CAP GROWTH FUND	EQUITY	MEDNAX INC	1,485,000.00	45,000	0.35		0
MML MID CAP GROWTH FUND	EQUITY	VERISK ANALYTICS INC	4,906,800.00	45,000	1.17		0
MML MID CAP GROWTH FUND	EQUITY	DOLLAR GENERAL CORP	5,187,840.00	48,000	1.23		0
MML MID CAP GROWTH FUND	EQUITY	KAR AUCTION SERVICES INC	2,863,200.00	60,000	0.68		0
MML MID CAP GROWTH FUND	EQUITY	SS+C TECHNOLOGIES HOLDINGS	1,849,510.00	41,000	0.44		0
MML MID CAP GROWTH FUND	EQUITY	CORELOGIC INC	3,041,220.00	91,000	0.72		0
MML MID CAP GROWTH FUND	EQUITY	CBOE GLOBAL MARKETS INC	3,717,540.00	38,000	0.88		0
MML MID CAP GROWTH FUND	EQUITY	VISTEON CORP	964,480.00	16,000	0.23		0
MML MID CAP GROWTH FUND	EQUITY	UNITED CONTINENTAL HOLDINGS	2,511,900.00	30,000	0.60		0
MML MID CAP GROWTH FUND	EQUITY	FLEETCOR TECHNOLOGIES INC	3,528,680.00	19,000	0.84		0
MML MID CAP GROWTH FUND	EQUITY	O REILLY AUTOMOTIVE INC	2,754,640.00	8,000	0.65		0
MML MID CAP GROWTH FUND	EQUITY	DUNKIN BRANDS GROUP INC	2,436,560.00	38,000	0.58		0
MML MID CAP GROWTH FUND	EQUITY	ALKERMES PLC	2,685,410.00	91,000	0.64		0
MML MID CAP GROWTH FUND	EQUITY	XYLEM INC	3,803,040.00	57,000	0.90		0
MML MID CAP GROWTH FUND	EQUITY	FRONTDOOR INC	984,570.00	37,000	0.23		0
MML MID CAP GROWTH FUND	EQUITY	FIFTH THIRD BANCORP	2,870,660.00	122,000	0.68		0
MML MID CAP GROWTH FUND	EQUITY	SEMPRA ENERGY	3,245,700.00	30,000	0.77		0
MML MID CAP GROWTH FUND	EQUITY	PROGRESSIVE CORP	1,809,900.00	30,000	0.43		0
MML MID CAP GROWTH FUND	EQUITY	RPM INTERNATIONAL INC	3,585,580.00	61,000	0.85		0
MML MID CAP GROWTH FUND	CASH	CANADIAN DOLLAR	2,034.41	2,777	0.00		0
MML MID CAP GROWTH FUND	EQUITY	TELEFLEX INC	10,856,160.00	42,000	2.58		0
MML MID CAP GROWTH FUND	EQUITY	CASEY S GENERAL STORES INC	3,716,060.00	29,000	0.88		0
MML MID CAP GROWTH FUND	EQUITY	WEST PHARMACEUTICAL SERVICES	2,254,690.00	23,000	0.54		0
MML MID CAP GROWTH FUND	EQUITY	DARDEN RESTAURANTS INC	1,298,180.00	13,000	0.31		0
MML MID CAP GROWTH FUND	CASH EQUIVALENT	ROWE T PRICE TREAS RES FD	12,025,868.08	12,025,868	2.86	0.01	9/19/2034
MML MID CAP GROWTH FUND	EQUITY	RED HAT INC	3,337,160.00	19,000	0.79		0
MML MID CAP GROWTH FUND	EQUITY	GARTNER INC	1,917,600.00	15,000	0.46		0
MML MID CAP GROWTH FUND	EQUITY	NATIONAL INSTRUMENTS CORP	1,542,920.00	34,000	0.37		0
MML MID CAP GROWTH FUND	EQUITY	ROPER TECHNOLOGIES INC	5,063,880.00	19,000	1.20		0
MML MID CAP GROWTH FUND	EQUITY	ALASKA AIR GROUP INC	1,156,150.00	19,000	0.27		0
MML MID CAP GROWTH FUND	EQUITY	COHERENT INC	951,390.00	9,000	0.23		0
MML MID CAP GROWTH FUND	EQUITY	HOLOGIC INC	7,932,300.00	193,000	1.89		0
MML MID CAP GROWTH FUND	EQUITY	HUNT (JB) TRANSPRT SVCS INC	1,209,520.00	13,000	0.29		0
MML MID CAP GROWTH FUND	EQUITY	ICU MEDICAL INC	1,837,040.00	8,000	0.44		0
MML MID CAP GROWTH FUND	EQUITY	VAIL RESORTS INC	3,794,760.00	18,000	0.90		0
MML MID CAP GROWTH FUND	EQUITY	ATMOS ENERGY CORP	1,483,520.00	16,000	0.35		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MID CAP GROWTH FUND	EQUITY	CABOT OIL + GAS CORP	2,369,100.00	106,000	0.56		0
MML MID CAP GROWTH FUND	EQUITY	COOPER COS INC/THE	8,653,000.00	34,000	2.06		0
MML MID CAP GROWTH FUND	EQUITY	COSTAR GROUP INC	2,530,050.00	7,500	0.60		0
MML MID CAP GROWTH FUND	EQUITY	IDEXX LABORATORIES INC	1,116,120.00	6,000	0.27		0
MML MID CAP GROWTH FUND	EQUITY	INCYTE CORP	1,971,290.00	31,000	0.47		0
MML MID CAP GROWTH FUND	EQUITY	BALL CORP	6,391,220.00	139,000	1.52		0
MML MID CAP GROWTH FUND	EQUITY	L3 TECHNOLOGIES INC	1,389,280.00	8,000	0.33		0
MML MID CAP GROWTH FUND	EQUITY	HILTON WORLDWIDE HOLDINGS IN	2,728,400.00	38,000	0.65		0
MML MID CAP GROWTH FUND	EQUITY	ARDAGH GROUP SA	99,720.00	9,000	0.02		0
MML MID CAP GROWTH FUND	EQUITY	KROGER CO	2,365,000.00	86,000	0.56		0
MML MID CAP GROWTH FUND	EQUITY	AIR PRODUCTS + CHEMICALS INC	4,801,500.00	30,000	1.14		0
MML MID CAP GROWTH FUND	EQUITY	AVERY DENNISON CORP	1,347,450.00	15,000	0.32		0
MML MID CAP GROWTH FUND	EQUITY	CORNING INC	4,561,710.00	151,000	1.08		0
MML MID CAP GROWTH FUND	EQUITY	EQUIFAX INC	2,141,990.00	23,000	0.51		0
MML MID CAP GROWTH FUND	EQUITY	FISERV INC	4,409,400.00	60,000	1.05		0
MML MID CAP GROWTH FUND	EQUITY	ACADIA HEALTHCARE CO INC	1,439,760.00	56,000	0.34		0
MML MID CAP GROWTH FUND	EQUITY	GUIDEWIRE SOFTWARE INC	802,300.00	10,000	0.19		0
MML MID CAP GROWTH FUND	EQUITY	SPLUNK INC	1,992,150.00	19,000	0.47		0
MML MID CAP GROWTH FUND	EQUITY	WORKDAY INC CLASS A	6,067,840.00	38,000	1.44		0
MML MID CAP GROWTH FUND	EQUITY	NORWEGIAN CRUISE LINE HOLDIN	5,468,310.00	129,000	1.30		0
MML MID CAP GROWTH FUND	EQUITY	TABLEAU SOFTWARE INC CL A	3,120,000.00	26,000	0.74		0
MML MID CAP GROWTH FUND	EQUITY	HD SUPPLY HOLDINGS INC	1,125,600.00	30,000	0.27		0
MML MID CAP GROWTH FUND	EQUITY	SPROUTS FARMERS MARKET INC	2,115,900.00	90,000	0.50		0
MML MID CAP GROWTH FUND	EQUITY	BURLINGTON STORES INC	3,416,070.00	21,000	0.81		0
MML MID CAP GROWTH FUND	EQUITY	ALLEGION PLC	2,949,270.00	37,000	0.70		0
MML MID CAP GROWTH FUND	EQUITY	ARAMARK	2,114,810.00	73,000	0.50		0
MML MID CAP GROWTH FUND	EQUITY	PERRIGO CO PLC	1,472,500.00	38,000	0.35		0
MML MID CAP GROWTH FUND	EQUITY	FIDELITY NATIONAL FINANCIAL	4,275,840.00	136,000	1.02		0
MML MID CAP GROWTH FUND	EQUITY	SERVICEMASTER GLOBAL HOLDING	2,241,140.00	61,000	0.53		0
MML MID CAP GROWTH FUND	EQUITY	MICHAELS COS INC/THE	812,400.00	60,000	0.19		0
MML MID CAP GROWTH FUND	EQUITY	SAGE THERAPEUTICS INC	670,530.00	7,000	0.16		0
MML MID CAP GROWTH FUND	EQUITY	CATALENT INC	3,648,060.00	117,000	0.87		0
MML MID CAP GROWTH FUND	EQUITY	CDK GLOBAL INC	1,340,640.00	28,000	0.32		0
MML MID CAP GROWTH FUND	EQUITY	KEYSIGHT TECHNOLOGIES IN	7,946,240.00	128,000	1.89		0
MML MID CAP GROWTH FUND	EQUITY	WEWORK COMPANIES, INC CLASS A	454,062.84	8,764	0.11		0
MML MID CAP GROWTH FUND	EQUITY	WEWORK INC SER D 1 CVT PRF STK	1,150,026.57	22,197	0.27		0
MML MID CAP GROWTH FUND	EQUITY	WEWORK INC SER D 2 CVT	903,566.40	17,440	0.21		0
MML MID CAP GROWTH FUND	EQUITY	SYMANTEC CORP	3,004,305.00	159,000	0.71		0
MML MID CAP GROWTH FUND	EQUITY	WEBSTER FINANCIAL CORP	1,330,830.00	27,000	0.32		0
MML MID CAP GROWTH FUND	EQUITY	GARDNER DENVER HOLDINGS INC	2,678,950.00	131,000	0.64		0
MML MID CAP GROWTH FUND	EQUITY	VENTURE GLOBAL LNG INC SR C PP	748,800.00	144	0.18		0
MML MID CAP GROWTH FUND	EQUITY	MAXIM INTEGRATED PRODUCTS	2,898,450.00	57,000	0.69		0
MML MID CAP GROWTH FUND	EQUITY	XILINX INC	3,236,460.00	38,000	0.77		0
MML MANAGED BOND FUND	FIXED INCOME	BRE GRAND ISLANDER TIMESHARE I	841,999.06	853,023	0.07	2.94	5/25/2029
MML MANAGED BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	965,087.24	990,000	0.08	4.21	7/25/2040
MML MANAGED BOND FUND	FIXED INCOME	BAIN CAPITAL CREDIT CLO, LIMIT	1,976,487.90	1,990,000	0.16	3.719	7/20/2030
MML MANAGED BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	3,025,254.63	4,688,500	0.25	0.01	9/25/2040
MML MANAGED BOND FUND	FIXED INCOME	TRIP RAIL MASTER FUNDING LLC	469,053.90	473,018	0.04	2.709	8/15/2047
MML MANAGED BOND FUND	FIXED INCOME	TRIP RAIL MASTER FUNDING LLC	816,875.36	810,000	0.07	3.736	8/15/2047
MML MANAGED BOND FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	940,340.33	957,860	0.08	3.02	8/25/2042
MML MANAGED BOND FUND	FIXED INCOME	BLACKROCK TCP CAP CORP	2,765,563.20	2,870,000	0.23	4.125	8/11/2022
MML MANAGED BOND FUND	FIXED INCOME	TRITON CONTAINER FINANCE LLC	3,004,495.70	3,014,717	0.25	3.62	8/20/2042

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	1,747,665.13	1,744,717	0.14	3.30625	7/26/2066
MML MANAGED BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	15,008,126.39	15,050,000	1.24	3.08988	10/25/2065
MML MANAGED BOND FUND	FIXED INCOME	CLEAR CREEK CLO LTD	2,025,269.16	2,040,000	0.17	3.669	10/20/2030
MML MANAGED BOND FUND	FIXED INCOME	MP CLO III, LTD	1,737,265.25	1,750,000	0.14	3.719	10/20/2030

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED BOND FUND	OPTIONS	BM1105949 SWAPTION	3,774,084.63	66,610,000	0.31	0	12/13/2032
MML MANAGED BOND FUND	FIXED INCOME	AASET 2018 2 TRUST	1,725,503.02	1,708,132	0.14	4.454	11/18/2038
MML MANAGED BOND FUND	FIXED INCOME	GENPACT LUXEMBOURG SARL	2,381,749.32	2,400,000	0.20	3.7	4/1/2022
MML MANAGED BOND FUND	FUTURE	US LONG BOND(CBT) MAR19	-	(27,800,000)	0.01	0	3/20/2019
MML MANAGED BOND FUND	FIXED INCOME	DISCOVER BANK	2,842,833.00	2,905,000	0.23	4.682	8/9/2028
MML MANAGED BOND FUND	FIXED INCOME	ADVOCATE HEALTH CORP	993,522.22	965,000	0.08	3.829	8/15/2028
MML MANAGED BOND FUND	EQUITY	SWAPS BARCLAYS BOC	(80,000.00)	(80,000)	0.01	0	
MML MANAGED BOND FUND	FUTURE	US 10YR ULTRA FUT MAR19	-	(700,000)	0.00	0	3/20/2019
MML MANAGED BOND FUND	FIXED INCOME	CIT GROUP INC	2,021,250.00	2,100,000	0.17	4.75	2/16/2024
MML MANAGED BOND FUND	FIXED INCOME	WILLIS ENGINE SECURITIZATION T	1,369,448.04	1,334,778	0.11	4.75	9/15/2043
MML MANAGED BOND FUND	FIXED INCOME	WIND RIVER CLO LTD	1,129,259.75	1,150,000	0.09	3.86105	7/15/2030
MML MANAGED BOND FUND	FIXED INCOME	BUNGE LTD FINANCE CORP	1,873,930.17	1,910,000	0.15	4.35	3/15/2024
MML MANAGED BOND FUND	FIXED INCOME	WILLIS NORTH AMERICA INC	1,949,596.35	1,965,000	0.16	4.5	9/15/2028
MML MANAGED BOND FUND	FIXED INCOME	PATTERSON UTI ENERGY INC	806,955.51	880,000	0.07	3.95	2/1/2028
MML MANAGED BOND FUND	FIXED INCOME	HILTON GRAND VACATIONS TRUST	404,930.39	400,131	0.03	4	2/25/2032
MML MANAGED BOND FUND	FIXED INCOME	CAL FUNDING III LTD	1,517,824.99	1,482,000	0.12	4.34	9/25/2043
MML MANAGED BOND FUND	FIXED INCOME	LAZARD GROUP LLC	755,142.02	755,000	0.06	4.5	9/19/2028
MML MANAGED BOND FUND	FIXED INCOME	PRUDENTIAL FINANCIAL INC	2,269,200.00	2,440,000	0.19	5.7	9/15/2048
MML MANAGED BOND FUND	FIXED INCOME	NATIONAL RETAIL PROP INC	813,992.50	810,000	0.07	4.3	10/15/2028
MML MANAGED BOND FUND	FIXED INCOME	AIRCASLE LTD	954,017.02	970,000	0.08	4.4	9/25/2023
MML MANAGED BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	1,709,271.20	4,961,600	0.14	0.01	2/25/2048
MML MANAGED BOND FUND	FIXED INCOME	ING GROEP NV	2,058,748.51	2,060,000	0.17	4.1	10/2/2023
MML MANAGED BOND FUND	FIXED INCOME	MADISON PARK FUNDING LTD	596,032.66	620,000	0.05	4.44808	10/18/2030
MML MANAGED BOND FUND	FIXED INCOME	MARATHON PETROLEUM CORP	428,081.38	510,000	0.04	4.5	4/1/2048
MML MANAGED BOND FUND	FIXED INCOME	NP FERRUM LLC	1,010,158.65	999,199	0.08	3.968	3/19/2046
MML MANAGED BOND FUND	CASH EQUIVALENT	TYCO INTL HLDG SARL	4,966,077.80	5,000,000	0.41	0	3/21/2019
MML MANAGED BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	2,448,780.46	2,370,000	0.20	4.00625	6/25/2065
MML MANAGED BOND FUND	FIXED INCOME	EARNST STUDENT LOAN PROGRAM L	799,839.91	802,482	0.07	3.02	5/25/2034
MML MANAGED BOND FUND	FIXED INCOME	OXFORD FINANCE FUNDING TRUST	1,064,952.77	1,061,664	0.09	3.968	6/17/2024
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AS1304	1,520,743.21	1,497,002	0.13	3.5	12/1/2028
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL Q41916	1,583,896.47	1,576,813	0.13	3.5	7/1/2046
MML MANAGED BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	2,506,400.47	2,487,777	0.21	3.75625	6/25/2065
MML MANAGED BOND FUND	FIXED INCOME	ECMC GROUP STUDENT LOAN TRUST	3,184,092.46	3,124,809	0.26	3.85625	7/26/2066
MML MANAGED BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	2,143,656.76	2,258,162	0.18	2.69988	10/25/2040
MML MANAGED BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	7,201,942.31	7,050,000	0.59	3.80625	3/25/2066
MML MANAGED BOND FUND	FIXED INCOME	NEW RESIDENTIAL ADVANCE RECEIV	10,456,945.58	10,600,000	0.86	2.8332	10/16/2051
MML MANAGED BOND FUND	FIXED INCOME	ORANGE LAKE TIMESHARE TRUST	812,957.57	818,557	0.07	2.91	3/8/2029
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL Q44275	1,333,866.95	1,328,315	0.11	3.5	11/1/2046
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL Q44277	389,984.34	388,845	0.03	3.5	11/1/2046
MML MANAGED BOND FUND	FIXED INCOME	LABRADOR AVIATION FINANCE LIMI	2,529,875.04	2,482,188	0.21	4.3	1/15/2042
MML MANAGED BOND FUND	FIXED INCOME	NELNET PRIVATE EDUCATION LOAN	798,508.72	820,014	0.07	3.6	12/26/2040
MML MANAGED BOND FUND	FIXED INCOME	ACCESS GROUP INC	2,906,853.74	2,950,000	0.24	1.699	7/1/2039
MML MANAGED BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	1,191,517.64	1,220,000	0.10	3.44	3/26/2040
MML MANAGED BOND FUND	FIXED INCOME	DISCOVER FINANCIAL SVS	1,633,745.16	1,750,000	0.13	4.1	2/9/2027
MML MANAGED BOND FUND	FIXED INCOME	RACE POINT CLO LTD	696,728.20	700,000	0.06	3.9845	2/20/2030
MML MANAGED BOND FUND	FIXED INCOME	JP MORGAN MORTGAGE TRUST	3,012,803.77	3,085,702	0.25	3.5	1/25/2047
MML MANAGED BOND FUND	FIXED INCOME	ECMC GROUP STUDENT LOAN TRUST	2,599,453.25	2,570,314	0.21	3.70625	12/27/2066
MML MANAGED BOND FUND	FIXED INCOME	FULTON FINANCIAL CORP	1,554,470.68	1,565,000	0.13	3.6	3/16/2022
MML MANAGED BOND FUND	FIXED INCOME	WESTGATE RESORTS	1,071,436.24	1,079,485	0.09	3.05	12/20/2030
MML MANAGED BOND FUND	FIXED INCOME	CAPITAL AUTOMOTIVE REIT	990,864.99	983,333	0.08	4.18	4/15/2047
MML MANAGED BOND FUND	FIXED INCOME	TAL ADVANTAGE LLC	2,306,113.72	2,260,969	0.19	4.5	4/20/2042
MML MANAGED BOND FUND	FIXED INCOME	SABIC CAPITAL II BV	1,297,480.00	1,304,000	0.11	4	10/10/2023

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED BOND FUND	FIXED INCOME	J.G. WENTWORTH XLII LLC	1,587,713.63	1,539,921	0.13	3.96	10/15/2075
MML MANAGED BOND FUND	FIXED INCOME	SABIC CAPITAL II BV	1,268,854.40	1,276,000	0.10	4.5	10/10/2028
MML MANAGED BOND FUND	FIXED INCOME	ECMC GROUP STUDENT LOAN TRUST	2,654,473.94	2,656,714	0.22	3.30625	9/25/2068
MML MANAGED BOND FUND	FIXED INCOME	VEREIT OPERATING PARTNER	1,337,488.04	1,335,000	0.11	4.625	11/1/2025
MML MANAGED BOND FUND	FIXED INCOME	MSCG TRUST	432,156.69	440,000	0.04	3.63513	10/15/2037
MML MANAGED BOND FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	1,776,410.10	1,752,027	0.15	5.2	9/20/2035
MML MANAGED BOND FUND	FIXED INCOME	ADAMS OUTDOOR ADVERTISING	2,044,211.40	1,987,626	0.17	4.81	11/15/2048
MML MANAGED BOND FUND	FIXED INCOME	BX TRUST	1,997,244.74	2,026,975	0.16	4.15513	11/15/2035
MML MANAGED BOND FUND	FIXED INCOME	WINGSTOP FUNDING LLC	656,343.16	650,000	0.05	4.97	12/5/2048
MML MANAGED BOND FUND	FIXED INCOME	MPLX LP	578,571.23	580,000	0.05	4.8	2/15/2029
MML MANAGED BOND FUND	FIXED INCOME	KREF 2018 FL1 LTD.	1,636,973.41	1,670,000	0.13	4.302	6/15/2036
MML MANAGED BOND FUND	FIXED INCOME	CSX CORP	657,053.73	650,000	0.05	4.75	11/15/2048
MML MANAGED BOND FUND	FIXED INCOME	VOLKSWAGEN GROUP AMERICA	1,828,813.50	1,850,000	0.15	4.625	11/13/2025
MML MANAGED BOND FUND	CASH EQUIVALENT	NATIONAL GRID USA	2,988,937.50	3,000,000	0.25	0	2/14/2019
MML MANAGED BOND FUND	FIXED INCOME	ANHEUSER BUSCH CO/INBEV	2,990,818.17	3,225,000	0.25	4.9	2/1/2046
MML MANAGED BOND FUND	FIXED INCOME	TACO BELL FUNDING, LLC	1,150,040.44	1,140,000	0.09	4.94	11/25/2048
MML MANAGED BOND FUND	FIXED INCOME	HARBOR PARK CLO, LTD	1,263,066.09	1,290,000	0.10	4.53876	1/20/2031
MML MANAGED BOND FUND	FIXED INCOME	HORIZON AIRCRAFT FINANCE I LIM	1,080,486.09	1,060,000	0.09	4.458	12/15/2038
MML MANAGED BOND FUND	CASH EQUIVALENT	PUBLIC SEVC. ENT. GR	7,078,074.88	7,091,000	0.58	0	1/23/2019
MML MANAGED BOND FUND	CASH EQUIVALENT	TRANSCANADA PIPELINES LTD	4,174,846.66	4,200,000	0.34	0	3/11/2019
MML MANAGED BOND FUND	FIXED INCOME	PETROLEOS MEXICANOS	580,212.50	665,000	0.05	5.35	2/12/2028
MML MANAGED BOND FUND	CASH EQUIVALENT	MONDELEZ INTL INC	9,958,569.40	10,000,000	0.82	0	2/19/2019
MML MANAGED BOND FUND	CASH EQUIVALENT	WALGREENS BOOTS	3,946,814.44	4,000,000	0.32	0	5/31/2019
MML MANAGED BOND FUND	CASH EQUIVALENT	SOUTHERN CO GAS CAPITAL	4,981,562.50	5,000,000	0.41	0	2/14/2019
MML MANAGED BOND FUND	CASH EQUIVALENT	HARLEY-DAVIDSON FND CP	4,963,576.65	5,000,000	0.41	0	3/25/2019
MML MANAGED BOND FUND	CASH EQUIVALENT	FMC TECH INC	4,969,140.00	5,000,000	0.41	0	3/13/2019
MML MANAGED BOND FUND	CASH EQUIVALENT	EXPERIAN FINANCE PLC	9,975,863.10	10,000,000	0.82	0	1/31/2019
MML MANAGED BOND FUND	CASH EQUIVALENT	DUKE ENERGY CORP	7,945,454.88	8,000,000	0.65	0	3/20/2019
MML MANAGED BOND FUND	CASH EQUIVALENT	TELUS CORP	6,952,273.02	7,000,000	0.57	0	3/20/2019
MML MANAGED BOND FUND	CASH EQUIVALENT	ENTERGY CORPORATION	11,438,779.75	11,500,000	0.94	0	3/4/2019
MML MANAGED BOND FUND	CASH EQUIVALENT	SPECTRA ENERGY PARTNERS	5,796,514.84	5,800,000	0.48	0	1/8/2019
MML MANAGED BOND FUND	CASH EQUIVALENT	TRANSCANADA PIPELINE	4,968,221.10	5,000,000	0.41	0	3/15/2019
MML MANAGED BOND FUND	FIXED INCOME	VOYA FINANCIAL INC	850,500.00	1,080,000	0.07	4.7	1/23/2048
MML MANAGED BOND FUND	FIXED INCOME	HELMERICH + PAYNE INC	953,377.03	935,000	0.08	4.65	3/15/2025
MML MANAGED BOND FUND	CASH EQUIVALENT	CBS CORP	4,480,938.77	4,500,000	0.37	0	2/20/2019
MML MANAGED BOND FUND	FIXED INCOME	NP FERRUM LLC	335,693.02	339,487	0.03	2.707	2/19/2045
MML MANAGED BOND FUND	CASH EQUIVALENT	WESTAR ENERGY INC	4,297,078.15	4,300,000	0.35	0	1/9/2019
MML MANAGED BOND FUND	CASH EQUIVALENT	GLENCORE FUNDING LLC	3,599,182.51	3,600,000	0.30	0	1/3/2019
MML MANAGED BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	250,000.00	250,000	0.02	4.49	6/15/2030
MML MANAGED BOND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	670,788.73	730,056	0.06	3.07163	6/25/2041
MML MANAGED BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	885,800.14	961,926	0.07	2.63988	4/25/2040
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL C91128	2,191.84	2,061	0.00	5.5	12/1/2027
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 775539	47,435.67	45,576	0.00	4.179	5/1/2034
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL C91176	33,878.46	31,856	0.00	5.5	5/1/2028
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL D97417	11,960.80	11,247	0.00	5.5	10/1/2027
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AR0306	13,429.36	13,672	0.00	3	1/1/2043
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AP8668	197,270.69	200,840	0.02	3	12/1/2042
MML MANAGED BOND FUND	FIXED INCOME	AMTRUST FINANCIAL SERVIC	2,738,043.74	3,030,000	0.23	6.125	8/15/2023
MML MANAGED BOND FUND	EQUITY	FORWARDS MERRILL LYNCH BOC	(277,000.00)	(277,000)	0.02	0	
MML MANAGED BOND FUND	FIXED INCOME	BLUE VIRGO	435,203.10	435,203	0.04	3	12/15/2022
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AL8173	1,455,835.90	1,374,038	0.12	5	2/1/2044
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AV1897	274,949.72	270,657	0.02	3.5	12/1/2028

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED BOND FUND	FIXED INCOME	ENTERPRISE PRODUCTS OPER	996,338.24	1,205,000	0.08	5.375	2/15/2078
MML MANAGED BOND FUND	FIXED INCOME	MPLX LP	1,043,649.78	1,195,000	0.09	4.5	4/15/2038
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL V83962	2,689,425.65	2,636,086	0.22	4	2/1/2048
MML MANAGED BOND FUND	FIXED INCOME	ISRAEL ELECTRIC CORP LTD	2,327,304.00	2,450,000	0.19	4.25	8/14/2028
MML MANAGED BOND FUND	FIXED INCOME	WESTERN GAS PARTNERS LP	612,244.44	655,000	0.05	4.5	3/1/2028
MML MANAGED BOND FUND	FIXED INCOME	PNMAC GMSR ISSUER TRUST	1,272,728.34	1,270,000	0.10	5.35625	2/25/2023
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL BM3564	7,085,713.05	7,257,802	0.58	3	7/1/2047
MML MANAGED BOND FUND	FIXED INCOME	PETROLEOS MEXICANOS	549,900.00	585,000	0.05	6.5	3/13/2027
MML MANAGED BOND FUND	FIXED INCOME	TELEFONICA EMISIONES SAU	999,573.45	1,105,000	0.08	4.665	3/6/2038
MML MANAGED BOND FUND	FIXED INCOME	CVS HEALTH CORP	685,689.94	705,000	0.06	5.05	3/25/2048
MML MANAGED BOND FUND	FIXED INCOME	HIGH STREET FNDG TRUST I	3,019,773.00	3,075,000	0.25	4.111	2/15/2028
MML MANAGED BOND FUND	FIXED INCOME	PROGRESSIVE CORP	1,101,033.75	1,175,000	0.09	5.375	12/31/2099
MML MANAGED BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	1,823,731.52	3,324,300	0.15	0.01	8/26/2047
MML MANAGED BOND FUND	FIXED INCOME	AMERICAN INTL GROUP	1,469,129.29	1,525,000	0.12	4.2	4/1/2028
MML MANAGED BOND FUND	FIXED INCOME	AMERICAN INTL GROUP	1,987,950.00	2,285,000	0.16	5.75	4/1/2048
MML MANAGED BOND FUND	FIXED INCOME	AMERICAN INTL GROUP	462,136.61	505,000	0.04	4.75	4/1/2048
MML MANAGED BOND FUND	FIXED INCOME	CRH AMERICA FINANCE INC	1,858,072.71	1,950,000	0.15	3.95	4/4/2028
MML MANAGED BOND FUND	FIXED INCOME	AMERICAN TOWER TRUST I	1,907,855.83	1,910,000	0.16	3.652	3/15/2048
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL BJ0686	3,448,603.30	3,380,595	0.28	4	4/1/2048
MML MANAGED BOND FUND	FIXED INCOME	DOLLAR TREE INC	1,813,884.17	1,915,000	0.15	4.2	5/15/2028
MML MANAGED BOND FUND	FIXED INCOME	DOLLAR TREE INC	1,417,997.09	1,475,000	0.12	4	5/15/2025
MML MANAGED BOND FUND	FIXED INCOME	MOSAIC SOLAR LOANS LLC	425,467.17	420,364	0.04	4.01	6/22/2043
MML MANAGED BOND FUND	FIXED INCOME	SYNGENTA FINANCE NV	1,856,449.66	1,870,000	0.15	3.698	4/24/2020
MML MANAGED BOND FUND	FIXED INCOME	SYNGENTA FINANCE NV	1,267,300.12	1,315,000	0.10	4.441	4/24/2023
MML MANAGED BOND FUND	FIXED INCOME	DOMINOS PIZZA MASTER ISSUER LL	1,523,050.07	1,542,250	0.13	4.116	7/25/2048
MML MANAGED BOND FUND	FIXED INCOME	CONTINENTAL RESOURCES	1,479,818.22	1,573,000	0.12	4.375	1/15/2028
MML MANAGED BOND FUND	FIXED INCOME	GOODGREEN TRUST	2,817,002.59	2,768,992	0.23	3.93	10/15/2053
MML MANAGED BOND FUND	FIXED INCOME	FORD MOTOR CREDIT CO LLC	2,623,408.07	2,760,000	0.22	4.14	2/15/2023
MML MANAGED BOND FUND	FIXED INCOME	UNITED AIR 2018 1 B PTT	565,236.00	565,000	0.05	4.6	9/1/2027
MML MANAGED BOND FUND	FIXED INCOME	BARCLAYS PLC	1,985,377.32	2,085,000	0.16	4.009	5/16/2024
MML MANAGED BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	882,462.50	880,000	0.07	3.17513	12/15/2059
MML MANAGED BOND FUND	FIXED INCOME	HERO FUNDING TRUST	2,510,353.49	2,411,277	0.21	4.67	9/20/2048
MML MANAGED BOND FUND	FIXED INCOME	AMAZON.COM INC	1,797,862.23	1,840,000	0.15	4.05	8/22/2047
MML MANAGED BOND FUND	FIXED INCOME	MICROCHIP TECHNOLOGY INC	977,107.85	985,000	0.08	3.922	6/1/2021
MML MANAGED BOND FUND	FIXED INCOME	YARA INTERNATIONAL ASA	2,093,100.18	2,100,000	0.17	4.75	6/1/2028
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL CA1909	11,186,508.45	10,798,440	0.92	4.5	6/1/2048
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL BM3994	1,623,887.62	1,613,739	0.13	3.5	1/1/2044
MML MANAGED BOND FUND	FIXED INCOME	MADISON PARK FUNDING LTD	1,632,306.06	1,665,000	0.13	4.21613	7/15/2030
MML MANAGED BOND FUND	FIXED INCOME	VIVINT SOLAR FINANCING LLC	3,051,233.30	2,991,869	0.25	7.37	4/30/2048
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL CA1952	3,374,730.96	3,250,794	0.28	4.5	6/1/2048
MML MANAGED BOND FUND	FIXED INCOME	CASTLELAKE AIRCRAFT STRUCTURED	1,674,953.20	1,648,953	0.14	4.125	6/15/2043
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL CA1951	4,458,355.51	4,367,759	0.37	4	7/1/2048
MML MANAGED BOND FUND	FIXED INCOME	HSBC HOLDINGS PLC	926,807.71	935,000	0.08	4.583	6/19/2029
MML MANAGED BOND FUND	FIXED INCOME	TRINITY RAIL LEASING L.P.	2,477,427.08	2,420,000	0.20	4.62	6/17/2048
MML MANAGED BOND FUND	FIXED INCOME	GENERAL MOTORS FINL CO	2,429,057.32	2,493,000	0.20	4.15	6/19/2023
MML MANAGED BOND FUND	FIXED INCOME	BAYER US FINANCE II LLC	1,089,769.02	1,200,000	0.09	4.625	6/25/2038
MML MANAGED BOND FUND	FIXED INCOME	AVENTURA MALL TRUST	4,233,276.72	4,270,000	0.35	4.11232	7/5/2040
MML MANAGED BOND FUND	FIXED INCOME	CROWN CASTLE TOWERS LLC	1,741,512.50	1,750,000	0.14	4.241	7/15/2048
MML MANAGED BOND FUND	FIXED INCOME	MORGAN STANLEY CAPITAL I TRUST	778,859.93	760,000	0.06	4.62	7/15/2051
MML MANAGED BOND FUND	FIXED INCOME	WELLS FARGO COMMERCIAL MORTGAG	1,483,441.93	1,450,000	0.12	4.405	6/15/2051
MML MANAGED BOND FUND	FIXED INCOME	WELLS FARGO COMMERCIAL MORTGAG	411,425.12	400,000	0.03	4.556	6/15/2051
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL BK7877	2,304,799.09	2,220,156	0.19	4.5	7/1/2048

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL Q57232	2,382,098.56	2,336,106	0.20	4	7/1/2048
MML MANAGED BOND FUND	FIXED INCOME	KINROSS GOLD CORP	881,025.00	1,020,000	0.07	4.5	7/15/2027
MML MANAGED BOND FUND	FIXED INCOME	BAYER US FINANCE II LLC	556,323.84	650,000	0.05	4.4	7/15/2044
MML MANAGED BOND FUND	FIXED INCOME	BHMS MORTGAGE TRUST	4,904,058.56	4,950,000	0.40	3.95513	7/15/2035
MML MANAGED BOND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	3,804,803.96	3,800,000	0.31	3.25625	9/27/2066
MML MANAGED BOND FUND	FUTURE	US 5YR NOTE (CBT) MAR19	-	60,900,000	0.08	0	3/29/2019
MML MANAGED BOND FUND	FUTURE	US 2YR NOTE (CBT) MAR19	-	73,600,000	0.04	0	3/29/2019
MML MANAGED BOND FUND	FUTURE	US ULTRA BOND CBT MAR19	-	50,900,000	0.34	0	3/20/2019
MML MANAGED BOND FUND	FIXED INCOME	CARLYLE GLOBAL MARKET STRATEGI	313,425.75	330,000	0.03	5.35925	7/28/2028
MML MANAGED BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	1,507,707.44	1,530,000	0.12	4.22	6/16/2042
MML MANAGED BOND FUND	FIXED INCOME	ANTARES HOLDINGS	2,911,260.22	2,945,000	0.24	6	8/15/2023
MML MANAGED BOND FUND	FIXED INCOME	DISCOVERY COMMUNICATIONS	922,935.48	995,000	0.08	5	9/20/2037
MML MANAGED BOND FUND	FIXED INCOME	DISCOVERY COMMUNICATIONS	880,876.80	950,000	0.07	3.95	3/20/2028
MML MANAGED BOND FUND	FIXED INCOME	PITNEY BOWES INC	825,987.50	845,000	0.07	3.875	9/15/2020
MML MANAGED BOND FUND	FIXED INCOME	PARK AEROSPACE HOLDINGS	1,449,250.00	1,550,000	0.12	4.5	3/15/2023
MML MANAGED BOND FUND	FIXED INCOME	SUNOCO LOGISTICS PARTNER	1,259,423.17	1,375,000	0.10	4	10/1/2027
MML MANAGED BOND FUND	FIXED INCOME	EQT CORP	3,521,603.38	4,085,000	0.29	3.9	10/1/2027
MML MANAGED BOND FUND	FIXED INCOME	CLEVELAND ELECTRIC ILLUM	900,248.15	945,000	0.07	3.5	4/1/2028
MML MANAGED BOND FUND	FIXED INCOME	PLAINS ALL AMERICAN PIPE	1,969,800.00	2,345,000	0.16	6.125	12/31/2099
MML MANAGED BOND FUND	FIXED INCOME	BANK OF NOVA SCOTIA	2,232,203.13	2,575,000	0.18	4.65	12/31/2099
MML MANAGED BOND FUND	FIXED INCOME	MOSAIC SOLAR LOANS LLC	870,226.25	864,982	0.07	3.82	6/22/2043
MML MANAGED BOND FUND	FIXED INCOME	GOLDENTREE LOAN MANAGEMENT US	1,935,256.05	1,950,000	0.16	3.619	11/28/2030
MML MANAGED BOND FUND	FIXED INCOME	GLENCORE FUNDING LLC	871,630.50	975,000	0.07	3.875	10/27/2027
MML MANAGED BOND FUND	FIXED INCOME	CELGENE CORP	2,297,735.61	2,525,000	0.19	3.45	11/15/2027
MML MANAGED BOND FUND	FIXED INCOME	CELGENE CORP	614,736.37	730,000	0.05	4.35	11/15/2047
MML MANAGED BOND FUND	FIXED INCOME	GENERAL MOTORS FINL CO	2,925,917.57	3,200,000	0.24	3.5	11/7/2024
MML MANAGED BOND FUND	FIXED INCOME	STEELE CREEK CLO LTD	652,068.78	660,000	0.05	3.68631	1/15/2030
MML MANAGED BOND FUND	FIXED INCOME	MOSAIC CO	980,678.41	1,034,000	0.08	4.05	11/15/2027
MML MANAGED BOND FUND	FIXED INCOME	FIBRIA OVERSEAS FINANCE	1,178,750.00	1,250,000	0.10	4	1/14/2025
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL Q52216	3,590,061.43	3,590,763	0.30	3.5	11/1/2047
MML MANAGED BOND FUND	FIXED INCOME	ENERGY TRANSFER OPERATNG	1,983,393.75	2,370,000	0.16	6.25	12/31/2099
MML MANAGED BOND FUND	FIXED INCOME	MARBLE POINT CLO XI LTD	1,185,012.00	1,200,000	0.10	3.62456	12/18/2030
MML MANAGED BOND FUND	FIXED INCOME	ANDEAVOR LOGISTICS LP	1,579,750.00	1,775,000	0.13	6.875	12/31/2099
MML MANAGED BOND FUND	FIXED INCOME	AXIS SPECIALTY FINAN PLC	2,392,516.35	2,500,000	0.20	4	12/6/2027
MML MANAGED BOND FUND	FIXED INCOME	HERO FUNDING TRUST	1,343,222.14	1,357,414	0.11	3.19	9/20/2048
MML MANAGED BOND FUND	FIXED INCOME	INFRASTRUCTURA ENERGETI	712,375.00	820,000	0.06	3.75	1/14/2028
MML MANAGED BOND FUND	FIXED INCOME	BANK OF MONTREAL	1,393,630.00	1,505,000	0.11	3.803	12/15/2032
MML MANAGED BOND FUND	FIXED INCOME	IPALCO ENTERPRISES INC	1,031,908.81	1,060,000	0.08	3.7	9/1/2024
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL CA1073	13,922,581.71	13,922,037	1.15	3.5	1/1/2048
MML MANAGED BOND FUND	FIXED INCOME	CREDIT SUISSE GROUP AG	846,582.76	910,000	0.07	3.869	1/12/2029
MML MANAGED BOND FUND	FIXED INCOME	AERCAP IRELAND CAP/GLOBA	2,286,461.13	2,405,000	0.19	3.3	1/23/2023
MML MANAGED BOND FUND	FIXED INCOME	AERCAP IRELAND CAP/GLOBA	3,106,825.78	3,560,000	0.26	3.875	1/23/2028
MML MANAGED BOND FUND	FIXED INCOME	BAKER HUGHES LLC/CO OBL	301,790.66	328,000	0.02	3.337	12/15/2027
MML MANAGED BOND FUND	FIXED INCOME	HERTZ VEHICLE FINANCING LLC	7,553,815.30	7,680,000	0.62	3.29	2/25/2024
MML MANAGED BOND FUND	FIXED INCOME	DEUTSCHE BANK NY	1,744,314.08	1,805,000	0.14	3.15	1/22/2021
MML MANAGED BOND FUND	FIXED INCOME	GOLDMAN SACHS GROUP INC	896,280.19	960,000	0.07	3.814	4/23/2029
MML MANAGED BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	4,126,750.87	4,150,000	0.34	3.22625	3/25/2067
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL BF0196	1,446,796.40	1,435,080	0.12	3.5	2/1/2041
MML MANAGED BOND FUND	FIXED INCOME	DIAMONDBACK ENERGY INC	2,119,140.00	2,196,000	0.17	4.75	11/1/2024
MML MANAGED BOND FUND	FIXED INCOME	FANNIE MAE CAS	1,420,303.35	1,414,070	0.12	3.80625	4/25/2029
MML MANAGED BOND FUND	FIXED INCOME	VELOCITY COMMERCIAL CAPITAL LO	1,084,552.07	1,091,013	0.09	2.99694	10/25/2046
MML MANAGED BOND FUND	FIXED INCOME	LAZARD GROUP LLC	1,178,422.59	1,253,000	0.10	3.625	3/1/2027

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED BOND FUND	FIXED INCOME	PLAINS ALL AMER PIPELINE	1,309,952.82	1,360,000	0.11	4.5	12/15/2026
MML MANAGED BOND FUND	FIXED INCOME	PENNSYLVANIA HIGHER EDUCATION	2,648,328.35	2,635,192	0.22	3.45625	11/25/2065
MML MANAGED BOND FUND	FIXED INCOME	SPS SERVICER ADVANCE RECEIVABL	4,481,643.66	4,490,000	0.37	2.75	11/15/2049
MML MANAGED BOND FUND	FIXED INCOME	BANK OF AMERICA CORP	1,840,632.89	1,915,000	0.15	4.183	11/25/2027
MML MANAGED BOND FUND	FIXED INCOME	CHARTER COMM OPT LLC/CAP	1,320,901.24	1,285,000	0.11	6.484	10/23/2045
MML MANAGED BOND FUND	FIXED INCOME	LCM LTD PARTNERSHIP	3,023,667.30	3,030,000	0.25	3.869	10/20/2029
MML MANAGED BOND FUND	FIXED INCOME	HERO FUNDING TRUST	1,381,760.73	1,365,748	0.11	3.57	9/20/2047
MML MANAGED BOND FUND	FIXED INCOME	FORD MOTOR COMPANY	435,119.86	530,000	0.04	5.291	12/8/2046
MML MANAGED BOND FUND	FIXED INCOME	PBF HOLDING CO LLC	1,122,125.00	1,175,000	0.09	7	11/15/2023
MML MANAGED BOND FUND	FIXED INCOME	BARCLAYS PLC	1,591,582.50	1,720,000	0.13	4.337	1/10/2028
MML MANAGED BOND FUND	FIXED INCOME	CREDIT SUISSE GROUP AG	1,278,234.22	1,325,000	0.11	4.282	1/9/2028
MML MANAGED BOND FUND	FIXED INCOME	ENERGY TRANSFER OPERATNG	1,011,145.68	1,085,000	0.08	4.2	4/15/2027
MML MANAGED BOND FUND	FIXED INCOME	CCO HLDGS LLC/CAP CORP	1,187,535.00	1,275,000	0.10	5.125	5/1/2027
MML MANAGED BOND FUND	FIXED INCOME	PARK AEROSPACE HOLDINGS	4,295,700.00	4,440,000	0.35	5.25	8/15/2022
MML MANAGED BOND FUND	FIXED INCOME	PETROLEOS MEXICANOS	539,637.50	575,000	0.04	4.625	9/21/2023
MML MANAGED BOND FUND	FIXED INCOME	MOSAIC SOLAR LOANS LLC	437,387.60	434,170	0.04	4.45	6/20/2042
MML MANAGED BOND FUND	FIXED INCOME	AT+T INC	636,483.43	648,000	0.05	5.25	3/1/2037
MML MANAGED BOND FUND	FIXED INCOME	STANDARD INDUSTRIES INC	2,657,375.00	3,037,000	0.22	5	2/15/2027
MML MANAGED BOND FUND	FIXED INCOME	MPLX LP	225,521.82	245,000	0.02	5.2	3/1/2047
MML MANAGED BOND FUND	FIXED INCOME	SUTTONPARK STRUCTURED SETTLEME	1,956,795.69	2,012,639	0.16	4.19	1/15/2071
MML MANAGED BOND FUND	FIXED INCOME	SOFI CONSUMER LOAN PROGRAM TRU	1,548,878.17	1,552,352	0.13	3.28	2/25/2026
MML MANAGED BOND FUND	FIXED INCOME	RPM INTERNATIONAL INC	404,490.21	426,000	0.03	3.75	3/15/2027
MML MANAGED BOND FUND	FIXED INCOME	ENSTAR GROUP LTD	926,142.56	920,000	0.08	4.5	3/10/2022
MML MANAGED BOND FUND	FIXED INCOME	HOST HOTELS + RESORTS LP	1,652,409.04	1,675,000	0.14	3.875	4/1/2024
MML MANAGED BOND FUND	FIXED INCOME	NEUBERGER BERMAN GRP/FIN	1,148,978.14	1,150,000	0.09	4.5	3/15/2027
MML MANAGED BOND FUND	FIXED INCOME	HUMANA INC	534,410.24	547,000	0.04	3.95	3/15/2027
MML MANAGED BOND FUND	FIXED INCOME	HUMANA INC	830,653.63	830,000	0.07	4.8	3/15/2047
MML MANAGED BOND FUND	FIXED INCOME	BANCO SANTANDER SA	1,121,161.64	1,200,000	0.09	4.25	4/11/2027
MML MANAGED BOND FUND	FIXED INCOME	HELIOS ISSUER, LLC	1,652,971.73	1,623,032	0.14	4.94	9/20/2049
MML MANAGED BOND FUND	FIXED INCOME	GLOBAL SC FINANCE SRL	1,526,786.88	1,534,423	0.13	3.85	4/15/2037
MML MANAGED BOND FUND	FIXED INCOME	BANK OF AMERICA CORP	1,093,990.10	1,150,000	0.09	4.244	4/24/2038
MML MANAGED BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	1,245,000.00	1,200	0.10	0	3/25/2033
MML MANAGED BOND FUND	FIXED INCOME	GOODGREEN TRUST	1,054,585.67	1,043,604	0.09	3.74	10/15/2052
MML MANAGED BOND FUND	FIXED INCOME	AVERY POINT CLO LTD	541,510.42	542,804	0.04	3.56456	1/18/2025
MML MANAGED BOND FUND	FIXED INCOME	ICAHN ENTERPRISES/FIN	2,740,312.50	2,775,000	0.23	6.25	2/1/2022
MML MANAGED BOND FUND	FIXED INCOME	MID AMERICA APARTMENTS	1,075,999.49	1,115,000	0.09	3.6	6/1/2027
MML MANAGED BOND FUND	FIXED INCOME	SHERWIN WILLIAMS CO	631,235.12	700,000	0.05	4.5	6/1/2047
MML MANAGED BOND FUND	FIXED INCOME	ROYAL BK SCOTLND GRP PLC	961,617.38	1,000,000	0.08	3.498	5/15/2023
MML MANAGED BOND FUND	FIXED INCOME	ARROW ELECTRONICS INC	897,253.22	985,000	0.07	3.875	1/12/2028
MML MANAGED BOND FUND	FIXED INCOME	TRITON CONTAINER FINANCE LLC	806,745.10	818,792	0.07	3.52	6/20/2042
MML MANAGED BOND FUND	FIXED INCOME	DOMINOS PIZZA MASTER ISSUER LL	777,340.84	770,250	0.06	4.118	7/25/2047
MML MANAGED BOND FUND	FIXED INCOME	SABINE PASS LIQUEFACTION	1,516,082.03	1,585,000	0.12	4.2	3/15/2028
MML MANAGED BOND FUND	FIXED INCOME	EDP FINANCE BV	2,491,990.87	2,665,000	0.21	3.625	7/15/2024
MML MANAGED BOND FUND	FIXED INCOME	LENDMARK FUNDING TRUST	1,253,487.97	1,270,000	0.10	2.83	12/22/2025
MML MANAGED BOND FUND	FIXED INCOME	NABORS INDUSTRIES INC	1,123,115.05	1,415,000	0.09	5.5	1/15/2023
MML MANAGED BOND FUND	FIXED INCOME	DAE FUNDING LLC	1,022,775.00	1,049,000	0.08	4	8/1/2020
MML MANAGED BOND FUND	FIXED INCOME	CARLYLE GLOBAL MARKET STRATEGI	3,956,816.00	4,000,000	0.33	3.83413	8/14/2030
MML MANAGED BOND FUND	FIXED INCOME	HERO FUNDING TRUST	399,937.26	399,770	0.03	3.28	9/20/2048
MML MANAGED BOND FUND	FIXED INCOME	HERO FUNDING TRUST	329,940.48	321,384	0.03	4.07	9/20/2048

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED BOND FUND	FIXED INCOME	CENOVUS ENERGY INC	1,252,380.61	1,375,000	0.10	4.25	4/15/2027
MML MANAGED BOND FUND	FIXED INCOME	CNA FINANCIAL CORP	1,037,396.89	1,115,000	0.09	3.45	8/15/2027
MML MANAGED BOND FUND	FIXED INCOME	ARES CAPITAL CORP	2,471,249.12	2,600,000	0.20	3.5	2/10/2023
MML MANAGED BOND FUND	FIXED INCOME	MVW OWNER TRUST	350,000.75	356,772	0.03	2.42	12/20/2034
MML MANAGED BOND FUND	FIXED INCOME	ARROW ELECTRONICS INC	898,521.06	965,000	0.07	3.25	9/8/2024
MML MANAGED BOND FUND	FIXED INCOME	DELL INT LLC / EMC CORP	489,202.09	487,000	0.04	6.02	6/15/2026
MML MANAGED BOND FUND	FIXED INCOME	GE CAPITAL INTL FUNDING	866,881.48	1,035,000	0.07	4.418	11/15/2035
MML MANAGED BOND FUND	FIXED INCOME	VALE OVERSEAS LIMITED	2,962,718.75	2,825,000	0.24	5.875	6/10/2021
MML MANAGED BOND FUND	FIXED INCOME	WESTJET AIRLINES LTD	728,603.72	735,000	0.06	3.5	6/16/2021
MML MANAGED BOND FUND	FIXED INCOME	ELARA HGV TIMESHARE ISSUER	1,226,575.90	1,238,942	0.10	2.73	4/25/2028
MML MANAGED BOND FUND	FIXED INCOME	MOLSON COORS BREWING CO	933,822.81	1,124,000	0.08	4.2	7/15/2046
MML MANAGED BOND FUND	FIXED INCOME	EXPRESS SCRIPTS HOLDING	1,131,231.41	1,180,000	0.09	4.8	7/15/2046
MML MANAGED BOND FUND	FIXED INCOME	HEALTHCARE TRUST OF AMER	1,188,987.34	1,265,000	0.10	3.5	8/1/2026
MML MANAGED BOND FUND	FIXED INCOME	ENLINK MIDSTREAM PARTNER	857,580.31	951,000	0.07	4.85	7/15/2026
MML MANAGED BOND FUND	FIXED INCOME	COMCAST CORP	534,431.52	645,000	0.04	3.4	7/15/2046
MML MANAGED BOND FUND	FIXED INCOME	SMB PRIVATE EDUCATION LOAN TRU	1,227,265.21	1,249,423	0.10	2.43	2/17/2032
MML MANAGED BOND FUND	FIXED INCOME	CITIGROUP INC	2,791,877.68	2,975,000	0.23	4.125	7/25/2028
MML MANAGED BOND FUND	FIXED INCOME	TEVA PHARMACEUTICALS NE	3,026,965.31	3,293,000	0.25	2.2	7/21/2021
MML MANAGED BOND FUND	FIXED INCOME	TEVA PHARMACEUTICALS NE	310,110.29	315,000	0.03	1.7	7/19/2019
MML MANAGED BOND FUND	FIXED INCOME	TEVA PHARMACEUTICALS NE	304,049.77	460,000	0.03	4.1	10/1/2046
MML MANAGED BOND FUND	FIXED INCOME	FANNIE MAE CAS	925,429.02	921,819	0.08	3.95625	1/25/2029
MML MANAGED BOND FUND	FIXED INCOME	FIRST REPUBLIC BANK	4,031,659.52	4,360,000	0.33	4.375	8/1/2046
MML MANAGED BOND FUND	FIXED INCOME	PULTEGROUP INC	927,625.00	1,025,000	0.08	5	1/15/2027
MML MANAGED BOND FUND	FIXED INCOME	FANNIE MAE CAS	712,713.07	711,842	0.06	3.85625	1/25/2029
MML MANAGED BOND FUND	FIXED INCOME	WEINGARTEN REALTY INVEST	495,129.41	535,000	0.04	3.25	8/15/2026
MML MANAGED BOND FUND	FIXED INCOME	DUKE ENERGY CORP	1,067,724.51	1,235,000	0.09	3.75	9/1/2046
MML MANAGED BOND FUND	FIXED INCOME	BUNGE LTD FINANCE CORP	1,598,135.81	1,824,000	0.13	3.25	8/15/2026
MML MANAGED BOND FUND	FIXED INCOME	TCI SYMPHONY CLO	2,149,972.05	2,150,000	0.18	3.91631	10/13/2029
MML MANAGED BOND FUND	FIXED INCOME	FREDDIE MAC STACR	793,927.17	790,000	0.07	3.85625	3/25/2029
MML MANAGED BOND FUND	FIXED INCOME	FREDDIE MAC STACR	94,600.39	94,579	0.01	3.30625	3/25/2029
MML MANAGED BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	1,272,325.73	1,300,000	0.10	2.34	4/25/2033
MML MANAGED BOND FUND	FIXED INCOME	ALM LOAN FUNDING	2,621,310.00	2,620,000	0.22	3.91631	10/15/2028
MML MANAGED BOND FUND	FIXED INCOME	VSE VOI MORTGAGE LLC	1,267,576.60	1,288,657	0.10	2.54	7/20/2033
MML MANAGED BOND FUND	FIXED INCOME	PITNEY BOWES INC	1,736,743.75	1,855,000	0.14	3.875	10/1/2021
MML MANAGED BOND FUND	FIXED INCOME	HERO FUNDING TRUST	1,194,207.83	1,220,351	0.10	3.08	9/20/2042
MML MANAGED BOND FUND	FIXED INCOME	SPRINGCASTLE SPV	878,160.70	886,737	0.07	3.05	4/25/2029
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL MA2806	14,344,055.32	14,687,725	1.18	3	11/1/2046
MML MANAGED BOND FUND	FIXED INCOME	CNH INDUSTRIAL CAP LLC	2,264,724.00	2,280,000	0.19	3.875	10/15/2021
MML MANAGED BOND FUND	FIXED INCOME	NEWELL BRANDS INC	1,133,147.21	1,150,000	0.09	3.85	4/1/2023
MML MANAGED BOND FUND	FIXED INCOME	AIRCRAFT LTD	1,756,876.80	1,750,000	0.14	5	4/1/2023
MML MANAGED BOND FUND	FIXED INCOME	HUNTSMAN INTERNATIONAL L	1,007,500.00	1,000,000	0.08	5.125	11/15/2022
MML MANAGED BOND FUND	FIXED INCOME	ANDEAVOR LOGIS LP/CORP	665,040.00	652,000	0.05	6.25	10/15/2022
MML MANAGED BOND FUND	FIXED INCOME	AMCOR FINANCE USA INC	2,940,324.96	3,105,000	0.24	3.625	4/28/2026
MML MANAGED BOND FUND	FIXED INCOME	US TREASURY N/B	450,859.40	500,000	0.04	2.5	5/15/2046
MML MANAGED BOND FUND	FIXED INCOME	EDUCATIONAL FUNDING OF THE SOU	655,694.94	625,000	0.05	6.18988	4/25/2046
MML MANAGED BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	1,400,381.56	1,420,000	0.12	4.00625	6/25/2043
MML MANAGED BOND FUND	FIXED INCOME	HIGHER EDUCATION FUNDING	385,168.05	450,000	0.03	0	1/1/2044
MML MANAGED BOND FUND	FIXED INCOME	HIGHER EDUCATION FUNDING	396,173.25	450,000	0.03	0	1/1/2044
MML MANAGED BOND FUND	FIXED INCOME	VALLEY NATIONAL BANCORP	1,589,937.70	1,530,000	0.13	5.125	9/27/2023
MML MANAGED BOND FUND	FIXED INCOME	COMM MORTGAGE TRUST	1,462,413.93	1,410,000	0.12	4.236	2/10/2047
MML MANAGED BOND FUND	FIXED INCOME	DBCCRE MORTGAGE TRUST	1,018,406.48	995,000	0.08	4.2382	1/10/2034
MML MANAGED BOND FUND	FIXED INCOME	COMM MORTGAGE TRUST	1,394,152.10	1,375,000	0.11	4.199	3/10/2047

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	2,967,155.10	3,000,000	0.24	3.25625	2/25/2039
MML MANAGED BOND FUND	FIXED INCOME	TURK TELEKOMUNIKASYON AS	236,594.88	240,000	0.02	3.75	6/19/2019
MML MANAGED BOND FUND	FIXED INCOME	SPIRE INC	1,863,256.13	1,840,000	0.15	4.7	8/15/2044
MML MANAGED BOND FUND	FIXED INCOME	SOUTH CAROLINA STUDENT LOAN CO	3,092,770.15	3,050,000	0.25	3.84925	8/1/2035
MML MANAGED BOND FUND	FIXED INCOME	EL PUERTO DE LIVERPOOL	2,456,276.20	2,620,000	0.20	3.95	10/2/2024
MML MANAGED BOND FUND	FIXED INCOME	EDUCATIONAL SERVICES OF AMERIC	1,126,632.00	1,200,000	0.09	4.00625	6/25/2048
MML MANAGED BOND FUND	FIXED INCOME	321 HENDERSON RECEIVABLES LLC	1,118,838.00	1,136,594	0.09	3.26	9/15/2072
MML MANAGED BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	953,404.21	940,000	0.08	4.00625	10/25/2058
MML MANAGED BOND FUND	FIXED INCOME	BM1047877 CDS USD R F 3.00000	2,683,970.37	3,200,000	0.22	3	11/17/2045
MML MANAGED BOND FUND	FIXED INCOME	BM1047877 CDS USD P V 01MEVENT	(3,200,000.00)	(3,200,000)	0.26	1	11/17/2045
MML MANAGED BOND FUND	FIXED INCOME	ENTERGY NEW ORLEANS STORE RECO	441,717.42	448,945	0.04	2.67	6/1/2027
MML MANAGED BOND FUND	FIXED INCOME	MVW OWNER TRUST	443,982.43	450,642	0.04	2.52	12/20/2032
MML MANAGED BOND FUND	FIXED INCOME	ALTERNA FUNDING LLC	151,497.08	152,258	0.01	2.5	2/15/2024
MML MANAGED BOND FUND	EQUITY	FORWARDS WELLS FARGO BOC	(340,000.00)	(340,000)	0.03	0	
MML MANAGED BOND FUND	FIXED INCOME	ARBYS FUNDING LLC	1,907,733.53	1,843,000	0.16	4.969	10/30/2045
MML MANAGED BOND FUND	FIXED INCOME	ORANGE LAKE TIMESHARE TRUST	157,334.08	159,945	0.01	2.29	7/9/2029
MML MANAGED BOND FUND	FIXED INCOME	IPALCO ENTERPRISES INC	3,405,661.29	3,410,000	0.28	3.45	7/15/2020
MML MANAGED BOND FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	652,278.37	647,530	0.05	3.2	1/25/2040
MML MANAGED BOND FUND	FIXED INCOME	BANK OF NOVA SCOTIA	791,596.97	795,000	0.07	4.5	12/16/2025
MML MANAGED BOND FUND	FIXED INCOME	BM1058585 CDS USD R F 3.00000	2,130,401.48	2,540,000	0.18	3	5/11/2063
MML MANAGED BOND FUND	FIXED INCOME	BM1058585 CDS USD P V 01MEVENT	(2,540,000.00)	(2,540,000)	0.21	1	5/11/2063
MML MANAGED BOND FUND	FIXED INCOME	STANDARD INDUSTRIES INC	1,213,240.00	1,238,000	0.10	5.5	2/15/2023
MML MANAGED BOND FUND	FIXED INCOME	EXPRESS SCRIPTS HOLDING	825,016.26	814,000	0.07	4.5	2/25/2026
MML MANAGED BOND FUND	FIXED INCOME	ANADARKO PETROLEUM CORP	1,389,056.72	1,258,000	0.11	6.6	3/15/2046
MML MANAGED BOND FUND	FIXED INCOME	TRINITY ACQUISITION PLC	442,203.47	445,000	0.04	4.4	3/15/2026
MML MANAGED BOND FUND	FIXED INCOME	GS MORTGAGE SECURITIES TRUST	506,235.24	488,000	0.04	4.948	1/10/2045
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AA3980	71,354.59	68,634	0.01	4.5	4/1/2028
MML MANAGED BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	5,257,765.36	5,300,000	0.43	3.23988	1/25/2040
MML MANAGED BOND FUND	FIXED INCOME	DRUG ROYALTY CORPORATION, INC.	19,461.14	19,487	0.00	5.8	7/15/2024
MML MANAGED BOND FUND	FIXED INCOME	MARRIOTT VACATION CLUB OWNER T	123,531.80	123,909	0.01	2.51	5/20/2030
MML MANAGED BOND FUND	FIXED INCOME	GLENORE FINANCE CANADA	804,707.00	894,000	0.07	5.55	10/25/2042
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AB7401	160,273.08	163,173	0.01	3	12/1/2042
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL C91424	94,230.24	92,806	0.01	3.5	1/1/2032
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AB7397	171,804.32	174,913	0.01	3	12/1/2042
MML MANAGED BOND FUND	EQUITY	ALLSTATE CORP	2,264,800.00	95,000	0.19	0	
MML MANAGED BOND FUND	FIXED INCOME	JOBSOHIO BEVERAGE SYS STWD LIQ	4,215,558.50	3,950,000	0.35	4.532	1/1/2035
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AD6996	3,631,275.49	3,422,200	0.30	5	7/1/2040
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL MA1368	269,670.57	274,813	0.02	3	3/1/2043
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AO8180	36,181.93	36,837	0.00	3	9/1/2042
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AR5391	107,526.36	109,472	0.01	3	1/1/2043
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AL3215	146,661.49	149,458	0.01	3	2/1/2043
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AR4432	58,001.95	59,108	0.00	3	3/1/2043
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AT0169	261,154.70	265,880	0.02	3	3/1/2043
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AR1975	44,565.36	45,372	0.00	3	12/1/2042
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AB8809	79,985.38	81,511	0.01	3	3/1/2043
MML MANAGED BOND FUND	FIXED INCOME	TIAA SEASONED COMMERCIAL MORTG	50,927.13	50,808	0.00	5.48141	8/15/2039
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL C91074	4,459.15	4,194	0.00	5.5	8/1/2027
MML MANAGED BOND FUND	FIXED INCOME	321 HENDERSON RECEIVABLES LLC	495,584.37	525,620	0.04	2.65513	3/15/2042
MML MANAGED BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	234,000.00	234,000	0.02	4.088	3/15/2028
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL C91148	97,181.86	91,381	0.01	5.5	1/1/2028
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 888586	101,803.85	96,846	0.01	4.379	10/1/2034
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 725692	96,972.81	92,469	0.01	4.318	10/1/2033

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 523499	297.45	261	0.00	8	11/1/2029
MML MANAGED BOND FUND	FIXED INCOME	GNMA POOL 488634	2,518.78	2,243	0.00	7	5/15/2029
MML MANAGED BOND FUND	FIXED INCOME	GNMA POOL 499410	1,414.92	1,248	0.00	7	7/15/2029
MML MANAGED BOND FUND	FIXED INCOME	GNMA POOL 516706	58.63	57	0.00	7	8/15/2029
MML MANAGED BOND FUND	FIXED INCOME	ISRAEL ELECTRIC CORP LTD	417,175.14	417,000	0.03	7.25	1/15/2019
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL C91217	13,219.17	12,430	0.00	5.5	11/1/2028
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL C91251	44,941.90	43,213	0.00	4.5	6/1/2029
MML MANAGED BOND FUND	FIXED INCOME	CENTURYLINK INC	567,156.22	560,000	0.05	6.15	9/15/2019
MML MANAGED BOND FUND	FIXED INCOME	WILLIS NORTH AMERICA INC	578,988.95	566,000	0.05	7	9/29/2019
MML MANAGED BOND FUND	FIXED INCOME	COLLEGE LOAN CORPORATION TRUST	715,565.70	900,000	0.06	0	1/25/2047
MML MANAGED BOND FUND	FIXED INCOME	ARCELORMITTAL	2,063,922.11	2,034,000	0.17	5.25	8/5/2020
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL C91344	138,716.53	136,535	0.01	3.5	11/1/2030
MML MANAGED BOND FUND	FIXED INCOME	MASTR ASSET BACKED SECURITIES	145,794.56	145,515	0.01	3.03513	3/25/2035
MML MANAGED BOND FUND	FIXED INCOME	MORGAN STANLEY CAPITAL I TRUST	1,360,731.54	1,325,000	0.11	5.2	6/15/2044
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL D97258	14,942.87	14,063	0.00	5.5	4/1/2027
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL J13972	48,172.99	47,461	0.00	3.5	1/1/2026
MML MANAGED BOND FUND	FIXED INCOME	NISOURCE INC	1,052,571.97	950,000	0.09	5.8	2/1/2042
MML MANAGED BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	3,964,259.74	3,950,000	0.33	5.073	12/15/2039
MML MANAGED BOND FUND	FIXED INCOME	MERRILL LYNCH MORTGAGE INVESTO	2,597.59	2,685	0.00	4.597355	7/25/2033
MML MANAGED BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	650,000.00	650,000	0.05	5.083	9/15/2028
MML MANAGED BOND FUND	FIXED INCOME	TRI STATE SERIES B PASS	562,608.48	480,000	0.05	7.144	7/31/2033
MML MANAGED BOND FUND	FIXED INCOME	FREDDIE MAC	2,312,210.04	2,155,904	0.19	5.5	10/15/2033
MML MANAGED BOND FUND	FIXED INCOME	COUNTRYWIDE HOME LOANS	17,902.07	18,506	0.00	3.713667	2/25/2034
MML MANAGED BOND FUND	FIXED INCOME	STRUCTURED ADJUSTABLE RATE MOR	21,750.18	22,589	0.00	4.347054	3/25/2034
MML MANAGED BOND FUND	FIXED INCOME	INDYMAC INDX MORTGAGE LOAN TRU	37,858.26	40,157	0.00	3.943459	8/25/2034
MML MANAGED BOND FUND	FIXED INCOME	BANC OF AMERICA MORTGAGE SECUR	29,734.54	30,198	0.00	4.640364	8/25/2034
MML MANAGED BOND FUND	FIXED INCOME	MERRILL LYNCH MORTGAGE INVESTO	3,206.22	3,461	0.00	3.79216	2/25/2034
MML MANAGED BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	518,000.00	518,000	0.04	4.08	3/15/2028
MML MANAGED BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	1,047,424.01	1,056,000	0.09	3.23988	10/25/2040
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL C90939	26,627.34	25,060	0.00	5.5	12/1/2025
MML MANAGED BOND FUND	FIXED INCOME	COUNTRYWIDE PARTNERSHIP TRUST	528,495.70	541,680	0.04	3.21513	2/25/2035
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL G11630	3,557.72	3,556	0.00	3.5	6/1/2019
MML MANAGED BOND FUND	FIXED INCOME	COUNTRYWIDE HOME LOANS	3,751.65	4,141	0.00	3.991	9/25/2033
MML MANAGED BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	2,187,226.10	2,357,122	0.18	2.77988	1/25/2044
MML MANAGED BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	529,259.50	550,000	0.04	2.62988	1/27/2042
MML MANAGED BOND FUND	FIXED INCOME	JP MORGAN CHASE COMMERCIAL MOR	6,117.50	6,121	0.00	5.466	6/12/2047
MML MANAGED BOND FUND	FIXED INCOME	BEAR STEARNS COMMERCIAL MORTGA	462,696.81	464,636	0.04	5.464653	1/12/2045
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL C91026	42,585.27	40,079	0.00	5.5	4/1/2027
MML MANAGED BOND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	317,653.38	325,000	0.03	2.594	3/22/2032
MML MANAGED BOND FUND	FIXED INCOME	ACCESS GROUP INC	226,994.89	232,520	0.02	3.59	7/1/2038
MML MANAGED BOND FUND	FIXED INCOME	QVC INC	550,756.27	545,000	0.05	5.125	7/2/2022
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AR4109	143,945.52	146,690	0.01	3	2/1/2043
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL AR2174	291,028.17	296,577	0.02	3	4/1/2043
MML MANAGED BOND FUND	FIXED INCOME	NISOURCE INC	517,965.38	535,000	0.04	4.8	2/15/2044
MML MANAGED BOND FUND	FIXED INCOME	CREDIT SUISSE AG	1,615,875.00	1,550,000	0.13	6.5	8/8/2023
MML MANAGED BOND FUND	FIXED INCOME	FORD MOTOR CREDIT CO LLC	973,762.66	1,028,000	0.08	4.375	8/6/2023
MML MANAGED BOND FUND	FIXED INCOME	HILTON GRAND VACATIONS TRUST	348,721.40	350,378	0.03	2.28	1/25/2026
MML MANAGED BOND FUND	FIXED INCOME	ALLSTATE CORP	4,153,500.00	4,260,000	0.34	5.75	8/15/2053
MML MANAGED BOND FUND	FIXED INCOME	PETROLEOS MEXICANOS	610,875.00	675,000	0.05	3.5	1/30/2023
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 535996	6,812.41	5,975	0.00	7.5	6/1/2031
MML MANAGED BOND FUND	FIXED INCOME	GNMA POOL 478658	2,425.37	2,145	0.00	7	5/15/2029
MML MANAGED BOND FUND	FIXED INCOME	GNMA POOL 491089	9,228.77	8,472	0.00	7	12/15/2028

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED BOND FUND	FIXED INCOME	PANHANDLE PLAINS STUDENT FINAN	397,152.00	400,000	0.03	2.29	12/1/2031
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 190317	3,666.80	3,178	0.00	8	8/1/2031
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 596656	845.34	826	0.00	8	8/1/2031
MML MANAGED BOND FUND	FIXED INCOME	GNMA POOL 581417	13,762.74	12,112	0.00	7	7/15/2032
MML MANAGED BOND FUND	FIXED INCOME	WENDYS FUNDING LLC	1,779,359.74	1,770,525	0.15	4.08	6/15/2045
MML MANAGED BOND FUND	FIXED INCOME	WENDYS FUNDING LLC	2,192,726.64	2,128,500	0.18	4.497	6/15/2045
MML MANAGED BOND FUND	FIXED INCOME	ARCELORMITTAL	2,200,931.53	2,165,000	0.18	5.125	6/1/2020
MML MANAGED BOND FUND	FIXED INCOME	REYNOLDS AMERICAN INC	1,007,997.22	1,085,000	0.08	5.85	8/15/2045
MML MANAGED BOND FUND	FIXED INCOME	ENERGY TRANSFER OPERATNG	782,397.80	800,000	0.06	6.125	12/15/2045
MML MANAGED BOND FUND	FIXED INCOME	SPIRIT AIR 2015 1 PTT A	1,595,036.24	1,624,604	0.13	4.1	10/1/2029
MML MANAGED BOND FUND	FIXED INCOME	AUTORIDAD CANAL DE PANAM	1,068,385.50	1,050,000	0.09	4.95	7/29/2035
MML MANAGED BOND FUND	FIXED INCOME	DOMINOS PIZZA MASTER ISSUER LL	3,052,454.79	3,022,500	0.25	4.474	10/25/2045
MML MANAGED BOND FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	137,008.45	137,722	0.01	3.08	9/20/2032
MML MANAGED BOND FUND	FIXED INCOME	MICROSOFT CORP	2,189,161.99	2,064,000	0.18	4.45	11/3/2045
MML MANAGED BOND FUND	FIXED INCOME	DIAMOND RESORTS OWNER TRUST	372,140.01	373,338	0.03	2.99	5/22/2028
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 534703	3,116.10	2,704	0.00	8	5/1/2030
MML MANAGED BOND FUND	FIXED INCOME	GNMA POOL 374440	316.50	297	0.00	7	11/15/2023
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 529453	2,970.61	2,601	0.00	7.5	1/1/2030
MML MANAGED BOND FUND	FIXED INCOME	WESTROCK MWV LLC	1,221,301.32	1,000,000	0.10	7.55	3/1/2047
MML MANAGED BOND FUND	FIXED INCOME	GNMA POOL 480539	461.26	412	0.00	7	4/15/2029
MML MANAGED BOND FUND	FIXED INCOME	FREDDIE MAC	53,442.40	48,710	0.00	7	8/15/2029
MML MANAGED BOND FUND	FIXED INCOME	GNMA POOL 500928	4,747.91	4,212	0.00	7	5/15/2029
MML MANAGED BOND FUND	FIXED INCOME	GNMA II POOL 080136	854.89	837	0.00	3.125	11/20/2027
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 252926	175.70	153	0.00	8	12/1/2029
MML MANAGED BOND FUND	FIXED INCOME	GNMA POOL 352022	4,807.78	4,507	0.00	7	11/15/2023
MML MANAGED BOND FUND	FIXED INCOME	GNMA POOL 510083	1,035.05	922	0.00	7	7/15/2029
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 531196	346.82	307	0.00	7.5	2/1/2030
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 530299	382.75	346	0.00	7.5	3/1/2030
MML MANAGED BOND FUND	FIXED INCOME	GNMA II POOL 008746	4,346.03	4,270	0.00	3.125	11/20/2025
MML MANAGED BOND FUND	FIXED INCOME	GNMA POOL 493723	2,876.76	2,537	0.00	7	8/15/2029
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 253437	154.59	134	0.00	8	9/1/2030
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 253481	92.94	81	0.00	8	10/1/2030
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL C01135	6,144.56	5,400	0.00	7.5	2/1/2031
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 575667	13,858.70	12,116	0.00	7	3/1/2031
MML MANAGED BOND FUND	FIXED INCOME	SOUTH CAROLINA STUDENT LOAN CO	1,816,000.02	1,800,000	0.15	3.34925	1/3/2033
MML MANAGED BOND FUND	FIXED INCOME	BANK OF AMERICA CORP	1,140,570.12	1,150,000	0.09	4.2	8/26/2024
MML MANAGED BOND FUND	FIXED INCOME	AMER AIRLN 14 1 B PTT	179,066.56	180,990	0.01	4.375	4/1/2024
MML MANAGED BOND FUND	FIXED INCOME	MORGAN STANLEY	3,401,315.09	3,500,000	0.28	4.35	9/8/2026
MML MANAGED BOND FUND	FIXED INCOME	AMERICAN AIRLINES GROUP	7,369,377.50	7,351,000	0.61	5.5	10/1/2019
MML MANAGED BOND FUND	FIXED INCOME	ARES FINANCE CO LLC	1,987,461.11	2,080,000	0.16	4	10/8/2024
MML MANAGED BOND FUND	FIXED INCOME	CAPITAL AUTOMOTIVE REIT	898,151.49	900,000	0.07	3.66	10/15/2044
MML MANAGED BOND FUND	FIXED INCOME	PETROLEOS MEXICANOS	478,975.00	595,000	0.04	6.375	1/23/2045
MML MANAGED BOND FUND	FIXED INCOME	STANDARD INDUSTRIES INC	1,535,795.00	1,636,000	0.13	5.375	11/15/2024
MML MANAGED BOND FUND	FIXED INCOME	CRONOS CONTAINERS PROGRAM LTD	325,259.78	327,778	0.03	3.27	11/18/2029
MML MANAGED BOND FUND	FIXED INCOME	ASSOC BANC CORP	3,007,520.01	2,991,000	0.25	4.25	1/15/2025
MML MANAGED BOND FUND	FIXED INCOME	ENTERGY LOUISIANA LLC	1,027,145.57	1,005,000	0.08	4.95	1/15/2045
MML MANAGED BOND FUND	FIXED INCOME	LENNAR CORP	3,364,575.00	3,390,000	0.28	4.5	11/15/2019
MML MANAGED BOND FUND	FIXED INCOME	SPIRIT MASTER FUNDING, LLC	992,049.92	996,562	0.08	3.5014	1/20/2045
MML MANAGED BOND FUND	FIXED INCOME	BECTON DICKINSON AND CO	772,170.06	825,000	0.06	4.685	12/15/2044
MML MANAGED BOND FUND	FIXED INCOME	INGRAM MICRO INC	1,252,704.79	1,288,000	0.10	5.45	12/15/2024
MML MANAGED BOND FUND	FIXED INCOME	AFFILIATED MANAGERS GROU	2,021,238.25	2,080,000	0.17	3.5	8/1/2025
MML MANAGED BOND FUND	FIXED INCOME	ALLY FINANCIAL INC	1,384,031.25	1,425,000	0.11	4.125	2/13/2022

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED BOND FUND	FIXED INCOME	PHILLIPS 66 PARTNERS LP	160,292.76	178,000	0.01	4.68	2/15/2045
MML MANAGED BOND FUND	FIXED INCOME	XLIT LTD	3,503,045.07	3,525,000	0.29	4.45	3/31/2025
MML MANAGED BOND FUND	FIXED INCOME	LENNAR CORP	1,153,125.00	1,230,000	0.09	4.75	5/30/2025
MML MANAGED BOND FUND	FIXED INCOME	AT+T INC	1,012,276.81	1,075,000	0.08	3.4	5/15/2025
MML MANAGED BOND FUND	FIXED INCOME	AT+T INC	1,846,819.48	2,080,000	0.15	4.75	5/15/2046
MML MANAGED BOND FUND	FIXED INCOME	CROWN CASTLE TOWERS LLC	1,671,729.00	1,700,000	0.14	3.222	5/15/2042
MML MANAGED BOND FUND	FIXED INCOME	EDUCATIONAL SERVICES OF AMERIC	1,045,340.45	1,100,000	0.09	4.00625	10/25/2056
MML MANAGED BOND FUND	FIXED INCOME	ABBVIE INC	963,976.88	1,060,000	0.08	4.7	5/14/2045
MML MANAGED BOND FUND	FIXED INCOME	COMM MORTGAGE TRUST	970,550.90	1,000,000	0.08	4.251897	5/10/2048
MML MANAGED BOND FUND	FIXED INCOME	ENLINK MIDSTREAM PARTNER	1,870,689.63	2,075,000	0.15	4.15	6/1/2025
MML MANAGED BOND FUND	FIXED INCOME	CNO FINANCIAL GROUP INC	1,581,975.00	1,602,000	0.13	4.5	5/30/2020
MML MANAGED BOND FUND	FIXED INCOME	CNO FINANCIAL GROUP INC	1,496,377.50	1,571,000	0.12	5.25	5/30/2025
MML MANAGED BOND FUND	FIXED INCOME	ASHLAND LLC	297,470.00	302,000	0.02	6.875	5/15/2043
MML MANAGED BOND FUND	FIXED INCOME	VERIZON COMMUNICATIONS	1,043,925.11	885,000	0.09	6.55	9/15/2043
MML MANAGED BOND FUND	FIXED INCOME	WELLS FARGO + COMPANY	948,608.74	909,000	0.08	5.375	11/2/2043
MML MANAGED BOND FUND	FIXED INCOME	WPP FINANCE 2010	102,937.92	105,000	0.01	5.625	11/15/2043
MML MANAGED BOND FUND	FIXED INCOME	ENERGY TRANSFER LP	1,170,125.00	1,150,000	0.10	5.875	1/15/2024
MML MANAGED BOND FUND	FIXED INCOME	MORGAN STANLEY	994,175.41	975,000	0.08	5	11/24/2025
MML MANAGED BOND FUND	FIXED INCOME	ARCH CAPITAL GRP US INC	1,089,311.31	1,040,000	0.09	5.144	11/1/2043
MML MANAGED BOND FUND	FIXED INCOME	LEGG MASON INC	1,179,308.31	1,195,000	0.10	5.625	1/15/2044
MML MANAGED BOND FUND	FIXED INCOME	CMS ENERGY CORP	292,275.54	280,000	0.02	4.875	3/1/2044
MML MANAGED BOND FUND	FIXED INCOME	HSBC HOLDINGS PLC	1,215,703.03	1,225,000	0.10	4.25	3/14/2024
MML MANAGED BOND FUND	FIXED INCOME	SUNOCO LOGISTICS PARTNER	463,584.96	525,000	0.04	5.3	4/1/2044
MML MANAGED BOND FUND	FIXED INCOME	TURKIYE GARANTI BANKASI	2,969,064.00	3,010,000	0.24	4.75	10/17/2019
MML MANAGED BOND FUND	FIXED INCOME	PLAINS ALL AMER PIPELINE	579,198.20	675,000	0.05	4.7	6/15/2044
MML MANAGED BOND FUND	FIXED INCOME	GLENORE FUNDING LLC	1,799,100.60	1,815,000	0.15	4.625	4/29/2024
MML MANAGED BOND FUND	FIXED INCOME	ADT SEC CORP	4,676,428.75	4,613,000	0.39	6.25	10/15/2021
MML MANAGED BOND FUND	FIXED INCOME	TELECOM ITALIA SPA	574,750.00	605,000	0.05	5.303	5/30/2024
MML MANAGED BOND FUND	FIXED INCOME	ANTERO RESOURCES CORP	5,267,935.00	5,459,000	0.43	5.375	11/1/2021
MML MANAGED BOND FUND	FIXED INCOME	PENNSYLVANIA ELECTRIC CO	1,882,693.23	1,860,000	0.16	4.15	4/15/2025
MML MANAGED BOND FUND	FIXED INCOME	GNMA POOL 783896	4,793,429.42	4,735,348	0.39	3.5	5/15/2044
MML MANAGED BOND FUND	FIXED INCOME	DRUG ROYALTY II LP 1	149,769.44	150,839	0.01	3.484	7/15/2023
MML MANAGED BOND FUND	FIXED INCOME	FS KKR CAPITAL CORP	3,091,500.08	3,095,000	0.25	4	7/15/2019
MML MANAGED BOND FUND	FIXED INCOME	AMERICAN INTL GROUP	1,048,604.05	1,175,000	0.09	4.5	7/16/2044
MML MANAGED BOND FUND	FIXED INCOME	FREDDIE MAC	1,296,228.59	1,191,900	0.11	5.5	5/15/2033
MML MANAGED BOND FUND	FIXED INCOME	GLOBAL SC FINANCE SRL	275,863.43	279,167	0.02	3.19	7/17/2029
MML MANAGED BOND FUND	FIXED INCOME	GSR MORTGAGE LOAN TRUST	5,605.52	5,855	0.00	4.103501	8/25/2034
MML MANAGED BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	5,163,868.80	5,310,000	0.43	2.63988	3/25/2044
MML MANAGED BOND FUND	FIXED INCOME	KEYCORP STUDENT LOAN TRUST	120,162.07	120,457	0.01	3.13163	9/27/2035
MML MANAGED BOND FUND	FIXED INCOME	BANK OF AMERICA CORP	1,153,988.61	1,050,000	0.10	6.11	1/29/2037
MML MANAGED BOND FUND	FIXED INCOME	KINDER MORGAN ENER PART	161,594.19	150,000	0.01	6.5	2/1/2037
MML MANAGED BOND FUND	FIXED INCOME	PACIFIC GAS + ELECTRIC	503,230.00	543,000	0.04	5.8	3/1/2037
MML MANAGED BOND FUND	FIXED INCOME	BURLINGTN NORTH SANTA FE	877,069.47	720,000	0.07	6.15	5/1/2037
MML MANAGED BOND FUND	FIXED INCOME	KINDER MORGAN ENER PART	195,186.00	175,000	0.02	6.95	1/15/2038
MML MANAGED BOND FUND	FIXED INCOME	COMCAST CORP	633,281.09	515,000	0.05	6.95	8/15/2037
MML MANAGED BOND FUND	FIXED INCOME	GOLDMAN SACHS GROUP INC	1,293,029.97	1,145,000	0.11	6.75	10/1/2037
MML MANAGED BOND FUND	FIXED INCOME	VIRGINIA ELEC + POWER CO	787,396.88	640,000	0.06	6.35	11/30/2037
MML MANAGED BOND FUND	FIXED INCOME	ENCANA CORP	590,884.89	545,000	0.05	6.5	2/1/2038
MML MANAGED BOND FUND	FIXED INCOME	COLLEGIATE FUNDING SERVICES ED	1,269,713.88	1,284,781	0.10	2.97344	3/28/2035
MML MANAGED BOND FUND	FIXED INCOME	AAMES MORTGAGE INVESTMENT TRUS	183,113.37	184,273	0.02	4.04013	1/25/2035
MML MANAGED BOND FUND	FIXED INCOME	BANK OF AMERICA CORP	517,312.23	400,000	0.04	7.75	5/14/2038
MML MANAGED BOND FUND	FIXED INCOME	UNITED TECHNOLOGIES CORP	401,001.85	350,000	0.03	6.125	7/15/2038

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED BOND FUND	FIXED INCOME	TYCO ELECTRONICS GROUP S	429,357.96	335,000	0.04	7.125	10/1/2037
MML MANAGED BOND FUND	EQUITY	SWAP GOLDMAN SACHS COC	260,000.00	260,000	0.02	0	
MML MANAGED BOND FUND	EQUITY	CCBRCIUS4 SWBC BRC	(5,075,000.00)	(5,075,000)	0.42	0	
MML MANAGED BOND FUND	EQUITY	SWAP CREDIT SUISSE BOC	(5,400,000.00)	(5,400,000)	0.44	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MANAGED BOND FUND	FIXED INCOME	KINROSS GOLD CORP	3,486,262.50	3,495,000	0.29	5.125	9/1/2021
MML MANAGED BOND FUND	FIXED INCOME	CENOVUS ENERGY INC	1,210,370.36	1,275,000	0.10	3	8/15/2022
MML MANAGED BOND FUND	FIXED INCOME	GENERAL ELECTRIC CO	1,122,790.77	1,210,000	0.09	2.7	10/9/2022
MML MANAGED BOND FUND	FIXED INCOME	GENERAL ELECTRIC CO	1,117,318.70	1,430,000	0.09	4.125	10/9/2042
MML MANAGED BOND FUND	FIXED INCOME	COMM MORTGAGE TRUST	1,012,022.17	1,060,000	0.08	3.703	10/15/2045
MML MANAGED BOND FUND	FIXED INCOME	NATIONAL OILWELL VARCO I	1,158,002.28	1,451,000	0.10	3.95	12/1/2042
MML MANAGED BOND FUND	FIXED INCOME	MGM RESORTS INTL	1,130,575.00	1,103,000	0.09	6.625	12/15/2021
MML MANAGED BOND FUND	FIXED INCOME	MYLAN INC	1,101,833.15	1,175,000	0.09	3.125	1/15/2023
MML MANAGED BOND FUND	FIXED INCOME	TEVA PHARMA FIN IV LLC	1,265,084.54	1,300,000	0.10	2.25	3/18/2020
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL MA1356	10,467,778.24	10,402,357	0.86	3.5	2/1/2043
MML MANAGED BOND FUND	FIXED INCOME	USF+G CAPITAL I	1,213,643.91	885,000	0.10	8.5	12/15/2045
MML MANAGED BOND FUND	FIXED INCOME	GNMA POOL 371146	104.07	99	0.00	7	9/15/2023
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 532819	145.79	126	0.00	8	3/1/2030
MML MANAGED BOND FUND	FIXED INCOME	SPRINT COMMUNICATIONS	2,913,375.00	2,550,000	0.24	9.25	4/15/2022
MML MANAGED BOND FUND	CASH	US DOLLAR	(705,749.47)	(705,749)	0.06	0	
MML MANAGED BOND FUND	CASH	EURO CURRENCY	0.48	0	0.00	0	
MML MANAGED BOND FUND	FIXED INCOME	FED HM LN PC POOL C01079	1,919.46	1,682	0.00	7.5	10/1/2030
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 602008	4,662.59	4,060	0.00	8	8/1/2031
MML MANAGED BOND FUND	FIXED INCOME	FNMA POOL 597220	3,647.09	3,149	0.00	8	9/1/2031
MML MANAGED BOND FUND	FIXED INCOME	FNMA TBA 30 YR 4.5	35,661,131.09	34,450,000	2.94	4.5	1/14/2049
MML MANAGED BOND FUND	FIXED INCOME	WAMU MORTGAGE PASS THROUGH CER	62,002.23	64,221	0.01	3.557369	4/25/2044
MML MANAGED BOND FUND	FIXED INCOME	COUNTRYWIDE ASSET BACKED CERTI	54,153.96	54,696	0.00	2.77513	9/25/2034
MML MANAGED BOND FUND	FIXED INCOME	ERAC USA FINANCE LLC	148,474.50	125,000	0.01	6.7	6/1/2034
MML MANAGED BOND FUND	FIXED INCOME	UNITED MEXICAN STATES	780,283.50	685,000	0.06	6.75	9/27/2034
MML MANAGED BOND FUND	FIXED INCOME	GRUPO TELEVISIA SAB	780,304.43	711,000	0.06	6.625	3/18/2025
MML MANAGED BOND FUND	FIXED INCOME	PETROLEOS MEXICANOS	122,220.00	140,000	0.01	6.625	6/15/2035
MML MANAGED BOND FUND	FIXED INCOME	EMBARQ CORP	131,225.00	145,000	0.01	7.995	6/1/2036
MML MANAGED BOND FUND	FIXED INCOME	XCEL ENERGY INC	1,805,263.71	1,435,000	0.15	6.5	7/1/2036
MML MANAGED BOND FUND	FIXED INCOME	GCCFC COMMERCIAL MORTGAGE TRUS	859,196.69	851,149	0.07	5.66622	7/10/2038
MML MANAGED BOND FUND	FIXED INCOME	NEVADA POWER CO	713,460.93	550,000	0.06	6.65	4/1/2036
MML MANAGED BOND FUND	FIXED INCOME	GOLDMAN SACHS GROUP INC	1,484,732.57	1,410,000	0.12	5.95	1/15/2027
MML MANAGED BOND FUND	FIXED INCOME	VALE OVERSEAS LIMITED	720,405.00	630,000	0.06	6.875	11/21/2036
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FEDERAL HOME LOAN BANK	5,999,998.30	6,000,000	3.35	2.258	6/7/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FEDERAL HOME LOAN BANK	10,000,040.53	10,000,000	5.58	2.365	7/17/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FEDERAL HOME LOAN BANK	5,000,052.58	5,000,000	2.79	2.416	1/25/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	2019-01-02 2.9%	20,000,000.00	20,000,000	11.17	2.9	1/2/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FEDERAL HOME LOAN BANK	3,000,327.86	3,000,000	1.68	2.321	2/1/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FEDERAL HOME LOAN BANK	4,500,000.00	4,500,000	2.51	2.405	1/17/2020
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	1,737,280.57	1,770,000	0.97	0.01	9/12/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FEDERAL FARM CREDIT BANK	1,500,691.40	1,500,000	0.84	2.68125	2/25/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FEDERAL HOME LOAN BANK	1,400,064.13	1,400,000	0.78	2.469	1/23/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	2,998,029.16	3,000,000	1.67	0.01	1/11/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	4,995,720.83	5,000,000	2.79	0.01	1/14/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	1,157,920.70	1,160,000	0.65	0.01	1/28/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	1,198,088.00	1,200,000	0.67	0.01	1/25/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	4,750,065.10	4,762,000	2.65	0.01	2/8/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	496,591.25	500,000	0.28	0.01	4/12/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH	US DOLLAR	26,454.97	26,455	0.01	0	
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	4,995,391.67	5,000,000	2.79	0.01	1/15/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	1,597,569.15	1,600,000	0.89	0.01	1/24/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	8,399,458.72	8,400,000	4.69	0.01	1/2/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	3,709,596.74	3,715,000	2.07	0.01	1/23/2019

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	3,997,620.00	4,000,000	2.23	0.01	1/10/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	6,830,322.42	6,850,000	3.81	0.01	2/13/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	1,986,772.50	2,000,000	1.11	0.01	4/10/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	2,056,703.38	2,077,000	1.15	0.01	5/22/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	699,215.92	700,000	0.39	0.01	1/18/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	US TREASURY N/B	7,982,919.50	8,000,000	4.46	1.5	3/31/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	US TREASURY N/B	5,441,064.33	5,500,000	3.04	1	8/31/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	US TREASURY N/B	3,445,573.55	3,500,000	1.92	1	11/30/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	US TREASURY N/B	4,966,876.85	5,000,000	2.77	1.625	8/31/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	US TREASURY N/B	4,990,973.40	5,000,000	2.79	0.75	2/15/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	US TREASURY N/B	7,992,992.50	8,000,000	4.46	1.125	1/31/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FEDERAL HOME LOAN BANK	1,999,750.80	2,000,000	1.12	2.504	3/6/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FEDERAL HOME LOAN BANK	1,600,032.68	1,600,000	0.89	2.414	1/22/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FEDERAL HOME LOAN BANK	4,999,967.61	5,000,000	2.79	2.431	2/28/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED FARM CRD DISCOUNT NT	979,902.22	1,000,000	0.55	0.01	9/30/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED FARM CRD DISCOUNT NT	640,931.69	655,000	0.36	0.01	10/22/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	2,273,757.00	2,300,000	1.27	0.01	6/13/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	6,617,612.14	6,640,000	3.69	0.01	2/21/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FED HOME LN DISCOUNT NT	196,024.66	200,000	0.11	0.01	9/26/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FEDERAL FARM CREDIT BANK	5,002,825.09	5,000,000	2.79	2.6051	3/15/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FEDERAL HOME LOAN BANK	7,003,749.36	7,000,000	3.91	2.517	5/24/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FEDERAL HOME LOAN BANK	3,449,880.44	3,450,000	1.93	2.39	3/20/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FEDERAL HOME LOAN BANK	2,500,103.96	2,500,000	1.40	2.394	4/22/2019
MML US GOVERNMENT MONEY MARKET FUND	CASH EQUIVALENT	FEDERAL HOME LOAN BANK	4,000,000.00	4,000,000	2.23	2.379	8/21/2019
MML BLEND FUND	EQUITY	ALPHABET INC CL A	1,891,377.60	1,810	0.48	0	
MML BLEND FUND	EQUITY	HEWLETT PACKARD ENTERPRISE	1,477,855.54	111,874	0.38	0	
MML BLEND FUND	EQUITY	HP INC	1,472,588.04	71,974	0.38	0	
MML BLEND FUND	EQUITY	CHUBB LTD	21,702.24	168	0.01	0	
MML BLEND FUND	EQUITY	DENTSPLY SIRONA INC	2,083.76	56	0.00	0	
MML BLEND FUND	EQUITY	S+P GLOBAL INC	172,998.92	1,018	0.04	0	
MML BLEND FUND	EQUITY	CHARTER COMMUNICATIONS INC A	185,515.47	651	0.05	0	
MML BLEND FUND	EQUITY	FORTIVE CORP W/D	397,705.48	5,878	0.10	0	
MML BLEND FUND	EQUITY	JOHNSON CONTROLS INTERNATION	586,032.25	19,765	0.15	0	
MML BLEND FUND	EQUITY	ARCONIC INC	134.88	8	0.00	0	
MML BLEND FUND	EQUITY	L3 TECHNOLOGIES INC	168,450.20	970	0.04	0	
MML BLEND FUND	EQUITY	HILTON WORLDWIDE HOLDINGS IN	911,860.00	12,700	0.23	0	
MML BLEND FUND	EQUITY	TECHNIPFMC PLC	163,297.20	8,340	0.04	0	
MML BLEND FUND	EQUITY	DXC TECHNOLOGY CO	902,773.43	16,979	0.23	0	
MML BLEND FUND	EQUITY	XEROX CORP	16,519.36	836	0.00	0	
MML BLEND FUND	EQUITY	BAKER HUGHES A GE CO	666.50	31	0.00	0	
MML BLEND FUND	EQUITY	BRIGHTHOUSE FINANCIAL INC	792.48	26	0.00	0	
MML BLEND FUND	EQUITY	DOWDUPONT INC	1,069.60	20	0.00	0	
MML BLEND FUND	EQUITY	TAPESTRY INC	209,925.00	6,220	0.05	0	
MML BLEND FUND	EQUITY	IQVIA HOLDINGS INC	817,836.80	7,040	0.21	0	
MML BLEND FUND	EQUITY	APTIV PLC	572,601.00	9,300	0.15	0	
MML BLEND FUND	EQUITY	BOOKING HOLDINGS INC	1,534,676.22	891	0.39	0	
MML BLEND FUND	EQUITY	BROADCOM INC	1,792,419.72	7,049	0.46	0	
MML BLEND FUND	EQUITY	JEFFERIES FINANCIAL GROUP IN	642.32	37	0.00	0	
MML BLEND FUND	EQUITY	LINDE PLC	1,051,085.44	6,736	0.27	0	
MML BLEND FUND	EQUITY	CIGNA CORP	2,864,651.29	15,083	0.73	0	
MML BLEND FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	2,471,248.02	2,471,248	0.63	1.25	1/2/2019
MML BLEND FUND	EQUITY	HOST HOTELS + RESORTS INC	464,042.79	27,837	0.12	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	EQUITY	TRAVELERS COS INC/THE	273,868.25	2,287	0.07		0
MML BLEND FUND	EQUITY	BROADRIDGE FINANCIAL SOLUTIO	69,300.00	720	0.02		0
MML BLEND FUND	EQUITY	PEOPLE S UNITED FINANCIAL	365,814.93	25,351	0.09		0
MML BLEND FUND	EQUITY	DELTA AIR LINES INC	1,157,680.00	23,200	0.30		0
MML BLEND FUND	EQUITY	MACY S INC	1,636,440.78	54,951	0.42		0
MML BLEND FUND	EQUITY	DISCOVER FINANCIAL SERVICES	105,161.34	1,783	0.03		0
MML BLEND FUND	EQUITY	BANK OF NEW YORK MELLON CORP	791,105.49	16,807	0.20		0
MML BLEND FUND	EQUITY	HCP INC	977.55	35	0.00		0
MML BLEND FUND	EQUITY	INVESCO LTD	35,354.88	2,112	0.01		0
MML BLEND FUND	EQUITY	DISH NETWORK CORP A	1,313,422.00	52,600	0.34		0
MML BLEND FUND	EQUITY	DOLLAR TREE INC	4,335.36	48	0.00		0
MML BLEND FUND	EQUITY	PHILIP MORRIS INTERNATIONAL	312,837.36	4,686	0.08		0
MML BLEND FUND	EQUITY	O REILLY AUTOMOTIVE INC	1,261,280.79	3,663	0.32		0
MML BLEND FUND	EQUITY	KINDER MORGAN INC	584.44	38	0.00		0
MML BLEND FUND	EQUITY	HCA HEALTHCARE INC	323,570.00	2,600	0.08		0
MML BLEND FUND	EQUITY	HUNTINGTON INGALLS INDUSTRIE	1,318,848.30	6,930	0.34		0
MML BLEND FUND	EQUITY	CITIGROUP INC	4,245,545.06	81,551	1.09		0
MML BLEND FUND	EQUITY	MOSAIC CO/THE	1,793,494.00	61,400	0.46		0
MML BLEND FUND	EQUITY	PROLOGIS INC	43,335.36	738	0.01		0
MML BLEND FUND	EQUITY	MARATHON PETROLEUM CORP	1,646,379.00	27,900	0.42		0
MML BLEND FUND	EQUITY	HOLLYFRONTIER CORP	1,395,576.00	27,300	0.36		0
MML BLEND FUND	EQUITY	PVH CORP	150,579.00	1,620	0.04		0
MML BLEND FUND	EQUITY	RALPH LAUREN CORP	306,241.60	2,960	0.08		0
MML BLEND FUND	EQUITY	CBRE GROUP INC A	323,803.48	8,087	0.08		0
MML BLEND FUND	EQUITY	XYLEM INC	223,845.60	3,355	0.06		0
MML BLEND FUND	EQUITY	TRIPADVISOR INC	1,995.78	37	0.00		0
MML BLEND FUND	EQUITY	MICHAEL KORS HOLDINGS LTD	716,688.00	18,900	0.18		0
MML BLEND FUND	EQUITY	EXPEDIA GROUP INC	580,936.05	5,157	0.15		0
MML BLEND FUND	EQUITY	AMERICAN TOWER CORP	18,824.61	119	0.00		0
MML BLEND FUND	EQUITY	AON PLC	500,765.20	3,445	0.13		0
MML BLEND FUND	EQUITY	PHILLIPS 66	1,065,589.35	12,369	0.27		0
MML BLEND FUND	EQUITY	FACEBOOK INC CLASS A	3,893,373.00	29,700	1.00		0
MML BLEND FUND	EQUITY	DUKE ENERGY CORP	1,310,897.00	15,190	0.34		0
MML BLEND FUND	EQUITY	MONDELEZ INTERNATIONAL INC A	3,002.25	75	0.00		0
MML BLEND FUND	EQUITY	EATON CORP PLC	931,441.56	13,566	0.24		0
MML BLEND FUND	EQUITY	ABBVIE INC	3,726,504.18	40,422	0.95		0
MML BLEND FUND	EQUITY	NORWEGIAN CRUISE LINE HOLDIN	1,093,662.00	25,800	0.28		0
MML BLEND FUND	EQUITY	ZOETIS INC	179,634.00	2,100	0.05		0
MML BLEND FUND	EQUITY	L BRANDS INC	56,474.00	2,200	0.01		0
MML BLEND FUND	EQUITY	NEWS CORP CLASS A	85,874.10	7,566	0.02		0
MML BLEND FUND	EQUITY	TWENTY FIRST CENTURY FOX A	291,944.04	6,067	0.07		0
MML BLEND FUND	EQUITY	TWENTY FIRST CENTURY FOX B	387,018.00	8,100	0.10		0
MML BLEND FUND	EQUITY	INTERCONTINENTAL EXCHANGE IN	761,962.95	10,115	0.19		0
MML BLEND FUND	EQUITY	BIOGEN INC	2,248,474.24	7,472	0.58		0
MML BLEND FUND	EQUITY	NRG ENERGY INC	1,738,440.00	43,900	0.44		0
MML BLEND FUND	EQUITY	ASSURANT INC	466,519.04	5,216	0.12		0
MML BLEND FUND	EQUITY	SALESFORCE.COM INC	90,948.08	664	0.02		0
MML BLEND FUND	EQUITY	REGIONS FINANCIAL CORP	1,066,586.70	79,715	0.27		0
MML BLEND FUND	EQUITY	EXTRA SPACE STORAGE INC	633,360.00	7,000	0.16		0
MML BLEND FUND	EQUITY	DIGITAL REALTY TRUST INC	29,834.00	280	0.01		0
MML BLEND FUND	EQUITY	MOLSON COORS BREWING CO B	1,184,976.00	21,100	0.30		0
MML BLEND FUND	EQUITY	SVB FINANCIAL GROUP	734,990.40	3,870	0.19		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	EQUITY	CF INDUSTRIES HOLDINGS INC	1,644,242.90	37,790	0.42		0
MML BLEND FUND	EQUITY	AMERIPRISE FINANCIAL INC	1,185,225.72	11,356	0.30		0
MML BLEND FUND	EQUITY	C.H. ROBINSON WORLDWIDE INC	556,675.80	6,620	0.14		0
MML BLEND FUND	EQUITY	ALLEGION PLC	130,166.43	1,633	0.03		0
MML BLEND FUND	EQUITY	AMERICAN AIRLINES GROUP INC	905,502.00	28,200	0.23		0
MML BLEND FUND	EQUITY	PERRIGO CO PLC	85,250.00	2,200	0.02		0
MML BLEND FUND	EQUITY	PENTAIR PLC	1,447,842.94	38,323	0.37		0
MML BLEND FUND	EQUITY	SYNCHRONY FINANCIAL	1,534,284.00	65,400	0.39		0
MML BLEND FUND	EQUITY	CITIZENS FINANCIAL GROUP	1,325,958.00	44,600	0.34		0
MML BLEND FUND	EQUITY	ANTHEM INC	1,522,203.48	5,796	0.39		0
MML BLEND FUND	EQUITY	CROWN CASTLE INTL CORP	894,024.90	8,230	0.23		0
MML BLEND FUND	EQUITY	WALGREENS BOOTS ALLIANCE INC	1,131,339.81	16,557	0.29		0
MML BLEND FUND	EQUITY	IRON MOUNTAIN INC	1,555.68	48	0.00		0
MML BLEND FUND	EQUITY	EQUINIX INC	42,307.20	120	0.01		0
MML BLEND FUND	EQUITY	MEDTRONIC PLC	2,546,880.00	28,000	0.65		0
MML BLEND FUND	EQUITY	EVERSOURCE ENERGY	52,812.48	812	0.01		0
MML BLEND FUND	EQUITY	MYLAN NV	330,087.80	12,047	0.08		0
MML BLEND FUND	EQUITY	ALLERGAN PLC	745,822.80	5,580	0.19		0
MML BLEND FUND	EQUITY	WESTROCK CO	1,369,441.92	36,267	0.35		0
MML BLEND FUND	EQUITY	WEC ENERGY GROUP INC	314,578.92	4,542	0.08		0
MML BLEND FUND	EQUITY	KRAFT HEINZ CO/THE	213,392.32	4,958	0.05		0
MML BLEND FUND	EQUITY	PAYPAL HOLDINGS INC	2,268,495.93	26,977	0.58		0
MML BLEND FUND	EQUITY	WELLTOWER INC	145,761.00	2,100	0.04		0
MML BLEND FUND	EQUITY	ALPHABET INC CL C	5,935,080.91	5,731	1.52		0
MML BLEND FUND	EQUITY	VF CORP	156,948.00	2,200	0.04		0
MML BLEND FUND	EQUITY	TYSON FOODS INC CL A	779,693.40	14,601	0.20		0
MML BLEND FUND	EQUITY	DANAHER CORP	308,947.52	2,996	0.08		0
MML BLEND FUND	EQUITY	SEALED AIR CORP	1,846.52	53	0.00		0
MML BLEND FUND	EQUITY	REPUBLIC SERVICES INC	24,294.33	337	0.01		0
MML BLEND FUND	EQUITY	AKAMAI TECHNOLOGIES INC	1,223,188.08	20,026	0.31		0
MML BLEND FUND	EQUITY	AGILENT TECHNOLOGIES INC	321,311.98	4,763	0.08		0
MML BLEND FUND	EQUITY	PACCAR INC	801,217.08	14,022	0.20		0
MML BLEND FUND	EQUITY	MICROCHIP TECHNOLOGY INC	1,510.32	21	0.00		0
MML BLEND FUND	EQUITY	NATIONAL OILWELL VARCO INC	28,115.80	1,094	0.01		0
MML BLEND FUND	EQUITY	STARBUCKS CORP	1,909,717.60	29,654	0.49		0
MML BLEND FUND	EQUITY	RAYMOND JAMES FINANCIAL INC	364,609.00	4,900	0.09		0
MML BLEND FUND	EQUITY	LEGGETT + PLATT INC	3,082.24	86	0.00		0
MML BLEND FUND	EQUITY	VERIZON COMMUNICATIONS INC	1,408,592.10	25,055	0.36		0
MML BLEND FUND	EQUITY	JUNIPER NETWORKS INC	1,592,775.99	59,189	0.41		0
MML BLEND FUND	EQUITY	NEWFIELD EXPLORATION CO	529,226.00	36,100	0.14		0
MML BLEND FUND	EQUITY	QUANTA SERVICES INC	867,271.30	28,813	0.22		0
MML BLEND FUND	EQUITY	FORD MOTOR CO	983,124.45	128,513	0.25		0
MML BLEND FUND	EQUITY	XCEL ENERGY INC	269,605.44	5,472	0.07		0
MML BLEND FUND	EQUITY	MOODY S CORP	466,333.20	3,330	0.12		0
MML BLEND FUND	EQUITY	CONSTELLATION BRANDS INC A	87,164.44	542	0.02		0
MML BLEND FUND	EQUITY	NASDAQ INC	3,670.65	45	0.00		0
MML BLEND FUND	EQUITY	DAVITA INC	155,923.80	3,030	0.04		0
MML BLEND FUND	EQUITY	EXELON CORP	998,514.00	22,140	0.26		0
MML BLEND FUND	EQUITY	FLUOR CORP	58,249.80	1,809	0.01		0
MML BLEND FUND	EQUITY	T ROWE PRICE GROUP INC	434,457.92	4,706	0.11		0
MML BLEND FUND	EQUITY	JPMORGAN CHASE + CO	6,693,022.44	68,562	1.71		0
MML BLEND FUND	EQUITY	US BANCORP	347,411.40	7,602	0.09		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	EQUITY	RAYTHEON COMPANY	24,382.65	159	0.01		0
MML BLEND FUND	EQUITY	ALLIANCE DATA SYSTEMS CORP	1,229,155.20	8,190	0.31		0
MML BLEND FUND	EQUITY	ZIMMER BIOMET HOLDINGS INC	254,632.60	2,455	0.07		0
MML BLEND FUND	EQUITY	AMERISOURCEBERGEN CORP	112,120.80	1,507	0.03		0
MML BLEND FUND	EQUITY	CHEVRON CORP	4,325,272.82	39,758	1.11		0
MML BLEND FUND	EQUITY	PRINCIPAL FINANCIAL GROUP	359,057.93	8,129	0.09		0
MML BLEND FUND	EQUITY	FOOT LOCKER INC	1,670,480.00	31,400	0.43		0
MML BLEND FUND	EQUITY	ADVANCE AUTO PARTS INC	899,096.60	5,710	0.23		0
MML BLEND FUND	EQUITY	PRUDENTIAL FINANCIAL INC	761,432.35	9,337	0.19		0
MML BLEND FUND	EQUITY	CENTENE CORP	347,053.00	3,010	0.09		0
MML BLEND FUND	EQUITY	3M CO	381.08	2	0.00		0
MML BLEND FUND	EQUITY	NOBLE ENERGY INC	1,050.56	56	0.00		0
MML BLEND FUND	EQUITY	YUM BRANDS INC	3,217.20	35	0.00		0
MML BLEND FUND	EQUITY	NETFLIX INC	2,305,355.58	8,613	0.59		0
MML BLEND FUND	EQUITY	JM SMUCKER CO/THE	78,999.05	845	0.02		0
MML BLEND FUND	EQUITY	VISA INC CLASS A SHARES	4,305,466.08	32,632	1.10		0
MML BLEND FUND	EQUITY	NETAPP INC	1,318,587.66	22,098	0.34		0
MML BLEND FUND	EQUITY	ACTIVISION BLIZZARD INC	9,314.00	200	0.00		0
MML BLEND FUND	EQUITY	DISCOVERY INC A	1,222,156.00	49,400	0.31		0
MML BLEND FUND	EQUITY	DISCOVERY INC C	1,344,248.44	58,243	0.34		0
MML BLEND FUND	EQUITY	EQT CORP	1,832.33	97	0.00		0
MML BLEND FUND	EQUITY	AMERICAN INTERNATIONAL GROUP	1,812.86	46	0.00		0
MML BLEND FUND	EQUITY	INGERSOLL RAND PLC	875,808.00	9,600	0.22		0
MML BLEND FUND	EQUITY	ACCENTURE PLC CL A	1,795,057.30	12,730	0.46		0
MML BLEND FUND	EQUITY	MERCK + CO. INC.	3,941,457.03	51,583	1.01		0
MML BLEND FUND	EQUITY	FORTINET INC	1,591,718.00	22,600	0.41		0
MML BLEND FUND	EQUITY	BERKSHIRE HATHAWAY INC CL B	7,325,161.68	35,876	1.87		0
MML BLEND FUND	EQUITY	STANLEY BLACK + DECKER INC	1,077.66	9	0.00		0
MML BLEND FUND	EQUITY	LYONDELLBASELL INDU CL A	718,502.40	8,640	0.18		0
MML BLEND FUND	EQUITY	E TRADE FINANCIAL CORP	1,384,896.68	31,561	0.35		0
MML BLEND FUND	EQUITY	NEXTERA ENERGY INC	528,412.80	3,040	0.14		0
MML BLEND FUND	EQUITY	GARMIN LTD	132,972.00	2,100	0.03		0
MML BLEND FUND	EQUITY	SEAGATE TECHNOLOGY	1,238,739.00	32,100	0.32		0
MML BLEND FUND	EQUITY	UNITED CONTINENTAL HOLDINGS	1,850,433.00	22,100	0.47		0
MML BLEND FUND	EQUITY	GENERAL MOTORS CO	970,050.00	29,000	0.25		0
MML BLEND FUND	EQUITY	MOTOROLA SOLUTIONS INC	360,880.48	3,137	0.09		0
MML BLEND FUND	EQUITY	AVERY DENNISON CORP	172,024.45	1,915	0.04		0
MML BLEND FUND	EQUITY	BOEING CO/THE	3,161,145.00	9,802	0.81		0
MML BLEND FUND	EQUITY	CORNING INC	654,560.07	21,667	0.17		0
MML BLEND FUND	EQUITY	DOVER CORP	367,024.35	5,173	0.09		0
MML BLEND FUND	EQUITY	EQUIFAX INC	12,293.16	132	0.00		0
MML BLEND FUND	EQUITY	FISERV INC	246,338.48	3,352	0.06		0
MML BLEND FUND	EQUITY	HALLIBURTON CO	4,438.86	167	0.00		0
MML BLEND FUND	EQUITY	HERSHEY CO/THE	176,525.46	1,647	0.05		0
MML BLEND FUND	EQUITY	KLA TENCOR CORP	194,998.71	2,179	0.05		0
MML BLEND FUND	EQUITY	KOHL'S CORP	1,726,830.20	26,030	0.44		0
MML BLEND FUND	EQUITY	PPG INDUSTRIES INC	817.84	8	0.00		0
MML BLEND FUND	EQUITY	QUALCOMM INC	2,612,169.00	45,900	0.67		0
MML BLEND FUND	EQUITY	ROCKWELL AUTOMATION INC	74,186.64	493	0.02		0
MML BLEND FUND	EQUITY	SOUTHWEST AIRLINES CO	482,601.84	10,383	0.12		0
MML BLEND FUND	EQUITY	SUNTRUST BANKS INC	423,696.00	8,400	0.11		0
MML BLEND FUND	EQUITY	TJX COMPANIES INC	277,924.88	6,212	0.07		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	EQUITY	VULCAN MATERIALS CO	494.00	5	0.00	0	0
MML BLEND FUND	EQUITY	WEYERHAEUSER CO	568.36	26	0.00	0	0
MML BLEND FUND	EQUITY	WILLIAMS COS INC	1,058.40	48	0.00	0	0
MML BLEND FUND	EQUITY	XILINX INC	319,898.52	3,756	0.08	0	0
MML BLEND FUND	EQUITY	VERISIGN INC	443,535.39	2,991	0.11	0	0
MML BLEND FUND	EQUITY	HARTFORD FINANCIAL SVCS GRP	264,566.40	5,952	0.07	0	0
MML BLEND FUND	EQUITY	ELECTRONIC ARTS INC	68,414.97	867	0.02	0	0
MML BLEND FUND	EQUITY	GENUINE PARTS CO	3,264.68	34	0.00	0	0
MML BLEND FUND	EQUITY	KIMBERLY CLARK CORP	836,889.30	7,345	0.21	0	0
MML BLEND FUND	EQUITY	MASCO CORP	731.00	25	0.00	0	0
MML BLEND FUND	EQUITY	PNC FINANCIAL SERVICES GROUP	176,300.28	1,508	0.05	0	0
MML BLEND FUND	EQUITY	TORCHMARK CORP	244,607.46	3,282	0.06	0	0
MML BLEND FUND	EQUITY	BANK OF AMERICA CORP	6,891,758.72	279,698	1.76	0	0
MML BLEND FUND	EQUITY	EMERSON ELECTRIC CO	290,922.75	4,869	0.07	0	0
MML BLEND FUND	EQUITY	WW GRAINGER INC	302,689.92	1,072	0.08	0	0
MML BLEND FUND	EQUITY	HARRIS CORP	103,680.50	770	0.03	0	0
MML BLEND FUND	EQUITY	INTL BUSINESS MACHINES CORP	1,709,596.80	15,040	0.44	0	0
MML BLEND FUND	CASH	US DOLLAR	5,251.27	5,251	0.00	0	0
MML BLEND FUND	EQUITY	ABBOTT LABORATORIES	1,417,740.33	19,601	0.36	0	0
MML BLEND FUND	EQUITY	BRISTOL MYERS SQUIBB CO	1,807,188.66	34,767	0.46	0	0
MML BLEND FUND	EQUITY	ILLINOIS TOOL WORKS	36,106.65	285	0.01	0	0
MML BLEND FUND	EQUITY	LOWE S COS INC	8,774.20	95	0.00	0	0
MML BLEND FUND	EQUITY	MARSH + MCLENNAN COS	463,586.75	5,813	0.12	0	0
MML BLEND FUND	EQUITY	MATTEL INC	899.10	90	0.00	0	0
MML BLEND FUND	EQUITY	NUCOR CORP	624,621.36	12,056	0.16	0	0
MML BLEND FUND	EQUITY	SYSCO CORP	334,228.44	5,334	0.09	0	0
MML BLEND FUND	EQUITY	TEXAS INSTRUMENTS INC	564,543.00	5,974	0.14	0	0
MML BLEND FUND	EQUITY	AT+T INC	4,127,626.04	144,626	1.06	0	0
MML BLEND FUND	EQUITY	VIACOM INC CLASS B	1,352,077.00	52,610	0.35	0	0
MML BLEND FUND	EQUITY	CBS CORP CLASS B NON VOTING	2,492.04	57	0.00	0	0
MML BLEND FUND	EQUITY	FIDELITY NATIONAL INFO SERV	564,025.00	5,500	0.14	0	0
MML BLEND FUND	EQUITY	HESS CORP	685,746.00	16,932	0.18	0	0
MML BLEND FUND	EQUITY	MASTERCARD INC A	1,058,326.50	5,610	0.27	0	0
MML BLEND FUND	EQUITY	HANESBRANDS INC	821,968.00	65,600	0.21	0	0
MML BLEND FUND	EQUITY	WESTERN UNION CO	1,226,409.28	71,888	0.31	0	0
MML BLEND FUND	EQUITY	AFLAC INC	676,292.64	14,844	0.17	0	0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	EQUITY	SNAP ON INC	170,134.59	1,171	0.04		0
MML BLEND FUND	EQUITY	ANADARKO PETROLEUM CORP	348,440.32	7,948	0.09		0
MML BLEND FUND	EQUITY	KIMCO REALTY CORP	40,536.55	2,767	0.01		0
MML BLEND FUND	EQUITY	TIFFANY + CO	64,569.02	802	0.02		0
MML BLEND FUND	EQUITY	VORNADO REALTY TRUST	85,167.19	1,373	0.02		0
MML BLEND FUND	EQUITY	ZIONS BANCORP NA	861,284.34	21,141	0.22		0
MML BLEND FUND	EQUITY	AVALONBAY COMMUNITIES INC	362,198.05	2,081	0.09		0
MML BLEND FUND	EQUITY	BOSTON PROPERTIES INC	337.65	3	0.00		0
MML BLEND FUND	EQUITY	EQUITY RESIDENTIAL	3,696.56	56	0.00		0
MML BLEND FUND	EQUITY	SL GREEN REALTY CORP	1,462,189.20	18,490	0.37		0
MML BLEND FUND	EQUITY	DUKE REALTY CORP	233,100.00	9,000	0.06		0
MML BLEND FUND	EQUITY	STERICYCLE INC	3,558.93	97	0.00		0
MML BLEND FUND	EQUITY	VARIAN MEDICAL SYSTEMS INC	793.17	7	0.00		0
MML BLEND FUND	EQUITY	WESTERN DIGITAL CORP	264,224.59	7,147	0.07		0
MML BLEND FUND	EQUITY	AMPHENOL CORP CL A	345,469.28	4,264	0.09		0
MML BLEND FUND	EQUITY	APARTMENT INVT + MGMT CO A	3,729.80	85	0.00		0
MML BLEND FUND	EQUITY	BALL CORP	183.92	4	0.00		0
MML BLEND FUND	EQUITY	ESSEX PROPERTY TRUST INC	367,815.00	1,500	0.09		0
MML BLEND FUND	EQUITY	GILEAD SCIENCES INC	2,909,200.50	46,510	0.74		0
MML BLEND FUND	EQUITY	NVIDIA CORP	801.00	6	0.00		0
MML BLEND FUND	EQUITY	SYMANTEC CORP	1,039.23	55	0.00		0
MML BLEND FUND	EQUITY	UNIVERSAL HEALTH SERVICES B	5,828.00	50	0.00		0
MML BLEND FUND	EQUITY	BECTON DICKINSON AND CO	54,527.44	242	0.01		0
MML BLEND FUND	EQUITY	CENTURYLINK INC	1,401,799.20	92,528	0.36		0
MML BLEND FUND	EQUITY	CLOROX COMPANY	111,443.22	723	0.03		0
MML BLEND FUND	EQUITY	CONAGRA BRANDS INC	166,052.64	7,774	0.04		0
MML BLEND FUND	EQUITY	FRANKLIN RESOURCES INC	1,064,408.42	35,887	0.27		0
MML BLEND FUND	EQUITY	GENERAL DYNAMICS CORP	94,640.42	602	0.02		0
MML BLEND FUND	EQUITY	HASBRO INC	37,456.25	461	0.01		0
MML BLEND FUND	EQUITY	HONEYWELL INTERNATIONAL INC	86,142.24	652	0.02		0
MML BLEND FUND	EQUITY	PROCTER + GAMBLE CO/THE	6,437,065.68	70,029	1.65		0
MML BLEND FUND	EQUITY	AES CORP	808,126.02	55,887	0.21		0
MML BLEND FUND	EQUITY	AMGEN INC	4,541,845.77	23,331	1.16		0
MML BLEND FUND	EQUITY	APPLE INC	17,134,822.98	108,627	4.38		0
MML BLEND FUND	EQUITY	BEST BUY CO INC	1,217,656.32	22,992	0.31		0
MML BLEND FUND	EQUITY	BOSTON SCIENTIFIC CORP	10,602.00	300	0.00		0
MML BLEND FUND	EQUITY	CVS HEALTH CORP	1,441,505.52	22,001	0.37		0
MML BLEND FUND	EQUITY	CAPITAL ONE FINANCIAL CORP	714,476.68	9,452	0.18		0
MML BLEND FUND	EQUITY	CISCO SYSTEMS INC	6,310,667.86	145,642	1.61		0
MML BLEND FUND	EQUITY	SKYWORX SOLUTIONS INC	402,790.20	6,010	0.10		0
MML BLEND FUND	EQUITY	CONOCOPHILLIPS	1,049,911.65	16,839	0.27		0
MML BLEND FUND	EQUITY	CENTERPOINT ENERGY INC	669,926.13	23,731	0.17		0
MML BLEND FUND	EQUITY	CIMAREX ENERGY CO	733,635.00	11,900	0.19		0
MML BLEND FUND	EQUITY	WYNN RESORTS LTD	791.28	8	0.00		0
MML BLEND FUND	EQUITY	COMCAST CORP CLASS A	3,075,532.20	90,324	0.79		0
MML BLEND FUND	EQUITY	ALTRIA GROUP INC	1,415,468.01	28,659	0.36		0
MML BLEND FUND	EQUITY	INTUITIVE SURGICAL INC	137,928.96	288	0.04		0
MML BLEND FUND	EQUITY	PUBLIC STORAGE	41,089.23	203	0.01		0
MML BLEND FUND	EQUITY	SIMON PROPERTY GROUP INC	1,395,156.95	8,305	0.36		0
MML BLEND FUND	EQUITY	AIR PRODUCTS + CHEMICALS INC	428,133.75	2,675	0.11		0
MML BLEND FUND	EQUITY	AUTOMATIC DATA PROCESSING	1,402,852.88	10,699	0.36		0
MML BLEND FUND	EQUITY	CATERPILLAR INC	1,426,360.75	11,225	0.36		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	EQUITY	COLGATE PALMOLIVE CO	351,525.12	5,906	0.09		0
MML BLEND FUND	EQUITY	ECOLAB INC	294.70	2	0.00		0
MML BLEND FUND	EQUITY	GENERAL MILLS INC	76,400.28	1,962	0.02		0
MML BLEND FUND	EQUITY	GOLDMAN SACHS GROUP INC	2,168,309.00	12,980	0.55		0
MML BLEND FUND	EQUITY	PAYCHEX INC	4,169.60	64	0.00		0
MML BLEND FUND	EQUITY	ROSS STORES INC	219,980.80	2,644	0.06		0
MML BLEND FUND	EQUITY	SCHLUMBERGER LTD	163,478.48	4,531	0.04		0
MML BLEND FUND	EQUITY	AUTOZONE INC	1,923,151.96	2,294	0.49		0
MML BLEND FUND	EQUITY	ARCHER DANIELS MIDLAND CO	3,769.24	92	0.00		0
MML BLEND FUND	EQUITY	CMS ENERGY CORP	392,383.95	7,903	0.10		0
MML BLEND FUND	EQUITY	CSX CORP	1,199,543.91	19,307	0.31		0
MML BLEND FUND	EQUITY	CINCINNATI FINANCIAL CORP	342,118.98	4,419	0.09		0
MML BLEND FUND	EQUITY	CONSOLIDATED EDISON INC	166,835.72	2,182	0.04		0
MML BLEND FUND	EQUITY	CUMMINS INC	1,057,760.60	7,915	0.27		0
MML BLEND FUND	EQUITY	DR HORTON INC	164,531.02	4,747	0.04		0
MML BLEND FUND	EQUITY	DTE ENERGY COMPANY	333,106.00	3,020	0.09		0
MML BLEND FUND	EQUITY	DEVON ENERGY CORP	920,691.38	40,847	0.24		0
MML BLEND FUND	EQUITY	DOMINION ENERGY INC	122,625.36	1,716	0.03		0
MML BLEND FUND	EQUITY	EASTMAN CHEMICAL CO	443,777.70	6,070	0.11		0
MML BLEND FUND	EQUITY	ENTERGY CORP	1,798,690.86	20,898	0.46		0
MML BLEND FUND	EQUITY	FIRSTENERGY CORP	21,779.00	580	0.01		0
MML BLEND FUND	EQUITY	GOODYEAR TIRE + RUBBER CO	1,272,583.91	62,351	0.33		0
MML BLEND FUND	EQUITY	HELMERICH + PAYNE	2,876.40	60	0.00		0
MML BLEND FUND	EQUITY	HUMANA INC	89,954.72	314	0.02		0
MML BLEND FUND	EQUITY	INTL PAPER CO	1,565,443.32	38,787	0.40		0
MML BLEND FUND	EQUITY	KEYCORP	484,251.92	32,764	0.12		0
MML BLEND FUND	EQUITY	LAM RESEARCH CORP	162,450.81	1,193	0.04		0
MML BLEND FUND	EQUITY	LOCKHEED MARTIN CORP	400,615.20	1,530	0.10		0
MML BLEND FUND	EQUITY	NORFOLK SOUTHERN CORP	1,168,356.02	7,813	0.30		0
MML BLEND FUND	EQUITY	NORTHROP GRUMMAN CORP	85,225.20	348	0.02		0
MML BLEND FUND	EQUITY	OCCIDENTAL PETROLEUM CORP	332,372.70	5,415	0.09		0
MML BLEND FUND	EQUITY	PPL CORP	329,137.94	11,618	0.08		0
MML BLEND FUND	EQUITY	PIONEER NATURAL RESOURCES CO	714,285.12	5,431	0.18		0
MML BLEND FUND	EQUITY	PUBLIC SERVICE ENTERPRISE GP	74,119.20	1,424	0.02		0
MML BLEND FUND	EQUITY	PULTEGROUP INC	597,068.27	22,973	0.15		0
MML BLEND FUND	EQUITY	SCANA CORP	2,245.66	47	0.00		0
MML BLEND FUND	EQUITY	THERMO FISHER SCIENTIFIC INC	888,670.09	3,971	0.23		0
MML BLEND FUND	EQUITY	MARATHON OIL CORP	1,529,031.18	106,627	0.39		0
MML BLEND FUND	EQUITY	UNION PACIFIC CORP	2,310,099.76	16,712	0.59		0
MML BLEND FUND	EQUITY	UNITED RENTALS INC	204,034.70	1,990	0.05		0
MML BLEND FUND	EQUITY	VALERO ENERGY CORP	782,686.80	10,440	0.20		0
MML BLEND FUND	EQUITY	HOLOGIC INC	57,540.00	1,400	0.01		0
MML BLEND FUND	EQUITY	QUEST DIAGNOSTICS INC	275,540.43	3,309	0.07		0
MML BLEND FUND	EQUITY	AMETEK INC	521,290.00	7,700	0.13		0
MML BLEND FUND	EQUITY	APPLIED MATERIALS INC	63,482.86	1,939	0.02		0
MML BLEND FUND	EQUITY	CABOT OIL + GAS CORP	1,072.80	48	0.00		0
MML BLEND FUND	EQUITY	CELGENE CORP	1,036,719.84	16,176	0.27		0
MML BLEND FUND	EQUITY	COGNIZANT TECH SOLUTIONS A	651,050.88	10,256	0.17		0
MML BLEND FUND	EQUITY	COOPER COS INC/THE	315,580.00	1,240	0.08		0
MML BLEND FUND	EQUITY	FLIR SYSTEMS INC	124,176.08	2,852	0.03		0
MML BLEND FUND	EQUITY	FLOWSERVE CORP	922,745.40	24,270	0.24		0
MML BLEND FUND	EQUITY	TEXTRON INC	946,106.28	20,572	0.24		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	EQUITY	CADENCE DESIGN SYS INC	156,528.00	3,600	0.04		0
MML BLEND FUND	EQUITY	COSTCO WHOLESALE CORP	1,501,342.70	7,370	0.38		0
MML BLEND FUND	EQUITY	INTEL CORP	5,205,616.39	110,923	1.33		0
MML BLEND FUND	EQUITY	JOHNSON + JOHNSON	5,861,709.10	45,422	1.50		0
MML BLEND FUND	EQUITY	ELI LILLY + CO	1,922,572.08	16,614	0.49		0
MML BLEND FUND	EQUITY	MCDONALD S CORP	362,242.80	2,040	0.09		0
MML BLEND FUND	EQUITY	STATE STREET CORP	414,748.32	6,576	0.11		0
MML BLEND FUND	EQUITY	SYNOPSIS INC	50,544.00	600	0.01		0
MML BLEND FUND	EQUITY	TARGET CORP	1,142,431.74	17,286	0.29		0
MML BLEND FUND	EQUITY	UNITED TECHNOLOGIES CORP	1,548,538.64	14,543	0.40		0
MML BLEND FUND	EQUITY	WASTE MANAGEMENT INC	175,577.27	1,973	0.04		0
MML BLEND FUND	EQUITY	WHIRLPOOL CORP	699,250.41	6,543	0.18		0
MML BLEND FUND	EQUITY	AMERICAN EXPRESS CO	240,111.08	2,519	0.06		0
MML BLEND FUND	EQUITY	COCA COLA CO/THE	598,030.50	12,630	0.15		0
MML BLEND FUND	EQUITY	MARRIOTT INTERNATIONAL CL A	99,983.76	921	0.03		0
MML BLEND FUND	EQUITY	NIKE INC CL B	206,405.76	2,784	0.05		0
MML BLEND FUND	EQUITY	ANALOG DEVICES INC	92,009.76	1,072	0.02		0
MML BLEND FUND	EQUITY	CARDINAL HEALTH INC	703,698.80	15,778	0.18		0
MML BLEND FUND	EQUITY	HARLEY DAVIDSON INC	341,268.24	10,002	0.09		0
MML BLEND FUND	EQUITY	INTERPUBLIC GROUP OF COS INC	654,424.86	31,722	0.17		0
MML BLEND FUND	EQUITY	TOTAL SYSTEM SERVICES INC	667,147.03	8,207	0.17		0
MML BLEND FUND	EQUITY	VENTAS INC	60,054.75	1,025	0.02		0
MML BLEND FUND	EQUITY	RED HAT INC	175.64	1	0.00		0
MML BLEND FUND	EQUITY	F5 NETWORKS INC	1,678,630.80	10,360	0.43		0
MML BLEND FUND	EQUITY	INTUIT INC	486,219.50	2,470	0.12		0
MML BLEND FUND	EQUITY	HUNTINGTON BANCSHARES INC	81,056.00	6,800	0.02		0
MML BLEND FUND	EQUITY	STRYKER CORP	713,212.50	4,550	0.18		0
MML BLEND FUND	EQUITY	ESTEE LAUDER COMPANIES CL A	1,029,091.00	7,910	0.26		0
MML BLEND FUND	EQUITY	CITRIX SYSTEMS INC	1,827,579.02	17,837	0.47		0
MML BLEND FUND	EQUITY	NORTHERN TRUST CORP	289,137.81	3,459	0.07		0
MML BLEND FUND	EQUITY	NORDSTROM INC	1,212,232.88	26,008	0.31		0
MML BLEND FUND	EQUITY	KELLOGG CO	480,480.28	8,428	0.12		0
MML BLEND FUND	EQUITY	M + T BANK CORP	865,220.85	6,045	0.22		0
MML BLEND FUND	EQUITY	PACKAGING CORP OF AMERICA	62,595.00	750	0.02		0
MML BLEND FUND	EQUITY	EXPEDITORS INTL WASH INC	8,579.34	126	0.00		0
MML BLEND FUND	EQUITY	NEWMONT MINING CORP	196,465.50	5,670	0.05		0
MML BLEND FUND	EQUITY	FIFTH THIRD BANCORP	278,148.13	11,821	0.07		0
MML BLEND FUND	EQUITY	FREEMONT MCMORAN INC	730,607.84	70,864	0.19		0
MML BLEND FUND	EQUITY	BB+T CORP	137,151.12	3,166	0.04		0
MML BLEND FUND	EQUITY	COMERICA INC	207,512.49	3,021	0.05		0
MML BLEND FUND	EQUITY	SEMPRA ENERGY	241,371.89	2,231	0.06		0
MML BLEND FUND	EQUITY	PROGRESSIVE CORP	1,092,817.62	18,114	0.28		0
MML BLEND FUND	EQUITY	AMAZON.COM INC	11,835,523.60	7,880	3.03		0
MML BLEND FUND	EQUITY	MCKESSON CORP	1,666,439.95	15,085	0.43		0
MML BLEND FUND	EQUITY	CINTAS CORP	1,343.92	8	0.00		0
MML BLEND FUND	EQUITY	ROBERT HALF INTL INC	996,767.20	17,426	0.25		0
MML BLEND FUND	EQUITY	FASTENAL CO	4,287.78	82	0.00		0
MML BLEND FUND	EQUITY	EBAY INC	583,210.39	20,777	0.15		0
MML BLEND FUND	EQUITY	BROWN FORMAN CORP CLASS B	713.70	15	0.00		0
MML BLEND FUND	EQUITY	BORGWARNER INC	555,840.00	16,000	0.14		0
MML BLEND FUND	EQUITY	EOG RESOURCES INC	85,291.38	978	0.02		0
MML BLEND FUND	EQUITY	EDISON INTERNATIONAL	24,184.02	426	0.01		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	EQUITY	LINCOLN NATIONAL CORP	1,244,318.81	24,251	0.32	0	
MML BLEND FUND	EQUITY	LOEWS CORP	204,066.16	4,483	0.05	0	
MML BLEND FUND	EQUITY	NISOURCE INC	18,074.55	713	0.00	0	
MML BLEND FUND	EQUITY	PINNACLE WEST CAPITAL	118,939.20	1,396	0.03	0	
MML BLEND FUND	EQUITY	SOUTHERN CO/THE	159,078.24	3,622	0.04	0	
MML BLEND FUND	EQUITY	UNUM GROUP	1,284,816.78	43,731	0.33	0	
MML BLEND FUND	EQUITY	DARDEN RESTAURANTS INC	265,028.44	2,654	0.07	0	
MML BLEND FUND	EQUITY	MID AMERICA APARTMENT COMM	5,742.00	60	0.00	0	
MML BLEND FUND	EQUITY	PERKINELMER INC	1,571.00	20	0.00	0	
MML BLEND FUND	EQUITY	ROPER TECHNOLOGIES INC	176,702.76	663	0.05	0	
MML BLEND FUND	EQUITY	EVEREST RE GROUP LTD	653,280.00	3,000	0.17	0	
MML BLEND FUND	EQUITY	WALT DISNEY CO/THE	3,341,254.80	30,472	0.85	0	
MML BLEND FUND	EQUITY	EXXON MOBIL CORP	2,420,540.43	35,497	0.62	0	
MML BLEND FUND	EQUITY	GAP INC/THE	283,102.40	10,990	0.07	0	
MML BLEND FUND	EQUITY	GENERAL ELECTRIC CO	651.02	86	0.00	0	
MML BLEND FUND	EQUITY	HOME DEPOT INC	1,308,752.94	7,617	0.33	0	
MML BLEND FUND	EQUITY	MICROSOFT CORP	14,802,303.95	145,735	3.79	0	
MML BLEND FUND	EQUITY	MICRON TECHNOLOGY INC	946,093.41	29,817	0.24	0	
MML BLEND FUND	EQUITY	MORGAN STANLEY	1,772,236.05	44,697	0.45	0	
MML BLEND FUND	EQUITY	OMNICOM GROUP	1,695,286.28	23,147	0.43	0	
MML BLEND FUND	EQUITY	ORACLE CORP	3,208,223.55	71,057	0.82	0	
MML BLEND FUND	EQUITY	PFIZER INC	5,916,364.65	135,541	1.51	0	
MML BLEND FUND	EQUITY	WALMART INC	2,381,100.30	25,562	0.61	0	
MML BLEND FUND	EQUITY	WATERS CORP	290,521.00	1,540	0.07	0	
MML BLEND FUND	EQUITY	WELLS FARGO + CO	802,529.28	17,416	0.21	0	
MML BLEND FUND	EQUITY	BAXTER INTERNATIONAL INC	4,015.02	61	0.00	0	
MML BLEND FUND	EQUITY	H+R BLOCK INC	1,759,739.31	69,363	0.45	0	
MML BLEND FUND	EQUITY	ALASKA AIR GROUP INC	18,255.00	300	0.00	0	
MML BLEND FUND	EQUITY	ALLSTATE CORP	349,938.05	4,235	0.09	0	
MML BLEND FUND	EQUITY	AMEREN CORPORATION	43,051.80	660	0.01	0	
MML BLEND FUND	EQUITY	AMERICAN ELECTRIC POWER	66,144.90	885	0.02	0	
MML BLEND FUND	EQUITY	APACHE CORP	551.25	21	0.00	0	
MML BLEND FUND	FIXED INCOME	USF+G CAPITAL I	205,702.36	150,000	0.07	8.5	12/15/2045
MML BLEND FUND	FIXED INCOME	GNMA POOL 352021	1,907.41	1,796	0.00	7	11/15/2023
MML BLEND FUND	FIXED INCOME	FNMA POOL 524317	1,154.82	1,011	0.00	7.5	3/1/2030
MML BLEND FUND	FIXED INCOME	GNMA POOL 363066	3,547.42	3,333	0.00	7	8/15/2023
MML BLEND FUND	FIXED INCOME	FNMA POOL 526380	3,866.61	3,323	0.00	8	5/1/2030
MML BLEND FUND	FIXED INCOME	FNMA POOL 536949	1,617.39	1,390	0.00	8	5/1/2030
MML BLEND FUND	FIXED INCOME	FED HM LN PC POOL C00470	14,115.43	12,579	0.00	8	8/1/2026
MML BLEND FUND	FIXED INCOME	SPRINT COMMUNICATIONS	468,425.00	410,000	0.16	9.25	4/15/2022
MML BLEND FUND	FIXED INCOME	GNMA POOL 354674	3,213.05	3,022	0.00	7	10/15/2023
MML BLEND FUND	FIXED INCOME	GNMA POOL 337539	409.25	386	0.00	7	7/15/2023
MML BLEND FUND	FIXED INCOME	FNMA POOL 499386	1,314.19	1,155	0.00	7.5	9/1/2029
MML BLEND FUND	FIXED INCOME	FNMA POOL 531196	969.80	859	0.00	7.5	2/1/2030
MML BLEND FUND	FIXED INCOME	FNMA POOL 530299	260.08	235	0.00	7.5	3/1/2030
MML BLEND FUND	FIXED INCOME	FNMA POOL 253265	1,517.65	1,350	0.00	7.5	5/1/2030
MML BLEND FUND	FIXED INCOME	FED HM LN PC POOL G00924	14,164.06	12,646	0.00	8	3/1/2028
MML BLEND FUND	FIXED INCOME	FNMA POOL 521006	502.95	441	0.00	7.5	12/1/2029
MML BLEND FUND	FIXED INCOME	FNMA POOL 253183	3,152.21	2,782	0.00	7.5	4/1/2030
MML BLEND FUND	FIXED INCOME	FNMA POOL 252981	7,654.70	6,749	0.00	7.5	1/1/2030
MML BLEND FUND	FIXED INCOME	FNMA POOL 522769	70.23	62	0.00	7.5	12/1/2029
MML BLEND FUND	FIXED INCOME	FNMA POOL 535351	2,881.52	2,501	0.00	8	6/1/2030

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	CASH	US DOLLAR	(699,395.58)	(699,396)	0.23	0	
MML BLEND FUND	CASH	EURO CURRENCY	6.90	6	0.00	0	
MML BLEND FUND	FIXED INCOME	FNMA POOL 253481	2,015.41	1,747	0.00	8	10/1/2030
MML BLEND FUND	FIXED INCOME	FED HM LN PC POOL C01079	6,859.67	6,011	0.00	7.5	10/1/2030
MML BLEND FUND	FIXED INCOME	FED HM LN PC POOL C01135	21,904.80	19,251	0.01	7.5	2/1/2031
MML BLEND FUND	FIXED INCOME	FNMA POOL 253795	53,369.49	47,087	0.02	7	5/1/2031
MML BLEND FUND	FIXED INCOME	FNMA POOL 602008	2,696.76	2,348	0.00	8	8/1/2031
MML BLEND FUND	FIXED INCOME	PANHANDLE PLAINS STUDENT FINAN	297,864.00	300,000	0.10	2.29	12/1/2031
MML BLEND FUND	FIXED INCOME	FNMA POOL 190317	855.31	741	0.00	8	8/1/2031
MML BLEND FUND	FIXED INCOME	FNMA POOL 596656	406.77	397	0.00	8	8/1/2031
MML BLEND FUND	FIXED INCOME	FED HM LN PC POOL C55867	41,533.75	37,528	0.01	7.5	2/1/2030
MML BLEND FUND	FIXED INCOME	FNMA POOL 572844	25,284.01	22,175	0.01	7	4/1/2031
MML BLEND FUND	FIXED INCOME	FNMA TBA 30 YR 4.5	9,652,831.57	9,325,000	3.23	4.5	1/14/2049
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	551,985.53	550,000	0.18	5.073	12/15/2039
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	350,000.00	350,000	0.12	4.48	6/15/2030
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	50,000.00	50,000	0.02	4.49	6/15/2030
MML BLEND FUND	FIXED INCOME	MERRILL LYNCH MORTGAGE INVESTO	2,756.29	2,849	0.00	4.597355	7/25/2033
MML BLEND FUND	FIXED INCOME	FREDDIE MAC	369,385.32	344,415	0.12	5.5	10/15/2033
MML BLEND FUND	FIXED INCOME	COUNTRYWIDE HOME LOANS	18,987.04	19,627	0.01	3.713667	2/25/2034
MML BLEND FUND	FIXED INCOME	STRUCTURED ADJUSTABLE RATE MOR	22,238.94	23,097	0.01	4.347054	3/25/2034
MML BLEND FUND	FIXED INCOME	WAMU MORTGAGE PASS THROUGH CER	61,510.15	63,711	0.02	3.557369	4/25/2044
MML BLEND FUND	FIXED INCOME	COUNTRYWIDE ASSET BACKED CERTI	12,717.98	12,845	0.00	2.77513	9/25/2034
MML BLEND FUND	FIXED INCOME	BANK OF AMERICA CORP	122,861.65	95,000	0.04	7.75	5/14/2038
MML BLEND FUND	FIXED INCOME	UNITED TECHNOLOGIES CORP	91,657.57	80,000	0.03	6.125	7/15/2038
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	516,721.33	533,975	0.17	2.65988	1/25/2041
MML BLEND FUND	EQUITY	CCBRCIUS4 SWBC BRC	(790,000.00)	(790,000)	0.26	0	
MML BLEND FUND	EQUITY	SWAP CREDIT SUISSE BOC	(900,000.00)	(900,000)	0.30	0	
MML BLEND FUND	FIXED INCOME	TIME WARNER CABLE LLC	65,362.92	65,000	0.02	8.75	2/14/2019
MML BLEND FUND	FIXED INCOME	FNMA TBA 30 YR 4	12,741,211.25	12,500,000	4.26	4	1/14/2049
MML BLEND FUND	FIXED INCOME	PETROLEOS MEXICANOS	31,635.00	37,000	0.01	6.625	6/15/2038
MML BLEND FUND	FIXED INCOME	US TREASURY N/B	557,666.39	510,000	0.19	3.5	2/15/2039
MML BLEND FUND	FIXED INCOME	TIME WARNER CABLE LLC	45,505.00	45,000	0.02	8.25	4/1/2019
MML BLEND FUND	FIXED INCOME	CALIFORNIA ST	931,157.50	650,000	0.31	7.55	4/1/2039
MML BLEND FUND	FIXED INCOME	ONCOR ELECTRIC DELIVERY	55,927.01	40,000	0.02	7.5	9/1/2038
MML BLEND FUND	FIXED INCOME	BARCLAYS BANK PLC	213,588.14	190,000	0.07	10.179	6/12/2021
MML BLEND FUND	FIXED INCOME	TIME WARNER CABLE LLC	111,773.81	110,000	0.04	6.75	6/15/2039
MML BLEND FUND	FIXED INCOME	CITIGROUP INC	124,861.55	90,000	0.04	8.125	7/15/2039
MML BLEND FUND	FIXED INCOME	GCCFC COMMERCIAL MORTGAGE TRUS	123,336.30	122,181	0.04	5.66622	7/10/2038
MML BLEND FUND	FIXED INCOME	ANADARKO PETROLEUM CORP	269,998.94	250,000	0.09	6.45	9/15/2036
MML BLEND FUND	FIXED INCOME	NEVADA POWER CO	175,122.23	135,000	0.06	6.65	4/1/2036
MML BLEND FUND	FIXED INCOME	GOLDMAN SACHS GROUP INC	223,236.39	212,000	0.07	5.95	1/15/2027
MML BLEND FUND	FIXED INCOME	VALE OVERSEAS LIMITED	263,005.00	230,000	0.09	6.875	11/21/2036
MML BLEND FUND	FIXED INCOME	COUNTRYWIDE HOME LOANS	3,809.15	4,205	0.00	3.991	9/25/2033
MML BLEND FUND	FIXED INCOME	GSR MORTGAGE LOAN TRUST	5,709.00	5,963	0.00	4.103501	8/25/2034
MML BLEND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	262,023.44	264,528	0.09	2.92375	3/23/2037
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	268,345.24	285,500	0.09	2.66988	7/25/2055
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	298,010.13	300,213	0.10	2.62988	10/25/2028
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	368,374.92	396,989	0.12	2.77988	1/25/2044
MML BLEND FUND	FIXED INCOME	ERAC USA FINANCE LLC	92,648.09	78,000	0.03	6.7	6/1/2034
MML BLEND FUND	FIXED INCOME	INDYMAC INDX MORTGAGE LOAN TRU	38,789.20	41,144	0.01	3.943459	8/25/2034
MML BLEND FUND	FIXED INCOME	UNITED MEXICAN STATES	182,256.00	160,000	0.06	6.75	9/27/2034
MML BLEND FUND	FIXED INCOME	MERRILL LYNCH MORTGAGE INVESTO	3,333.20	3,598	0.00	3.79216	2/25/2034

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	160,000.00	160,000	0.05	4.08	3/15/2028
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	1,289,442.44	1,300,000	0.43	3.23988	10/25/2040
MML BLEND FUND	FIXED INCOME	FNMA POOL 564594	10,912.17	9,733	0.00	7	1/1/2031
MML BLEND FUND	FIXED INCOME	GOAL CAPITAL FUNDING TRUST	134,270.59	141,989	0.04	3.12694	8/25/2042
MML BLEND FUND	FIXED INCOME	XCEL ENERGY INC	742,233.86	590,000	0.25	6.5	7/1/2036
MML BLEND FUND	FIXED INCOME	SLC STUDENT LOAN TRUST	1,469,836.95	1,550,000	0.49	2.94819	3/15/2055
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	1,692,115.20	1,740,000	0.57	2.63988	3/25/2044
MML BLEND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	92,522.58	100,697	0.03	3.07163	6/25/2041
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	157,475.58	171,009	0.05	2.63988	4/25/2040
MML BLEND FUND	FIXED INCOME	BANK OF AMERICA CORP	241,788.09	220,000	0.08	6.11	1/29/2037
MML BLEND FUND	FIXED INCOME	KINDER MORGAN ENER PART	129,275.35	120,000	0.04	6.5	2/1/2037
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	144,343.50	150,000	0.05	2.62988	1/27/2042
MML BLEND FUND	FIXED INCOME	JP MORGAN CHASE COMMERCIAL MOR	1,000.71	1,001	0.00	5.466	6/12/2047
MML BLEND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	195,450.60	200,000	0.07	2.594	3/22/2032
MML BLEND FUND	FIXED INCOME	PACIFIC GAS + ELECTRIC	111,211.05	120,000	0.04	5.8	3/1/2037
MML BLEND FUND	FIXED INCOME	KINDER MORGAN ENER PART	11,153.49	10,000	0.00	6.95	1/15/2038
MML BLEND FUND	FIXED INCOME	ACCESS GROUP INC	68,786.33	70,461	0.02	3.59	7/1/2038
MML BLEND FUND	FIXED INCOME	TIAA SEASONED COMMERCIAL MORTG	10,446.59	10,422	0.00	5.48141	8/15/2039
MML BLEND FUND	FIXED INCOME	GOLDMAN SACHS GROUP INC	225,856.76	200,000	0.08	6.75	10/1/2037
MML BLEND FUND	FIXED INCOME	ENCANA CORP	86,735.40	80,000	0.03	6.5	2/1/2038
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	129,000.00	129,000	0.04	4.088	3/15/2028
MML BLEND FUND	FIXED INCOME	FNMA POOL 888586	63,042.33	59,972	0.02	4.379	10/1/2034
MML BLEND FUND	FIXED INCOME	FNMA POOL 725692	35,971.37	34,301	0.01	4.318	10/1/2033
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	334,895.41	352,743	0.11	2.98988	7/25/2039
MML BLEND FUND	FIXED INCOME	AAMES MORTGAGE INVESTMENT TRUS	52,899.42	53,235	0.02	4.04013	1/25/2035
MML BLEND FUND	FIXED INCOME	ISRAEL ELECTRIC CORP LTD	200,084.00	200,000	0.07	7.25	1/15/2019
MML BLEND FUND	FIXED INCOME	GNMA POOL 362651	2,185.52	2,146	0.00	7	10/15/2023
MML BLEND FUND	FIXED INCOME	FNMA POOL 530520	11,857.25	10,521	0.00	7.5	3/1/2030
MML BLEND FUND	FIXED INCOME	FORD MOTOR CREDIT CO LLC	449,938.97	475,000	0.15	4.375	8/6/2023
MML BLEND FUND	FIXED INCOME	HILTON GRAND VACATIONS TRUST	26,569.25	26,695	0.01	2.28	1/25/2026
MML BLEND FUND	FIXED INCOME	ALLSTATE CORP	965,250.00	990,000	0.32	5.75	8/15/2053
MML BLEND FUND	FIXED INCOME	PETROLEOS MEXICANOS	90,500.00	100,000	0.03	3.5	1/30/2023
MML BLEND FUND	FIXED INCOME	QVC INC	249,478.62	260,000	0.08	4.375	3/15/2023
MML BLEND FUND	FIXED INCOME	VERIZON COMMUNICATIONS	175,756.88	149,000	0.06	6.55	9/15/2043
MML BLEND FUND	FIXED INCOME	VALLEY NATIONAL BANCORP	254,597.87	245,000	0.09	5.125	9/27/2023
MML BLEND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	156,629.86	156,912	0.05	3.13625	1/25/2037
MML BLEND FUND	FIXED INCOME	WELLS FARGO + COMPANY	165,928.26	159,000	0.06	5.375	11/2/2043
MML BLEND FUND	FIXED INCOME	EDLINC STUDENT LOAN FUNDING TR	321,055.14	270,000	0.11	4.16513	11/26/2040
MML BLEND FUND	FIXED INCOME	WPP FINANCE 2010	17,646.50	18,000	0.01	5.625	11/15/2043
MML BLEND FUND	FIXED INCOME	ENERGY TRANSFER LP	203,500.00	200,000	0.07	5.875	1/15/2024
MML BLEND FUND	FIXED INCOME	MORGAN STANLEY	280,408.45	275,000	0.09	5	11/24/2025

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	FIXED INCOME	CMS ENERGY CORP	116,515.60	115,000	0.04	4.7	3/31/2043
MML BLEND FUND	FIXED INCOME	FIRST FRANKLIN MTG LOAN ASSET	427,902.34	420,000	0.14	4.23125	1/25/2035
MML BLEND FUND	FIXED INCOME	NISOURCE INC	275,925.48	285,000	0.09	4.8	2/15/2044
MML BLEND FUND	FIXED INCOME	LYB INTL FINANCE BV	166,834.81	175,000	0.06	5.25	7/15/2043
MML BLEND FUND	FIXED INCOME	CREDIT SUISSE AG	364,875.00	350,000	0.12	6.5	8/8/2023
MML BLEND FUND	FIXED INCOME	CVS HEALTH CORP	193,839.30	175,000	0.06	6.125	9/15/2039
MML BLEND FUND	FIXED INCOME	CENTURYLINK INC	141,789.05	140,000	0.05	6.15	9/15/2019
MML BLEND FUND	FIXED INCOME	WILLIS NORTH AMERICA INC	99,226.02	97,000	0.03	7	9/29/2019
MML BLEND FUND	FIXED INCOME	REPUBLIC OF COLOMBIA	669,600.00	620,000	0.22	6.125	1/18/2041
MML BLEND FUND	FIXED INCOME	CISCO SYSTEMS INC	64,896.07	55,000	0.02	5.5	1/15/2040
MML BLEND FUND	FIXED INCOME	GNMA II TBA 30 YR 4	1,290,220.34	1,260,000	0.43	4	1/23/2049
MML BLEND FUND	FIXED INCOME	INCITEC PIVOT FIN LLC	189,085.04	185,000	0.06	6	12/10/2019
MML BLEND FUND	FIXED INCOME	SOUTHWESTERN ELEC POWER	213,023.93	180,000	0.07	6.2	3/15/2040
MML BLEND FUND	FIXED INCOME	KINDER MORGAN ENER PART	97,144.64	90,000	0.03	6.55	9/15/2040
MML BLEND FUND	FIXED INCOME	FNMA POOL AD6437	85,539.07	80,377	0.03	5	6/1/2040
MML BLEND FUND	FIXED INCOME	COLLEGE LOAN CORPORATION TRUST	103,359.49	130,000	0.03	0	1/25/2047
MML BLEND FUND	FIXED INCOME	CENOVUS ENERGY INC	97,591.21	100,000	0.03	6.75	11/15/2039
MML BLEND FUND	FIXED INCOME	ARCELORMITTAL	728,562.48	718,000	0.24	5.25	8/5/2020
MML BLEND FUND	FIXED INCOME	KNOWLEDGEWORKS FOUNDATION	142,865.00	142,436	0.05	3.63925	2/25/2042
MML BLEND FUND	FIXED INCOME	ENERGY TRANSFER LP	442,000.00	425,000	0.15	7.5	10/15/2020
MML BLEND FUND	FIXED INCOME	PACIFIC NATIONAL FINANCE	106,332.08	105,000	0.04	4.625	9/23/2020
MML BLEND FUND	FIXED INCOME	PETROLEOS MEXICANOS	632,440.95	635,000	0.21	5.5	1/21/2021
MML BLEND FUND	FIXED INCOME	GNMA II TBA 30 YR 3	10,339,218.75	10,500,000	3.46	3	1/23/2049
MML BLEND FUND	FIXED INCOME	FNMA TBA 30 YR 3.5	3,873,183.40	3,875,000	1.30	3.5	1/14/2049
MML BLEND FUND	FIXED INCOME	WELLS FARGO COMMERCIAL MORTGAG	11,724.85	11,716	0.00	3.349	11/15/2043
MML BLEND FUND	FIXED INCOME	STRUCTURED RECEIVABLES FINANCE	73,300.60	74,671	0.02	3.73	8/15/2036
MML BLEND FUND	FIXED INCOME	CALIFORNIA ST	152,902.05	105,000	0.05	7.6	11/1/2040
MML BLEND FUND	FIXED INCOME	SOUTH CAROLINA ST STUDENT LOAN	171,363.40	170,000	0.06	3.54	10/27/2036
MML BLEND FUND	FIXED INCOME	ARCH CAPITAL GRP US INC	178,060.50	170,000	0.06	5.144	11/1/2043
MML BLEND FUND	FIXED INCOME	LEGG MASON INC	172,702.05	175,000	0.06	5.625	1/15/2044
MML BLEND FUND	FIXED INCOME	DBCCRE MORTGAGE TRUST	168,881.48	165,000	0.06	4.2382	1/10/2034
MML BLEND FUND	FIXED INCOME	WELLS FARGO + COMPANY	119,296.39	110,000	0.04	5.606	1/15/2044
MML BLEND FUND	FIXED INCOME	CMS ENERGY CORP	407,098.08	390,000	0.14	4.875	3/1/2044
MML BLEND FUND	FIXED INCOME	COMM MORTGAGE TRUST	327,032.23	319,000	0.11	3.961	3/10/2047
MML BLEND FUND	FIXED INCOME	HSBC HOLDINGS PLC	198,482.13	200,000	0.07	4.25	3/14/2024
MML BLEND FUND	FIXED INCOME	MCKESSON CORP	57,744.88	60,000	0.02	4.883	3/15/2044
MML BLEND FUND	FIXED INCOME	SUNOCO LOGISTICS PARTNER	66,226.42	75,000	0.02	5.3	4/1/2044
MML BLEND FUND	FIXED INCOME	TURKIYE GARANTI BANKASI	438,948.00	445,000	0.15	4.75	10/17/2019
MML BLEND FUND	FIXED INCOME	PLAINS ALL AMER PIPELINE	85,807.14	100,000	0.03	4.7	6/15/2044
MML BLEND FUND	FIXED INCOME	ORANGE CNTY CA LOCAL TRANSPRTN	304,439.50	230,000	0.10	6.908	2/15/2041
MML BLEND FUND	FIXED INCOME	GNMA II TBA 30 YR 3.5	2,582,434.05	2,565,000	0.86	3.5	1/23/2049
MML BLEND FUND	FIXED INCOME	GOLDMAN SACHS GROUP INC	68,433.41	60,000	0.02	6.25	2/1/2041
MML BLEND FUND	FIXED INCOME	DBUBS MORTGAGE TRUST	114,275.67	110,000	0.04	5.471	11/10/2046
MML BLEND FUND	FIXED INCOME	MCKESSON CORP	138,398.48	125,000	0.05	6	3/1/2041
MML BLEND FUND	FIXED INCOME	KINDER MORGAN ENER PART	68,985.37	65,000	0.02	6.375	3/1/2041
MML BLEND FUND	FIXED INCOME	GSAMP TRUST	13,949.25	14,048	0.00	3.15125	4/25/2035
MML BLEND FUND	FIXED INCOME	MASTR ASSET BACKED SECURITIES	24,094.89	24,049	0.01	3.03513	3/25/2035
MML BLEND FUND	FIXED INCOME	HOME DEPOT INC	184,066.53	150,000	0.06	5.95	4/1/2041
MML BLEND FUND	FIXED INCOME	WARNER MEDIA LLC	26,989.16	25,000	0.01	6.25	3/29/2041
MML BLEND FUND	FIXED INCOME	NORTH CAROLINA STATE EDUCATION	251,036.33	250,000	0.08	3.28988	7/25/2036
MML BLEND FUND	FIXED INCOME	MORGAN STANLEY CAPITAL I TRUST	256,741.80	250,000	0.09	5.2	6/15/2044
MML BLEND FUND	FIXED INCOME	JPMORGAN CHASE + CO	219,690.93	195,000	0.07	5.6	7/15/2041

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	FIXED INCOME	NEWFIELD EXPLORATION CO	421,170.00	417,000	0.14	5.75	1/30/2022
MML BLEND FUND	FIXED INCOME	LEIDOS HOLDINGS INC	828,737.50	835,000	0.28	4.45	12/1/2020
MML BLEND FUND	FIXED INCOME	AMGEN INC	92,713.55	90,000	0.03	5.15	11/15/2041
MML BLEND FUND	FIXED INCOME	NISOURCE INC	193,894.84	175,000	0.06	5.8	2/1/2042
MML BLEND FUND	FIXED INCOME	MARATHON PETROLEUM CORP	183,385.55	170,000	0.06	6.5	3/1/2041
MML BLEND FUND	FIXED INCOME	CVS PASS THROUGH TRUST	283,777.77	263,486	0.09	5.926	1/10/2034
MML BLEND FUND	FIXED INCOME	ENERGY TRANSFER OPERATNG	99,802.48	100,000	0.03	6.5	2/1/2042
MML BLEND FUND	FIXED INCOME	GS MORTGAGE SECURITIES TRUST	103,736.73	100,000	0.03	4.948	1/10/2045
MML BLEND FUND	FIXED INCOME	HUGHES SATELLITE SYSTEMS	176,531.25	175,000	0.06	6.5	6/15/2019
MML BLEND FUND	FIXED INCOME	UNITED MEXICAN STATES	867,186.00	954,000	0.29	4.75	3/8/2044
MML BLEND FUND	FIXED INCOME	DRUG ROYALTY CORPORATION, INC.	4,865.29	4,872	0.00	5.8	7/15/2024
MML BLEND FUND	FIXED INCOME	MOLSON COORS BREWING CO	56,476.58	60,000	0.02	5	5/1/2042
MML BLEND FUND	FIXED INCOME	ERICSSON LM	718,038.91	730,000	0.24	4.125	5/15/2022
MML BLEND FUND	FIXED INCOME	321 HENDERSON RECEIVABLES LLC	55,872.85	58,671	0.02	2.68513	11/15/2040
MML BLEND FUND	FIXED INCOME	ACADEMIC LOAN FUNDING TRUST	441,152.50	438,985	0.15	3.60625	12/27/2044
MML BLEND FUND	FIXED INCOME	KINROSS GOLD CORP	897,750.00	900,000	0.30	5.125	9/1/2021
MML BLEND FUND	FIXED INCOME	WESTERN GAS PARTNERS	774,311.88	781,000	0.26	4	7/1/2022
MML BLEND FUND	FIXED INCOME	WF RBS COMMERCIAL MORTGAGE TRU	191,512.50	190,000	0.06	4.311	8/15/2045
MML BLEND FUND	FIXED INCOME	CENOVUS ENERGY INC	189,862.02	200,000	0.06	3	8/15/2022
MML BLEND FUND	FIXED INCOME	INTL LEASE FINANCE CORP	141,406.53	135,000	0.05	5.875	8/15/2022
MML BLEND FUND	FIXED INCOME	GENERAL ELECTRIC CO	227,341.93	245,000	0.08	2.7	10/9/2022
MML BLEND FUND	FIXED INCOME	GENERAL ELECTRIC CO	406,297.71	520,000	0.14	4.125	10/9/2042
MML BLEND FUND	FIXED INCOME	GLENORE FINANCE CANADA	134,117.83	149,000	0.04	5.55	10/25/2042
MML BLEND FUND	FIXED INCOME	COMM MORTGAGE TRUST	186,173.89	195,000	0.06	3.703	10/15/2045
MML BLEND FUND	FIXED INCOME	BANK OF NOVA SCOTIA	199,143.89	200,000	0.07	4.5	12/16/2025
MML BLEND FUND	FIXED INCOME	PUGET ENERGY INC	342,146.21	350,000	0.11	3.65	5/15/2025
MML BLEND FUND	FIXED INCOME	BM1058478 CDS USD R F 3.00000	360,658.52	430,000	0.12	3	5/11/2063
MML BLEND FUND	FIXED INCOME	BM1058478 CDS USD P V 01MEVENT	(430,000.00)	(430,000)	0.14	1	5/11/2063
MML BLEND FUND	FIXED INCOME	BM1058692 CDS USD P V 01MEVENT	(160,000.00)	(160,000)	0.05	1	5/11/2063
MML BLEND FUND	FIXED INCOME	BM1058692 CDS USD R F 3.00000	134,198.52	160,000	0.04	3	5/11/2063
MML BLEND FUND	FIXED INCOME	STANDARD INDUSTRIES INC	174,440.00	178,000	0.06	5.5	2/15/2023
MML BLEND FUND	FIXED INCOME	EXPRESS SCRIPTS HOLDING	283,789.38	280,000	0.09	4.5	2/25/2026
MML BLEND FUND	FIXED INCOME	ANADARKO PETROLEUM CORP	283,773.91	257,000	0.09	6.6	3/15/2046
MML BLEND FUND	FIXED INCOME	TRINITY ACQUISITION PLC	193,774.55	195,000	0.06	4.4	3/15/2026
MML BLEND FUND	FIXED INCOME	FNMA POOL AL8173	223,974.76	211,390	0.07	5	2/1/2044
MML BLEND FUND	FIXED INCOME	NEWELL BRANDS INC	221,702.72	225,000	0.07	3.85	4/1/2023
MML BLEND FUND	FIXED INCOME	FNMA POOL AV1897	39,278.53	38,665	0.01	3.5	12/1/2028
MML BLEND FUND	FIXED INCOME	GLENORE FUNDING LLC	594,744.00	600,000	0.20	4.625	4/29/2024
MML BLEND FUND	FIXED INCOME	ADT SEC CORP	1,137,427.50	1,122,000	0.38	6.25	10/15/2021
MML BLEND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	216,779.44	220,000	0.07	4.00625	6/25/2048
MML BLEND FUND	FIXED INCOME	ANTERO RESOURCES CORP	1,219,760.00	1,264,000	0.41	5.375	11/1/2021
MML BLEND FUND	FIXED INCOME	PENNSYLVANIA ELECTRIC CO	298,599.19	295,000	0.10	4.15	4/15/2025
MML BLEND FUND	FIXED INCOME	GNMA POOL 783896	764,828.39	755,561	0.26	3.5	5/15/2044
MML BLEND FUND	FIXED INCOME	FS KKR CAPITAL CORP	504,428.93	505,000	0.17	4	7/15/2019
MML BLEND FUND	FIXED INCOME	AMERICAN INTL GROUP	178,485.80	200,000	0.06	4.5	7/16/2044
MML BLEND FUND	FIXED INCOME	FREDDIE MAC	204,863.72	188,375	0.07	5.5	5/15/2033
MML BLEND FUND	FIXED INCOME	GLOBAL SC FINANCE SRL	137,931.71	139,583	0.05	3.19	7/17/2029
MML BLEND FUND	FIXED INCOME	ORANGE LAKE TIMESHARE TRUST	25,173.45	25,591	0.01	2.29	7/9/2029
MML BLEND FUND	FIXED INCOME	SPIRE INC	293,665.37	290,000	0.10	4.7	8/15/2044
MML BLEND FUND	FIXED INCOME	SOUTH CAROLINA STUDENT LOAN CO	292,577.78	290,000	0.10	3.34925	1/3/2033
MML BLEND FUND	FIXED INCOME	AMTRUST FINANCIAL SERVIC	447,304.18	495,000	0.15	6.125	8/15/2023
MML BLEND FUND	FIXED INCOME	BANK OF AMERICA CORP	223,155.02	225,000	0.07	4.2	8/26/2024

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	FIXED INCOME	MARATHON PETROLEUM CORP	88,185.58	100,000	0.03	4.75	9/15/2044
MML BLEND FUND	FIXED INCOME	AMER AIRLN 14 1 B PTT	29,301.80	29,616	0.01	4.375	4/1/2024
MML BLEND FUND	FIXED INCOME	MORGAN STANLEY	753,148.34	775,000	0.25	4.35	9/8/2026
MML BLEND FUND	FIXED INCOME	COMM MORTGAGE TRUST	291,449.48	290,000	0.10	4.514	9/10/2047
MML BLEND FUND	FIXED INCOME	AMERICAN AIRLINES GROUP	1,382,447.50	1,379,000	0.46	5.5	10/1/2019
MML BLEND FUND	FIXED INCOME	EL PUERTO DE LIVERPOOL	417,191.95	445,000	0.14	3.95	10/2/2024
MML BLEND FUND	FIXED INCOME	ARES FINANCE CO LLC	339,206.10	355,000	0.11	4	10/8/2024
MML BLEND FUND	FIXED INCOME	CAPITAL AUTOMOTIVE REIT	159,671.38	160,000	0.05	3.66	10/15/2044
MML BLEND FUND	FIXED INCOME	PETROLEOS MEXICANOS	64,400.00	80,000	0.02	6.375	1/23/2045
MML BLEND FUND	FIXED INCOME	STANDARD INDUSTRIES INC	230,932.50	246,000	0.08	5.375	11/15/2024
MML BLEND FUND	FIXED INCOME	CRONOS CONTAINERS PROGRAM LTD	162,629.89	163,889	0.05	3.27	11/18/2029
MML BLEND FUND	FIXED INCOME	ASSOC BANC CORP	496,728.48	494,000	0.17	4.25	1/15/2025
MML BLEND FUND	FIXED INCOME	ENTERGY LOUISIANA LLC	168,635.84	165,000	0.06	4.95	1/15/2045
MML BLEND FUND	FIXED INCOME	LENNAR CORP	760,255.00	766,000	0.25	4.5	11/15/2019
MML BLEND FUND	FIXED INCOME	ARES CAPITAL CORP	526,101.52	525,000	0.18	3.875	1/15/2020
MML BLEND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	155,873.21	155,000	0.05	4.00625	7/26/2049
MML BLEND FUND	FIXED INCOME	FNMA POOL AV2325	122,632.79	120,718	0.04	3.5	12/1/2028
MML BLEND FUND	FIXED INCOME	AIRCATTLE LTD	527,063.04	525,000	0.18	5	4/1/2023
MML BLEND FUND	FIXED INCOME	HUNTSMAN INTERNATIONAL L	198,477.50	197,000	0.07	5.125	11/15/2022
MML BLEND FUND	FIXED INCOME	ANDEAVOR LOGIS LP/CORP	98,940.00	97,000	0.03	6.25	10/15/2022
MML BLEND FUND	FIXED INCOME	AMCOR FINANCE USA INC	677,079.66	715,000	0.23	3.625	4/28/2026
MML BLEND FUND	FIXED INCOME	US TREASURY N/B	4,174,958.04	4,630,000	1.40	2.5	5/15/2046
MML BLEND FUND	FIXED INCOME	EARNEST STUDENT LOAN PROGRAM L	122,766.13	123,172	0.04	3.02	5/25/2034
MML BLEND FUND	FIXED INCOME	DELL INT LLC / EMC CORP	76,343.65	76,000	0.03	6.02	6/15/2026
MML BLEND FUND	FIXED INCOME	SPIRIT MASTER FUNDING, LLC	158,727.99	159,450	0.05	3.5014	1/20/2045
MML BLEND FUND	FIXED INCOME	BECTON DICKINSON AND CO	210,591.83	225,000	0.07	4.685	12/15/2044
MML BLEND FUND	FIXED INCOME	INGRAM MICRO INC	197,437.17	203,000	0.07	5.45	12/15/2024
MML BLEND FUND	FIXED INCOME	SVB FINANCIAL GROUP	383,209.20	400,000	0.13	3.5	1/29/2025
MML BLEND FUND	FIXED INCOME	AFFILIATED MANAGERS GROU	573,332.00	590,000	0.19	3.5	8/1/2025
MML BLEND FUND	FIXED INCOME	ALLY FINANCIAL INC	364,218.75	375,000	0.12	4.125	2/13/2022
MML BLEND FUND	FIXED INCOME	PHILLIPS 66 PARTNERS LP	25,214.59	28,000	0.01	4.68	2/15/2045
MML BLEND FUND	FIXED INCOME	ZIMMER BIOMET HOLDINGS	240,559.68	265,000	0.08	4.45	8/15/2045
MML BLEND FUND	FIXED INCOME	OSCAR US FUNDING TRUST	247,596.73	248,343	0.08	2.44	6/15/2022
MML BLEND FUND	FIXED INCOME	CITIGROUP INC	543,559.98	562,000	0.18	3.875	3/26/2025
MML BLEND FUND	FIXED INCOME	XLIT LTD	103,404.39	100,000	0.03	5.5	3/31/2045
MML BLEND FUND	FIXED INCOME	XLIT LTD	753,278.91	758,000	0.25	4.45	3/31/2025
MML BLEND FUND	FIXED INCOME	321 HENDERSON RECEIVABLES LLC	46,618.25	47,358	0.02	3.26	9/15/2072
MML BLEND FUND	FIXED INCOME	BANK OF AMERICA CORP	123,297.30	125,000	0.04	4.75	4/21/2045
MML BLEND FUND	FIXED INCOME	LENNAR CORP	187,500.00	200,000	0.06	4.75	5/30/2025
MML BLEND FUND	FIXED INCOME	AT+T INC	188,330.57	200,000	0.06	3.4	5/15/2025
MML BLEND FUND	FIXED INCOME	AT+T INC	532,736.39	600,000	0.18	4.75	5/15/2046
MML BLEND FUND	FIXED INCOME	ABBVIE INC	445,611.95	490,000	0.15	4.7	5/14/2045
MML BLEND FUND	FIXED INCOME	COMM MORTGAGE TRUST	135,877.13	140,000	0.05	4.251897	5/10/2048
MML BLEND FUND	FIXED INCOME	ENLINC MIDSTREAM PARTNER	428,230.16	475,000	0.14	4.15	6/1/2025
MML BLEND FUND	FIXED INCOME	CNO FINANCIAL GROUP INC	131,337.50	133,000	0.04	4.5	5/30/2020
MML BLEND FUND	FIXED INCOME	CNO FINANCIAL GROUP INC	442,912.50	465,000	0.15	5.25	5/30/2025
MML BLEND FUND	FIXED INCOME	WENDYS FUNDING LLC	301,421.60	299,925	0.10	4.08	6/15/2045
MML BLEND FUND	FIXED INCOME	WENDYS FUNDING LLC	423,594.92	411,188	0.14	4.497	6/15/2045
MML BLEND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	147,968.09	150,000	0.05	4.00625	6/25/2054
MML BLEND FUND	FIXED INCOME	ARCELORMITTAL	325,310.90	320,000	0.11	5.125	6/1/2020
MML BLEND FUND	FIXED INCOME	WELK RESORTS LLC	82,077.52	83,409	0.03	2.79	6/16/2031
MML BLEND FUND	FIXED INCOME	REYNOLDS AMERICAN INC	297,289.50	320,000	0.10	5.85	8/15/2045

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	152,138.97	150,000	0.05	4.00625	10/25/2058
MML BLEND FUND	FIXED INCOME	ENERGY TRANSFER OPERATNG	73,349.79	75,000	0.02	6.125	12/15/2045
MML BLEND FUND	FIXED INCOME	BM1047901 CDS USD R F 3.00000	419,370.37	500,000	0.14	3	11/17/2045
MML BLEND FUND	FIXED INCOME	CAZENOVIA CREEK FUNDING LLC	10,120.97	10,178	0.00	2	12/10/2023
MML BLEND FUND	FIXED INCOME	BM1047901 CDS USD P V 01MEVENT	(500,000.00)	(500,000)	0.17	1	11/17/2045
MML BLEND FUND	FIXED INCOME	ENTERGY NEW ORLEANS STORE RECO	75,255.56	76,487	0.03	2.67	6/1/2027
MML BLEND FUND	FIXED INCOME	321 HENDERSON RECEIVABLES LLC	90,705.54	89,074	0.03	3.87	3/15/2058
MML BLEND FUND	FIXED INCOME	SMB PRIVATE EDUCATION LOAN TRU	133,837.97	133,026	0.04	3.65513	7/15/2027
MML BLEND FUND	FIXED INCOME	SPIRIT AIR 2015 1 PTT A	277,397.62	282,540	0.09	4.1	10/1/2029
MML BLEND FUND	FIXED INCOME	AERCAP IRELAND CAP/GLOBA	290,836.91	290,000	0.10	4.5	5/15/2021
MML BLEND FUND	FIXED INCOME	ALTERNA FUNDING LLC	24,407.87	24,531	0.01	2.5	2/15/2024
MML BLEND FUND	FIXED INCOME	AUTORIDAD CANAL DE PANAM	213,677.10	210,000	0.07	4.95	7/29/2035
MML BLEND FUND	FIXED INCOME	SBA TOWER TRUST	207,906.30	210,000	0.07	3.156	10/10/2045
MML BLEND FUND	EQUITY	FORWARDS WELLS FARGO BOC	(128,874.00)	(128,874)	0.04	0	
MML BLEND FUND	FIXED INCOME	DOMINOS PIZZA MASTER ISSUER LL	531,717.93	526,500	0.18	4.474	10/25/2045
MML BLEND FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	21,529.90	21,642	0.01	3.08	9/20/2032
MML BLEND FUND	FIXED INCOME	MICROSOFT CORP	562,139.47	530,000	0.19	4.45	11/3/2045
MML BLEND FUND	FIXED INCOME	ARBYS FUNDING LLC	321,302.49	310,400	0.11	4.969	10/30/2045
MML BLEND FUND	FIXED INCOME	BLUE VIRGO	73,742.75	73,743	0.02	3	12/15/2022
MML BLEND FUND	FIXED INCOME	IPALCO ENTERPRISES INC	614,217.50	615,000	0.21	3.45	7/15/2020
MML BLEND FUND	FIXED INCOME	TAL ADVANTAGE LLC	348,895.43	342,065	0.12	4.5	4/20/2042
MML BLEND FUND	FIXED INCOME	BANCO SANTANDER SA	186,860.27	200,000	0.06	4.25	4/11/2027
MML BLEND FUND	FIXED INCOME	SBA TOWER TRUST	255,631.35	260,000	0.09	3.168	4/9/2047
MML BLEND FUND	FIXED INCOME	BRE GRAND ISLANDER TIMESHARE I	129,065.55	130,755	0.04	2.94	5/25/2029
MML BLEND FUND	FIXED INCOME	HELIOS ISSUER, LLC	236,138.82	231,862	0.08	4.94	9/20/2049
MML BLEND FUND	FIXED INCOME	BANK OF AMERICA CORP	190,259.15	200,000	0.06	4.244	4/24/2038
MML BLEND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	144,058.84	142,268	0.05	3.70625	6/25/2033
MML BLEND FUND	FIXED INCOME	GE CAPITAL INTL FUNDING	167,513.33	200,000	0.06	4.418	11/15/2035
MML BLEND FUND	FIXED INCOME	VALE OVERSEAS LIMITED	498,156.25	475,000	0.17	5.875	6/10/2021
MML BLEND FUND	FIXED INCOME	OXFORD FINANCE FUNDING TRUST	167,349.72	166,833	0.06	3.968	6/17/2024
MML BLEND FUND	FIXED INCOME	WESTJET AIRLINES LTD	115,981.82	117,000	0.04	3.5	6/16/2021
MML BLEND FUND	FIXED INCOME	SBA TOWER TRUST	196,331.86	200,000	0.07	2.877	7/15/2046
MML BLEND FUND	FIXED INCOME	MOLSON COORS BREWING CO	236,778.91	285,000	0.08	4.2	7/15/2046
MML BLEND FUND	FIXED INCOME	FNMA POOL AS1304	236,998.94	233,299	0.08	3.5	12/1/2028
MML BLEND FUND	FIXED INCOME	EXPRESS SCRIPTS HOLDING	186,940.78	195,000	0.06	4.8	7/15/2046
MML BLEND FUND	FIXED INCOME	HEALTHCARE TRUST OF AMER	352,466.60	375,000	0.12	3.5	8/1/2026
MML BLEND FUND	FIXED INCOME	JP MORGAN CHASE COMMERCIAL MOR	459,894.01	490,000	0.15	3.0556	8/15/2049
MML BLEND FUND	FIXED INCOME	FED HM LN PC POOL Q41916	244,784.00	243,689	0.08	3.5	7/1/2046
MML BLEND FUND	FIXED INCOME	FED HM LN PC POOL Q42045	99,012.93	98,570	0.03	3.5	7/1/2046
MML BLEND FUND	FIXED INCOME	ENLINK MIDSTREAM PARTNER	134,363.27	149,000	0.04	4.85	7/15/2026
MML BLEND FUND	FIXED INCOME	COMCAST CORP	182,286.72	220,000	0.06	3.4	7/15/2046
MML BLEND FUND	FIXED INCOME	SMB PRIVATE EDUCATION LOAN TRU	190,907.93	194,355	0.06	2.43	2/17/2032
MML BLEND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	424,370.48	423,203	0.14	3.20625	2/25/2070
MML BLEND FUND	FIXED INCOME	TEVA PHARMACEUTICALS NE	822,694.79	895,000	0.28	2.2	7/21/2021
MML BLEND FUND	FIXED INCOME	TEVA PHARMACEUTICALS NE	50,208.33	51,000	0.02	1.7	7/19/2019
MML BLEND FUND	FIXED INCOME	TEVA PHARMACEUTICALS NE	49,573.33	75,000	0.02	4.1	10/1/2046
MML BLEND FUND	FIXED INCOME	FIRST REPUBLIC BANK	864,587.53	935,000	0.29	4.375	8/1/2046
MML BLEND FUND	FIXED INCOME	PULTEGROUP INC	271,500.00	300,000	0.09	5	1/15/2027
MML BLEND FUND	FIXED INCOME	EARNEST STUDENT LOAN PROGRAM L	176,518.96	175,111	0.06	4.35625	10/27/2036
MML BLEND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	400,430.84	397,455	0.13	3.75625	6/25/2065
MML BLEND FUND	FIXED INCOME	WEINGARTEN REALTY INVEST	78,665.42	85,000	0.03	3.25	8/15/2026
MML BLEND FUND	FIXED INCOME	DUKE ENERGY CORP	168,588.08	195,000	0.06	3.75	9/1/2046

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	FIXED INCOME	BUNGE LTD FINANCE CORP	387,267.56	442,000	0.13	3.25	8/15/2026
MML BLEND FUND	FIXED INCOME	ECMC GROUP STUDENT LOAN TRUST	489,344.74	480,234	0.16	3.85625	7/26/2066
MML BLEND FUND	FIXED INCOME	TCI SYMPHONY CLO	339,995.58	340,000	0.11	3.91631	10/13/2029
MML BLEND FUND	FIXED INCOME	ALM LOAN FUNDING	410,205.00	410,000	0.14	3.91631	10/15/2028
MML BLEND FUND	FIXED INCOME	PITNEY BOWES INC	454,081.25	485,000	0.15	3.875	10/1/2021
MML BLEND FUND	FIXED INCOME	HERO FUNDING TRUST	183,724.28	187,746	0.06	3.08	9/20/2042
MML BLEND FUND	FIXED INCOME	SPRINGCASTLE SPV	136,185.34	137,515	0.05	3.05	4/25/2029
MML BLEND FUND	FIXED INCOME	FNMA POOL MA2806	3,840,238.44	3,932,247	1.28	3	11/1/2046
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	347,760.30	366,336	0.12	2.69988	10/25/2040
MML BLEND FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	432,497.41	429,491	0.14	4.40563	10/25/2044
MML BLEND FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	422,449.04	429,491	0.14	3.07	10/25/2044
MML BLEND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	1,123,707.31	1,100,000	0.38	3.80625	3/25/2066
MML BLEND FUND	FIXED INCOME	CNH INDUSTRIAL CAP LLC	695,310.00	700,000	0.23	3.875	10/15/2021
MML BLEND FUND	FIXED INCOME	NEW RESIDENTIAL ADVANCE RECEIV	1,627,732.10	1,650,000	0.54	2.8332	10/16/2051
MML BLEND FUND	FIXED INCOME	ORANGE LAKE TIMESHARE TRUST	124,334.69	125,191	0.04	2.91	3/8/2029
MML BLEND FUND	FIXED INCOME	US TREASURY N/B	5,278,782.30	5,500,000	1.77	1.625	10/31/2023
MML BLEND FUND	FIXED INCOME	DIAMONDBACK ENERGY INC	413,020.00	428,000	0.14	4.75	11/1/2024
MML BLEND FUND	FIXED INCOME	EARNEST STUDENT LOAN PROGRAM L	170,805.03	172,718	0.06	2.72	1/25/2041
MML BLEND FUND	FIXED INCOME	GOODGREEN TRUST	331,656.97	337,117	0.11	3.23	10/15/2057
MML BLEND FUND	FIXED INCOME	VELOCITY COMMERCIAL CAPITAL LO	156,974.64	157,910	0.05	2.99694	10/25/2046
MML BLEND FUND	FIXED INCOME	LAZARD GROUP LLC	173,048.49	184,000	0.06	3.625	3/1/2027
MML BLEND FUND	FIXED INCOME	FED HM LN PC POOL Q44275	204,003.18	203,154	0.07	3.5	11/1/2046
MML BLEND FUND	FIXED INCOME	FED HM LN PC POOL Q44277	93,596.24	93,323	0.03	3.5	11/1/2046
MML BLEND FUND	FIXED INCOME	DIAMOND RESORTS OWNER TRUST	247,098.08	250,211	0.08	3.08	11/20/2028
MML BLEND FUND	FIXED INCOME	JPMORGAN CHASE + CO	190,766.38	205,000	0.06	3.625	12/1/2027
MML BLEND FUND	FIXED INCOME	PLAINS ALL AMER PIPELINE	308,224.19	320,000	0.10	4.5	12/15/2026
MML BLEND FUND	FIXED INCOME	PENNSYLVANIA HIGHER EDUCATION	411,390.81	409,350	0.14	3.45625	11/25/2065
MML BLEND FUND	FIXED INCOME	SPS SERVICER ADVANCE RECEIVABL	668,753.06	670,000	0.22	2.75	11/15/2049
MML BLEND FUND	FIXED INCOME	BANK OF AMERICA CORP	533,447.13	555,000	0.18	4.183	11/25/2027
MML BLEND FUND	FIXED INCOME	NEW RESIDENTIAL ADVANCE RECEIV	449,238.99	450,000	0.15	3.1068	12/15/2050
MML BLEND FUND	FIXED INCOME	CHARTER COMM OPT LLC/CAP	231,286.21	225,000	0.08	6.484	10/23/2045
MML BLEND FUND	FIXED INCOME	CHARTER COMM OPT LLC/CAP	469,493.28	470,000	0.16	3.579	7/23/2020
MML BLEND FUND	FIXED INCOME	HERO FUNDING TRUST	197,394.39	195,107	0.07	3.57	9/20/2047
MML BLEND FUND	FIXED INCOME	FORD MOTOR COMPANY	65,678.47	80,000	0.02	5.291	12/8/2046
MML BLEND FUND	FIXED INCOME	NELNET PRIVATE EDUCATION LOAN	122,847.50	126,156	0.04	3.6	12/26/2040
MML BLEND FUND	FIXED INCOME	PBF HOLDING CO LLC	167,125.00	175,000	0.06	7	11/15/2023
MML BLEND FUND	FIXED INCOME	BARCLAYS PLC	240,588.05	260,000	0.08	4.337	1/10/2028
MML BLEND FUND	FIXED INCOME	CREDIT SUISSE GROUP AG	482,352.54	500,000	0.16	4.282	1/9/2028
MML BLEND FUND	FIXED INCOME	FORD MOTOR CREDIT CO LLC	415,288.40	450,000	0.14	3.81	1/9/2024
MML BLEND FUND	FIXED INCOME	ENERGY TRANSFER OPERATNG	410,049.86	440,000	0.14	4.2	4/15/2027
MML BLEND FUND	FIXED INCOME	ACCESS GROUP INC	394,149.66	400,000	0.13	1.699	7/1/2039
MML BLEND FUND	FIXED INCOME	CCO HLDGS LLC/CAP CORP	186,280.00	200,000	0.06	5.125	5/1/2027
MML BLEND FUND	FIXED INCOME	PARK AEROSPACE HOLDINGS	972,337.50	1,005,000	0.33	5.25	8/15/2022
MML BLEND FUND	FIXED INCOME	PETROLEOS MEXICANOS	93,850.00	100,000	0.03	4.625	9/21/2023
MML BLEND FUND	FIXED INCOME	MOSAIC SOLAR LOANS LLC	63,306.10	62,840	0.02	4.45	6/20/2042
MML BLEND FUND	FIXED INCOME	AT+T INC	93,311.61	95,000	0.03	5.25	3/1/2037
MML BLEND FUND	FIXED INCOME	SMB PRIVATE EDUCATION LOAN TRU	290,940.09	300,000	0.10	3.5	6/17/2041
MML BLEND FUND	FIXED INCOME	STANDARD INDUSTRIES INC	674,625.00	771,000	0.23	5	2/15/2027
MML BLEND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	175,797.68	180,000	0.06	3.44	3/26/2040
MML BLEND FUND	FIXED INCOME	DISCOVER FINANCIAL SVS	452,780.80	485,000	0.15	4.1	2/9/2027
MML BLEND FUND	FIXED INCOME	MPLX LP	32,217.40	35,000	0.01	5.2	3/1/2047
MML BLEND FUND	FIXED INCOME	SUTTONPARK STRUCTURED SETTLEME	335,724.75	345,306	0.11	4.19	1/15/2071

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	FIXED INCOME	RACE POINT CLO LTD	248,831.50	250,000	0.08	3.9845	2/20/2030
MML BLEND FUND	FIXED INCOME	JP MORGAN MORTGAGE TRUST	460,289.47	471,427	0.15	3.5	1/25/2047
MML BLEND FUND	FIXED INCOME	SOFI CONSUMER LOAN PROGRAM TRU	232,331.72	232,853	0.08	3.28	2/25/2026
MML BLEND FUND	FIXED INCOME	RPM INTERNATIONAL INC	61,717.99	65,000	0.02	3.75	3/15/2027
MML BLEND FUND	FIXED INCOME	HIGHBRIDGE LOAN MANAGEMENT LTD	232,253.00	250,000	0.08	4.2223	7/18/2031
MML BLEND FUND	FIXED INCOME	PSMC 2018 1 TRUST	615,906.41	628,656	0.21	3.5	6/25/2048
MML BLEND FUND	FIXED INCOME	MICROCHIP TECHNOLOGY INC	163,677.96	165,000	0.05	3.922	6/1/2021
MML BLEND FUND	FIXED INCOME	MP CLO III, LTD	297,816.90	300,000	0.10	3.719	10/20/2030
MML BLEND FUND	FIXED INCOME	CIFC FUNDING LTD	337,533.64	340,000	0.11	3.62881	11/16/2030
MML BLEND FUND	FIXED INCOME	ECMC GROUP STUDENT LOAN TRUST	344,045.28	340,189	0.12	3.70625	12/27/2066
MML BLEND FUND	FIXED INCOME	ENSTAR GROUP LTD	372,470.38	370,000	0.12	4.5	3/10/2022
MML BLEND FUND	FIXED INCOME	HOST HOTELS + RESORTS LP	241,695.65	245,000	0.08	3.875	4/1/2024
MML BLEND FUND	FIXED INCOME	NEUBERGER BERMAN GRP/FIN	169,848.94	170,000	0.06	4.5	3/15/2027
MML BLEND FUND	FIXED INCOME	FULTON FINANCIAL CORP	228,452.56	230,000	0.08	3.6	3/16/2022
MML BLEND FUND	FIXED INCOME	HUMANA INC	80,112.69	82,000	0.03	3.95	3/15/2027
MML BLEND FUND	FIXED INCOME	HUMANA INC	125,098.44	125,000	0.04	4.8	3/15/2047
MML BLEND FUND	FIXED INCOME	OSCAR US FUNDING TRUST	150,100.05	150,000	0.05	3.3	5/10/2024
MML BLEND FUND	FIXED INCOME	321 HENDERSON RECEIVABLES LLC	1,147,943.83	1,100,000	0.38	5.43	8/15/2062
MML BLEND FUND	FIXED INCOME	CAPITAL AUTOMOTIVE REIT	138,721.10	137,667	0.05	4.18	4/15/2047
MML BLEND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	103,750.00	100	0.03	0	3/25/2033
MML BLEND FUND	FIXED INCOME	GOODGREEN TRUST	158,584.31	156,933	0.05	3.74	10/15/2052
MML BLEND FUND	FIXED INCOME	AVERY POINT CLO LTD	108,302.10	108,561	0.04	3.56456	1/18/2025
MML BLEND FUND	FIXED INCOME	ICAHN ENTERPRISES/FIN	543,125.00	550,000	0.18	6.25	2/1/2022
MML BLEND FUND	FIXED INCOME	MID AMERICA APARTMENTS	149,578.40	155,000	0.05	3.6	6/1/2027
MML BLEND FUND	FIXED INCOME	SHERWIN WILLIAMS CO	94,685.27	105,000	0.03	4.5	6/1/2047
MML BLEND FUND	FIXED INCOME	ROYAL BK SCOTLND GRP PLC	336,566.08	350,000	0.11	3.498	5/15/2023
MML BLEND FUND	FIXED INCOME	BECTON DICKINSON AND CO	279,022.19	295,000	0.09	3.7	6/6/2027
MML BLEND FUND	FIXED INCOME	AASET 2017 1 TRUST	1,250,666.54	1,252,822	0.42	3.967	5/16/2042
MML BLEND FUND	FIXED INCOME	ARROW ELECTRONICS INC	132,082.96	145,000	0.04	3.875	1/12/2028
MML BLEND FUND	FIXED INCOME	TRITON CONTAINER FINANCE LLC	142,861.11	144,994	0.05	3.52	6/20/2042
MML BLEND FUND	FIXED INCOME	DOMINOS PIZZA MASTER ISSUER LL	109,624.99	108,625	0.04	4.118	7/25/2047
MML BLEND FUND	FIXED INCOME	BAIN CAPITAL CREDIT CLO, LIMIT	397,284.00	400,000	0.13	3.719	7/20/2030
MML BLEND FUND	FIXED INCOME	WELK RESORTS LLC	213,670.46	217,253	0.07	3.41	6/15/2033
MML BLEND FUND	FIXED INCOME	SABINE PASS LIQUEFACTION	229,564.47	240,000	0.08	4.2	3/15/2028
MML BLEND FUND	FIXED INCOME	EDP FINANCE BV	392,734.02	420,000	0.13	3.625	7/15/2024
MML BLEND FUND	FIXED INCOME	TEXTAINER MARINE CONTAINERS LI	479,893.03	483,907	0.16	3.52	6/20/2042
MML BLEND FUND	FIXED INCOME	LENDMARK FUNDING TRUST	197,399.68	200,000	0.07	2.83	12/22/2025
MML BLEND FUND	FIXED INCOME	MARLETTE FUNDING TRUST	139,783.39	140,000	0.05	3.19	7/15/2024
MML BLEND FUND	FIXED INCOME	CIT EDUCATION LOAN TRUST	724,016.81	772,809	0.24	2.99819	6/15/2043
MML BLEND FUND	FIXED INCOME	NABORS INDUSTRIES INC	170,649.99	215,000	0.06	5.5	1/15/2023
MML BLEND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	485,897.35	500,000	0.16	3.61	9/25/2040
MML BLEND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	645,250.00	1,000,000	0.22	0.01	9/25/2040
MML BLEND FUND	FIXED INCOME	DAE FUNDING LLC	168,675.00	173,000	0.06	4	8/1/2020
MML BLEND FUND	FIXED INCOME	TRIP RAIL MASTER FUNDING LLC	141,188.33	140,000	0.05	3.736	8/15/2047
MML BLEND FUND	FIXED INCOME	CARLYLE GLOBAL MARKET STRATEGI	741,903.00	750,000	0.25	3.83413	8/14/2030
MML BLEND FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	147,656.74	150,408	0.05	3.02	8/25/2042
MML BLEND FUND	FIXED INCOME	KIMCO REALTY CORP	152,499.88	160,000	0.05	3.3	2/1/2025
MML BLEND FUND	FIXED INCOME	GENERAL MOTORS CO	111,067.18	130,000	0.04	5.15	4/1/2038
MML BLEND FUND	FIXED INCOME	GENERAL MOTORS CO	193,788.32	215,000	0.06	4.2	10/1/2027
MML BLEND FUND	FIXED INCOME	BLACKROCK TCP CAP CORP	452,897.11	470,000	0.15	4.125	8/11/2022
MML BLEND FUND	FIXED INCOME	CENOVUS ENERGY INC	500,952.24	550,000	0.17	4.25	4/15/2027
MML BLEND FUND	FIXED INCOME	CNA FINANCIAL CORP	172,124.15	185,000	0.06	3.45	8/15/2027

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	FIXED INCOME	ARES CAPITAL CORP	674,841.11	710,000	0.23	3.5	2/10/2023
MML BLEND FUND	FIXED INCOME	ARROW ELECTRONICS INC	516,766.00	555,000	0.17	3.25	9/8/2024
MML BLEND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	426,660.03	425,940	0.14	3.30625	7/26/2066
MML BLEND FUND	FIXED INCOME	DISCOVERY COMMUNICATIONS	148,411.74	160,000	0.05	5	9/20/2037
MML BLEND FUND	FIXED INCOME	DISCOVERY COMMUNICATIONS	370,895.50	400,000	0.12	3.95	3/20/2028
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	2,941,792.22	2,950,000	0.98	3.08988	10/25/2065
MML BLEND FUND	FIXED INCOME	PITNEY BOWES INC	131,962.50	135,000	0.04	3.875	9/15/2020
MML BLEND FUND	FIXED INCOME	PARK AEROSPACE HOLDINGS	233,750.00	250,000	0.08	4.5	3/15/2023
MML BLEND FUND	FIXED INCOME	SUNOCO LOGISTICS PARTNER	210,667.15	230,000	0.07	4	10/1/2027
MML BLEND FUND	FIXED INCOME	EQT CORP	724,148.55	840,000	0.24	3.9	10/1/2027
MML BLEND FUND	FIXED INCOME	CLEVELAND ELECTRIC ILLUM	147,659.75	155,000	0.05	3.5	4/1/2028
MML BLEND FUND	FIXED INCOME	PLAINS ALL AMERICAN PIPE	491,400.00	585,000	0.16	6.125	12/31/2099
MML BLEND FUND	FIXED INCOME	BANK OF NOVA SCOTIA	359,753.13	415,000	0.12	4.65	12/31/2099
MML BLEND FUND	FIXED INCOME	CLEAR CREEK CLO LTD	476,533.92	480,000	0.16	3.669	10/20/2030
MML BLEND FUND	FIXED INCOME	VSE VOI MORTGAGE LLC	192,987.44	196,197	0.06	2.54	7/20/2033
MML BLEND FUND	FIXED INCOME	OSCAR US FUNDING TRUST	686,830.14	690,000	0.23	2.99	12/15/2023
MML BLEND FUND	FIXED INCOME	BPCE SA	381,602.34	420,000	0.13	3.5	10/23/2027
MML BLEND FUND	FIXED INCOME	BANCO SANTANDER SA	378,178.34	400,000	0.13	3.125	2/23/2023
MML BLEND FUND	FIXED INCOME	MOSAIC SOLAR LOANS LLC	133,880.96	133,074	0.04	3.82	6/22/2043
MML BLEND FUND	FIXED INCOME	HERCULES CAPITAL INC	458,649.34	470,000	0.15	4.625	10/23/2022
MML BLEND FUND	FIXED INCOME	GLENCORE FUNDING LLC	143,036.80	160,000	0.05	3.875	10/27/2027
MML BLEND FUND	FIXED INCOME	SMB PRIVATE EDUCATION LOAN TRU	146,487.26	150,000	0.05	3.5	12/16/2041
MML BLEND FUND	FIXED INCOME	CELGENE CORP	718,895.50	790,000	0.24	3.45	11/15/2027
MML BLEND FUND	FIXED INCOME	CELGENE CORP	168,420.92	200,000	0.06	4.35	11/15/2047
MML BLEND FUND	FIXED INCOME	GENERAL MOTORS FINL CO	676,618.44	740,000	0.23	3.5	11/7/2024
MML BLEND FUND	FIXED INCOME	WAVE 2017 1 LLC	642,456.82	641,690	0.21	3.844	11/15/2042
MML BLEND FUND	FIXED INCOME	MOSAIC CO	158,388.10	167,000	0.05	4.05	11/15/2027
MML BLEND FUND	FIXED INCOME	FIBRIA OVERSEAS FINANCE	235,750.00	250,000	0.08	4	1/14/2025
MML BLEND FUND	FIXED INCOME	GOODGREEN TRUST	403,392.63	409,771	0.13	3.26	10/15/2053
MML BLEND FUND	FIXED INCOME	FED HM LN PC POOL Q52216	618,156.27	618,277	0.21	3.5	11/1/2047
MML BLEND FUND	FIXED INCOME	NP SPE II LLC	385,374.76	380,000	0.13	4.219	10/21/2047
MML BLEND FUND	FIXED INCOME	ENERGY TRANSFER OPERATNG	451,912.50	540,000	0.15	6.25	12/31/2099
MML BLEND FUND	FIXED INCOME	MARBLE POINT CLO XI LTD	987,510.00	1,000,000	0.33	3.62456	12/18/2030
MML BLEND FUND	FIXED INCOME	FED HM LN PC POOL V83764	1,900,316.95	1,862,628	0.64	4	12/1/2047
MML BLEND FUND	FIXED INCOME	ANDEAVOR LOGISTICS LP	267,000.00	300,000	0.09	6.875	12/31/2099
MML BLEND FUND	FIXED INCOME	AXIS SPECIALTY FINAN PLC	636,409.35	665,000	0.21	4	12/6/2027
MML BLEND FUND	FIXED INCOME	HERO FUNDING TRUST	221,036.55	223,372	0.07	3.19	9/20/2048
MML BLEND FUND	FIXED INCOME	MARINER FINANCE ISSUANCE TRUST	742,146.38	750,000	0.25	2.92	12/20/2029
MML BLEND FUND	FIXED INCOME	BANK OF MONTREAL	365,770.00	395,000	0.12	3.803	12/15/2032
MML BLEND FUND	FIXED INCOME	FED HM LN PC POOL V83796	2,770,797.26	2,715,844	0.93	4	12/1/2047
MML BLEND FUND	FIXED INCOME	FED HM LN PC POOL Q52834	240,080.69	235,391	0.08	4	12/1/2047
MML BLEND FUND	FIXED INCOME	KDAC AVIATION FINANCE LIMITED	385,508.05	385,002	0.13	4.212	12/15/2042
MML BLEND FUND	OPTIONS	BM1105964 SWAPTION	611,355.25	10,790,000	0.20	0	12/13/2032
MML BLEND FUND	OPTIONS	BM1106236 SWAPTION	226,605.63	5,300,000	0.08	0	12/13/2032
MML BLEND FUND	FIXED INCOME	ISRAEL ELECTRIC CORP LTD	403,716.00	425,000	0.14	4.25	8/14/2028
MML BLEND FUND	FIXED INCOME	WESTERN GAS PARTNERS LP	98,146.06	105,000	0.03	4.5	3/1/2028
MML BLEND FUND	FIXED INCOME	PNMAC GMSR ISSUER TRUST	200,429.66	200,000	0.07	5.35625	2/25/2023
MML BLEND FUND	FIXED INCOME	GALAXY CLO LTD	493,715.50	500,000	0.17	3.469	4/20/2031
MML BLEND FUND	FIXED INCOME	FNMA POOL BM3564	1,249,347.09	1,279,690	0.42	3	7/1/2047
MML BLEND FUND	FIXED INCOME	PETROLEOS MEXICANOS	56,400.00	60,000	0.02	6.5	3/13/2027
MML BLEND FUND	FIXED INCOME	TELEFONICA EMISIONES SAU	162,826.44	180,000	0.05	4.665	3/6/2038
MML BLEND FUND	FIXED INCOME	CVS HEALTH CORP	369,591.74	380,000	0.12	5.05	3/25/2048

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	FIXED INCOME	CVS HEALTH CORP	169,126.37	173,000	0.06	4.3	3/25/2028
MML BLEND FUND	FIXED INCOME	HIGH STREET FNDG TRUST I	491,020.00	500,000	0.16	4.111	2/15/2028
MML BLEND FUND	FIXED INCOME	PROGRESSIVE CORP	187,410.00	200,000	0.06	5.375	12/31/2099
MML BLEND FUND	FIXED INCOME	AMERICAN INTL GROUP	346,810.85	360,000	0.12	4.2	4/1/2028
MML BLEND FUND	FIXED INCOME	AMERICAN INTL GROUP	369,750.00	425,000	0.12	5.75	4/1/2048
MML BLEND FUND	FIXED INCOME	AMERICAN INTL GROUP	68,634.15	75,000	0.02	4.75	4/1/2048
MML BLEND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	550,388.96	550,000	0.18	3.25625	3/25/2067
MML BLEND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	643,503.25	650,000	0.22	3.26625	5/25/2066
MML BLEND FUND	FIXED INCOME	CRH AMERICA FINANCE INC	495,486.06	520,000	0.17	3.95	4/4/2028
MML BLEND FUND	FIXED INCOME	AMERICAN TOWER TRUST I	309,651.99	310,000	0.10	3.652	3/15/2048
MML BLEND FUND	FIXED INCOME	FNMA POOL BJ0686	817,811.64	801,684	0.27	4	4/1/2048
MML BLEND FUND	FIXED INCOME	DOLLAR TREE INC	303,103.36	320,000	0.10	4.2	5/15/2028
MML BLEND FUND	FIXED INCOME	DOLLAR TREE INC	360,507.74	375,000	0.12	4	5/15/2025
MML BLEND FUND	FIXED INCOME	SYNGENTA FINANCE NV	754,492.91	760,000	0.25	3.698	4/24/2020
MML BLEND FUND	FIXED INCOME	SYNGENTA FINANCE NV	385,490.53	400,000	0.13	4.441	4/24/2023
MML BLEND FUND	FIXED INCOME	DOMINOS PIZZA MASTER ISSUER LL	304,610.01	308,450	0.10	4.116	7/25/2048
MML BLEND FUND	FIXED INCOME	BENEFIT STREET PARTNERS CLO LT	256,673.56	260,000	0.09	3.559	4/20/2031
MML BLEND FUND	FIXED INCOME	CONTINENTAL RESOURCES	244,598.05	260,000	0.08	4.375	1/15/2028
MML BLEND FUND	FIXED INCOME	GOODGREEN TRUST	302,139.07	296,990	0.10	3.93	10/15/2053
MML BLEND FUND	FIXED INCOME	LAUREL ROAD PRIME STUDENT LOAN	140,938.34	140,000	0.05	3.72	5/26/2043
MML BLEND FUND	FIXED INCOME	FORD MOTOR CREDIT CO LLC	441,987.23	465,000	0.15	4.14	2/15/2023
MML BLEND FUND	FIXED INCOME	LENDMARK FUNDING TRUST	279,527.67	280,000	0.09	3.81	12/21/2026
MML BLEND FUND	FIXED INCOME	UNITED AIR 2018 1 B PTT	95,039.68	95,000	0.03	4.6	9/1/2027
MML BLEND FUND	FIXED INCOME	BARCLAYS PLC	328,515.67	345,000	0.11	4.009	5/16/2024
MML BLEND FUND	FIXED INCOME	SEQUOIA MORTGAGE TRUST	540,563.13	539,082	0.18	4	6/25/2048
MML BLEND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	150,419.75	150,000	0.05	3.17513	12/15/2059
MML BLEND FUND	FIXED INCOME	HERO FUNDING TRUST	442,437.79	424,976	0.15	4.67	9/20/2048
MML BLEND FUND	FIXED INCOME	AMAZON.COM INC	415,267.09	425,000	0.14	4.05	8/22/2047
MML BLEND FUND	FIXED INCOME	BHMS MORTGAGE TRUST	842,111.07	850,000	0.28	3.95513	7/15/2035
MML BLEND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	600,758.52	600,000	0.20	3.25625	9/27/2066
MML BLEND FUND	FUTURE	US 5YR NOTE (CBT) MAR19	-	12,600,000	0.01	0	3/29/2019
MML BLEND FUND	FUTURE	US 2YR NOTE (CBT) MAR19	-	22,000,000	0.04	0	3/29/2019
MML BLEND FUND	FUTURE	US ULTRA BOND CBT MAR19	-	7,900,000	0.02	0	3/20/2019
MML BLEND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	246,357.43	250,000	0.08	4.22	6/16/2042
MML BLEND FUND	FIXED INCOME	ANTARES HOLDINGS	489,328.97	495,000	0.16	6	8/15/2023
MML BLEND FUND	FIXED INCOME	GENPACT LUXEMBOURG SARL	357,262.40	360,000	0.12	3.7	4/1/2022
MML BLEND FUND	FUTURE	US LONG BOND(CBT) MAR19	-	(3,600,000)	0.07	0	3/20/2019
MML BLEND FUND	FIXED INCOME	BARCLAYS COMMERCIAL MORTGAGE S	271,633.57	280,000	0.09	4.2665	8/5/2038
MML BLEND FUND	FIXED INCOME	BARCLAYS COMMERCIAL MORTGAGE S	347,447.38	350,000	0.12	4.2665	8/5/2038
MML BLEND FUND	FIXED INCOME	BARCLAYS COMMERCIAL MORTGAGE S	198,807.90	210,000	0.07	4.2665	8/5/2038
MML BLEND FUND	FIXED INCOME	ASSURANT CLO III, LTD	293,430.19	310,000	0.10	4.4086	10/20/2031
MML BLEND FUND	FIXED INCOME	STEELE CREEK CLO LTD	275,009.61	290,000	0.09	4.57325	8/18/2031
MML BLEND FUND	FIXED INCOME	US TREASURY N/B	406,161.44	400,000	0.14	2.875	8/15/2028
MML BLEND FUND	FIXED INCOME	DISCOVER BANK	484,407.00	495,000	0.16	4.682	8/9/2028
MML BLEND FUND	FIXED INCOME	ADVOCATE HEALTH CORP	169,876.86	165,000	0.06	3.829	8/15/2028
MML BLEND FUND	FUTURE	US 10YR ULTRA FUT MAR19	-	300,000	0.00	0	3/20/2019
MML BLEND FUND	FIXED INCOME	DIAMOND RESORTS OWNER TRUST	289,174.94	286,829	0.10	3.7	1/21/2031
MML BLEND FUND	FIXED INCOME	CIT GROUP INC	462,000.00	480,000	0.15	4.75	2/16/2024
MML BLEND FUND	CASH EQUIVALENT	VW CR INC	1,543,147.33	1,550,000	0.52	0	2/22/2019
MML BLEND FUND	FIXED INCOME	HIGHBRIDGE LOAN MANAGEMENT LTD	331,612.40	350,000	0.11	4.58631	10/15/2030
MML BLEND FUND	FIXED INCOME	BUNGE LTD FINANCE CORP	343,390.34	350,000	0.11	4.35	3/15/2024
MML BLEND FUND	FIXED INCOME	WILLIS NORTH AMERICA INC	476,237.28	480,000	0.16	4.5	9/15/2028

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	FIXED INCOME	PATTERSON UTI ENERGY INC	146,719.18	160,000	0.05	3.95	2/1/2028
MML BLEND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	749,998.50	750,000	0.25	3.80625	6/27/2067
MML BLEND FUND	FIXED INCOME	HILTON GRAND VACATIONS TRUST	183,182.80	181,012	0.06	4	2/25/2032
MML BLEND FUND	FIXED INCOME	CAL FUNDING III LTD	289,585.04	282,750	0.10	4.34	9/25/2043
MML BLEND FUND	FIXED INCOME	SMB PRIVATE EDUCATION LOAN TRU	297,062.19	300,000	0.10	4	11/17/2042
MML BLEND FUND	FIXED INCOME	LAZARD GROUP LLC	285,053.61	285,000	0.10	4.5	9/19/2028
MML BLEND FUND	FIXED INCOME	PRUDENTIAL FINANCIAL INC	446,400.00	480,000	0.15	5.7	9/15/2048
MML BLEND FUND	FIXED INCOME	NATIONAL RETAIL PROP INC	155,764.00	155,000	0.05	4.3	10/15/2028
MML BLEND FUND	FIXED INCOME	BANK	206,171.76	210,000	0.07	4.598312	9/15/2060
MML BLEND FUND	FIXED INCOME	SEQUOIA MORTGAGE TRUST	400,637.68	394,377	0.13	4	10/25/2048
MML BLEND FUND	FIXED INCOME	AIRCATTLE LTD	186,869.31	190,000	0.06	4.4	9/25/2023
MML BLEND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	333,786.05	968,900	0.11	0.01	2/25/2048
MML BLEND FUND	FIXED INCOME	FNMA POOL CA2039	923,779.48	905,146	0.31	4	7/1/2048
MML BLEND FUND	FIXED INCOME	ENTERPRISE PRODUCTS OPER	161,233.16	195,000	0.05	5.375	2/15/2078
MML BLEND FUND	FIXED INCOME	MPLX LP	170,302.68	195,000	0.06	4.5	4/15/2038
MML BLEND FUND	FIXED INCOME	FED HM LN PC POOL V83962	436,123.08	427,473	0.15	4	2/1/2048
MML BLEND FUND	FIXED INCOME	EDLINC STUDENT LOAN FUNDING TR	496,530.71	490,807	0.17	3.35	12/1/2047
MML BLEND FUND	FIXED INCOME	IPALCO ENTERPRISES INC	165,494.81	170,000	0.06	3.7	9/1/2024
MML BLEND FUND	FIXED INCOME	FNMA POOL CA1073	3,245,466.68	3,245,340	1.09	3.5	1/1/2048
MML BLEND FUND	FIXED INCOME	ATHENE HOLDING LTD	1,276,246.35	1,405,000	0.43	4.125	1/12/2028
MML BLEND FUND	FIXED INCOME	TENCENT HOLDINGS LTD	211,401.50	225,000	0.07	3.595	1/19/2028
MML BLEND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	604,877.53	610,000	0.20	3.08988	1/25/2041
MML BLEND FUND	FIXED INCOME	AERCAP IRELAND CAP/GLOBA	375,531.04	395,000	0.13	3.3	1/23/2023
MML BLEND FUND	FIXED INCOME	AERCAP IRELAND CAP/GLOBA	855,249.79	980,000	0.29	3.875	1/23/2028
MML BLEND FUND	FIXED INCOME	BAKER HUGHES LLC/CO OBL	69,007.01	75,000	0.02	3.337	12/15/2027
MML BLEND FUND	FIXED INCOME	HERTZ VEHICLE FINANCING LLC	1,219,626.43	1,240,000	0.41	3.29	2/25/2024
MML BLEND FUND	FIXED INCOME	DEUTSCHE BANK NY	299,577.49	310,000	0.10	3.15	1/22/2021
MML BLEND FUND	FIXED INCOME	HERTZ VEHICLE FINANCING LLC	641,445.09	650,000	0.21	3.6	2/25/2024
MML BLEND FUND	FIXED INCOME	GOLDMAN SACHS GROUP INC	242,742.55	260,000	0.08	3.814	4/23/2029
MML BLEND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	718,200.00	1,000,000	0.24	0.01	2/25/2042
MML BLEND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	706,022.44	710,000	0.24	3.22625	3/25/2067
MML BLEND FUND	FIXED INCOME	FNMA POOL BF0196	284,975.04	282,667	0.10	3.5	2/1/2041
MML BLEND FUND	FIXED INCOME	DEEPHAVEN RESIDENTIAL MORTGAGE	423,858.37	430,078	0.14	2.976	12/25/2057
MML BLEND FUND	FIXED INCOME	DEEPHAVEN RESIDENTIAL MORTGAGE	121,574.76	122,879	0.04	3.202	12/25/2057
MML BLEND FUND	OPTIONS	BM1107614 SWAPTION	615,860.78	11,940,000	0.21	0	1/31/2033
MML BLEND FUND	OPTIONS	BM1107911 SWAPTION	284,671.70	5,990,000	0.10	0	1/31/2033
MML BLEND FUND	FIXED INCOME	YARA INTERNATIONAL ASA	568,127.19	570,000	0.19	4.75	6/1/2028
MML BLEND FUND	FIXED INCOME	FNMA POOL CA1909	2,217,145.82	2,140,231	0.74	4.5	6/1/2048
MML BLEND FUND	FIXED INCOME	FNMA POOL BM3994	274,459.88	272,745	0.09	3.5	1/1/2044
MML BLEND FUND	FIXED INCOME	MADISON PARK FUNDING LTD	421,556.52	430,000	0.14	4.21613	7/15/2030
MML BLEND FUND	CASH EQUIVALENT	FIRST ABU DHABI BANK PJSC	1,624,569.02	1,625,000	0.54	0	1/4/2019
MML BLEND FUND	CASH EQUIVALENT	FLORIDA PWR & LGT CO	997,015.94	1,000,000	0.33	0	2/7/2019
MML BLEND FUND	CASH EQUIVALENT	CBS CORP	1,296,963.06	1,300,000	0.43	0	1/29/2019
MML BLEND FUND	CASH EQUIVALENT	CVS CORPORATION	1,999,699.78	2,000,000	0.67	0	1/2/2019
MML BLEND FUND	CASH EQUIVALENT	TYCO INTL HLDG SARL	1,999,706.66	2,000,000	0.67	0	1/2/2019
MML BLEND FUND	CASH EQUIVALENT	RYDER SYSTEM INC	1,995,509.12	2,000,000	0.67	0	1/28/2019
MML BLEND FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	918,428.93	918,429	0.31	1.25	1/2/2019
MML BLEND FUND	CASH EQUIVALENT	JM SMUCKER CO	1,999,708.78	2,000,000	0.67	0	1/2/2019
MML BLEND FUND	CASH EQUIVALENT	ALBEMARLE CORP	1,099,744.25	1,100,000	0.37	0	1/3/2019
MML BLEND FUND	CASH EQUIVALENT	SPECTRA ENERGY PARTNERS	999,854.39	1,000,000	0.33	0	1/2/2019
MML BLEND FUND	CASH EQUIVALENT	ENTERGY CORPORATION	1,998,804.00	2,000,000	0.67	0	1/8/2019
MML BLEND FUND	FIXED INCOME	ANHEUSER BUSCH CO/INBEV	765,093.02	825,000	0.26	4.9	2/1/2046

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	CASH EQUIVALENT	EXPERIAN FINANCE PLC	999,782.50	1,000,000	0.33	0	1/3/2019
MML BLEND FUND	FIXED INCOME	FNMA POOL CA1952	557,388.00	536,918	0.19	4.5	6/1/2048
MML BLEND FUND	FIXED INCOME	CASTLELAKE AIRCRAFT STRUCTURED	313,441.53	308,576	0.10	4.125	6/15/2043
MML BLEND FUND	FIXED INCOME	FNMA POOL CA1951	747,210.42	732,027	0.25	4	7/1/2048
MML BLEND FUND	FIXED INCOME	HSBC HOLDINGS PLC	451,013.38	455,000	0.15	4.583	6/19/2029
MML BLEND FUND	FIXED INCOME	TRITON CONTAINER FINANCE LLC	449,413.32	446,500	0.15	4.19	6/22/2043
MML BLEND FUND	FIXED INCOME	TRINITY RAIL LEASING L.P.	419,729.38	410,000	0.14	4.62	6/17/2048
MML BLEND FUND	FIXED INCOME	GENERAL MOTORS FINL CO	567,072.35	582,000	0.19	4.15	6/19/2023
MML BLEND FUND	FIXED INCOME	AVENTURA MALL TRUST	703,893.79	710,000	0.24	4.11232	7/5/2040
MML BLEND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	740,720.40	750,000	0.25	3.30625	3/25/2067
MML BLEND FUND	FIXED INCOME	EQM MIDSTREAM PARTNERS L	498,924.89	500,000	0.17	4.75	7/15/2023
MML BLEND FUND	FIXED INCOME	MARVELL TECHNOLOGY GROUP	274,203.82	275,000	0.09	4.2	6/22/2023
MML BLEND FUND	FIXED INCOME	CROWN CASTLE TOWERS LLC	248,787.50	250,000	0.08	4.241	7/15/2048
MML BLEND FUND	FIXED INCOME	EATON VANCE CDO LTD	692,769.70	700,000	0.23	4.19976	10/15/2030
MML BLEND FUND	FIXED INCOME	ING GROEP NV	409,750.92	410,000	0.14	4.1	10/2/2023
MML BLEND FUND	CASH EQUIVALENT	SUNCOR ENERGY INC	999,854.39	1,000,000	0.33	0	1/2/2019
MML BLEND FUND	FIXED INCOME	MADISON PARK FUNDING LTD	528,738.65	550,000	0.18	4.44808	10/18/2030
MML BLEND FUND	FIXED INCOME	MARATHON PETROLEUM CORP	71,346.90	85,000	0.02	4.5	4/1/2048
MML BLEND FUND	FIXED INCOME	SABIC CAPITAL II BV	253,725.00	255,000	0.08	4	10/10/2023
MML BLEND FUND	FIXED INCOME	J.G. WENTWORTH XLII LLC	309,294.86	299,985	0.10	3.96	10/15/2075
MML BLEND FUND	FIXED INCOME	SABIC CAPITAL II BV	247,605.60	249,000	0.08	4.5	10/10/2028
MML BLEND FUND	FIXED INCOME	ECMC GROUP STUDENT LOAN TRUST	530,894.79	531,343	0.18	3.30625	9/25/2068
MML BLEND FUND	FIXED INCOME	VEREIT OPERATING PARTNER	260,484.56	260,000	0.09	4.625	11/1/2025
MML BLEND FUND	FIXED INCOME	MSCG TRUST	88,395.69	90,000	0.03	3.63513	10/15/2037
MML BLEND FUND	FIXED INCOME	STORE MASTER FUNDING LLC	266,351.19	259,105	0.09	4.29	10/20/2048
MML BLEND FUND	CASH EQUIVALENT	MARRIOTT INTERNATION	1,498,980.75	1,500,000	0.50	0	1/9/2019
MML BLEND FUND	FIXED INCOME	ASCENTIUM EQUIPMENT RECEIVABLE	497,816.32	488,000	0.17	4.15	7/10/2024
MML BLEND FUND	FIXED INCOME	ADAMS OUTDOOR ADVERTISING	400,624.34	389,535	0.13	4.81	11/15/2048
MML BLEND FUND	FIXED INCOME	BX TRUST	413,223.05	419,374	0.14	4.15513	11/15/2035
MML BLEND FUND	FIXED INCOME	HELIOS ISSUER, LLC	120,460.26	118,000	0.04	4.87	7/20/2048
MML BLEND FUND	CASH EQUIVALENT	WALGREENS BOOTS	1,992,969.50	2,000,000	0.67	0	2/12/2019
MML BLEND FUND	FIXED INCOME	OHA CREDIT PARTNERS LTD	287,807.70	300,000	0.10	4.65207	1/20/2032
MML BLEND FUND	FIXED INCOME	AASET 2018 2 TRUST	341,087.81	337,654	0.11	4.454	11/18/2038
MML BLEND FUND	FIXED INCOME	CRESTLINE DENALI CLO XIV, LTD	248,618.75	250,000	0.08	3.9245	10/23/2031
MML BLEND FUND	FIXED INCOME	BANC OF AMERICA MERRILL LYNCH	129,408.36	130,000	0.04	3.80513	9/15/2034
MML BLEND FUND	CASH EQUIVALENT	TYCO INTL HLDG SARL	999,779.17	1,000,000	0.33	0	1/3/2019
MML BLEND FUND	FIXED INCOME	VOYA CLO LTD	293,826.30	300,000	0.10	4.19	10/20/2031
MML BLEND FUND	FIXED INCOME	WINGSTOP FUNDING LLC	131,268.63	130,000	0.04	4.97	12/5/2048
MML BLEND FUND	FIXED INCOME	MARINER FINANCE ISSUANCE TRUST	608,705.38	602,000	0.20	4.2	11/20/2030
MML BLEND FUND	FIXED INCOME	MPLX LP	114,716.71	115,000	0.04	4.8	2/15/2029
MML BLEND FUND	FIXED INCOME	KREF 2018 FL1 LTD.	205,846.96	210,000	0.07	4.302	6/15/2036
MML BLEND FUND	FIXED INCOME	CSX CORP	156,682.04	155,000	0.05	4.75	11/15/2048
MML BLEND FUND	FIXED INCOME	VOLKSWAGEN GROUP AMERICA	370,705.44	375,000	0.12	4.625	11/13/2025
MML BLEND FUND	FIXED INCOME	MADISON PARK FUNDING LTD	244,800.50	250,000	0.08	4.47594	1/23/2031
MML BLEND FUND	FIXED INCOME	MORGAN STANLEY CAPITAL I TRUST	122,977.88	120,000	0.04	4.62	7/15/2051
MML BLEND FUND	FIXED INCOME	WELLS FARGO COMMERCIAL MORTGAG	245,535.22	240,000	0.08	4.405	6/15/2051
MML BLEND FUND	FIXED INCOME	WELLS FARGO COMMERCIAL MORTGAG	61,713.77	60,000	0.02	4.556	6/15/2051
MML BLEND FUND	FIXED INCOME	FNMA POOL BK7877	330,688.56	318,544	0.11	4.5	7/1/2048
MML BLEND FUND	FIXED INCOME	FED HM LN PC POOL Q57232	403,232.93	395,448	0.13	4	7/1/2048
MML BLEND FUND	FIXED INCOME	KINROSS GOLD CORP	143,382.50	166,000	0.05	4.5	7/15/2027
MML BLEND FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	228,746.56	226,957	0.08	3.94	6/20/2035
MML BLEND FUND	FIXED INCOME	BAYER US FINANCE II LLC	526,367.94	615,000	0.18	4.4	7/15/2044

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BLEND FUND	FIXED INCOME	DOWDUPONT INC	375,834.51	365,000	0.13	5.319	11/15/2038
MML BLEND FUND	FIXED INCOME	TACO BELL FUNDING, LLC	242,113.78	240,000	0.08	4.94	11/25/2048
MML BLEND FUND	FIXED INCOME	ATRIUM CDO CORP	246,466.00	250,000	0.08	4.52594	1/23/2031
MML BLEND FUND	CASH EQUIVALENT	NATIONAL GRID USA	1,997,833.12	2,000,000	0.67	0	1/14/2019
MML BLEND FUND	CASH EQUIVALENT	MONDELEZ INTL INC	1,997,504.88	2,000,000	0.67	0	1/16/2019
MML BLEND FUND	CASH EQUIVALENT	HYUNDAI CAPITAL AMERICA	1,998,798.22	2,000,000	0.67	0	1/8/2019
MML BLEND FUND	CASH EQUIVALENT	FMC TECH INC	1,997,833.12	2,000,000	0.67	0	1/14/2019
MML BLEND FUND	FIXED INCOME	PETROLEOS MEXICANOS	165,775.00	190,000	0.06	5.35	2/12/2028
MML BLEND FUND	FIXED INCOME	ATLAS SENIOR LOAN FUND LTD	952,535.04	960,000	0.32	3.98663	11/27/2031
MML BLEND FUND	FIXED INCOME	CARLYLE GLOBAL MARKET STRATEGI	712,378.80	720,000	0.24	4.63651	1/20/2031
MML BLEND FUND	CASH EQUIVALENT	SCHLUMBERGER HOLDINGS	1,998,823.56	2,000,000	0.67	0	1/8/2019
MML BLEND FUND	CASH EQUIVALENT	HARLEY-DAVIDSON FND CP	1,297,080.93	1,300,000	0.43	0	1/28/2019
MML BLEND FUND	CASH EQUIVALENT	TYSON FOODS INC	1,999,408.88	2,000,000	0.67	0	1/4/2019
MML BLEND FUND	CASH EQUIVALENT	FLORIDA PWR & LGT CO	998,321.28	1,000,000	0.33	0	1/22/2019
MML BLEND FUND	CASH EQUIVALENT	DTE CAPITAL CORP	999,320.50	1,000,000	0.33	0.01	1/9/2019
MML BLEND FUND	FIXED INCOME	VOYA FINANCIAL INC	141,750.00	180,000	0.05	4.7	1/23/2048
MML BLEND FUND	CASH EQUIVALENT	LYONDELLBASELL INVEST	996,525.36	1,000,000	0.33	0	2/12/2019

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY FUND	EQUITY	MCDONALD S CORP	4,114,296.90	23,170	1.00		0
MML EQUITY FUND	EQUITY	SYNOPSIS INC	4,187,570.40	49,710	1.02		0
MML EQUITY FUND	EQUITY	TARGET CORP	6,883,273.50	104,150	1.68		0
MML EQUITY FUND	EQUITY	GILEAD SCIENCES INC	3,642,912.00	58,240	0.89		0
MML EQUITY FUND	EQUITY	PHILIP MORRIS INTERNATIONAL	5,846,840.80	87,580	1.42		0
MML EQUITY FUND	EQUITY	TRANSOCEAN LTD	622,101.60	89,640	0.15		0
MML EQUITY FUND	EQUITY	WASTE MANAGEMENT INC	4,900,679.30	55,070	1.19		0
MML EQUITY FUND	EQUITY	COCA COLA CO/THE	9,206,734.00	194,440	2.24		0
MML EQUITY FUND	EQUITY	ANADARKO PETROLEUM CORP	3,566,384.00	81,350	0.87		0
MML EQUITY FUND	EQUITY	DEERE + CO	2,743,236.30	18,390	0.67		0
MML EQUITY FUND	EQUITY	ZIONS BANCORP NA	7,244,386.80	177,820	1.76		0
MML EQUITY FUND	EQUITY	EQUITY RESIDENTIAL	6,400,329.60	96,960	1.56		0
MML EQUITY FUND	EQUITY	PUBLIC STORAGE	1,740,726.00	8,600	0.42		0
MML EQUITY FUND	EQUITY	CATERPILLAR INC	4,936,669.50	38,850	1.20		0
MML EQUITY FUND	EQUITY	GENERAL MILLS INC	1,094,603.40	28,110	0.27		0
MML EQUITY FUND	EQUITY	GOLDMAN SACHS GROUP INC	3,898,947.00	23,340	0.95		0
MML EQUITY FUND	EQUITY	FEDEX CORP	2,106,969.80	13,060	0.51		0
MML EQUITY FUND	EQUITY	ENBRIDGE INC	3,785,139.96	121,787	0.92		0
MML EQUITY FUND	EQUITY	FREEMPORT MCMORAN INC	1,870,852.60	181,460	0.46		0
MML EQUITY FUND	EQUITY	BORGWARNER INC	4,216,393.80	121,370	1.03		0
MML EQUITY FUND	EQUITY	EDISON INTERNATIONAL	2,348,007.20	41,360	0.57		0
MML EQUITY FUND	EQUITY	EASTMAN CHEMICAL CO	3,995,461.50	54,650	0.97		0
MML EQUITY FUND	EQUITY	ENTERGY CORP	5,753,779.50	66,850	1.40		0
MML EQUITY FUND	EQUITY	KEYCORP	3,314,415.00	224,250	0.81		0
MML EQUITY FUND	EQUITY	LENNAR CORP A	1,276,290.00	32,600	0.31		0
MML EQUITY FUND	EQUITY	LOCKHEED MARTIN CORP	3,553,430.64	13,571	0.87		0
MML EQUITY FUND	EQUITY	THERMO FISHER SCIENTIFIC INC	4,751,061.70	21,230	1.16		0
MML EQUITY FUND	EQUITY	UNION PACIFIC CORP	1,694,699.80	12,260	0.41		0
MML EQUITY FUND	EQUITY	ZEBRA TECHNOLOGIES CORP CL A	1,703,761.00	10,700	0.41		0
MML EQUITY FUND	EQUITY	FIDELITY NATIONAL INFO SERV	2,127,912.50	20,750	0.52		0
MML EQUITY FUND	EQUITY	MASTERCARD INC A	1,588,433.00	8,420	0.39		0
MML EQUITY FUND	EQUITY	CONCHO RESOURCES INC	3,044,639.80	29,620	0.74		0
MML EQUITY FUND	EQUITY	DOLLAR TREE INC	1,040,486.40	11,520	0.25		0
MML EQUITY FUND	EQUITY	SUNCOR ENERGY INC	11,985,424.70	428,510	2.92		0
MML EQUITY FUND	EQUITY	MERCK + CO. INC.	11,365,223.40	148,740	2.77		0
MML EQUITY FUND	EQUITY	CIT GROUP INC	2,682,727.00	70,100	0.65		0
MML EQUITY FUND	EQUITY	NEXTERA ENERGY INC	6,703,368.30	38,565	1.63		0
MML EQUITY FUND	EQUITY	GENERAL MOTORS CO	7,127,191.50	213,070	1.74		0
MML EQUITY FUND	EQUITY	TE CONNECTIVITY LTD	2,984,359.80	39,460	0.73		0
MML EQUITY FUND	EQUITY	CITIGROUP INC	9,276,571.40	178,190	2.26		0
MML EQUITY FUND	EQUITY	PROLOGIS INC	6,086,328.00	103,650	1.48		0
MML EQUITY FUND	EQUITY	AON PLC	3,836,050.40	26,390	0.93		0
MML EQUITY FUND	EQUITY	PHILLIPS 66	3,520,002.85	40,859	0.86		0
MML EQUITY FUND	EQUITY	WEATHERFORD INTERNATIONAL PL	1,211,358.59	2,167,010	0.29		0
MML EQUITY FUND	EQUITY	ANTHEM INC	4,173,190.70	15,890	1.02		0
MML EQUITY FUND	EQUITY	CROWN CASTLE INTL CORP	4,920,939.00	45,300	1.20		0
MML EQUITY FUND	EQUITY	MYLAN NV	3,293,754.00	120,210	0.80		0
MML EQUITY FUND	EQUITY	WESTROCK CO	2,800,659.20	74,170	0.68		0
MML EQUITY FUND	EQUITY	HP INC	2,380,111.80	116,330	0.58		0
MML EQUITY FUND	EQUITY	COCA COLA EUROPEAN PARTNERS	5,909,606.50	128,890	1.44		0
MML EQUITY FUND	EQUITY	ALCOA CORP	3,459,121.20	130,140	0.84		0
MML EQUITY FUND	EQUITY	ALLIANCE DATA SYSTEMS CORP	330,176.00	2,200	0.11		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY FUND	EQUITY	BUNGE LTD	235,136.00	4,400	0.08		0
MML EQUITY FUND	EQUITY	AMERISOURCEBERGEN CORP	438,960.00	5,900	0.14		0
MML EQUITY FUND	EQUITY	CHEVRON CORP	7,397,720.00	68,000	2.43		0
MML EQUITY FUND	EQUITY	FOOT LOCKER INC	196,840.00	3,700	0.06		0
MML EQUITY FUND	EQUITY	ACUIITY BRANDS INC	126,445.00	1,100	0.04		0
MML EQUITY FUND	EQUITY	PRUDENTIAL FINANCIAL INC	1,312,955.00	16,100	0.43		0
MML EQUITY FUND	EQUITY	JETBLUE AIRWAYS CORP	178,266.00	11,100	0.06		0
MML EQUITY FUND	EQUITY	NOBLE ENERGY INC	150,080.00	8,000	0.05		0
MML EQUITY FUND	EQUITY	JM SMUCKER CO/THE	430,054.00	4,600	0.14		0
MML EQUITY FUND	EQUITY	CONOCOPHILLIPS	2,737,165.00	43,900	0.90		0
MML EQUITY FUND	EQUITY	CARMAX INC	445,383.00	7,100	0.15		0
MML EQUITY FUND	EQUITY	COMCAST CORP CLASS A	4,130,265.00	121,300	1.35		0
MML EQUITY FUND	EQUITY	ALTRIA GROUP INC	2,479,378.00	50,200	0.81		0
MML EQUITY FUND	EQUITY	CARNIVAL CORP	1,015,580.00	20,600	0.33		0
MML EQUITY FUND	EQUITY	CARTER S INC	138,754.00	1,700	0.05		0
MML EQUITY FUND	EQUITY	BIOGEN INC	2,467,544.00	8,200	0.81		0
MML EQUITY FUND	EQUITY	REGIONS FINANCIAL CORP	584,706.00	43,700	0.19		0
MML EQUITY FUND	EQUITY	LAS VEGAS SANDS CORP	458,040.00	8,800	0.15		0
MML EQUITY FUND	EQUITY	CELANESE CORP	476,841.00	5,300	0.16		0
MML EQUITY FUND	EQUITY	MOLSON COORS BREWING CO B	292,032.00	5,200	0.10		0
MML EQUITY FUND	EQUITY	LAZARD LTD CL A	188,241.00	5,100	0.06		0
MML EQUITY FUND	EQUITY	WESTERN ALLIANCE BANCORP	138,215.00	3,500	0.05		0
MML EQUITY FUND	EQUITY	AMERIPRISE FINANCIAL INC	667,968.00	6,400	0.22		0
MML EQUITY FUND	EQUITY	VIACOM INC CLASS B	277,560.00	10,800	0.09		0
MML EQUITY FUND	EQUITY	CBS CORP CLASS B NON VOTING	459,060.00	10,500	0.15		0
MML EQUITY FUND	EQUITY	HEWLETT PACKARD ENTERPRISE	612,944.00	46,400	0.20		0
MML EQUITY FUND	EQUITY	HP INC	1,299,210.00	63,500	0.43		0
MML EQUITY FUND	EQUITY	PENTAIR PLC	215,346.00	5,700	0.07		0
MML EQUITY FUND	EQUITY	FIDELITY NATIONAL FINANCIAL	270,384.00	8,600	0.09		0
MML EQUITY FUND	EQUITY	CITIZENS FINANCIAL GROUP	555,951.00	18,700	0.18		0
MML EQUITY FUND	EQUITY	ANTHEM INC	2,547,511.00	9,700	0.84		0
MML EQUITY FUND	EQUITY	WALGREENS BOOTS ALLIANCE INC	1,735,582.00	25,400	0.57		0
MML EQUITY FUND	EQUITY	QORVO INC	303,650.00	5,000	0.10		0
MML EQUITY FUND	EQUITY	HUBBELL INC	168,878.00	1,700	0.06		0
MML EQUITY FUND	EQUITY	CHUBB LTD	2,312,322.00	17,900	0.76		0
MML EQUITY FUND	EQUITY	US FOODS HOLDING CORP	113,904.00	3,600	0.04		0
MML EQUITY FUND	EQUITY	JOHNSON CONTROLS INTERNATION	732,355.00	24,700	0.24		0
MML EQUITY FUND	EQUITY	ATHENE HOLDING LTD CLASS A	175,252.00	4,400	0.06		0
MML EQUITY FUND	EQUITY	XEROX CORP	126,464.00	6,400	0.04		0
MML EQUITY FUND	EQUITY	APTIV PLC	603,386.00	9,800	0.20		0
MML EQUITY FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	1,821,448.49	1,821,448	0.60	1.25	1/2/2019
MML EQUITY FUND	EQUITY	MADISON SQUARE GARDEN CO A	240,930.00	900	0.08		0
MML EQUITY FUND	EQUITY	LPL FINANCIAL HOLDINGS INC	140,484.00	2,300	0.05		0
MML EQUITY FUND	EQUITY	DUKE ENERGY CORP	1,855,450.00	21,500	0.61		0
MML EQUITY FUND	EQUITY	MONDELEZ INTERNATIONAL INC A	1,813,359.00	45,300	0.59		0
MML EQUITY FUND	EQUITY	EATON CORP PLC	1,160,354.00	16,900	0.38		0
MML EQUITY FUND	EQUITY	ABBVIE INC	4,489,653.00	48,700	1.47		0
MML EQUITY FUND	EQUITY	NORWEGIAN CRUISE LINE HOLDIN	351,837.00	8,300	0.12		0
MML EQUITY FUND	EQUITY	CDW CORP/DE	478,195.00	5,900	0.16		0
MML EQUITY FUND	EQUITY	PERRIGO CO PLC	213,125.00	5,500	0.07		0
MML EQUITY FUND	EQUITY	SANTANDER CONSUMER USA HOLDI	244,501.00	13,900	0.08		0
MML EQUITY FUND	EQUITY	VOYA FINANCIAL INC	289,008.00	7,200	0.09		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY FUND	EQUITY	ALLY FINANCIAL INC	373,890.00	16,500	0.12		0
MML EQUITY FUND	EQUITY	EVERSOURCE ENERGY	734,952.00	11,300	0.24		0
MML EQUITY FUND	EQUITY	MYLAN NV	567,180.00	20,700	0.19		0
MML EQUITY FUND	EQUITY	WEC ENERGY GROUP INC	838,046.00	12,100	0.27		0
MML EQUITY FUND	EQUITY	KRAFT HEINZ CO/THE	1,187,904.00	27,600	0.39		0
MML EQUITY FUND	EQUITY	BANK OF NEW YORK MELLON CORP	1,840,437.00	39,100	0.60		0
MML EQUITY FUND	EQUITY	WABCO HOLDINGS INC	150,276.00	1,400	0.05		0
MML EQUITY FUND	EQUITY	PHILIP MORRIS INTERNATIONAL	2,770,540.00	41,500	0.91		0
MML EQUITY FUND	EQUITY	REINSURANCE GROUP OF AMERICA	364,598.00	2,600	0.12		0
MML EQUITY FUND	EQUITY	INGERSOLL RAND PLC	866,685.00	9,500	0.28		0
MML EQUITY FUND	EQUITY	MERCK + CO. INC.	6,303,825.00	82,500	2.07		0
MML EQUITY FUND	EQUITY	HYATT HOTELS CORP CL A	101,400.00	1,500	0.03		0
MML EQUITY FUND	EQUITY	CIT GROUP INC	195,177.00	5,100	0.06		0
MML EQUITY FUND	EQUITY	STANLEY BLACK + DECKER INC	407,116.00	3,400	0.13		0
MML EQUITY FUND	EQUITY	LYONDELLBASELL INDU CL A	1,471,932.00	17,700	0.48		0
MML EQUITY FUND	EQUITY	E TRADE FINANCIAL CORP	416,860.00	9,500	0.14		0
MML EQUITY FUND	EQUITY	GARMIN LTD	462,236.00	7,300	0.15		0
MML EQUITY FUND	EQUITY	UNITED CONTINENTAL HOLDINGS	711,705.00	8,500	0.23		0
MML EQUITY FUND	EQUITY	HOWARD HUGHES CORP/THE	48,810.00	500	0.02		0
MML EQUITY FUND	EQUITY	GENERAL MOTORS CO	1,843,095.00	55,100	0.60		0
MML EQUITY FUND	EQUITY	KINDER MORGAN INC	907,420.00	59,000	0.30		0
MML EQUITY FUND	EQUITY	HCA HEALTHCARE INC	1,680,075.00	13,500	0.55		0
MML EQUITY FUND	EQUITY	PPG INDUSTRIES INC	960,962.00	9,400	0.32		0
MML EQUITY FUND	EQUITY	SOUTHWEST AIRLINES CO	1,055,096.00	22,700	0.35		0
MML EQUITY FUND	EQUITY	SUNTRUST BANKS INC	907,920.00	18,000	0.30		0
MML EQUITY FUND	EQUITY	HARTFORD FINANCIAL SVCS GRP	613,410.00	13,800	0.20		0
MML EQUITY FUND	EQUITY	AFLAC INC	1,362,244.00	29,900	0.45		0
MML EQUITY FUND	EQUITY	METLIFE INC	1,667,036.00	40,600	0.55		0
MML EQUITY FUND	EQUITY	MURPHY OIL CORP	128,645.00	5,500	0.04		0
MML EQUITY FUND	EQUITY	CARLISLE COS INC	251,300.00	2,500	0.08		0
MML EQUITY FUND	EQUITY	LABORATORY CRP OF AMER HLDGS	530,712.00	4,200	0.17		0
MML EQUITY FUND	EQUITY	CAMPBELL SOUP CO	263,920.00	8,000	0.09		0
MML EQUITY FUND	EQUITY	PARKER HANNIFIN CORP	611,474.00	4,100	0.20		0
MML EQUITY FUND	EQUITY	SEALED AIR CORP	146,328.00	4,200	0.05		0
MML EQUITY FUND	EQUITY	BLACKROCK INC	1,021,332.00	2,600	0.33		0
MML EQUITY FUND	EQUITY	PACCAR INC	777,104.00	13,600	0.25		0
MML EQUITY FUND	EQUITY	LINCOLN ELECTRIC HOLDINGS	86,735.00	1,100	0.03		0
MML EQUITY FUND	EQUITY	NATIONAL OILWELL VARCO INC	375,220.00	14,600	0.12		0
MML EQUITY FUND	EQUITY	RAYMOND JAMES FINANCIAL INC	379,491.00	5,100	0.12		0
MML EQUITY FUND	EQUITY	LEGGETT + PLATT INC	146,944.00	4,100	0.05		0
MML EQUITY FUND	EQUITY	VERIZON COMMUNICATIONS INC	8,764,698.00	155,900	2.87		0
MML EQUITY FUND	EQUITY	KANSAS CITY SOUTHERN	324,530.00	3,400	0.11		0
MML EQUITY FUND	EQUITY	JUNIPER NETWORKS INC	287,937.00	10,700	0.09		0
MML EQUITY FUND	EQUITY	QUANTA SERVICES INC	117,390.00	3,900	0.04		0
MML EQUITY FUND	EQUITY	FORD MOTOR CO	798,660.00	104,400	0.26		0
MML EQUITY FUND	EQUITY	TORCHMARK CORP	790,018.00	10,600	0.26		0
MML EQUITY FUND	EQUITY	BANK OF AMERICA CORP	6,463,072.00	262,300	2.12		0
MML EQUITY FUND	EQUITY	HUNTINGTON INGALLS INDUSTRIE	266,434.00	1,400	0.09		0
MML EQUITY FUND	EQUITY	CITIGROUP INC	5,127,910.00	98,500	1.68		0
MML EQUITY FUND	EQUITY	HOLLYFRONTIER CORP	327,168.00	6,400	0.11		0
MML EQUITY FUND	EQUITY	PVH CORP	288,145.00	3,100	0.09		0
MML EQUITY FUND	EQUITY	RALPH LAUREN CORP	155,190.00	1,500	0.05		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY FUND	EQUITY	CBRE GROUP INC A	76,076.00	1,900	0.02		0
MML EQUITY FUND	EQUITY	ALLISON TRANSMISSION HOLDING	241,505.00	5,500	0.08		0
MML EQUITY FUND	EQUITY	PHILLIPS 66	1,619,620.00	18,800	0.53		0
MML EQUITY FUND	EQUITY	AUTOZONE INC	922,174.00	1,100	0.30		0
MML EQUITY FUND	EQUITY	AVERY DENNISON CORP	179,660.00	2,000	0.06		0
MML EQUITY FUND	EQUITY	CORNING INC	1,362,471.00	45,100	0.45		0
MML EQUITY FUND	EQUITY	DOVER CORP	347,655.00	4,900	0.11		0
MML EQUITY FUND	EQUITY	FEDEX CORP	1,322,906.00	8,200	0.43		0
MML EQUITY FUND	EQUITY	KLA TENCOR CORP	554,838.00	6,200	0.18		0
MML EQUITY FUND	EQUITY	KOHL'S CORP	404,674.00	6,100	0.13		0
MML EQUITY FUND	EQUITY	XCEL ENERGY INC	817,882.00	16,600	0.27		0
MML EQUITY FUND	EQUITY	NASDAQ INC	424,164.00	5,200	0.14		0
MML EQUITY FUND	EQUITY	DAVITA INC	380,804.00	7,400	0.12		0
MML EQUITY FUND	EQUITY	ISHARES RUSSELL 1000 VALUE ETF	4,830,675.00	43,500	1.58		0
MML EQUITY FUND	EQUITY	T ROWE PRICE GROUP INC	812,416.00	8,800	0.27		0
MML EQUITY FUND	EQUITY	JPMORGAN CHASE + CO	12,924,888.00	132,400	4.24		0
MML EQUITY FUND	EQUITY	US BANCORP	2,911,090.00	63,700	0.95		0
MML EQUITY FUND	EQUITY	BORGWARNER INC	284,868.00	8,200	0.09		0
MML EQUITY FUND	EQUITY	LINCOLN NATIONAL CORP	431,004.00	8,400	0.14		0
MML EQUITY FUND	EQUITY	LOEWS CORP	578,104.00	12,700	0.19		0
MML EQUITY FUND	EQUITY	OGE ENERGY CORP	242,978.00	6,200	0.08		0
MML EQUITY FUND	EQUITY	PINNACLE WEST CAPITAL	391,920.00	4,600	0.13		0
MML EQUITY FUND	EQUITY	POLARIS INDUSTRIES INC	130,356.00	1,700	0.04		0
MML EQUITY FUND	EQUITY	EVEREST RE GROUP LTD	283,088.00	1,300	0.09		0
MML EQUITY FUND	EQUITY	ALASKA AIR GROUP INC	170,380.00	2,800	0.06		0
MML EQUITY FUND	EQUITY	ALBEMARLE CORP	184,968.00	2,400	0.06		0
MML EQUITY FUND	EQUITY	ALLEGHANY CORP	436,324.00	700	0.14		0
MML EQUITY FUND	EQUITY	ALLSTATE CORP	1,165,083.00	14,100	0.38		0
MML EQUITY FUND	EQUITY	AMEREN CORPORATION	600,116.00	9,200	0.20		0
MML EQUITY FUND	EQUITY	AMERICAN ELECTRIC POWER	1,360,268.00	18,200	0.45		0
MML EQUITY FUND	EQUITY	APACHE CORP	265,125.00	10,100	0.09		0
MML EQUITY FUND	EQUITY	ARCHER DANIELS MIDLAND CO	884,952.00	21,600	0.29		0
MML EQUITY FUND	EQUITY	ARROW ELECTRONICS INC	248,220.00	3,600	0.08		0
MML EQUITY FUND	EQUITY	WR BERKLEY CORP	362,159.00	4,900	0.12		0
MML EQUITY FUND	EQUITY	BRUNSWICK CORP	167,220.00	3,600	0.05		0
MML EQUITY FUND	EQUITY	CINCINNATI FINANCIAL CORP	495,488.00	6,400	0.16		0
MML EQUITY FUND	EQUITY	CUMMINS INC	574,652.00	4,300	0.19		0
MML EQUITY FUND	EQUITY	WEBSTER FINANCIAL CORP	182,373.00	3,700	0.06		0
MML EQUITY FUND	EQUITY	FRANKLIN RESOURCES INC	406,342.00	13,700	0.13		0
MML EQUITY FUND	EQUITY	GENERAL DYNAMICS CORP	1,053,307.00	6,700	0.35		0
MML EQUITY FUND	EQUITY	HONEYWELL INTERNATIONAL INC	3,646,512.00	27,600	1.20		0
MML EQUITY FUND	EQUITY	AES CORP	296,430.00	20,500	0.10		0
MML EQUITY FUND	EQUITY	DR HORTON INC	402,056.00	11,600	0.13		0
MML EQUITY FUND	EQUITY	DTE ENERGY COMPANY	783,130.00	7,100	0.26		0
MML EQUITY FUND	EQUITY	DEVON ENERGY CORP	344,862.00	15,300	0.11		0
MML EQUITY FUND	EQUITY	EASTMAN CHEMICAL CO	409,416.00	5,600	0.13		0
MML EQUITY FUND	EQUITY	FMC CORP	266,256.00	3,600	0.09		0
MML EQUITY FUND	EQUITY	GOODYEAR TIRE + RUBBER CO	108,173.00	5,300	0.04		0
MML EQUITY FUND	EQUITY	HELMERICH + PAYNE	210,936.00	4,400	0.07		0
MML EQUITY FUND	EQUITY	INTL PAPER CO	613,472.00	15,200	0.20		0
MML EQUITY FUND	EQUITY	KEYCORP	605,980.00	41,000	0.20		0
MML EQUITY FUND	EQUITY	LOCKHEED MARTIN CORP	1,989,984.00	7,600	0.65		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY FUND	EQUITY	NORTHROP GRUMMAN CORP	955,110.00	3,900	0.31		0
MML EQUITY FUND	EQUITY	OCCIDENTAL PETROLEUM CORP	1,049,598.00	17,100	0.34		0
MML EQUITY FUND	EQUITY	TARGET CORP	1,387,890.00	21,000	0.46		0
MML EQUITY FUND	EQUITY	AMERICAN EXPRESS CO	3,193,220.00	33,500	1.05		0
MML EQUITY FUND	EQUITY	H+R BLOCK INC	139,535.00	5,500	0.05		0
MML EQUITY FUND	EQUITY	GENUINE PARTS CO	441,692.00	4,600	0.14		0
MML EQUITY FUND	EQUITY	KIMBERLY CLARK CORP	649,458.00	5,700	0.21		0
MML EQUITY FUND	EQUITY	PNC FINANCIAL SERVICES GROUP	2,127,762.00	18,200	0.70		0
MML EQUITY FUND	EQUITY	INTL BUSINESS MACHINES CORP	4,058,019.00	35,700	1.33		0
MML EQUITY FUND	EQUITY	SONOCO PRODUCTS CO	207,207.00	3,900	0.07		0
MML EQUITY FUND	CASH	US DOLLAR	5,148.43	5,148	0.00		0
MML EQUITY FUND	EQUITY	BRISTOL MYERS SQUIBB CO	2,474,248.00	47,600	0.81		0
MML EQUITY FUND	EQUITY	LOWE S COS INC	2,613,788.00	28,300	0.86		0
MML EQUITY FUND	EQUITY	NUCOR CORP	632,082.00	12,200	0.21		0
MML EQUITY FUND	EQUITY	TEXAS INSTRUMENTS INC	1,512,000.00	16,000	0.50		0
MML EQUITY FUND	EQUITY	INTEL CORP	8,386,391.00	178,700	2.75		0
MML EQUITY FUND	EQUITY	JOHNSON + JOHNSON	6,323,450.00	49,000	2.07		0
MML EQUITY FUND	EQUITY	TD AMERITRADE HOLDING CORP	621,792.00	12,700	0.20		0
MML EQUITY FUND	EQUITY	HESS CORP	490,050.00	12,100	0.16		0
MML EQUITY FUND	EQUITY	HANESBRANDS INC	120,288.00	9,600	0.04		0
MML EQUITY FUND	EQUITY	WESTERN UNION CO	301,962.00	17,700	0.10		0
MML EQUITY FUND	EQUITY	SPIRIT AEROSYSTEMS HOLD CL A	346,032.00	4,800	0.11		0
MML EQUITY FUND	EQUITY	TRAVELERS COS INC/THE	2,885,975.00	24,100	0.95		0
MML EQUITY FUND	EQUITY	CINEMARK HOLDINGS INC	93,080.00	2,600	0.03		0
MML EQUITY FUND	EQUITY	DELTA AIR LINES INC	1,357,280.00	27,200	0.44		0
MML EQUITY FUND	EQUITY	AECOM	111,300.00	4,200	0.04		0
MML EQUITY FUND	EQUITY	CONTINENTAL RESOURCES INC/OK	341,615.00	8,500	0.11		0
MML EQUITY FUND	EQUITY	MACY S INC	268,020.00	9,000	0.09		0
MML EQUITY FUND	EQUITY	DISCOVER FINANCIAL SERVICES	861,108.00	14,600	0.28		0
MML EQUITY FUND	EQUITY	HUNTINGTON BANCSHARES INC	493,488.00	41,400	0.16		0
MML EQUITY FUND	EQUITY	MARKEL CORP	622,830.00	600	0.20		0
MML EQUITY FUND	EQUITY	NORTHERN TRUST CORP	635,284.00	7,600	0.21		0
MML EQUITY FUND	EQUITY	NORDSTROM INC	302,965.00	6,500	0.10		0
MML EQUITY FUND	EQUITY	KELLOGG CO	604,306.00	10,600	0.20		0
MML EQUITY FUND	EQUITY	M + T BANK CORP	844,467.00	5,900	0.28		0
MML EQUITY FUND	EQUITY	PACKAGING CORP OF AMERICA	292,110.00	3,500	0.10		0
MML EQUITY FUND	EQUITY	NEWMONT MINING CORP	564,795.00	16,300	0.19		0
MML EQUITY FUND	EQUITY	WILLIAMS SONOMA INC	45,405.00	900	0.01		0
MML EQUITY FUND	EQUITY	ROYAL CARIBBEAN CRUISES LTD	811,657.00	8,300	0.27		0
MML EQUITY FUND	EQUITY	FIFTH THIRD BANCORP	637,663.00	27,100	0.21		0
MML EQUITY FUND	EQUITY	BB+T CORP	1,295,268.00	29,900	0.42		0
MML EQUITY FUND	EQUITY	COMERICA INC	384,664.00	5,600	0.13		0
MML EQUITY FUND	EQUITY	MCKESSON CORP	828,525.00	7,500	0.27		0
MML EQUITY FUND	EQUITY	PROSPERITY BANCSHARES INC	174,440.00	2,800	0.06		0
MML EQUITY FUND	EQUITY	COMMERCE BANCSHARES INC	242,672.85	4,305	0.08		0
MML EQUITY FUND	EQUITY	UNITED THERAPEUTICS CORP	54,450.00	500	0.02		0
MML EQUITY FUND	EQUITY	PROGRESSIVE CORP	941,148.00	15,600	0.31		0
MML EQUITY FUND	EQUITY	QUEST DIAGNOSTICS INC	424,677.00	5,100	0.14		0
MML EQUITY FUND	EQUITY	RELIANCE STEEL + ALUMINUM	206,393.00	2,900	0.07		0
MML EQUITY FUND	EQUITY	TOLL BROTHERS INC	108,669.00	3,300	0.04		0
MML EQUITY FUND	EQUITY	CELGENE CORP	1,019,031.00	15,900	0.33		0
MML EQUITY FUND	EQUITY	EAST WEST BANCORP INC	248,121.00	5,700	0.08		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY FUND	EQUITY	GENTEX CORP	210,184.00	10,400	0.07	0	
MML EQUITY FUND	EQUITY	JONES LANG LASALLE INC	227,880.00	1,800	0.07	0	
MML EQUITY FUND	EQUITY	STEEL DYNAMICS INC	273,364.00	9,100	0.09	0	
MML EQUITY FUND	EQUITY	TERADYNE INC	238,488.00	7,600	0.08	0	
MML EQUITY FUND	EQUITY	UMPQUA HOLDINGS CORP	101,760.00	6,400	0.03	0	
MML EQUITY FUND	EQUITY	CRANE CO	115,488.00	1,600	0.04	0	
MML EQUITY FUND	EQUITY	CULLEN/FROST BANKERS INC	228,644.00	2,600	0.07	0	
MML EQUITY FUND	EQUITY	GILEAD SCIENCES INC	3,146,265.00	50,300	1.03	0	
MML EQUITY FUND	EQUITY	NVR INC	243,699.00	100	0.08	0	
MML EQUITY FUND	EQUITY	AMGEN INC	4,905,684.00	25,200	1.61	0	
MML EQUITY FUND	EQUITY	APPLE INC	9,148,920.00	58,000	3.00	0	
MML EQUITY FUND	EQUITY	BEST BUY CO INC	593,152.00	11,200	0.19	0	
MML EQUITY FUND	EQUITY	CAPITAL ONE FINANCIAL CORP	1,322,825.00	17,500	0.43	0	
MML EQUITY FUND	EQUITY	CISCO SYSTEMS INC	7,647,745.00	176,500	2.51	0	
MML EQUITY FUND	EQUITY	WALT DISNEY CO/THE	6,184,260.00	56,400	2.03	0	
MML EQUITY FUND	EQUITY	EXXON MOBIL CORP	8,823,786.00	129,400	2.89	0	
MML EQUITY FUND	EQUITY	GAP INC/THE	383,824.00	14,900	0.13	0	
MML EQUITY FUND	EQUITY	MORGAN STANLEY	2,755,675.00	69,500	0.90	0	
MML EQUITY FUND	EQUITY	OMNICOM GROUP	512,680.00	7,000	0.17	0	
MML EQUITY FUND	EQUITY	ORACLE CORP	6,537,720.00	144,800	2.14	0	
MML EQUITY FUND	EQUITY	PFIZER INC	9,847,440.00	225,600	3.23	0	
MML EQUITY FUND	EQUITY	WELLS FARGO + CO	8,612,352.00	186,900	2.82	0	
MML EQUITY FUND	EQUITY	PUBLIC SERVICE ENTERPRISE GP	1,009,770.00	19,400	0.33	0	
MML EQUITY FUND	EQUITY	PULTEGROUP INC	194,925.00	7,500	0.06	0	
MML EQUITY FUND	EQUITY	MARATHON OIL CORP	468,918.00	32,700	0.15	0	
MML EQUITY FUND	EQUITY	VALERO ENERGY CORP	1,229,508.00	16,400	0.40	0	
MML EQUITY FUND	EQUITY	AMERCO	262,488.00	800	0.09	0	
MML EQUITY FUND	EQUITY	CREDIT ACCEPTANCE CORP	229,056.00	600	0.08	0	
MML EQUITY FUND	EQUITY	OSHKOSH CORP	116,489.00	1,900	0.04	0	
MML EQUITY FUND	EQUITY	HARLEY DAVIDSON INC	150,128.00	4,400	0.05	0	
MML EQUITY FUND	EQUITY	INTERPUBLIC GROUP OF COS INC	303,261.00	14,700	0.10	0	
MML EQUITY FUND	EQUITY	KROGER CO	748,000.00	27,200	0.25	0	
MML EQUITY FUND	EQUITY	UNITED PARCEL SERVICE CL B	2,584,545.00	26,500	0.85	0	
MML EQUITY FUND	EQUITY	NEWELL BRANDS INC	232,375.00	12,500	0.08	0	
MML EQUITY FUND	EQUITY	SNAP ON INC	334,167.00	2,300	0.11	0	
MML EQUITY FUND	EQUITY	DEERE + CO	1,282,862.00	8,600	0.42	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SMALL CAP EQUITY FUND	EQUITY	SENSEONICS HOLDINGS INC	314,296.50	121,350	0.31		0
MML SMALL CAP EQUITY FUND	EQUITY	ATKORE INTERNATIONAL GROUP I	400,172.80	20,170	0.40		0
MML SMALL CAP EQUITY FUND	EQUITY	ADVANCED DISPOSAL SERVICES I	1,248,662.52	52,158	1.24		0
MML SMALL CAP EQUITY FUND	EQUITY	NOBLE MIDSTREAM PARTNERS LP	793,100.00	27,500	0.78		0
MML SMALL CAP EQUITY FUND	EQUITY	BANK OF N.T. BUTTERFIELD+SON	997,212.15	31,809	0.99		0
MML SMALL CAP EQUITY FUND	EQUITY	BLACKLINE INC	1,014,741.00	24,780	1.00		0
MML SMALL CAP EQUITY FUND	EQUITY	EVOQUA WATER TECHNOLOGIES CO	719,520.00	74,950	0.71		0
MML SMALL CAP EQUITY FUND	EQUITY	SENDGRID INC	552,748.68	12,804	0.55		0
MML SMALL CAP EQUITY FUND	EQUITY	MANITOWOC COMPANY INC	431,091.99	29,187	0.43		0
MML SMALL CAP EQUITY FUND	EQUITY	ASGN INC	1,953,879.50	35,851	1.93		0
MML SMALL CAP EQUITY FUND	EQUITY	INSPIRE MEDICAL SYSTEMS INC	666,662.75	15,779	0.66		0
MML SMALL CAP EQUITY FUND	EQUITY	PERSPECTA INC	895,922.16	52,028	0.89		0
MML SMALL CAP EQUITY FUND	EQUITY	FOCUS FINANCIAL PARTNERS A	413,381.00	15,700	0.41		0
MML SMALL CAP EQUITY FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	2,125,869.31	2,125,869	2.10	1.25	1/2/2019
MML SMALL CAP EQUITY FUND	EQUITY	EPR PROPERTIES	966,212.70	15,090	0.96		0
MML SMALL CAP EQUITY FUND	EQUITY	MASONITE INTERNATIONAL CORP	1,080,537.49	24,103	1.07		0
MML SMALL CAP EQUITY FUND	EQUITY	STERLING BANCORP/DE	909,040.60	55,060	0.90		0
MML SMALL CAP EQUITY FUND	EQUITY	HOUGHTON MIFFLIN HARCOURT CO	1,092,969.60	123,360	1.08		0
MML SMALL CAP EQUITY FUND	EQUITY	UNIQURE NV	329,700.80	11,440	0.33		0
MML SMALL CAP EQUITY FUND	EQUITY	INOGEN INC	427,144.80	3,440	0.42		0
MML SMALL CAP EQUITY FUND	EQUITY	PAYLOCITY HOLDING CORP	898,935.30	14,930	0.89		0
MML SMALL CAP EQUITY FUND	EQUITY	LIGAND PHARMACEUTICALS	835,912.00	6,160	0.83		0
MML SMALL CAP EQUITY FUND	EQUITY	CUSTOMERS BANCORP INC	499,590.00	27,450	0.49		0
MML SMALL CAP EQUITY FUND	EQUITY	WEIGHT WATCHERS INTL INC	886,264.50	22,990	0.88		0
MML SMALL CAP EQUITY FUND	EQUITY	ENPRO INDUSTRIES INC	879,263.00	14,630	0.87		0
MML SMALL CAP EQUITY FUND	EQUITY	SUBURBAN PROPANE PARTNERS LP	1,514,236.60	78,580	1.50		0
MML SMALL CAP EQUITY FUND	EQUITY	BERKSHIRE HILLS BANCORP INC	755,160.00	28,000	0.75		0
MML SMALL CAP EQUITY FUND	EQUITY	FEDERATED INVESTORS INC CL B	674,370.00	25,400	0.67		0
MML SMALL CAP EQUITY FUND	EQUITY	KORN FERRY	2,158,923.54	54,601	2.14		0
MML SMALL CAP EQUITY FUND	EQUITY	GREENBRIER COMPANIES INC	1,098,025.80	27,770	1.09		0
MML SMALL CAP EQUITY FUND	EQUITY	HERITAGE FINANCIAL CORP	675,238.40	22,720	0.67		0
MML SMALL CAP EQUITY FUND	EQUITY	CATHAY GENERAL BANCORP	661,882.20	19,740	0.66		0
MML SMALL CAP EQUITY FUND	EQUITY	BRANDYWINE REALTY TRUST	1,329,857.10	103,330	1.32		0
MML SMALL CAP EQUITY FUND	EQUITY	AUTONATION INC	1,157,037.00	32,410	1.15		0
MML SMALL CAP EQUITY FUND	EQUITY	COLUMBIA BANKING SYSTEM INC	836,121.60	23,040	0.83		0
MML SMALL CAP EQUITY FUND	EQUITY	GENESEE + WYOMING INC CL A	1,169,516.00	15,800	1.16		0
MML SMALL CAP EQUITY FUND	EQUITY	IBERIABANK CORP	1,103,044.80	17,160	1.09		0
MML SMALL CAP EQUITY FUND	EQUITY	OCEANFIRST FINANCIAL CORP	893,421.90	39,690	0.88		0
MML SMALL CAP EQUITY FUND	EQUITY	QUIDEL CORP	804,065.40	16,470	0.80		0
MML SMALL CAP EQUITY FUND	EQUITY	REPLIGEN CORP	903,963.60	17,140	0.89		0
MML SMALL CAP EQUITY FUND	EQUITY	SOUTH JERSEY INDUSTRIES	995,240.00	35,800	0.98		0
MML SMALL CAP EQUITY FUND	EQUITY	STIFEL FINANCIAL CORP	1,119,582.60	27,030	1.11		0
MML SMALL CAP EQUITY FUND	EQUITY	WSFS FINANCIAL CORP	1,333,294.70	35,170	1.32		0
MML SMALL CAP EQUITY FUND	EQUITY	BLACK HILLS CORP	1,504,836.60	23,970	1.49		0
MML SMALL CAP EQUITY FUND	EQUITY	CACI INTERNATIONAL INC CL A	2,092,899.93	14,531	2.07		0
MML SMALL CAP EQUITY FUND	EQUITY	CHEMICAL FINANCIAL CORP	916,055.42	25,022	0.91		0
MML SMALL CAP EQUITY FUND	EQUITY	CHILDREN S PLACE INC/THE	1,505,403.90	16,710	1.49		0
MML SMALL CAP EQUITY FUND	EQUITY	PEGASYS INC	1,146,293.78	23,966	1.13		0
MML SMALL CAP EQUITY FUND	EQUITY	DYCOM INDUSTRIES INC	825,190.80	15,270	0.82		0
MML SMALL CAP EQUITY FUND	EQUITY	JACK IN THE BOX INC	1,846,817.70	23,790	1.83		0
MML SMALL CAP EQUITY FUND	EQUITY	MKS INSTRUMENTS INC	1,387,822.80	21,480	1.37		0
MML SMALL CAP EQUITY FUND	EQUITY	NU SKIN ENTERPRISES INC A	1,149,937.50	18,750	1.14		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SMALL CAP EQUITY FUND	EQUITY	ALLEGHENY TECHNOLOGIES INC	1,121,699.25	51,525	1.11		0
MML SMALL CAP EQUITY FUND	CASH	US DOLLAR	0.21	0	0.00		0
MML SMALL CAP EQUITY FUND	EQUITY	NAVISTAR INTERNATIONAL CORP	728,935.50	28,090	0.72		0
MML SMALL CAP EQUITY FUND	EQUITY	PACIFIC PREMIER BANCORP INC	542,555.20	21,260	0.54		0
MML SMALL CAP EQUITY FUND	EQUITY	PROASSURANCE CORP	1,145,820.00	28,250	1.13		0
MML SMALL CAP EQUITY FUND	EQUITY	BROOKS AUTOMATION INC	965,518.40	36,880	0.96		0
MML SMALL CAP EQUITY FUND	EQUITY	COMPASS MINERALS INTERNATION	805,033.90	19,310	0.80		0
MML SMALL CAP EQUITY FUND	EQUITY	TEXAS ROADHOUSE INC	1,246,536.00	20,880	1.23		0
MML SMALL CAP EQUITY FUND	EQUITY	NORTHWESTERN CORP	1,169,779.20	19,680	1.16		0
MML SMALL CAP EQUITY FUND	EQUITY	DIAMONDROCK HOSPITALITY CO	1,539,695.60	169,570	1.52		0
MML SMALL CAP EQUITY FUND	EQUITY	LHC GROUP INC	1,467,344.40	15,630	1.45		0
MML SMALL CAP EQUITY FUND	EQUITY	ATRICURE INC	633,726.00	20,710	0.63		0
MML SMALL CAP EQUITY FUND	EQUITY	ACCO BRANDS CORP	973,404.60	143,570	0.96		0
MML SMALL CAP EQUITY FUND	EQUITY	DORMAN PRODUCTS INC	1,334,096.40	14,820	1.32		0
MML SMALL CAP EQUITY FUND	EQUITY	KAISER ALUMINUM CORP	1,515,697.75	16,975	1.50		0
MML SMALL CAP EQUITY FUND	EQUITY	EMERGENT BIOSOLUTIONS INC	1,231,245.60	20,770	1.22		0
MML SMALL CAP EQUITY FUND	EQUITY	KBR INC	1,141,778.88	75,216	1.13		0
MML SMALL CAP EQUITY FUND	EQUITY	ADDUS HOMECARE CORP	871,036.16	12,832	0.86		0
MML SMALL CAP EQUITY FUND	EQUITY	GENERAC HOLDINGS INC	1,771,805.00	35,650	1.75		0
MML SMALL CAP EQUITY FUND	EQUITY	ENVESTNET INC	705,876.50	14,350	0.70		0
MML SMALL CAP EQUITY FUND	EQUITY	VISTEON CORP	1,547,990.40	25,680	1.53		0
MML SMALL CAP EQUITY FUND	EQUITY	BANKUNITED INC	1,071,522.66	35,789	1.06		0
MML SMALL CAP EQUITY FUND	EQUITY	SPIRIT AIRLINES INC	1,294,512.00	22,350	1.28		0
MML SMALL CAP EQUITY FUND	EQUITY	WENDY S CO/THE	1,293,288.50	82,850	1.28		0
MML SMALL CAP EQUITY FUND	EQUITY	J2 GLOBAL INC	1,634,662.18	23,561	1.62		0
MML SMALL CAP EQUITY FUND	EQUITY	ZYNGA INC CL A	1,786,978.86	454,702	1.77		0
MML SMALL CAP EQUITY FUND	EQUITY	THERAPEUTICSMD INC	453,961.50	119,150	0.45		0
MML SMALL CAP EQUITY FUND	EQUITY	RENEWABLE ENERGY GROUP INC	1,024,890.30	39,879	1.01		0
MML SMALL CAP EQUITY FUND	EQUITY	MATADOR RESOURCES CO	1,059,068.35	68,195	1.05		0
MML SMALL CAP EQUITY FUND	EQUITY	REXNORD CORP	1,217,268.00	53,040	1.20		0
MML SMALL CAP EQUITY FUND	EQUITY	Q2 HOLDINGS INC	1,039,063.50	20,970	1.03		0
MML SMALL CAP EQUITY FUND	EQUITY	MICHAELS COS INC/THE	715,995.20	52,880	0.71		0
MML SMALL CAP EQUITY FUND	EQUITY	INTERSECT ENT INC	690,691.80	24,510	0.68		0
MML SMALL CAP EQUITY FUND	EQUITY	DIPLOMAT PHARMACY INC	630,197.20	46,820	0.62		0
MML SMALL CAP EQUITY FUND	EQUITY	JAMES RIVER GROUP HOLDINGS L	736,463.70	20,155	0.73		0
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1107150 IRS USD R V 12MUSCPI	5,300,000.00	5,300,000	0.47		1/19/2020
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1107150 IRS USD P F 2.09500	(5,354,892.21)	(5,300,000)	0.48	2.095	1/19/2020
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	WALGREENS BOOTS	5,978,908.50	6,000,000	0.53		2/12/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	REVERSE REPO MORGAN STANLEY	(32,763,750.00)	(32,763,750)	2.93	2.56	2/5/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	CIBC REVERSE REPO	(9,566,989.16)	(9,566,989)	0.86	2.5	2/5/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	REVERSE REPO HSBC	(61,420,625.00)	(61,420,625)	5.49	2.6	1/4/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	ROGERS COMMUNICATIONS	5,093,225.36	5,100,000	0.46		1/17/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	SPECTRA ENERGY PARTNERS	1,997,666.66	2,000,000	0.18		1/15/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	PUB.SERV.CO.COLORADO	3,798,012.37	3,800,000	0.34		1/7/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	FMC TECH INC	5,959,648.02	6,000,000	0.53		3/19/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	COX ENTERPRISES INC	899,867.30	900,000	0.08		1/2/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1058601 CDS USD P V 01MEVENT	(890,000.00)	(890,000)	0.08	1	5/11/2063
MML INFLATION-PROTECTED & INCOME FUND	OPTIONS	BM1107945 SWAPTION	299,879.53	6,310,000	0.03		1/31/2033
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1058767 CDS USD R F 3.00000	276,784.44	330,000	0.02		5/11/2063
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1058767 CDS USD P V 01MEVENT	(330,000.00)	(330,000)	0.03	1	5/11/2063
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1058601 CDS USD R F 3.00000	746,479.26	890,000	0.07		5/11/2063
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	REVERSE REPO GOLDMAN	(33,243,316.33)	(33,243,316)	2.97	2.65	2/20/2019

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	EXPERIAN FINANCE PLC	5,976,108.36	6,000,000	0.53	0	2/19/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DEEPHAVEN RESIDENTIAL MORTGAGE	3,207,796.39	3,188,021	0.29	4.285	10/25/2058
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	MONDELEZ INTL INC	5,975,141.64	6,000,000	0.53	0	2/19/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SM1116714 IRS USD R F 2.98800	10,274,791.54	10,160,000	0.92	2.988	12/4/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SM1116714 IRS USD P V 03MLIBOR	(10,160,000.00)	(10,160,000)	0.91	1	12/4/2021
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	REVERSE REPO PARIBAS	(59,763,375.00)	(59,763,375)	5.34	2.68	3/4/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	AMERICAN CREDIT ACCEPTANCE REC	1,950,705.32	1,950,000	0.17	3.38	12/13/2021
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	TRANSCANADA PIPELINES LTD	5,966,795.82	6,000,000	0.53	0	3/6/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	PUBLIC SEVC. ENT. GR	5,970,642.36	6,000,000	0.53	0	2/27/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	SCHLUMBERGER HOLDINGS	5,974,546.02	6,000,000	0.53	0	2/21/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	COMMONBOND STUDENT LOAN TRUST	320,969.12	321,000	0.03	4.35	2/25/2046
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	VW CR INC	5,981,462.34	6,000,000	0.53	0	2/7/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	BELL CANADA	3,573,830.41	3,600,000	0.32	0	3/28/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	REVERSE REPO DAIWA SECURITIES	(50,001,250.00)	(50,001,250)	4.47	2.68	3/8/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	ENTERGY CORPORATION	2,088,048.31	2,100,000	0.19	0	3/8/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	TELUS CORP	4,969,140.00	5,000,000	0.44	0	3/13/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	HARLEY-DAVIDSON FND CP	5,956,291.98	6,000,000	0.53	0	3/25/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	KEURIG DR PEPPER	3,196,306.66	3,200,000	0.29	0	1/15/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	ENTERGY CORPORATION	3,182,964.80	3,200,000	0.28	0	3/4/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TESLA AUTO LEASE TRUST	772,687.38	770,000	0.07	3.71	8/20/2021
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	SPECTRA ENERGY PARTNERS	999,320.50	1,000,000	0.09	0	1/9/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	EI DUPONT	5,962,976.82	6,000,000	0.53	0	3/14/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	JP MORGAN MORTGAGE TRUST	1,003,462.78	1,020,107	0.09	3.5	9/25/2048
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	SUNCOR ENERGY INC	5,959,648.02	6,000,000	0.53	0	3/19/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	REVERSE REPO HSBC	(21,697,500.00)	(21,697,500)	1.94	2.7	3/18/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	AT&T INC	5,167,003.40	5,200,000	0.46	0	3/15/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	SOUTHERN CO GAS CAPITAL	5,991,540.00	6,000,000	0.54	0	1/18/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NP FERRUM LLC	340,928.54	337,230	0.03	3.968	3/19/2046
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	TYCO INTL HLDG SARL	5,959,293.36	6,000,000	0.53	0	3/21/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	XCEL ENERGY INC	5,995,923.00	6,000,000	0.54	0	1/9/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	GLENCORE FUNDING LLC	3,499,205.22	3,500,000	0.31	0	1/3/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	UNITED TECHNOLOGIES	5,988,054.18	6,000,000	0.54	0	1/25/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	CBS CORP	5,985,983.34	6,000,000	0.54	0	1/29/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	107,904.99	107,905	0.01	1.25	1/2/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	750,000.00	750,000	0.07	5.083	9/15/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	240,000.00	240,000	0.02	4.08	3/15/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	316,853.03	333,050	0.03	2.95988	10/25/2064
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLC STUDENT LOAN TRUST	1,307,907.24	1,388,193	0.12	3.01819	12/15/2039
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLC STUDENT LOAN TRUST	1,947,665.87	2,077,926	0.17	3.06819	3/15/2040
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	FED HM LN PC POOL 1Q0239	368,438.06	348,919	0.03	4.183	3/1/2037
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	321 HENDERSON RECEIVABLES LLC	637,179.91	675,798	0.06	2.65513	3/15/2042
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	321 HENDERSON RECEIVABLES LLC	157,676.69	164,978	0.01	2.65513	9/15/2041
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DRIVE AUTO RECEIVABLES TRUST	349,639.29	350,000	0.03	3.22	4/15/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SM1112341 IRS USD R F 2.77500	24,324,535.22	24,300,000	2.17	2.775	7/2/2020
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SM1112341 IRS USD P V 03MLIBOR	(24,300,000.00)	(24,300,000)	2.17	1	7/2/2020
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1114651 IRS USD R V 12MUSCPI	27,600,000.00	27,600,000	2.47	1	10/1/2020
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1114651 IRS USD P F 2.31400	(28,088,900.05)	(27,600,000)	2.51	2.314	10/1/2020
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	321 HENDERSON RECEIVABLES LLC	282,526.61	287,901	0.03	2.65513	12/15/2041
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	468,502.76	489,322	0.04	3.43819	12/15/2038
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	GOAL CAPITAL FUNDING TRUST	358,407.71	358,281	0.03	3.38925	8/25/2048
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	321 HENDERSON RECEIVABLES LLC	1,588,974.58	1,619,848	0.14	2.65513	6/15/2041
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	ALLY MASTER OWNER TRUST	1,200,123.96	1,200,000	0.11	3.02513	1/15/2021

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1047976 CDS USD P V 01MEVENT	(450,000.00)	(450,000)	0.04	1	11/17/2045
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1048172 CDS USD R F 3.00000	578,731.11	690,000	0.05	3	11/17/2045
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1048172 CDS USD P V 01MEVENT	(690,000.00)	(690,000)	0.06	1	11/17/2045
MML INFLATION-PROTECTED & INCOME FUND	EQUITY	FORWARDS DAIWA BOC	(543,000.00)	(543,000)	0.05	0	
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	EDUCATIONAL SERVICES OF AMERIC	1,014,124.40	1,000,000	0.09	4.00625	12/25/2058
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	HERTZ FLEET LEASE FUNDING LP	524,634.08	524,337	0.05	3.48694	4/10/2030
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	OXFORD FINANCE FUNDING TRUST	380,340.28	379,166	0.03	3.968	6/17/2024
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SOFI CONSUMER LOAN PROGRAM TRU	1,418,297.41	1,425,805	0.13	3.06	9/25/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DT AUTO OWNER TRUST	130,358.32	130,419	0.01	1.85	8/17/2020
MML INFLATION-PROTECTED & INCOME FUND	OPTIONS	BM1106004 SWAPTION	1,296,367.76	22,880,000	0.12	0	12/13/2032
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1106996 IRS USD R V 12MUSCPI	8,500,000.00	8,500,000	0.76	1	1/11/2020
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	11,886,754.27	12,455,694	1.06	0.5	1/15/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	MARLETTE FUNDING TRUST	1,030,502.49	1,033,191	0.09	2.61	3/15/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	JP MORGAN MORTGAGE TRUST	679,993.83	689,116	0.06	3.5	6/25/2048
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	AMERICAN CREDIT ACCEPTANCE REC	1,443,447.45	1,450,000	0.13	2.94	1/10/2024
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	713,193.88	718,959	0.06	2.05	1/25/2041
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	ONEMAIN DIRECT AUTO RECEIVABLE	934,325.31	940,000	0.08	2.31	12/14/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	MARINER FINANCE ISSUANCE TRUST	1,583,245.60	1,600,000	0.14	2.92	12/20/2029
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	CIFC FUNDING LTD	2,420,617.15	2,450,000	0.22	3.21631	4/15/2027
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	1,772,108.95	1,790,000	0.16	3.26625	5/25/2066
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	CHESAPEAKE FUNDING II LLC	1,069,803.06	1,067,310	0.10	2.90513	4/15/2030
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	ELFI GRADUATE LOAN PROGRAM	883,578.18	889,177	0.08	3.25625	8/25/2042
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	11,642,977.44	11,839,689	1.04	0.625	4/15/2023
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	WESTGATE RESORTS	675,068.13	676,267	0.06	3.38	12/20/2031
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	HERTZ FLEET LEASE FUNDING LP	2,532,943.91	2,530,000	0.23	2.88694	5/10/2032
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	FORD MOTOR CREDIT CO LLC	1,905,789.47	2,060,000	0.17	3.85113	2/15/2023
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	FANNIE MAE CAS	1,121,729.09	1,123,719	0.10	3.18625	10/25/2030
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	FIRST INVESTORS AUTO OWNER TRU	825,903.73	826,617	0.07	2.84	5/16/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	MARLETTE FUNDING TRUST	798,840.03	799,446	0.07	3.06	7/17/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	LENDMARK FUNDING TRUST	628,937.25	630,000	0.06	3.81	12/21/2026
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	WESTLAKE AUTOMOBILE RECEIVABLE	1,296,071.76	1,298,069	0.12	2.84	9/15/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SEQUOIA MORTGAGE TRUST	1,202,801.11	1,196,547	0.11	4	6/25/2048
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	RETL	766,992.57	774,848	0.07	3.55513	3/15/2033
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	PSMC TRUST	939,304.16	951,457	0.08	3.5	2/25/2048
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	OSCAR US FUNDING TRUST	419,776.74	420,736	0.04	2.91	4/12/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	FLAGSHIP CREDIT AUTO TRUST	2,567,173.19	2,572,097	0.23	2.97	10/17/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	AVANT LOANS FUNDING TRUST	847,132.89	848,503	0.08	3.09	6/15/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	ARBOR REALTY COLLATERALIZED LO	767,413.22	780,000	0.07	3.60513	6/15/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DEEPHAVEN RESIDENTIAL MORTGAGE	2,049,812.34	2,044,993	0.18	3.479	4/25/2058
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DT AUTO OWNER TRUST	883,468.24	885,892	0.08	2.84	9/15/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	AMERICAN CREDIT ACCEPTANCE REC	638,758.89	639,699	0.06	2.94	1/10/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SMB PRIVATE EDUCATION LOAN TRU	1,489,771.05	1,500,000	0.13	3.17513	1/15/2037
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	JP MORGAN CHASE COMMERCIAL MOR	1,145,634.83	1,150,000	0.10	3.45513	6/15/2032
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	CPS AUTO TRUST	577,988.42	579,076	0.05	2.87	9/15/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	CPS AUTO TRUST	260,047.09	260,000	0.02	3.43	7/15/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	11,955,520.52	12,214,604	1.07	0.75	7/15/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BHMS MORTGAGE TRUST	1,684,222.13	1,700,000	0.15	3.95513	7/15/2035
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	901,029.06	900,000	0.08	2.94625	9/27/2066
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	EXETER AUTOMOBILE RECEIVABLES	734,550.29	735,500	0.07	2.9	1/18/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	OSCAR US FUNDING TRUST	1,499,554.50	1,500,000	0.13	2.85694	8/10/2021
MML INFLATION-PROTECTED & INCOME FUND	FUTURE	US 5YR NOTE (CBT) MAR19	-	1,300,000	0.00	0	3/29/2019
MML INFLATION-PROTECTED & INCOME FUND	FUTURE	US 2YR NOTE (CBT) MAR19	-	(11,400,000)	0.00	0	3/29/2019

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SEQUOIA MORTGAGE TRUST	820,931.60	811,594	0.07	4	8/25/2048
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	MARLETTE FUNDING TRUST	869,652.31	870,879	0.08	3.2	9/15/2028
MML INFLATION-PROTECTED & INCOME FUND	FUTURE	US LONG BOND(CBT) MAR19	-	100,000	0.00	0	3/20/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SECURITIZED EQUIPMENT RECEIV	401,337.60	400,000	0.04	3.76	10/11/2024
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SECURITIZED EQUIPMENT RECEIV	431,559.95	430,000	0.04	4.2	10/11/2024
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SOFI CONSUMER LOAN PROGRAM TRU	1,507,743.65	1,510,678	0.13	3.2	8/25/2027
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TOYOTA AUTO RECEIVABLES OWNER	1,919,997.70	1,920,000	0.17	2.57513	8/16/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	CCG RECEIVABLES TRUST	1,119,813.86	1,120,000	0.10	3.09	12/15/2025
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DRIVE AUTO RECEIVABLES TRUST	740,059.89	740,068	0.07	2.45136	9/16/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	AMERICAN CREDIT ACCEPTANCE	290,831.30	291,164	0.03	2.92	8/12/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SMB PRIVATE EDUCATION LOAN TRU	938,813.76	940,387	0.08	2.75513	9/15/2025
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	PRESTIGE AUTO RECEIVABLES TRUS	387,049.04	387,211	0.03	2.5275	10/15/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NEXTGEAR FLOORPLAN MASTER OWNE	470,220.34	470,000	0.04	3.05513	10/16/2023
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	AVANT LOANS FUNDING TRUST	1,211,902.28	1,213,571	0.11	3.42	1/18/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	ASCENTIUM EQUIPMENT RECEIVABLE	3,699,252.90	3,701,758	0.33	2.73084	11/12/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BX TRUST	747,736.95	758,868	0.07	4.15513	11/15/2035
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	EXETER AUTOMOBILE RECEIVABLES	1,117,782.94	1,118,142	0.10	3.05	12/15/2021
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	NATIONAL GRID PLC	3,992,036.12	4,000,000	0.36	0	1/25/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	AASET 2018 2 TRUST	581,855.67	575,998	0.05	4.454	11/18/2038
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	WORLD OMNI SELECT AUTO TRUST	712,959.91	713,285	0.06	2.78222	11/15/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	KREF 2018 FL1 LTD.	1,969,140.80	2,000,000	0.18	3.652	6/15/2036
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DRIVE AUTO RECEIVABLES TRUST	434,921.00	435,017	0.04	2.68461	11/15/2019
MML INFLATION-PROTECTED & INCOME FUND	CASH EQUIVALENT	HYUNDAI CAPITAL AMERICA	2,988,937.50	3,000,000	0.27	0	2/14/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	961,105.33	954,424	0.09	4.40563	10/25/2044
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SOFI CONSUMER LOAN PROGRAM TRU	276,591.74	276,767	0.02	3.05	12/26/2025
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	2,247,414.62	2,200,000	0.20	3.80625	3/25/2066
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NEW RESIDENTIAL ADVANCE RECEIV	1,888,150.08	1,900,000	0.17	2.5751	10/15/2049
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	ORANGE LAKE TIMESHARE TRUST	337,298.26	341,870	0.03	2.61	3/8/2029
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	FLAGSHIP CREDIT AUTO TRUST	675,360.36	680,000	0.06	2.71	11/15/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	FANNIE MAE CAS	513,362.66	511,110	0.05	3.80625	4/25/2029
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SPRINGLEAF FUNDING TRUST	1,777,012.79	1,787,403	0.16	2.9	11/15/2029
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NELNET PRIVATE EDUCATION LOAN	565,862.09	567,648	0.05	4.25625	12/26/2040
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	CPS AUTO TRUST	1,993,952.40	2,000,000	0.18	2.68	5/17/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	1,113,725.54	1,120,000	0.10	3.22625	3/25/2067
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DEEPHAVEN RESIDENTIAL MORTGAGE	738,724.60	749,564	0.07	2.976	12/25/2057
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DEEPHAVEN RESIDENTIAL MORTGAGE	739,374.85	749,564	0.07	3.027	12/25/2057
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	VMC FINANCE LLC	1,085,331.50	1,094,613	0.10	3.27513	3/15/2035
MML INFLATION-PROTECTED & INCOME FUND	OPTIONS	BM1107838 SWAPTION	649,387.54	12,590,000	0.06	0	1/31/2033
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TESLA AUTO LEASE TRUST	475,848.07	477,768	0.04	2.32	12/20/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TESLA AUTO LEASE TRUST	264,162.18	265,000	0.02	2.75	2/20/2020
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TPG REAL ESTATE FINANCE	1,093,542.86	1,108,013	0.10	3.20513	2/15/2035
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	CITIBANK CREDIT CARD ISSUANCE	1,097,561.41	1,100,000	0.10	3.21013	5/14/2029
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	CARDINAL HEALTH INC	2,037,419.74	2,060,000	0.18	3.55819	6/15/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DRIVE AUTO RECEIVABLES TRUST	649,482.73	650,000	0.06	2.84	4/15/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TRAFIGURA SECURITISATION FINAN	1,005,104.00	1,000,000	0.09	3.30513	12/15/2020
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	MARLETTE FUNDING TRUST	138,761.09	138,950	0.01	2.39	7/15/2024

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	PNMAC GMSR ISSUER TRUST	440,945.25	440,000	0.04	5.35625	2/25/2023
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TLF NATIONAL TAX LIEN TRUST	919,871.65	922,348	0.08	3.09	12/15/2029
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BECTON DICKINSON AND CO	2,039,295.74	2,060,000	0.18	3.678	12/29/2020
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	ECMC GROUP STUDENT LOAN TRUST	3,885,786.42	3,891,085	0.35	3.25625	2/27/2068
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DT AUTO OWNER TRUST	599,801.98	600,890	0.05	2.59	5/17/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DT AUTO OWNER TRUST	518,685.34	520,000	0.05	3.04	1/18/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NEXTGEAR FLOORPLAN MASTER OWNE	849,256.93	850,000	0.08	3.09513	2/15/2023
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	FANNIE MAE CAS	316,977.66	315,741	0.03	3.95625	1/25/2029
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	3,104.11	3,107	0.00	1.48	5/26/2031
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	MARLETTE FUNDING TRUST	-	-	0.00	3.06	1/17/2023
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SOFI CONSUMER LOAN PROGRAM TRU	383,182.07	383,722	0.03	3.09	10/27/2025
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	EARNST STUDENT LOAN PROGRAM L	399,490.30	396,303	0.04	4.35625	10/27/2036
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	2,335,846.59	2,318,490	0.21	3.75625	6/25/2065
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	FANNIE MAE CAS	114,569.74	114,430	0.01	3.85625	1/25/2029
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	ECMC GROUP STUDENT LOAN TRUST	1,085,943.11	1,065,724	0.10	3.85625	7/26/2066
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SPRINGCASTLE SPV	751,367.44	758,706	0.07	3.05	4/25/2029
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	415,236.18	437,416	0.04	2.69988	10/25/2040
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	EXETER AUTOMOBILE RECEIVABLES	293,442.52	294,158	0.03	2.21	5/17/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	EXETER AUTOMOBILE RECEIVABLES	447,790.95	450,000	0.04	2.75	4/15/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	570,073.15	570,074	0.05	2.69625	3/25/2067
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NEUBERGER BERMAN CLO LTD	2,408,712.60	2,450,000	0.22	3.23631	1/15/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1105360 IRS USD R V 12MUSCPI	8,500,000.00	8,500,000	0.76	1	11/20/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1105360 IRS USD P F 2.01250	(8,550,567.78)	(8,500,000)	0.76	2.0125	11/20/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	OCP CLO LTD	2,425,105.55	2,450,000	0.22	3.328	10/26/2027
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	AMERICAN CREDIT ACCEPTANCE REC	96,894.90	96,929	0.01	2	7/10/2020
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SEQUOIA MORTGAGE TRUST	703,225.15	699,599	0.06	4	2/25/2048
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	9,183,049.54	9,690,408	0.82	1	2/15/2048
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	AIMCO	2,410,187.50	2,450,000	0.22	3.28631	1/15/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	JP MORGAN MORTGAGE TRUST	984,749.67	997,331	0.09	3.5	12/25/2048
MML INFLATION-PROTECTED & INCOME FUND	OPTIONS	BM1106277 SWAPTION	480,574.97	11,240,000	0.04	0	12/13/2032
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1106707 IRS USD R V 12MUSCPI	17,000,000.00	17,000,000	1.52	1	12/20/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1106707 IRS USD P F 1.91000	(17,094,059.64)	(17,000,000)	1.53	1.91	12/20/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	EDLINC STUDENT LOAN FUNDING TR	1,075,816.54	1,063,416	0.10	3.35	12/1/2047
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	CPS AUTO TRUST	157,325.57	157,993	0.01	2.16	5/17/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1106996 IRS USD P F 2.05750	(8,578,178.84)	(8,500,000)	0.77	2.0575	1/11/2020
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	2,162,552.24	2,383,662	0.19	0.75	2/15/2042
MML INFLATION-PROTECTED & INCOME FUND	EQUITY	FORWARDS GOLDMAN SACHS BOC	(158,725.00)	(158,725)	0.01	0	
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	21,894,708.85	22,542,005	1.96	0.125	7/15/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	19,596,174.42	20,289,030	1.75	0.125	1/15/2023
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	5,204,726.53	5,939,244	0.47	0.625	2/15/2043
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	ACADEMIC LOAN FUNDING TRUST	1,999,093.49	2,005,924	0.18	3.30625	12/26/2044
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	12,268,192.34	12,463,010	1.10	0.625	1/15/2024
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	8,400,774.69	8,137,575	0.75	1.375	2/15/2044
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	374,623.50	375,000	0.03	4.00625	6/25/2041
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	321 HENDERSON RECEIVABLES LLC	512,793.12	521,376	0.05	2.65513	3/15/2041
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	HILTON GRAND VACATIONS TRUST	97,161.22	98,616	0.01	1.77	11/25/2026
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DRUG ROYALTY II LP 1	155,600.49	154,610	0.01	5.28631	7/15/2023
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	164,149.53	164,292	0.01	2.05	6/20/2031
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	12,765,239.82	13,312,000	1.14	0.125	7/15/2024
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SMB PRIVATE EDUCATION LOAN TRU	478,217.34	479,109	0.04	3.05	5/15/2026
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	WESTGATE RESORTS	111,646.77	111,861	0.01	2.15	12/20/2026
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	184,284.06	185,123	0.02	2.3	10/20/2031

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	451,514.71	453,233	0.04	2.8	10/20/2031
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	7,049,577.24	6,638,720	0.63	1.75	1/15/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	ACCESS GROUP INC	26,571.85	26,612	0.00	2.85694	11/22/2024
MML INFLATION-PROTECTED & INCOME FUND	EQUITY	SWAP BANK OF AMERICA COC	540,000.00	540,000	0.05	0	
MML INFLATION-PROTECTED & INCOME FUND	EQUITY	SWAP GOLDMAN SACHS COC	119,000.00	119,000	0.01	0	
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BRAZOS TX HGR EDU AUTH	1,121,761.57	1,132,105	0.10	2.94163	6/25/2026
MML INFLATION-PROTECTED & INCOME FUND	EQUITY	CCBRCIUS4 SWBC BRC	(1,770,000.00)	(1,770,000)	0.16	0	
MML INFLATION-PROTECTED & INCOME FUND	EQUITY	SWAP CREDIT SUISSE BOC	(950,000.00)	(950,000)	0.08	0	
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	21,715.42	21,839	0.00	2.32	4/25/2030
MML INFLATION-PROTECTED & INCOME FUND	EQUITY	FORWARDS MORGAN STANLEY COC	328,087.00	328,087	0.03	0	
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	1,718,692.14	1,462,425	0.15	2.125	2/15/2040
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	JP MORGAN STUDENT LOAN TRUST	556,009.12	581,722	0.05	2.85925	6/28/2039
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	74,048.56	73,518	0.01	3.30625	4/25/2046
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	5,467,474.27	4,630,387	0.49	2.125	2/15/2041
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	636,117.16	633,131	0.06	3.35625	6/25/2065
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	CHESAPEAKE FUNDING II LLC	680,650.39	679,010	0.06	3.45513	6/15/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SOFI CONSUMER LOAN PROGRAM TRU	722,557.14	722,540	0.06	3.26	8/25/2025
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	9,904,073.37	10,549,400	0.89	0.125	7/15/2026
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	560,585.74	580,267	0.05	2.59988	1/26/2043
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	FLAGSHIP CREDIT AUTO TRUST	1,316,360.36	1,320,000	0.12	2.83	3/15/2023
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	EXETER AUTOMOBILE RECEIVABLES	698,855.64	700,000	0.06	3	12/15/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	621,403.61	621,829	0.06	3.20625	3/26/2040
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	5,769,299.81	6,285,300	0.52	0.875	2/15/2047
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	MARINER FINANCE ISSUANCE TRUST	773,322.94	770,000	0.07	3.62	2/20/2029
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SOFI CONSUMER LOAN PROGRAM TRU	580,829.32	582,132	0.05	3.28	2/25/2026
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	ECMC GROUP STUDENT LOAN TRUST	1,605,544.66	1,587,547	0.14	3.70625	12/27/2066
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	OSCAR US FUNDING TRUST	420,280.14	420,000	0.04	3.3	5/10/2024
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	OSCAR US FUNDING TRUST	498,374.00	500,000	0.04	2.82	6/10/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	MARLETTE FUNDING TRUST	236,194.60	236,289	0.02	2.827	3/15/2024
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	AVERY POINT CLO LTD	1,694,660.52	1,699,664	0.15	3.58988	4/25/2026
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	WESTGATE RESORTS	535,718.11	539,743	0.05	3.05	12/20/2030
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	18,105,331.68	18,716,040	1.62	0.125	4/15/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	EXETER AUTOMOBILE RECEIVABLES	415,003.32	415,549	0.04	2.84	8/16/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	18,289,432.08	19,279,251	1.63	0.375	7/15/2027
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TRIP RAIL MASTER FUNDING LLC	238,249.60	240,263	0.02	2.709	8/15/2047
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	MVW OWNER TRUST	154,000.33	156,980	0.01	2.42	12/20/2034
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DT AUTO OWNER TRUST	722,134.07	723,374	0.06	2.4	5/17/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	2,542,905.14	2,550,000	0.23	3.08988	10/25/2065
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	OSCAR US FUNDING TRUST	461,212.94	463,201	0.04	2.13	11/10/2020
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	HERTZ VEHICLE FINANCING LLC	728,046.59	730,000	0.07	3.56	10/25/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	CPS AUTO TRUST	543,826.96	545,658	0.05	1.87	3/15/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	MARLETTE FUNDING TRUST	206,102.89	206,773	0.02	2.36	12/15/2024
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SMB PRIVATE EDUCATION LOAN TRU	296,222.88	296,606	0.03	2.72513	6/17/2024
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	248,255.72	248,945	0.02	1.87	11/25/2042
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	FLAGSHIP CREDIT AUTO TRUST	2,168,632.61	2,190,000	0.19	2.66	10/17/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	FLAGSHIP CREDIT AUTO TRUST	1,202,309.23	1,210,458	0.11	2.07	4/15/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	FIRST INVESTORS AUTO OWNER TRU	832,789.11	836,965	0.07	2	3/15/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	COUNTRYWIDE ASSET BACKED CERTI	25,128.26	25,380	0.00	2.77513	9/25/2034
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	10,878,540.83	10,061,325	0.97	2.375	1/15/2025
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	8,158,483.21	7,644,300	0.73	2	1/15/2026
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	RAAC SERIES	1,535.26	1,535	0.00	2.75625	2/25/2037
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	817,096.88	859,632	0.07	2.68988	1/25/2038

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	GCCFC COMMERCIAL MORTGAGE TRUS	277,160.22	274,564	0.02	5.66622	7/10/2038
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	ACCESS GROUP INC	667,430.07	693,864	0.06	3.39375	9/22/2037
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	700,507.54	710,120	0.06	2.59988	10/25/2033
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	1,235,253.38	1,247,060	0.11	2.92375	3/23/2037
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	390,843.91	391,800	0.03	2.78988	7/25/2025
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	632,142.69	636,816	0.06	2.62988	10/25/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	414,898.72	438,674	0.04	2.79988	1/25/2055
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	LOUISIANA ST PUBLIC FACS AUTH	96,128.60	96,041	0.01	3.38988	4/26/2027
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	420,406.34	448,614	0.04	2.70988	1/25/2041
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	384,517.80	404,491	0.03	2.68988	1/25/2070
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	1,711,564.80	1,760,000	0.15	2.63988	3/25/2044
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	907,666.96	968,333	0.08	2.70988	3/25/2044
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	360,838.08	392,720	0.03	3.07163	6/25/2041
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	KEYCORP STUDENT LOAN TRUST	150,972.86	151,344	0.01	3.13163	9/27/2035
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	7,198,053.96	6,520,384	0.64	2.375	1/15/2027
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	947,220.32	992,853	0.08	2.99375	3/23/2037
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	ACCESS GROUP INC	68,786.33	70,461	0.01	3.59	7/1/2038
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	609,167.39	606,403	0.05	3.65513	12/15/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	18,402,047.82	19,217,160	1.64	0.25	1/15/2025
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	122,790.83	122,219	0.01	3.70625	3/25/2033
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SEQUOIA MORTGAGE TRUST	730,922.04	756,844	0.07	2.5	1/25/2045
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	KENTUCKY ST HGR EDU STUDENT LO	391,300.73	390,691	0.03	3.099	12/1/2031
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	7,939,399.72	8,880,657	0.71	0.75	2/15/2045
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	OSCAR US FUNDING TRUST	530,564.42	532,163	0.05	2.44	6/15/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	510,205.52	512,107	0.05	3.05	3/22/2032
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SANTANDER DRIVE AUTO RECEIVABL	218,091.30	218,261	0.02	2.44	4/15/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	EDUCATIONAL SERVICES OF AMERIC	513,263.65	513,261	0.05	3.30625	10/25/2056
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	5,755,596.74	4,690,320	0.51	3.625	4/15/2028
MML INFLATION-PROTECTED & INCOME FUND	CASH	US DOLLAR	(225,360.72)	(225,361)	0.02	0	
MML INFLATION-PROTECTED & INCOME FUND	CASH	EURO CURRENCY	0.14	0	0.00	0	
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	8,766,009.51	6,891,136	0.78	3.875	4/15/2029
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	3,653,519.62	2,849,240	0.33	3.375	4/15/2032
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	700,000.00	700,000	0.06	4.48	6/15/2030
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	550,000.00	550,000	0.05	4.49	6/15/2030
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	KEYCORP STUDENT LOAN TRUST	298,634.78	301,054	0.03	3.00925	5/25/2029
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	COLLEGE LOAN CORPORATON TRUST	492,694.88	522,580	0.04	2.92631	1/15/2037
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	434,349.39	428,352	0.04	4.95513	1/15/2043
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BM1047976 CDS USD R F 3.00000	377,433.33	450,000	0.03	3	11/17/2045
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	CAZENOVIA CREEK FUNDING LLC	103,083.89	103,667	0.01	2	12/10/2023
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	404,330.71	409,428	0.04	2.43	6/20/2032
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	1,183,253.65	1,188,980	0.11	3.02	6/20/2032
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	20,101,979.91	20,851,888	1.80	0.375	7/15/2025
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	ELARA HGV TIMESHARE ISSUER	153,932.69	157,940	0.01	3.02	2/25/2027
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	72,541.51	73,374	0.01	2.54	4/27/2026
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	GENERAL MOTORS FINL CO	1,720,851.92	1,720,000	0.15	4.49631	1/15/2019
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	39,145.27	39,349	0.00	3.08	9/20/2032
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	FLAGSHIP CREDIT AUTO TRUST	249,083.63	249,226	0.02	2.38	10/15/2020
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	BLUE VIRGO	265,957.45	265,957	0.02	3	12/15/2022
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DIAMOND RESORTS OWNER TRUST	94,224.69	94,579	0.01	3.54	5/22/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	WESTGATE RESORTS	246,671.21	247,167	0.02	3.2	7/20/2028
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	ENTERPRISE FLEET FINANCING LLC	10,527.64	10,534	0.00	1.83	9/20/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	FLAGSHIP CREDIT AUTO TRUST	74,991.79	75,023	0.01	2.77	12/15/2020

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	111,498.97	109,188	0.01	4.50625	4/25/2040
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	427,352.93	422,063	0.04	4.25625	8/25/2036
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	1,288,642.86	1,345,532	0.12	2.83988	10/25/2040
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	TSY INFL IX N/B	17,533,148.22	18,031,117	1.57	0.125	4/15/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	NEXTGEAR FLOORPLAN MASTER OWNE	963,597.79	960,000	0.09	4.15513	4/15/2021
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	EARNEST STUDENT LOAN PROGRAM L	328,331.29	323,734	0.03	4.55625	2/26/2035
MML INFLATION-PROTECTED & INCOME FUND	FIXED INCOME	DELL INT LLC / EMC CORP	1,096,749.23	1,100,000	0.10	3.48	6/1/2019
MML GROWTH & INCOME FUND	EQUITY	ARAMARK	761,737.18	26,294	0.60	0	
MML GROWTH & INCOME FUND	EQUITY	MEDTRONIC PLC	3,289,295.52	36,162	2.60	0	
MML GROWTH & INCOME FUND	EQUITY	ALPHABET INC CL C	1,691,151.13	1,633	1.34	0	
MML GROWTH & INCOME FUND	EQUITY	ALPHABET INC CL A	4,302,100.32	4,117	3.40	0	
MML GROWTH & INCOME FUND	EQUITY	CHUBB LTD	1,500,942.42	11,619	1.19	0	
MML GROWTH & INCOME FUND	EQUITY	FORTIVE CORP W/D	926,671.36	13,696	0.73	0	
MML GROWTH & INCOME FUND	EQUITY	DXC TECHNOLOGY CO	1,309,523.93	24,629	1.03	0	
MML GROWTH & INCOME FUND	EQUITY	ELANCO ANIMAL HEALTH INC	57,826.02	1,834	0.05	0	
MML GROWTH & INCOME FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	1,091,438.70	1,091,439	0.86	1.25	1/2/2019
MML GROWTH & INCOME FUND	EQUITY	ELECTRONIC ARTS INC	1,250,407.86	15,846	0.99	0	
MML GROWTH & INCOME FUND	EQUITY	ENTERPRISE PRODUCTS PARTNERS	1,928,937.96	78,444	1.52	0	
MML GROWTH & INCOME FUND	EQUITY	ESTEE LAUDER COMPANIES CL A	771,883.30	5,933	0.61	0	
MML GROWTH & INCOME FUND	EQUITY	CANADIAN NATL RAILWAY CO	2,101,463.16	28,356	1.66	0	
MML GROWTH & INCOME FUND	EQUITY	MCKESSON CORP	1,092,327.36	9,888	0.86	0	
MML GROWTH & INCOME FUND	EQUITY	CORE LABORATORIES N.V.	370,667.58	6,213	0.29	0	
MML GROWTH & INCOME FUND	EQUITY	EOG RESOURCES INC	2,146,674.15	24,615	1.70	0	
MML GROWTH & INCOME FUND	EQUITY	AMERICAN ELECTRIC POWER	676,247.52	9,048	0.53	0	
MML GROWTH & INCOME FUND	EQUITY	THERMO FISHER SCIENTIFIC INC	3,036,158.93	13,567	2.40	0	
MML GROWTH & INCOME FUND	EQUITY	TRACTOR SUPPLY COMPANY	1,833,093.36	21,969	1.45	0	
MML GROWTH & INCOME FUND	EQUITY	AMETEK INC	1,326,716.90	19,597	1.05	0	
MML GROWTH & INCOME FUND	EQUITY	COGNIZANT TECH SOLUTIONS A	2,262,173.28	35,636	1.79	0	
MML GROWTH & INCOME FUND	EQUITY	DIAGEO PLC	1,233,431.15	34,702	0.97	0	
MML GROWTH & INCOME FUND	EQUITY	PERNOD RICARD SA	1,859,535.79	11,325	1.47	0	
MML GROWTH & INCOME FUND	EQUITY	HONEYWELL INTERNATIONAL INC	2,290,168.08	17,334	1.81	0	
MML GROWTH & INCOME FUND	EQUITY	APPLE INC	1,348,203.78	8,547	1.06	0	
MML GROWTH & INCOME FUND	EQUITY	CISCO SYSTEMS INC	1,350,942.74	31,178	1.07	0	
MML GROWTH & INCOME FUND	EQUITY	WALT DISNEY CO/THE	794,304.60	7,244	0.63	0	
MML GROWTH & INCOME FUND	EQUITY	MORGAN STANLEY	1,506,025.95	37,983	1.19	0	
MML GROWTH & INCOME FUND	EQUITY	KIMBERLY CLARK CORP	1,107,268.92	9,718	0.87	0	
MML GROWTH & INCOME FUND	EQUITY	BANK OF AMERICA CORP	3,101,486.08	125,872	2.45	0	
MML GROWTH & INCOME FUND	CASH	US DOLLAR	3.27	3	0.00	0	
MML GROWTH & INCOME FUND	EQUITY	ABBOTT LABORATORIES	1,396,041.33	19,301	1.10	0	
MML GROWTH & INCOME FUND	EQUITY	TEXAS INSTRUMENTS INC	2,057,359.50	21,771	1.62	0	
MML GROWTH & INCOME FUND	EQUITY	COSTCO WHOLESALE CORP	1,452,452.30	7,130	1.15	0	
MML GROWTH & INCOME FUND	EQUITY	JOHNSON + JOHNSON	3,980,160.10	30,842	3.14	0	
MML GROWTH & INCOME FUND	EQUITY	ELI LILLY + CO	1,719,599.20	14,860	1.36	0	
MML GROWTH & INCOME FUND	EQUITY	UNITED TECHNOLOGIES CORP	1,700,805.04	15,973	1.34	0	
MML GROWTH & INCOME FUND	EQUITY	NIKE INC CL B	1,547,375.94	20,871	1.22	0	
MML GROWTH & INCOME FUND	EQUITY	ANALOG DEVICES INC	1,128,750.33	13,151	0.89	0	
MML GROWTH & INCOME FUND	EQUITY	SHERWIN WILLIAMS CO/THE	1,828,015.16	4,646	1.44	0	
MML GROWTH & INCOME FUND	EQUITY	NEWELL BRANDS INC	1,197,549.21	64,419	0.95	0	
MML GROWTH & INCOME FUND	CASH	EURO CURRENCY	54.80	48	0.00	0	
MML GROWTH & INCOME FUND	EQUITY	COLGATE PALMOLIVE CO	1,582,339.20	26,585	1.25	0	
MML GROWTH & INCOME FUND	EQUITY	GOLDMAN SACHS GROUP INC	1,668,662.45	9,989	1.32	0	
MML GROWTH & INCOME FUND	EQUITY	ROSS STORES INC	1,696,947.20	20,396	1.34	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML GROWTH & INCOME FUND	EQUITY	SCHLUMBERGER LTD	1,514,710.56	41,982	1.20	0	
MML GROWTH & INCOME FUND	EQUITY	PPG INDUSTRIES INC	1,296,071.94	12,678	1.02	0	
MML GROWTH & INCOME FUND	EQUITY	ADOBE INC	1,623,950.72	7,178	1.28	0	
MML GROWTH & INCOME FUND	EQUITY	AMDOCS LTD	1,687,338.32	28,804	1.33	0	
MML GROWTH & INCOME FUND	EQUITY	DANAHER CORP	3,320,257.76	32,198	2.62	0	
MML GROWTH & INCOME FUND	EQUITY	STARBUCKS CORP	2,380,288.40	36,961	1.88	0	
MML GROWTH & INCOME FUND	EQUITY	LVMH MOET HENNESSY LOUIS VUI	1,372,553.51	4,671	1.08	0	
MML GROWTH & INCOME FUND	EQUITY	NASDAQ INC	1,930,517.19	23,667	1.52	0	
MML GROWTH & INCOME FUND	EQUITY	FLUOR CORP	505,314.60	15,693	0.40	0	
MML GROWTH & INCOME FUND	EQUITY	JPMORGAN CHASE + CO	3,966,300.60	40,630	3.13	0	
MML GROWTH & INCOME FUND	EQUITY	US BANCORP	1,383,384.70	30,271	1.09	0	
MML GROWTH & INCOME FUND	EQUITY	COMCAST CORP CLASS A	2,715,181.05	79,741	2.14	0	
MML GROWTH & INCOME FUND	EQUITY	CROWN HOLDINGS INC	1,332,360.07	32,051	1.05	0	
MML GROWTH & INCOME FUND	EQUITY	BIOGEN INC	1,384,833.84	4,602	1.09	0	
MML GROWTH & INCOME FUND	EQUITY	SALESFORCE.COM INC	823,600.61	6,013	0.65	0	
MML GROWTH & INCOME FUND	EQUITY	TD AMERITRADE HOLDING CORP	773,616.96	15,801	0.61	0	
MML GROWTH & INCOME FUND	EQUITY	FIDELITY NATIONAL INFO SERV	2,757,569.50	26,890	2.18	0	
MML GROWTH & INCOME FUND	EQUITY	MASTERCARD INC A	2,690,714.95	14,263	2.13	0	
MML GROWTH & INCOME FUND	EQUITY	DANONE	1,762,338.17	25,005	1.39	0	
MML GROWTH & INCOME FUND	EQUITY	BLACKSTONE GROUP LP/THE	1,063,948.71	35,691	0.84	0	
MML GROWTH & INCOME FUND	EQUITY	DOLLAR TREE INC	850,904.72	9,421	0.67	0	
MML GROWTH & INCOME FUND	EQUITY	VISA INC CLASS A SHARES	4,061,772.90	30,785	3.21	0	
MML GROWTH & INCOME FUND	EQUITY	ACCENTURE PLC CL A	2,224,714.77	15,777	1.76	0	
MML GROWTH & INCOME FUND	EQUITY	TE CONNECTIVITY LTD	1,139,441.58	15,066	0.90	0	
MML GROWTH & INCOME FUND	EQUITY	AMERICAN TOWER CORP	3,647,070.45	23,055	2.88	0	
MML GROWTH & INCOME FUND	EQUITY	FACEBOOK INC CLASS A	1,692,371.90	12,910	1.34	0	
MML GROWTH & INCOME FUND	EQUITY	MONDELEZ INTERNATIONAL INC A	2,353,083.49	58,783	1.86	0	
MML GROWTH & INCOME FUND	EQUITY	MICROSOFT CORP	1,906,367.33	18,769	1.51	0	
MML GROWTH & INCOME FUND	EQUITY	ZOETIS INC	1,182,333.88	13,822	0.93	0	
MML SMALL COMPANY VALUE FUND	EQUITY	HILLENBRAND INC	346,300.90	9,130	0.40	0	
MML SMALL COMPANY VALUE FUND	EQUITY	CLEARWATER PAPER CORP	190,086.00	7,800	0.22	0	
MML SMALL COMPANY VALUE FUND	EQUITY	VIRTUS INVESTMENT PARTNERS	254,176.00	3,200	0.29	0	
MML SMALL COMPANY VALUE FUND	EQUITY	ROSETTA STONE INC	332,920.00	20,300	0.38	0	
MML SMALL COMPANY VALUE FUND	EQUITY	SELECT MEDICAL HOLDINGS CORP	586,370.00	38,200	0.68	0	
MML SMALL COMPANY VALUE FUND	EQUITY	PCSB FINANCIAL CORP	367,982.28	18,813	0.42	0	
MML SMALL COMPANY VALUE FUND	EQUITY	JBG SMITH PROPERTIES	603,152.87	17,327	0.70	0	
MML SMALL COMPANY VALUE FUND	EQUITY	CISION LTD	462,910.50	39,565	0.53	0	
MML SMALL COMPANY VALUE FUND	EQUITY	SIMPLY GOOD FOODS CO/THE	474,579.00	25,110	0.55	0	
MML SMALL COMPANY VALUE FUND	EQUITY	PDL COMMUNITY BANCORP	239,308.16	18,784	0.28	0	
MML SMALL COMPANY VALUE FUND	EQUITY	STERLING BANCORP INC/MI	148,882.90	21,422	0.17	0	
MML SMALL COMPANY VALUE FUND	EQUITY	CERIDIAN HCM HOLDING INC	348,038.59	10,091	0.40	0	
MML SMALL COMPANY VALUE FUND	EQUITY	ORIGIN BANCORP INC	282,864.00	8,300	0.33	0	
MML SMALL COMPANY VALUE FUND	EQUITY	I3 VERTICALS INC CLASS A	325,350.00	13,500	0.38	0	
MML SMALL COMPANY VALUE FUND	EQUITY	BJ S WHOLESALE CLUB HOLDINGS	189,623.12	8,557	0.22	0	
MML SMALL COMPANY VALUE FUND	EQUITY	WPX ENERGY INC	673,055.00	59,300	0.78	0	
MML SMALL COMPANY VALUE FUND	EQUITY	POST HOLDINGS INC	668,475.00	7,500	0.77	0	
MML SMALL COMPANY VALUE FUND	EQUITY	MATADOR RESOURCES CO	554,421.00	35,700	0.64	0	
MML SMALL COMPANY VALUE FUND	EQUITY	FOCUS FINANCIAL PARTNERS A	78,516.06	2,982	0.09	0	
MML SMALL COMPANY VALUE FUND	EQUITY	STRATEGIC EDUCATION INC	922,218.02	8,131	1.06	0	
MML SMALL COMPANY VALUE FUND	EQUITY	GARRETT MOTION INC	372,668.00	30,200	0.43	0	
MML SMALL COMPANY VALUE FUND	EQUITY	SVMK INC	22,294.59	1,817	0.03	0	
MML SMALL COMPANY VALUE FUND	EQUITY	UPWORK INC	37,451.48	2,068	0.04	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SMALL COMPANY VALUE FUND	EQUITY	PENNYMAC FINANCIAL SERVICES	386,932.00	18,200	0.45	0	
MML SMALL COMPANY VALUE FUND	EQUITY	KOSMOS ENERGY LTD	177,452.00	43,600	0.20	0	
MML SMALL COMPANY VALUE FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	3,299,179.37	3,299,179	3.80	1.25	1/2/2019
MML SMALL COMPANY VALUE FUND	EQUITY	LCI INDUSTRIES	434,200.00	6,500	0.50	0	
MML SMALL COMPANY VALUE FUND	EQUITY	KEANE GROUP INC	476,771.30	58,285	0.55	0	
MML SMALL COMPANY VALUE FUND	EQUITY	JAGGED PEAK ENERGY INC	304,991.04	33,442	0.35	0	
MML SMALL COMPANY VALUE FUND	EQUITY	HOWARD BANCORP INC	239,410.60	16,742	0.28	0	
MML SMALL COMPANY VALUE FUND	EQUITY	BOOT BARN HOLDINGS INC	103,201.80	6,060	0.12	0	
MML SMALL COMPANY VALUE FUND	EQUITY	BENEFICIAL BANCORP INC	536,203.67	37,523	0.62	0	
MML SMALL COMPANY VALUE FUND	EQUITY	AVANOS MEDICAL INC	855,489.00	19,100	0.99	0	
MML SMALL COMPANY VALUE FUND	EQUITY	HOULIHAN LOKEY INC	387,356.80	10,526	0.45	0	
MML SMALL COMPANY VALUE FUND	EQUITY	ATLANTIC CAPITAL BANCSHARES	304,842.14	18,622	0.35	0	
MML SMALL COMPANY VALUE FUND	EQUITY	HOPE BANCORP INC	377,148.00	31,800	0.43	0	
MML SMALL COMPANY VALUE FUND	EQUITY	FB FINANCIAL CORP	537,557.00	15,350	0.62	0	
MML SMALL COMPANY VALUE FUND	EQUITY	CENTENNIAL RESOURCE DEVELO A	607,202.00	55,100	0.70	0	
MML SMALL COMPANY VALUE FUND	EQUITY	CONDUENT INC	459,216.00	43,200	0.53	0	
MML SMALL COMPANY VALUE FUND	EQUITY	INTERNATIONAL SEAWAYS INC	442,892.00	26,300	0.51	0	
MML SMALL COMPANY VALUE FUND	EQUITY	BLUE BIRD CORP	289,221.00	15,900	0.33	0	
MML SMALL COMPANY VALUE FUND	EQUITY	PARTY CITY HOLDCO INC	296,954.90	29,755	0.34	0	
MML SMALL COMPANY VALUE FUND	EQUITY	NOMAD FOODS LTD	1,075,096.00	64,300	1.24	0	
MML SMALL COMPANY VALUE FUND	EQUITY	CABLE ONE INC	872,586.40	1,064	1.01	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SMALL COMPANY VALUE FUND	EQUITY	PORTLAND GENERAL ELECTRIC CO	531,860.00	11,600	0.61		0
MML SMALL COMPANY VALUE FUND	EQUITY	POOL CORP	906,765.00	6,100	1.05		0
MML SMALL COMPANY VALUE FUND	EQUITY	DORMAN PRODUCTS INC	891,198.00	9,900	1.03		0
MML SMALL COMPANY VALUE FUND	EQUITY	HOME BANCSHARES INC	1,298,213.00	79,450	1.50		0
MML SMALL COMPANY VALUE FUND	EQUITY	BELDEN INC	1,138,650.20	27,260	1.31		0
MML SMALL COMPANY VALUE FUND	EQUITY	AMERICAN CAMPUS COMMUNITIES	517,375.00	12,500	0.60		0
MML SMALL COMPANY VALUE FUND	EQUITY	RETAIL OPPORTUNITY INVESTMEN	319,188.00	20,100	0.37		0
MML SMALL COMPANY VALUE FUND	EQUITY	LUMBER LIQUIDATORS HOLDINGS	264,237.12	27,756	0.30		0
MML SMALL COMPANY VALUE FUND	EQUITY	TERRENO REALTY CORP	858,148.00	24,400	0.99		0
MML SMALL COMPANY VALUE FUND	EQUITY	MAXLINEAR INC	367,840.00	20,900	0.42		0
MML SMALL COMPANY VALUE FUND	EQUITY	EXPRESS INC	144,613.00	28,300	0.17		0
MML SMALL COMPANY VALUE FUND	EQUITY	CBOE GLOBAL MARKETS INC	275,978.43	2,821	0.32		0
MML SMALL COMPANY VALUE FUND	EQUITY	GREEN DOT CORP CLASS A	1,509,289.60	18,980	1.74		0
MML SMALL COMPANY VALUE FUND	EQUITY	REALPAGE INC	293,959.00	6,100	0.34		0
MML SMALL COMPANY VALUE FUND	EQUITY	VISTEON CORP	192,896.00	3,200	0.22		0
MML SMALL COMPANY VALUE FUND	EQUITY	BANKUNITED INC	904,188.00	30,200	1.04		0
MML SMALL COMPANY VALUE FUND	EQUITY	THERMON GROUP HOLDINGS INC	328,536.00	16,200	0.38		0
MML SMALL COMPANY VALUE FUND	EQUITY	AEGION CORP	548,352.00	33,600	0.63		0
MML SMALL COMPANY VALUE FUND	EQUITY	MARRIOTT VACATIONS WORLD	241,990.32	3,432	0.28		0
MML SMALL COMPANY VALUE FUND	EQUITY	POPULAR INC	750,798.00	15,900	0.87		0
MML SMALL COMPANY VALUE FUND	EQUITY	NATIONAL BANK HOLD CL A	731,619.00	23,700	0.84		0
MML SMALL COMPANY VALUE FUND	EQUITY	CONSTELLIUM NV CLASS A	248,145.00	35,500	0.29		0
MML SMALL COMPANY VALUE FUND	EQUITY	FRANK S INTERNATIONAL NV	524,610.00	100,500	0.61		0
MML SMALL COMPANY VALUE FUND	EQUITY	GTT COMMUNICATIONS INC	331,240.00	14,000	0.38		0
MML SMALL COMPANY VALUE FUND	EQUITY	ONE GAS INC	1,146,240.00	14,400	1.32		0
MML SMALL COMPANY VALUE FUND	EQUITY	KNOWLES CORP	578,985.00	43,500	0.67		0
MML SMALL COMPANY VALUE FUND	EQUITY	MSA SAFETY INC	461,923.00	4,900	0.53		0
MML SMALL COMPANY VALUE FUND	EQUITY	Q2 HOLDINGS INC	356,760.00	7,200	0.41		0
MML SMALL COMPANY VALUE FUND	EQUITY	UNITED FINANCIAL BANCORP INC	530,670.00	36,100	0.61		0
MML SMALL COMPANY VALUE FUND	EQUITY	ZENDESK INC	396,916.00	6,800	0.46		0
MML SMALL COMPANY VALUE FUND	EQUITY	SPARTANNASH CO	276,752.62	16,109	0.32		0
MML SMALL COMPANY VALUE FUND	EQUITY	MERIDIAN BANCORP INC	438,192.00	30,600	0.51		0
MML SMALL COMPANY VALUE FUND	EQUITY	AMERICAN PUBLIC EDUCATION	461,564.28	16,218	0.53		0
MML SMALL COMPANY VALUE FUND	EQUITY	ENSIGN GROUP INC/THE	907,686.00	23,400	1.05		0
MML SMALL COMPANY VALUE FUND	EQUITY	GLACIER BANCORP INC	875,602.00	22,100	1.01		0
MML SMALL COMPANY VALUE FUND	EQUITY	MATTHEWS INTL CORP CLASS A	199,038.00	4,900	0.23		0
MML SMALL COMPANY VALUE FUND	EQUITY	METHODE ELECTRONICS INC	174,675.00	7,500	0.20		0
MML SMALL COMPANY VALUE FUND	EQUITY	SAUL CENTERS INC	486,366.00	10,300	0.56		0
MML SMALL COMPANY VALUE FUND	EQUITY	EASTGROUP PROPERTIES INC	898,954.00	9,800	1.04		0
MML SMALL COMPANY VALUE FUND	EQUITY	HARMONIC INC	612,330.32	129,731	0.71		0
MML SMALL COMPANY VALUE FUND	EQUITY	HEALTHCARE REALTY TRUST INC	773,568.00	27,200	0.89		0
MML SMALL COMPANY VALUE FUND	EQUITY	KILROY REALTY CORP	477,888.00	7,600	0.55		0
MML SMALL COMPANY VALUE FUND	EQUITY	PS BUSINESS PARKS INC/CA	694,300.00	5,300	0.80		0
MML SMALL COMPANY VALUE FUND	EQUITY	WASHINGTON REIT	443,900.00	19,300	0.51		0
MML SMALL COMPANY VALUE FUND	EQUITY	WEBSTER FINANCIAL CORP	664,182.75	13,475	0.77		0
MML SMALL COMPANY VALUE FUND	CASH	US DOLLAR	2.19	2	0.00		0
MML SMALL COMPANY VALUE FUND	EQUITY	MINERALS TECHNOLOGIES INC	467,194.00	9,100	0.54		0
MML SMALL COMPANY VALUE FUND	EQUITY	PROASSURANCE CORP	636,792.00	15,700	0.73		0
MML SMALL COMPANY VALUE FUND	EQUITY	PNM RESOURCES INC	969,724.00	23,600	1.12		0
MML SMALL COMPANY VALUE FUND	EQUITY	RED ROBIN GOURMET BURGERS	173,680.00	6,500	0.20		0
MML SMALL COMPANY VALUE FUND	EQUITY	MGE ENERGY INC	311,792.00	5,200	0.36		0
MML SMALL COMPANY VALUE FUND	EQUITY	SAFETY INSURANCE GROUP INC	400,869.00	4,900	0.46		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SMALL COMPANY VALUE FUND	CASH EQUIVALENT	ROWE T PRICE GOV RES FD	1,036.15	1,036	0.00	0.01	9/19/2034
MML SMALL COMPANY VALUE FUND	EQUITY	ACADIA REALTY TRUST	392,040.00	16,500	0.45	0	
MML SMALL COMPANY VALUE FUND	EQUITY	PROSPERITY BANCSHARES INC	735,140.00	11,800	0.85	0	
MML SMALL COMPANY VALUE FUND	EQUITY	HERITAGE COMMERCE CORP	258,552.00	22,800	0.30	0	
MML SMALL COMPANY VALUE FUND	EQUITY	RGC RESOURCES INC	121,757.44	4,064	0.14	0	
MML SMALL COMPANY VALUE FUND	EQUITY	RUDOLPH TECHNOLOGIES INC	229,264.00	11,200	0.26	0	
MML SMALL COMPANY VALUE FUND	EQUITY	WINTRUST FINANCIAL CORP	664,900.00	10,000	0.77	0	
MML SMALL COMPANY VALUE FUND	EQUITY	SCHOLASTIC CORP	342,210.00	8,500	0.39	0	
MML SMALL COMPANY VALUE FUND	EQUITY	BOK FINANCIAL CORPORATION	467,478.75	6,375	0.54	0	
MML SMALL COMPANY VALUE FUND	EQUITY	ST JOE CO/THE	370,077.00	28,100	0.43	0	
MML SMALL COMPANY VALUE FUND	EQUITY	TOWNE BANK	764,005.00	31,900	0.88	0	
MML SMALL COMPANY VALUE FUND	EQUITY	CARPENTER TECHNOLOGY	548,394.00	15,400	0.63	0	
MML SMALL COMPANY VALUE FUND	EQUITY	RADIAN GROUP INC	602,048.00	36,800	0.69	0	
MML SMALL COMPANY VALUE FUND	EQUITY	ATRION CORPORATION	1,296,890.00	1,750	1.50	0	
MML SMALL COMPANY VALUE FUND	EQUITY	CSS INDUSTRIES INC	110,268.21	12,293	0.13	0	
MML SMALL COMPANY VALUE FUND	EQUITY	CHESAPEAKE UTILITIES CORP	1,065,030.00	13,100	1.23	0	
MML SMALL COMPANY VALUE FUND	EQUITY	CIRCOR INTERNATIONAL INC	343,973.70	16,149	0.40	0	
MML SMALL COMPANY VALUE FUND	EQUITY	COLUMBIA BANKING SYSTEM INC	936,282.00	25,800	1.08	0	
MML SMALL COMPANY VALUE FUND	EQUITY	CUBIC CORP	688,355.66	12,809	0.79	0	
MML SMALL COMPANY VALUE FUND	EQUITY	CULP INC	279,720.00	14,800	0.32	0	
MML SMALL COMPANY VALUE FUND	EQUITY	ESCO TECHNOLOGIES INC	804,590.00	12,200	0.93	0	
MML SMALL COMPANY VALUE FUND	EQUITY	FTI CONSULTING INC	833,000.00	12,500	0.96	0	
MML SMALL COMPANY VALUE FUND	EQUITY	GENESEE + WYOMING INC CL A	662,479.00	8,950	0.76	0	
MML SMALL COMPANY VALUE FUND	EQUITY	LYDALL INC	172,635.00	8,500	0.20	0	
MML SMALL COMPANY VALUE FUND	EQUITY	MESA LABORATORIES INC	500,136.00	2,400	0.58	0	
MML SMALL COMPANY VALUE FUND	EQUITY	MONRO INC	295,625.00	4,300	0.34	0	
MML SMALL COMPANY VALUE FUND	EQUITY	OCEANEERING INTL INC	302,500.00	25,000	0.35	0	
MML SMALL COMPANY VALUE FUND	EQUITY	PRICESMART INC	336,870.00	5,700	0.39	0	
MML SMALL COMPANY VALUE FUND	EQUITY	QUIDEL CORP	1,024,585.34	20,987	1.18	0	
MML SMALL COMPANY VALUE FUND	EQUITY	RELIANCE STEEL + ALUMINUM	348,733.00	4,900	0.40	0	
MML SMALL COMPANY VALUE FUND	EQUITY	SOUTH JERSEY INDUSTRIES	101,887.00	3,665	0.12	0	
MML SMALL COMPANY VALUE FUND	EQUITY	STATE AUTO FINANCIAL CORP	496,984.00	14,600	0.57	0	
MML SMALL COMPANY VALUE FUND	EQUITY	TETRA TECHNOLOGIES INC	235,872.00	140,400	0.27	0	
MML SMALL COMPANY VALUE FUND	EQUITY	TRIUMPH GROUP INC	511,175.00	44,450	0.59	0	
MML SMALL COMPANY VALUE FUND	EQUITY	UNIVERSAL FOREST PRODUCTS	490,644.00	18,900	0.57	0	
MML SMALL COMPANY VALUE FUND	EQUITY	BRINK S CO/THE	226,275.00	3,500	0.26	0	
MML SMALL COMPANY VALUE FUND	EQUITY	CAVCO INDUSTRIES INC	638,862.00	4,900	0.74	0	
MML SMALL COMPANY VALUE FUND	EQUITY	MOLINA HEALTHCARE INC	825,162.00	7,100	0.95	0	
MML SMALL COMPANY VALUE FUND	EQUITY	TEXAS CAPITAL BANCSHARES INC	475,137.00	9,300	0.55	0	
MML SMALL COMPANY VALUE FUND	EQUITY	CEDAR REALTY TRUST INC	481,085.68	153,212	0.55	0	
MML SMALL COMPANY VALUE FUND	EQUITY	ASSURED GUARANTY LTD	259,614.96	6,782	0.30	0	
MML SMALL COMPANY VALUE FUND	EQUITY	PINNACLE FINANCIAL PARTNERS	396,460.00	8,600	0.46	0	
MML SMALL COMPANY VALUE FUND	EQUITY	MOMENTA PHARMACEUTICALS INC	188,861.28	17,107	0.22	0	
MML SMALL COMPANY VALUE FUND	EQUITY	PATTERSON COS INC	249,682.00	12,700	0.29	0	
MML SMALL COMPANY VALUE FUND	EQUITY	CABOT MICROELECTRONICS CORP	649,905.60	6,816	0.75	0	
MML SMALL COMPANY VALUE FUND	EQUITY	AMERICAN VANGUARD CORP	276,458.00	18,200	0.32	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	MEGGITT PLC	417,785.43	69,838	0.26	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	GRUPO TELEvisa SA SPON ADR	1,670,624.00	132,800	1.04	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	VALEO SA	2,337,433.70	80,610	1.46	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	EXOR NV	3,317,892.82	61,400	2.07	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	FERGUSON PLC	1,923,490.96	30,033	1.20	0	
MML INTERNATIONAL EQUITY FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	6,121,814.89	6,121,815	3.82	1.25	1/2/2019

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML INTERNATIONAL EQUITY FUND	EQUITY	BAYERISCHE MOTOREN WERKE AG	4,677,004.16	57,750	2.92	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	PUBLICIS GROUPE	3,067,726.29	53,602	1.91	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	LAFARGEHOLCIM LTD REG	3,156,192.48	76,380	1.97	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	NESTLE SA REG	1,408,943.67	17,330	0.88	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	CREDIT SUISSE GROUP AG REG	5,417,755.49	491,623	3.38	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	BNP PARIBAS	6,027,686.33	133,835	3.76	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	NAVER CORP	1,769,474.10	16,240	1.10	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	BANK MANDIRI PERSERO TBK PT	2,877,007.31	5,612,000	1.79	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	CTrip.COM INTERNATIONAL ADR	148,830.00	5,500	0.09	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	AMP LTD	1,436,818.30	832,394	0.90	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	G4S PLC	1,344,431.75	537,200	0.84	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	BAIDU INC SPON ADR	1,405,989.00	8,865	0.88	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	KUEHNE NAGEL INTL AG REG	1,686,173.54	13,080	1.05	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	EXPERIAN PLC	751,016.03	30,900	0.47	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	BRAMBLES LTD	271,654.68	38,000	0.17	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	VOLVO AB B SHS	2,471,563.01	187,970	1.54	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	SKF AB B SHARES	2,121,158.03	139,300	1.32	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	DANONE	936,742.12	13,291	0.58	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	SMITHS GROUP PLC	1,492,444.19	86,200	0.93	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	RECKITT BENCKISER GROUP PLC	626,201.23	8,200	0.39	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	BUREAU VERITAS SA	1,466,430.29	72,200	0.91	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	ALIMENTATION COUCHE TARD B	616,820.98	12,400	0.38	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	CENOVUS ENERGY INC	2,045,695.87	290,915	1.28	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	GLENCORE PLC	4,611,556.95	1,250,300	2.87	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	ROYAL BANK OF SCOTLAND GROUP	3,199,948.62	1,163,800	1.99	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	ASML HOLDING NV	2,359,907.21	15,125	1.47	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	WPP PLC	2,693,665.39	250,800	1.68	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	LIBERTY GLOBAL PLC A	1,288,936.00	60,400	0.80	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	LIBERTY GLOBAL PLC C	2,299,296.00	111,400	1.43	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	CIE FINANCIERE RICHEMONT REG	2,515,427.41	39,140	1.57	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	CNH INDUSTRIAL NV	4,928,350.13	547,808	3.07	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	AXIS BANK LTD	1,282,333.00	144,142	0.80	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	RYANAIR HOLDINGS PLC SP ADR	3,280,569.90	45,985	2.05	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	WILLIS TOWERS WATSON PLC	1,761,424.14	11,599	1.10	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	SCHRODERS PLC	3,383,564.15	109,100	2.11	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	ASHTREAD GROUP PLC	2,729,834.34	131,759	1.70	0	
MML INTERNATIONAL EQUITY FUND	CASH	INDIAN RUPEE	111.05	7,753	0.00	0	
MML INTERNATIONAL EQUITY FUND	CASH	POUND STERLING	57.19	45	0.00	0	
MML INTERNATIONAL EQUITY FUND	CASH	CANADIAN DOLLAR	131.50	180	0.00	0	
MML INTERNATIONAL EQUITY FUND	CASH	AUSTRALIAN DOLLAR	3.32	5	0.00	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	DIAGEO PLC	1,098,294.69	30,900	0.68	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	LLOYDS BANKING GROUP PLC	5,765,662.41	8,725,600	3.59	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	INTESA SANPAOLO	5,730,622.65	2,585,700	3.57	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	CONTINENTAL AG	5,020,885.05	36,310	3.13	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	PERNOD RICARD SA	444,154.02	2,705	0.28	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	BAYER AG REG	3,910,424.90	56,394	2.44	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	ALLIANZ SE REG	4,211,987.65	20,990	2.63	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	AKZO NOBEL	607,772.66	7,561	0.38	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	DAIMLER AG REGISTERED SHARES	5,820,392.26	110,703	3.63	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	THYSSENKRUPP AG	2,672,357.07	155,700	1.67	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	HENNES + MAURITZ AB B SHS	4,267,008.27	300,418	2.66	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	ACCOR SA	2,408,762.77	56,800	1.50	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML INTERNATIONAL EQUITY FUND	EQUITY	ORICA LTD	2,213,169.39	182,167	1.38	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	KOMATSU LTD	2,334,665.65	109,600	1.46	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	OLYMPUS CORP	1,972,291.85	64,500	1.23	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	OMRON CORP	627,149.94	17,400	0.39	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	TOYOTA MOTOR CORP	2,921,462.95	50,300	1.82	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	NASPERS LTD N SHS	4,500,129.95	22,655	2.81	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	SAMSUNG ELECTRONICS CO LTD	2,081,230.41	60,150	1.30	0	
MML INTERNATIONAL EQUITY FUND	EQUITY	TAIWAN SEMICONDUCTOR MANUFAC	2,446,376.56	337,000	1.53	0	
MML ASSET MOMENTUM FUND	EQUITY	ISHARES MSCI MEXICO ETF	700,060.00	17,000	2.68	0	
MML ASSET MOMENTUM FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	5,136,732.42	5,136,732	19.68	1.25	1/2/2019
MML ASSET MOMENTUM FUND	EQUITY	HENKEL AG + CO KGAA	196,688.04	2,000	0.75	0	
MML ASSET MOMENTUM FUND	EQUITY	KEYENCE CORP	201,592.23	400	0.77	0	
MML ASSET MOMENTUM FUND	CASH	POUND STERLING	(327.36)	(257)	0.00	0	
MML ASSET MOMENTUM FUND	CASH	MEXICAN PESO (NEW)	(17,546.45)	(344,819)	0.07	0	
MML ASSET MOMENTUM FUND	EQUITY	ROPER TECHNOLOGIES INC	293,172.00	1,100	1.12	0	
MML ASSET MOMENTUM FUND	EQUITY	NTT DOCOMO INC	125,747.91	5,600	0.48	0	
MML ASSET MOMENTUM FUND	CASH	US DOLLAR	1,316,676.68	1,316,677	5.05	0	
MML ASSET MOMENTUM FUND	EQUITY	ADVANCED MEDICAL SOLUTIONS	189,816.34	54,425	0.73	0	
MML ASSET MOMENTUM FUND	EQUITY	PORTMEIRION GROUP PLC	67,808.36	5,600	0.26	0	
MML ASSET MOMENTUM FUND	EQUITY	HALMA PLC	304,661.82	17,600	1.17	0	
MML ASSET MOMENTUM FUND	EQUITY	ISHARES MSCI BRAZIL ETF	1,375,200.00	36,000	5.27	0	
MML ASSET MOMENTUM FUND	EQUITY	VANGUARD TOTAL STOCK MARKET ET	2,833,386.00	22,200	10.86	0	
MML ASSET MOMENTUM FUND	EQUITY	SCHINDLER HOLDING PART CERT	139,070.57	700	0.53	0	
MML ASSET MOMENTUM FUND	EQUITY	POOL CORP	758,115.00	5,100	2.91	0	
MML ASSET MOMENTUM FUND	EQUITY	MASTERCARD INC A	999,845.00	5,300	3.83	0	
MML ASSET MOMENTUM FUND	EQUITY	NEXUS AG	95,731.75	3,400	0.37	0	
MML ASSET MOMENTUM FUND	EQUITY	VANGUARD SHORT TERM BOND ETF	6,442,740.00	82,000	24.69	0	
MML ASSET MOMENTUM FUND	EQUITY	VISA INC CLASS A SHARES	290,268.00	2,200	1.11	0	
MML ASSET MOMENTUM FUND	EQUITY	FORTINET INC	619,784.00	8,800	2.37	0	
MML ASSET MOMENTUM FUND	EQUITY	EMIS GROUP PLC	137,262.81	11,800	0.53	0	
MML ASSET MOMENTUM FUND	EQUITY	BREEDON GROUP PLC	66,506.41	88,437	0.25	0	
MML ASSET MOMENTUM FUND	EQUITY	ISHARES MSCI INDIA ETF	220,044.00	6,600	0.84	0	
MML ASSET MOMENTUM FUND	FIXED INCOME	US TREASURY N/B	2,976,308.70	3,000,000	11.41	1.75	11/30/2019
MML ASSET MOMENTUM FUND	FUTURE	S+P500 EMINI FUT MAR19	-	5,550	0.41	0	3/15/2019
MML ASSET MOMENTUM FUND	FUTURE	NASDAQ 100 E-MINI MAR19	-	1,020	0.16	0	3/15/2019
MML ASSET MOMENTUM FUND	EQUITY	RIGHTMOVE PLC	192,322.32	35,000	0.74	0	
MML ASSET MOMENTUM FUND	FUTURE	MEX BOLSA IDX FUT MAR19	-	110	0.00	0	3/15/2019
MML ASSET MOMENTUM FUND	EQUITY	FRESENIUS SE + CO KGAA	285,192.06	5,900	1.09	0	
MML DYNAMIC BOND FUND	CASH	US DOLLAR	2,783.79	2,784	0.00	0	
MML DYNAMIC BOND FUND	FIXED INCOME	SPRINT CAPITAL CORP	75,600.00	80,000	0.02	6.875	11/15/2028
MML DYNAMIC BOND FUND	FIXED INCOME	FORD MOTOR COMPANY	500,046.62	485,000	0.12	7.45	7/16/2031
MML DYNAMIC BOND FUND	FIXED INCOME	MORGAN STANLEY MORTGAGE LOAN T	559,858.51	640,809	0.13	3.682662	7/25/2035
MML DYNAMIC BOND FUND	FIXED INCOME	COUNTRYWIDE ALTERNATIVE LOAN T	1,920,553.44	2,267,827	0.46	6	8/25/2036
MML DYNAMIC BOND FUND	FIXED INCOME	HARBORVIEW MORTGAGE LOAN TRUST	1,276,770.52	1,446,982	0.30	2.63963	12/19/2036
MML DYNAMIC BOND FUND	FIXED INCOME	CITIMORTGAGE ALTERNATIVE LOAN	2,786,329.29	2,935,285	0.66	5.5	4/25/2036
MML DYNAMIC BOND FUND	FIXED INCOME	BANCO BTG PACTUAL LUX	202,040.00	200,000	0.05	8.75	12/29/2049
MML DYNAMIC BOND FUND	FIXED INCOME	REPUBLIC OF PANAMA	201,702.00	200,000	0.05	4	9/22/2024
MML DYNAMIC BOND FUND	FIXED INCOME	CLI FUNDING LLC	390,379.79	393,234	0.09	3.38	10/18/2029
MML DYNAMIC BOND FUND	FIXED INCOME	FNMA POOL AX2501	2,195,391.75	2,142,254	0.52	4	10/1/2044
MML DYNAMIC BOND FUND	FIXED INCOME	VERIZON COMMUNICATIONS	544,542.23	565,000	0.13	4.4	11/1/2034
MML DYNAMIC BOND FUND	FIXED INCOME	GLOBAL BANK CORPORATION	700,350.00	700,000	0.17	5.125	10/30/2019
MML DYNAMIC BOND FUND	FIXED INCOME	JPMBB COMMERCIAL MORTGAGE SECU	189,118.98	5,052,145	0.04	0.942357	11/15/2047

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML DYNAMIC BOND FUND	FIXED INCOME	SPRINT CORP	163,406.10	165,000	0.04	7.125	6/15/2024
MML DYNAMIC BOND FUND	FIXED INCOME	DUKE ENERGY PROGRESS INC	402,887.44	415,000	0.10	4.15	12/1/2044
MML DYNAMIC BOND FUND	FIXED INCOME	EMPRESA ELECTRICA ANGAMO	174,601.44	182,600	0.04	4.875	5/25/2029
MML DYNAMIC BOND FUND	FIXED INCOME	GS MORTGAGE SECURITIES TRUST	1,219,161.31	1,450,000	0.29	4.51038	11/10/2047
MML DYNAMIC BOND FUND	FIXED INCOME	MORGAN STANLEY BAML TRUST	615,489.68	650,000	0.15	4	12/15/2047
MML DYNAMIC BOND FUND	FIXED INCOME	AIR LEASE CORP	465,090.15	470,000	0.11	3.75	2/1/2022
MML DYNAMIC BOND FUND	FIXED INCOME	ONEMAIN FINANCIAL ISSUANCE TRU	582,742.80	583,155	0.14	3.19	3/18/2026
MML DYNAMIC BOND FUND	FIXED INCOME	JPMBB COMMERCIAL MORTGAGE SECU	629,175.57	704,000	0.15	3.843289	2/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	PETSMART INC	107,762.50	185,000	0.03	7.125	3/15/2023
MML DYNAMIC BOND FUND	FIXED INCOME	SPRINGLEAF FUNDING TRUST	752,913.40	753,752	0.18	3.16	11/15/2024
MML DYNAMIC BOND FUND	FIXED INCOME	COUNTRYWIDE ALTERNATIVE LOAN T	2,828,062.69	4,181,611	0.67	6.25	12/25/2036
MML DYNAMIC BOND FUND	FIXED INCOME	JP MORGAN CHASE COMMERCIAL MOR	67,972.39	68,372	0.02	5.464	1/15/2049
MML DYNAMIC BOND FUND	FIXED INCOME	INDYMAC INDX MORTGAGE LOAN TRU	2,697,248.08	2,981,479	0.64	3.594973	5/25/2037
MML DYNAMIC BOND FUND	FIXED INCOME	COUNTRYWIDE HOME LOANS	1,538,975.75	1,770,559	0.37	3.790664	2/25/2047
MML DYNAMIC BOND FUND	FIXED INCOME	INTEROCEANICA IV FINANCE	824,025.64	975,178	0.20	0.01	11/30/2025
MML DYNAMIC BOND FUND	FIXED INCOME	KINDER MORGAN ENER PART	780,744.01	700,000	0.19	6.95	1/15/2038
MML DYNAMIC BOND FUND	FIXED INCOME	CITIGROUP MORTGAGE LOAN TRUST	2,055,883.25	2,168,062	0.49	4.19074	4/25/2037
MML DYNAMIC BOND FUND	FIXED INCOME	COUNTRYWIDE HOME LOANS	1,553,064.89	1,848,346	0.37	6	9/25/2037
MML DYNAMIC BOND FUND	FIXED INCOME	GSAA HOME EQUITY TRUST	3,117,550.12	4,475,150	0.74	6.5	11/25/2037
MML DYNAMIC BOND FUND	FIXED INCOME	RESIDENTIAL FUNDING MTG SEC I	442,494.92	483,751	0.10	6	4/25/2037
MML DYNAMIC BOND FUND	FIXED INCOME	LEHMAN XS TRUST	3,381,710.99	3,652,503	0.80	2.70625	7/25/2047
MML DYNAMIC BOND FUND	FIXED INCOME	STRUCTURED ADJUSTABLE RATE MOR	1,338,104.40	1,469,448	0.32	4.157879	10/25/2037
MML DYNAMIC BOND FUND	FIXED INCOME	COUNTRYWIDE ALTERNATIVE LOAN T	1,914,866.34	2,510,253	0.45	6	5/25/2036
MML DYNAMIC BOND FUND	FIXED INCOME	CALIFORNIA ST	272,184.50	190,000	0.06	7.55	4/1/2039
MML DYNAMIC BOND FUND	FIXED INCOME	MERRILL LYNCH MORTGAGE INVESTO	2,364,869.02	2,533,149	0.56	2.46513	8/25/2037
MML DYNAMIC BOND FUND	FIXED INCOME	NOMURA ASSET ACCEPTANCE CORPOR	2,606,203.03	2,935,387	0.62	4.303617	2/25/2036
MML DYNAMIC BOND FUND	FIXED INCOME	VENTURE CDO LTD	714,857.32	715,390	0.17	2.699	1/20/2022
MML DYNAMIC BOND FUND	FIXED INCOME	COSAN OVERSEAS LTD	503,750.00	500,000	0.12	8.25	11/29/2049
MML DYNAMIC BOND FUND	FIXED INCOME	BOSTON PROPERTIES LP	527,045.99	520,000	0.13	4.125	5/15/2021
MML DYNAMIC BOND FUND	FIXED INCOME	ENGIE ENERGIA CHILE SA	102,251.79	100,000	0.02	5.625	1/15/2021
MML DYNAMIC BOND FUND	FIXED INCOME	VOTORANTIM CIMENTOS INLT	204,500.00	200,000	0.05	7.25	4/5/2041
MML DYNAMIC BOND FUND	FIXED INCOME	KROGER CO	559,184.90	565,000	0.13	3.4	4/15/2022
MML DYNAMIC BOND FUND	FIXED INCOME	LIBERTY MUTUAL GROUP INC	818,280.99	690,000	0.19	6.5	5/1/2042
MML DYNAMIC BOND FUND	FIXED INCOME	HEXION INC	63,800.00	80,000	0.02	6.625	4/15/2020
MML DYNAMIC BOND FUND	FIXED INCOME	CELULOSA ARAUCO CONSTITU	202,202.00	200,000	0.05	4.75	1/11/2022
MML DYNAMIC BOND FUND	FIXED INCOME	BANCO SANTANDER CHILE	149,294.67	150,000	0.04	3.875	9/20/2022
MML DYNAMIC BOND FUND	FIXED INCOME	ENA NORTE TRUST	133,415.52	133,149	0.03	4.95	4/25/2028
MML DYNAMIC BOND FUND	FIXED INCOME	BHARAT PETROLEUM CORP LT	201,248.00	200,000	0.05	4.625	10/25/2022
MML DYNAMIC BOND FUND	FIXED INCOME	INDUSTRIAL SENIOR TRUST	97,250.00	100,000	0.02	5.5	11/1/2022
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	434,916.03	455,000	0.10	2.75	11/15/2042
MML DYNAMIC BOND FUND	FIXED INCOME	COMM MORTGAGE TRUST	370,651.42	738,000	0.09	4.572707	10/15/2045
MML DYNAMIC BOND FUND	FIXED INCOME	AMERICAN ELECTRIC POWER	306,916.45	313,000	0.07	2.95	12/15/2022
MML DYNAMIC BOND FUND	FIXED INCOME	MEXICO GENERADORA DE ENE	164,393.70	172,140	0.04	5.5	12/6/2032
MML DYNAMIC BOND FUND	FIXED INCOME	FED HM LN PC POOL G08520	1,206,189.61	1,268,526	0.29	2.5	1/1/2043
MML DYNAMIC BOND FUND	FIXED INCOME	FONDO MIVIVIENDA SA	144,226.50	150,000	0.03	3.5	1/31/2023
MML DYNAMIC BOND FUND	FIXED INCOME	GS MORTGAGE SECURITIES TRUST	251,790.85	4,965,339	0.06	1.518153	2/10/2046
MML DYNAMIC BOND FUND	FIXED INCOME	FONDO MIVIVIENDA SA	192,302.00	200,000	0.05	3.5	1/31/2023
MML DYNAMIC BOND FUND	FIXED INCOME	BANCO DO BRASIL (CAYMAN)	514,500.00	600,000	0.12	6.25	10/29/2049
MML DYNAMIC BOND FUND	FIXED INCOME	BANCO RESERVAS REP DOMIN	200,000.00	200,000	0.05	7	2/1/2023
MML DYNAMIC BOND FUND	FIXED INCOME	JBS INVESTMENTS GMBH	396,004.00	400,000	0.09	6.25	2/5/2023
MML DYNAMIC BOND FUND	FIXED INCOME	BANCO DE CRED E INVER	197,771.47	200,000	0.05	4	2/11/2023
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	4,049,089.94	3,970,000	0.96	3.125	2/15/2043

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML DYNAMIC BOND FUND	FIXED INCOME	TAL ADVANTAGE LLC	204,629.37	208,333	0.05	2.83	2/22/2038
MML DYNAMIC BOND FUND	FIXED INCOME	BHARTI AIRTEL INTERNATIO	393,195.20	400,000	0.09	5.125	3/11/2023
MML DYNAMIC BOND FUND	FIXED INCOME	INDIAN OIL CORP LTD	631,866.00	600,000	0.15	5.75	8/1/2023
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	4,515,200.14	4,080,000	1.07	3.625	8/15/2043
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	5,135,230.20	5,170,000	1.22	2.125	8/31/2020
MML DYNAMIC BOND FUND	FIXED INCOME	ASHLAND LLC	152,675.00	155,000	0.04	4.75	8/15/2022
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	4,390,718.30	4,430,000	1.04	2	9/30/2020
MML DYNAMIC BOND FUND	FIXED INCOME	EMBOTELLADORA ANDINA SA	318,279.69	310,000	0.08	5	10/1/2023
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	4,990,589.96	5,060,000	1.18	1.75	10/31/2020
MML DYNAMIC BOND FUND	FIXED INCOME	GUANAY FINANCE LTD	329,061.28	327,017	0.08	6	12/15/2020
MML DYNAMIC BOND FUND	FIXED INCOME	FRESNILLO PLC	508,130.00	500,000	0.12	5.5	11/13/2023
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	4,663,458.47	4,130,000	1.11	3.75	11/15/2043
MML DYNAMIC BOND FUND	FIXED INCOME	GRUPO IDESA SA DE CV	279,500.00	400,000	0.07	7.875	12/18/2020
MML DYNAMIC BOND FUND	FIXED INCOME	REPUBLIC OF PHILIPPINES	925,025.40	900,000	0.22	4.2	1/21/2024
MML DYNAMIC BOND FUND	FIXED INCOME	BRASKEM FINANCE LTD	210,002.00	200,000	0.05	6.45	2/3/2024
MML DYNAMIC BOND FUND	FIXED INCOME	VTR FINANCE BV	200,000.00	200,000	0.05	6.875	1/15/2024
MML DYNAMIC BOND FUND	FIXED INCOME	VTR FINANCE BV	200,000.00	200,000	0.05	6.875	1/15/2024

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML DYNAMIC BOND FUND	FIXED INCOME	LCM LTD PARTNERSHIP	981,410.00	1,000,000	0.23	5.88631	7/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	JPMBB COMMERCIAL MORTGAGE SECU	285,296.12	10,295,151	0.07	0.607813	7/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	ALLIANT HOLD / CO ISSUER	261,025.00	265,000	0.06	8.25	8/1/2023
MML DYNAMIC BOND FUND	FIXED INCOME	FED HM LN PC POOL G08658	3,567,034.58	3,645,353	0.85	3	8/1/2045
MML DYNAMIC BOND FUND	FIXED INCOME	WELLS FARGO COMMERCIAL MORTGAG	382,662.27	390,000	0.09	4.542543	9/15/2058
MML DYNAMIC BOND FUND	FIXED INCOME	FED HM LN PC POOL G08632	2,769,406.62	2,762,177	0.66	3.5	3/1/2045
MML DYNAMIC BOND FUND	FIXED INCOME	PILGRIM S PRIDE CORP	239,062.50	255,000	0.06	5.75	3/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	FNMA POOL MA2248	2,467,088.34	2,527,006	0.59	3	4/1/2045
MML DYNAMIC BOND FUND	FIXED INCOME	ZIMMER BIOMET HOLDINGS	564,560.38	570,000	0.13	2.7	4/1/2020
MML DYNAMIC BOND FUND	FIXED INCOME	PETRONAS CAPITAL LTD	785,802.40	800,000	0.19	3.5	3/18/2025
MML DYNAMIC BOND FUND	FIXED INCOME	CSAIL COMMERCIAL MORTGAGE TRUS	361,171.25	9,073,948	0.09	0.915704	4/15/2050
MML DYNAMIC BOND FUND	FIXED INCOME	COMM MORTGAGE TRUST	587,394.60	650,000	0.14	4.12072	3/10/2048
MML DYNAMIC BOND FUND	FIXED INCOME	ALLY FINANCIAL INC	474,600.00	480,000	0.11	4.125	3/30/2020
MML DYNAMIC BOND FUND	FIXED INCOME	COLOMBIA TELECOMUNICACIO	205,502.00	200,000	0.05	8.5	12/29/2049
MML DYNAMIC BOND FUND	FIXED INCOME	JPMBB COMMERCIAL MORTGAGE SECU	353,673.75	8,415,634	0.08	1.11663	10/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	MALAYSIA SOVEREIGN SUKUK	488,055.00	500,000	0.12	3.043	4/22/2025
MML DYNAMIC BOND FUND	FIXED INCOME	BBVA COLOMBIA SA	291,750.00	300,000	0.07	4.875	4/21/2025
MML DYNAMIC BOND FUND	FIXED INCOME	SYDNEY AIRPORT FINANCE	287,928.01	300,000	0.07	3.375	4/30/2025
MML DYNAMIC BOND FUND	FIXED INCOME	EMPRESA ELEC GUACOLDA	176,869.13	200,000	0.04	4.56	4/30/2025
MML DYNAMIC BOND FUND	FIXED INCOME	YPF SOCIEDAD ANONIMA	269,250.00	300,000	0.06	8.5	7/28/2025
MML DYNAMIC BOND FUND	FIXED INCOME	ORACLE CORP	269,669.27	285,000	0.06	4.125	5/15/2045
MML DYNAMIC BOND FUND	FIXED INCOME	ESH HOSPITALITY INC	223,200.00	240,000	0.05	5.25	5/1/2025
MML DYNAMIC BOND FUND	FIXED INCOME	ABBVIE INC	527,459.05	580,000	0.13	4.7	5/14/2045
MML DYNAMIC BOND FUND	FIXED INCOME	SOPHIA LP/FIN INC	310,000.00	310,000	0.07	9	9/30/2023
MML DYNAMIC BOND FUND	FIXED INCOME	FIDELITY NATIONAL INFORM	416,886.47	415,000	0.10	3.625	10/15/2020
MML DYNAMIC BOND FUND	FIXED INCOME	JPMBB COMMERCIAL MORTGAGE SECU	98,317.99	100,000	0.02	4.666899	11/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	FEDEX CORP	513,845.90	545,000	0.12	4.75	11/15/2045
MML DYNAMIC BOND FUND	FIXED INCOME	FANNIE MAE	859,012.53	862,644	0.20	3	1/25/2045
MML DYNAMIC BOND FUND	FIXED INCOME	MORGAN STANLEY BAML TRUST	308,492.08	368,000	0.07	3.06	10/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	WELLS FARGO COMMERCIAL MORTGAG	456,149.96	468,000	0.11	4.607399	11/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	WELLS FARGO COMMERCIAL MORTGAG	365,488.49	6,591,685	0.09	1.066909	11/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	COMM MORTGAGE TRUST	463,264.62	470,000	0.11	4.645447	10/10/2048
MML DYNAMIC BOND FUND	FIXED INCOME	FHLMC MULTIFAMILY STRUCTURED P	354,513.08	350,000	0.08	3.334	8/25/2025
MML DYNAMIC BOND FUND	FIXED INCOME	AXIATA SPV2 BHD	299,475.00	300,000	0.07	3.466	11/19/2020
MML DYNAMIC BOND FUND	FIXED INCOME	LOCKHEED MARTIN CORP	526,225.68	505,000	0.12	4.7	5/15/2046
MML DYNAMIC BOND FUND	FIXED INCOME	GS MORTGAGE SECURITIES TRUST	362,179.67	8,054,827	0.09	0.806246	11/10/2048
MML DYNAMIC BOND FUND	FIXED INCOME	JPMBB COMMERCIAL MORTGAGE SECU	520,341.25	527,000	0.12	4.616988	12/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	CSAIL COMMERCIAL MORTGAGE TRUS	418,925.05	427,000	0.10	4.580993	11/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	3,176,713.40	3,230,000	0.75	1.625	11/30/2020
MML DYNAMIC BOND FUND	FIXED INCOME	WELLS FARGO COMMERCIAL MORTGAG	419,590.96	421,000	0.10	4.598777	12/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	MORGAN STANLEY BAML TRUST	417,888.63	504,000	0.10	3.237	12/15/2047
MML DYNAMIC BOND FUND	FIXED INCOME	MORGAN STANLEY BAML TRUST	339,511.59	351,000	0.08	4.531597	12/15/2047
MML DYNAMIC BOND FUND	FIXED INCOME	CITIGROUP COMMERCIAL MORTGAGE	402,612.02	413,000	0.10	4.49881	11/10/2048
MML DYNAMIC BOND FUND	FIXED INCOME	CITIGROUP COMMERCIAL MORTGAGE	207,390.93	5,266,135	0.05	0.873146	11/10/2048
MML DYNAMIC BOND FUND	FIXED INCOME	MORGAN STANLEY CAPITAL I TRUST	321,337.89	6,422,339	0.08	0.915521	12/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	WELLS FARGO COMMERCIAL MORTGAG	397,579.22	392,000	0.09	3.809	12/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	WELLS FARGO COMMERCIAL MORTGAG	258,279.49	5,428,457	0.06	1.006963	12/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	CASTLELAKE AIRCRAFT SECURITIZA	816,750.42	807,384	0.19	4.703	12/15/2040
MML DYNAMIC BOND FUND	FIXED INCOME	JP MORGAN CHASE COMMERCIAL MOR	236,429.63	5,315,104	0.06	1.120973	1/15/2049
MML DYNAMIC BOND FUND	FIXED INCOME	MISSOURI ST HIGHWAYS TRANSIT	147,270.15	135,000	0.03	5.063	5/1/2024
MML DYNAMIC BOND FUND	FIXED INCOME	AMERICAN TOWER CORP	949,257.98	950,000	0.23	4.4	2/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	CFCRE COMMERCIAL MORTGAGE TRUS	335,569.63	5,728,556	0.08	1.053043	1/10/2048

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML DYNAMIC BOND FUND	FIXED INCOME	COMM MORTGAGE TRUST	506,294.74	517,000	0.12	4.646467	2/10/2049
MML DYNAMIC BOND FUND	FIXED INCOME	CITIGROUP COMMERCIAL MORTGAGE	406,333.92	519,000	0.10	2.85	2/10/2049
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	5,545,985.96	5,710,000	1.32	1.125	2/28/2021
MML DYNAMIC BOND FUND	FIXED INCOME	JPMBB COMMERCIAL MORTGAGE SECU	463,540.87	466,000	0.11	4.738041	3/15/2049
MML DYNAMIC BOND FUND	FIXED INCOME	SOLERA LLC / SOLERA FINA	74,550.00	70,000	0.02	10.5	3/1/2024
MML DYNAMIC BOND FUND	FIXED INCOME	COMM MORTGAGE TRUST	53,340.89	973,480	0.01	1.038335	2/10/2049
MML DYNAMIC BOND FUND	FIXED INCOME	FANNIEMAE ACES	450,054.85	465,000	0.11	2.702	2/25/2026
MML DYNAMIC BOND FUND	FIXED INCOME	STATE OF ISRAEL	384,448.00	400,000	0.09	2.875	3/16/2026
MML DYNAMIC BOND FUND	FIXED INCOME	FHLMC MULTIFAMILY STRUCTURED P	458,925.97	463,000	0.11	2.995	12/25/2025
MML DYNAMIC BOND FUND	FIXED INCOME	EXELON CORP	713,043.94	750,000	0.17	3.4	4/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	ALLY FINANCIAL INC	29,442.30	30,000	0.01	4.25	4/15/2021
MML DYNAMIC BOND FUND	FIXED INCOME	PRIME SECSRV BRW/FINANC	229,968.75	223,000	0.05	9.25	5/15/2023
MML DYNAMIC BOND FUND	FIXED INCOME	SYDNEY AIRPORT FINANCE	286,928.11	300,000	0.07	3.625	4/28/2026
MML DYNAMIC BOND FUND	FIXED INCOME	MORGAN STANLEY BAML TRUST	477,374.34	475,000	0.11	4.750768	5/15/2049
MML DYNAMIC BOND FUND	FIXED INCOME	MALAYAN BANKING BHD	592,416.00	600,000	0.14	3.905	10/29/2026
MML DYNAMIC BOND FUND	FIXED INCOME	CROWN CASTLE INTL CORP	672,876.95	700,000	0.16	3.7	6/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	LEVEL 3 FINANCING INC	314,325.00	330,000	0.07	5.375	1/15/2024
MML DYNAMIC BOND FUND	FIXED INCOME	AES ANDRS/DMCN PWR/ITABO	505,000.00	500,000	0.12	7.95	5/11/2026
MML DYNAMIC BOND FUND	FIXED INCOME	ALM LOAN FUNDING	499,990.00	500,000	0.12	6.78631	7/15/2028
MML DYNAMIC BOND FUND	FIXED INCOME	ALM LOAN FUNDING	500,060.00	500,000	0.12	5.43631	7/15/2028
MML DYNAMIC BOND FUND	FIXED INCOME	SIRIUS XM RADIO INC	149,600.00	160,000	0.04	5.375	7/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	SOUTHERN CO	64,681.50	65,000	0.02	1.85	7/1/2019
MML DYNAMIC BOND FUND	FIXED INCOME	CCO HLDGS LLC/CAP CORP	156,800.00	160,000	0.04	5.75	2/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	MPH ACQUISITION HOLDINGS	139,875.00	150,000	0.03	7.125	6/1/2024
MML DYNAMIC BOND FUND	FIXED INCOME	MARFRIG HOLDING EUROPE B	200,500.00	200,000	0.05	8	6/8/2023
MML DYNAMIC BOND FUND	FIXED INCOME	CENGAGE LEARNING INC	125,800.00	185,000	0.03	9.5	6/15/2024
MML DYNAMIC BOND FUND	FIXED INCOME	WESTCOTT PARK CLO LTD	500,278.50	500,000	0.12	6.819	7/20/2028
MML DYNAMIC BOND FUND	FIXED INCOME	FHLMC MULTIFAMILY STRUCTURED P	287,520.20	6,539,008	0.07	1.307321	3/25/2023
MML DYNAMIC BOND FUND	FIXED INCOME	FNMA POOL MA2711	5,529,075.13	5,665,172	1.31	3	8/1/2046
MML DYNAMIC BOND FUND	FIXED INCOME	SG COMMERCIAL MORTGAGE SECURIT	392,216.51	3,908,614	0.09	2.000374	10/10/2048
MML DYNAMIC BOND FUND	FIXED INCOME	SUNOCO LOGISTICS PARTNER	692,636.81	750,000	0.16	3.9	7/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	JP MORGAN CHASE COMMERCIAL MOR	165,361.25	174,000	0.04	3.4595	8/15/2049
MML DYNAMIC BOND FUND	FIXED INCOME	JP MORGAN CHASE COMMERCIAL MOR	125,500.38	134,000	0.03	3.791917	8/15/2049
MML DYNAMIC BOND FUND	FIXED INCOME	MPT OPER PARTNERSP/FINL	301,600.00	320,000	0.07	5.25	8/1/2026
MML DYNAMIC BOND FUND	FIXED INCOME	CITIGROUP COMMERCIAL MORTGAGE	518,710.97	547,000	0.12	2.902	7/10/2049
MML DYNAMIC BOND FUND	FIXED INCOME	CITIGROUP COMMERCIAL MORTGAGE	304,192.71	2,876,845	0.07	1.995215	7/10/2049
MML DYNAMIC BOND FUND	FIXED INCOME	TEVA PHARMACEUTICALS NE	400,479.17	465,000	0.10	2.8	7/21/2023
MML DYNAMIC BOND FUND	FIXED INCOME	ONGC VIDESH VANKORNEFT	789,108.55	850,000	0.19	3.75	7/27/2026
MML DYNAMIC BOND FUND	FIXED INCOME	FLEX ACQUISITION CO INC	186,900.00	210,000	0.04	6.875	1/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	GOHL CAPITAL LTD	564,439.20	600,000	0.13	4.25	1/24/2027
MML DYNAMIC BOND FUND	FIXED INCOME	PAMPA ENERGIA SA	502,620.00	600,000	0.12	7.5	1/24/2027
MML DYNAMIC BOND FUND	FIXED INCOME	EMPRESA DE TRANSPORTE ME	733,132.50	750,000	0.17	5	1/25/2047
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	682,602.24	695,000	0.16	1.875	1/31/2022
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	394,539.67	395,000	0.09	1.125	1/31/2019
MML DYNAMIC BOND FUND	FIXED INCOME	SMITHFIELD FOODS INC	554,644.36	595,000	0.13	4.25	2/1/2027
MML DYNAMIC BOND FUND	FIXED INCOME	MOSAIC SOLAR LOANS LLC	575,510.00	571,276	0.14	4.45	6/20/2042
MML DYNAMIC BOND FUND	FIXED INCOME	CROWN CASTLE INTL CORP	219,142.17	225,000	0.05	4	3/1/2027
MML DYNAMIC BOND FUND	FIXED INCOME	AT+T INC	736,670.63	750,000	0.17	5.25	3/1/2037
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	4,980,233.75	5,050,000	1.18	1.375	2/15/2020
MML DYNAMIC BOND FUND	FIXED INCOME	OCTAGON INVESTMENT PARTNERS 30	959,728.00	1,000,000	0.23	5.969	3/17/2030
MML DYNAMIC BOND FUND	FIXED INCOME	OCTAGON INVESTMENT PARTNERS 30	462,560.50	500,000	0.11	8.669	3/17/2030
MML DYNAMIC BOND FUND	FIXED INCOME	WIND RIVER CLO LTD	980,358.00	1,000,000	0.23	6.19456	4/18/2029

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML DYNAMIC BOND FUND	FIXED INCOME	DISCOVER FINANCIAL SVS	672,169.44	720,000	0.16	4.1	2/9/2027
MML DYNAMIC BOND FUND	FIXED INCOME	POST HOLDINGS INC	230,354.40	240,000	0.05	5.5	3/1/2025
MML DYNAMIC BOND FUND	FIXED INCOME	PEABODY ENERGY CORP	392,850.00	405,000	0.09	6	3/31/2022
MML DYNAMIC BOND FUND	FIXED INCOME	MADISON PARK FUNDING LTD	969,275.00	1,000,000	0.23	7.94925	1/27/2026
MML DYNAMIC BOND FUND	FIXED INCOME	HEXION INC	75,762.50	95,000	0.02	10.375	2/1/2022
MML DYNAMIC BOND FUND	FIXED INCOME	BARCLAYS COMMERCIAL MORTGAGE S	410,026.56	4,553,938	0.10	1.51321	2/15/2050
MML DYNAMIC BOND FUND	FIXED INCOME	GRIPPEN PARK CLO LTD	965,815.00	1,000,000	0.23	5.769	1/20/2030
MML DYNAMIC BOND FUND	FIXED INCOME	TRANSDIGM INC	153,450.00	165,000	0.04	6.375	6/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	THACHER PARK CLO	991,669.00	1,000,000	0.24	5.869	10/20/2026
MML DYNAMIC BOND FUND	FIXED INCOME	EVERSOURCE ENERGY	982,649.72	1,000,000	0.23	2.75	3/15/2022
MML DYNAMIC BOND FUND	FIXED INCOME	ENABLE MIDSTREAM PARTNER	550,906.47	590,000	0.13	4.4	3/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	PFP III	92,818.39	94,000	0.02	4.20513	1/14/2035
MML DYNAMIC BOND FUND	FIXED INCOME	PFP III	97,708.21	99,000	0.02	4.95513	1/14/2035
MML DYNAMIC BOND FUND	FIXED INCOME	MCDONALD S CORP	224,683.70	235,000	0.05	4.45	3/1/2047
MML DYNAMIC BOND FUND	FIXED INCOME	PFP III	163,973.38	164,000	0.04	3.75513	1/14/2035
MML DYNAMIC BOND FUND	FIXED INCOME	DTE ENERGY CO	487,843.01	500,000	0.12	3.8	3/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	MARB BONDCO PLC	188,952.00	200,000	0.04	7	3/15/2024
MML DYNAMIC BOND FUND	FIXED INCOME	ARAMARK SERVICES INC	224,825.00	230,000	0.05	5	4/1/2025
MML DYNAMIC BOND FUND	FIXED INCOME	BAUSCH HEALTH COS INC	151,500.00	150,000	0.04	7	3/15/2024
MML DYNAMIC BOND FUND	FIXED INCOME	PENSKE TRUCK LEASING/PTL	268,931.80	275,000	0.06	4.2	4/1/2027
MML DYNAMIC BOND FUND	FIXED INCOME	REPUBLIC OF ARGENTINA	110,550.00	150,000	0.03	6.625	7/6/2028
MML DYNAMIC BOND FUND	FIXED INCOME	REPUBLIC OF ARGENTINA	419,375.00	550,000	0.10	6.875	1/26/2027
MML DYNAMIC BOND FUND	FIXED INCOME	UNITED MEXICAN STATES	621,723.13	643,000	0.15	4.15	3/28/2027
MML DYNAMIC BOND FUND	FIXED INCOME	PERUSAHAAN PENERBIT SBSN	384,400.00	400,000	0.09	4.15	3/29/2027
MML DYNAMIC BOND FUND	FIXED INCOME	PERUSAHAAN PENERBIT SBSN	192,200.00	200,000	0.05	4.15	3/29/2027
MML DYNAMIC BOND FUND	FIXED INCOME	B+G FOODS INC	148,800.00	160,000	0.04	5.25	4/1/2025
MML DYNAMIC BOND FUND	FIXED INCOME	LATAM FINANCE LTD	196,952.00	200,000	0.05	6.875	4/11/2024
MML DYNAMIC BOND FUND	FIXED INCOME	GENERAL MOTORS FINL CO	109,216.64	115,000	0.03	3.95	4/13/2024
MML DYNAMIC BOND FUND	FIXED INCOME	HELIOS ISSUER, LLC	236,138.82	231,862	0.06	4.94	9/20/2049
MML DYNAMIC BOND FUND	FIXED INCOME	ASP AMC MERGER SUB	90,100.00	170,000	0.02	8	5/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	SABINE PASS LIQUEFACTION	662,204.26	660,000	0.16	5	3/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	TEMPO ACQUISITION LLC/FI	138,750.00	150,000	0.03	6.75	6/1/2025
MML DYNAMIC BOND FUND	FIXED INCOME	NEXTERA ENERGY CAPITAL	267,188.73	280,000	0.06	3.55	5/1/2027
MML DYNAMIC BOND FUND	FIXED INCOME	ENERGUATE TRUST	185,000.00	200,000	0.04	5.875	5/3/2027
MML DYNAMIC BOND FUND	FIXED INCOME	GARDA WORLD SECURITY	191,100.00	210,000	0.05	8.75	5/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	NEXA RESOURCES SA	193,500.00	200,000	0.05	5.375	5/4/2027
MML DYNAMIC BOND FUND	FIXED INCOME	CD COMMERCIAL MORTGAGE TRUST	447,436.50	5,778,929	0.11	1.319555	5/10/2050
MML DYNAMIC BOND FUND	FIXED INCOME	PROVINCIA DE BUENOS AIRE	504,007.00	700,000	0.12	7.875	6/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	CREDIT SUISSE MORTGAGE TRUST	253,012.34	257,000	0.06	3.22941	4/5/2033
MML DYNAMIC BOND FUND	FIXED INCOME	CREDIT SUISSE MORTGAGE TRUST	299,547.87	306,000	0.07	3.33051	4/5/2033
MML DYNAMIC BOND FUND	FIXED INCOME	OCTAGON INVESTMENT PARTNERS XI	990,344.00	1,000,000	0.23	6.43631	7/15/2029
MML DYNAMIC BOND FUND	FIXED INCOME	FNMA POOL AS7661	1,599,495.74	1,638,867	0.38	3	8/1/2046
MML DYNAMIC BOND FUND	FIXED INCOME	COMM MORTGAGE TRUST	202,636.58	210,000	0.05	3.4614	8/10/2029
MML DYNAMIC BOND FUND	FIXED INCOME	DUKE ENERGY CORP	185,879.17	215,000	0.04	3.75	9/1/2046
MML DYNAMIC BOND FUND	FIXED INCOME	BUILDERS FIRSTSOURCE INC	231,875.00	250,000	0.06	5.625	9/1/2024
MML DYNAMIC BOND FUND	FIXED INCOME	MORGAN STANLEY CAPITAL I TRUST	130,619.09	1,557,685	0.03	1.642529	8/15/2049
MML DYNAMIC BOND FUND	FIXED INCOME	DBS GROUP HOLDINGS LTD	573,000.00	600,000	0.14	3.6	12/29/2049
MML DYNAMIC BOND FUND	FIXED INCOME	MINERVA LUXEMBOURG SA	372,500.00	400,000	0.09	6.5	9/20/2026
MML DYNAMIC BOND FUND	FIXED INCOME	SHIRE ACQ INV IRELAND DA	548,283.88	580,000	0.13	2.875	9/23/2023
MML DYNAMIC BOND FUND	FIXED INCOME	MEXICO CITY ARPT TRUST	445,630.00	500,000	0.11	4.25	10/31/2026
MML DYNAMIC BOND FUND	FIXED INCOME	SINOPEC GRP OVERSEAS DEV	454,224.50	500,000	0.11	2.75	9/29/2026
MML DYNAMIC BOND FUND	FIXED INCOME	WIND RIVER CLO LTD	995,546.00	1,000,000	0.24	6.53631	1/15/2026

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML DYNAMIC BOND FUND	FIXED INCOME	BANCO MERCANTIL DE NORTE	179,796.00	200,000	0.04	5.75	10/4/2031
MML DYNAMIC BOND FUND	FIXED INCOME	WELLS FARGO COMMERCIAL MORTGAG	196,203.88	2,364,745	0.05	1.642446	11/15/2049
MML DYNAMIC BOND FUND	FIXED INCOME	UPL CORP LTD	193,373.60	200,000	0.05	3.25	10/13/2021
MML DYNAMIC BOND FUND	FIXED INCOME	SIERRA PACIFIC POWER CO	931,626.27	1,000,000	0.22	2.6	5/1/2026
MML DYNAMIC BOND FUND	FIXED INCOME	TEMPUR SEALY INTL INC	226,300.00	248,000	0.05	5.5	6/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	CSX CORP	528,466.53	600,000	0.13	3.8	11/1/2046
MML DYNAMIC BOND FUND	FIXED INCOME	FNMA POOL AL9238	3,942,070.47	4,023,643	0.94	3	10/1/2041
MML DYNAMIC BOND FUND	FIXED INCOME	BDO UNIBANK INC	288,090.00	300,000	0.07	2.625	10/24/2021
MML DYNAMIC BOND FUND	FIXED INCOME	CENTENE CORP	296,050.00	310,000	0.07	4.75	1/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	BANCO MACRO SA	282,625.00	350,000	0.07	6.75	11/4/2026
MML DYNAMIC BOND FUND	FIXED INCOME	BLACKBIRD CAPITAL AIRCRAFT	923,739.65	880,208	0.22	5.682	12/16/2041
MML DYNAMIC BOND FUND	FIXED INCOME	TELESAT CANADA/TELESAT L	192,400.00	185,000	0.05	8.875	11/15/2024
MML DYNAMIC BOND FUND	FIXED INCOME	GENESYS/GREENEDEN LUX/US	230,450.00	220,000	0.05	10	11/30/2024
MML DYNAMIC BOND FUND	FIXED INCOME	MSCG TRUST	452,251.04	458,150	0.11	5.205	11/15/2034
MML DYNAMIC BOND FUND	FIXED INCOME	CHARTER COMM OPT LLC/CAP	522,038.85	525,000	0.12	4.908	7/23/2025
MML DYNAMIC BOND FUND	FIXED INCOME	HERO FUNDING TRUST	339,438.00	325,178	0.08	4.29	9/20/2047
MML DYNAMIC BOND FUND	FIXED INCOME	TCI CENT CLO 2016 1 LTD.	990,797.00	1,000,000	0.24	6.50925	12/21/2029
MML DYNAMIC BOND FUND	FIXED INCOME	BLUEMOUNTAIN CLO LTD	995,002.00	1,000,000	0.24	6.619	1/20/2029
MML DYNAMIC BOND FUND	FIXED INCOME	ALM LOAN FUNDING	999,962.00	1,000,000	0.24	6.47631	10/15/2028
MML DYNAMIC BOND FUND	FIXED INCOME	MORGAN STANLEY BAML TRUST	457,126.47	454,000	0.11	3.72	12/15/2049
MML DYNAMIC BOND FUND	FIXED INCOME	CITIGROUP COMMERCIAL MORTGAGE	435,006.18	435,000	0.10	3.72	12/10/2049
MML DYNAMIC BOND FUND	FIXED INCOME	TERVITA ESCROW CORP	223,837.50	235,000	0.05	7.625	12/1/2021
MML DYNAMIC BOND FUND	FIXED INCOME	DUKE ENERGY FLORIDA LLC	967,578.85	1,000,000	0.23	3.2	1/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	BPRL INTERNATIONAL SINGA	472,448.00	500,000	0.11	4.375	1/18/2027
MML DYNAMIC BOND FUND	FIXED INCOME	ENERGY TRANSFER OPERATNG	74,554.52	80,000	0.02	4.2	4/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	ADANI PORTS AND SPECIAL	368,836.50	375,000	0.09	3.95	1/19/2022
MML DYNAMIC BOND FUND	FIXED INCOME	ROYAL BK SCOTLND GRP PLC	274,060.95	285,000	0.07	3.498	5/15/2023
MML DYNAMIC BOND FUND	FIXED INCOME	CITIGROUP INC	824,390.42	845,000	0.20	3.74	5/17/2024
MML DYNAMIC BOND FUND	FIXED INCOME	CLNS TRUST	187,562.59	190,000	0.04	6.90019	6/11/2032
MML DYNAMIC BOND FUND	FIXED INCOME	CLNS TRUST	188,136.16	190,000	0.04	4.45019	6/11/2032
MML DYNAMIC BOND FUND	FIXED INCOME	CLNS TRUST	187,814.51	190,000	0.04	5.90019	6/11/2032
MML DYNAMIC BOND FUND	FIXED INCOME	SUNCOKE ENRGY PART LP/FI	217,925.00	230,000	0.05	7.5	6/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	BECTON DICKINSON AND CO	784,501.18	810,000	0.19	2.894	6/6/2022
MML DYNAMIC BOND FUND	FIXED INCOME	GTT COMMUNICATIONS INC	220,575.00	255,000	0.05	7.875	12/31/2024
MML DYNAMIC BOND FUND	FIXED INCOME	PETSMART INC	28,900.00	40,000	0.01	5.875	6/1/2025
MML DYNAMIC BOND FUND	FIXED INCOME	ARROW ELECTRONICS INC	264,165.92	290,000	0.06	3.875	1/12/2028
MML DYNAMIC BOND FUND	FIXED INCOME	FORTIS INC	485,489.93	505,000	0.12	2.1	10/4/2021
MML DYNAMIC BOND FUND	FIXED INCOME	ASTRAZENECA PLC	575,538.16	600,000	0.14	2.375	6/12/2022
MML DYNAMIC BOND FUND	FIXED INCOME	RAIT TRUST	140,977.26	141,000	0.03	3.75513	6/15/2037
MML DYNAMIC BOND FUND	FIXED INCOME	TCI CENT CLO 2017 1 LTD.	484,058.00	500,000	0.11	6.13988	7/25/2030
MML DYNAMIC BOND FUND	FIXED INCOME	CREDIT SUISSE MORTGAGE TRUST	282,105.51	285,000	0.07	4.35513	7/15/2032
MML DYNAMIC BOND FUND	FIXED INCOME	CSAIL COMMERCIAL MORTGAGE TRUS	450,416.54	6,671,582	0.11	1.251016	6/15/2050
MML DYNAMIC BOND FUND	FIXED INCOME	CREDIT SUISSE MORTGAGE TRUST	281,176.30	285,000	0.07	5.75513	7/15/2032
MML DYNAMIC BOND FUND	FIXED INCOME	ATHENE GLOBAL FUNDING	473,768.16	485,000	0.11	3	7/1/2022
MML DYNAMIC BOND FUND	FIXED INCOME	NFP CORP	286,400.00	320,000	0.07	6.875	7/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	BANCO MERCANTIL DE NORTE	387,000.00	400,000	0.09	7.625	12/31/2099
MML DYNAMIC BOND FUND	FIXED INCOME	ELDORADO RESORTS INC	226,690.40	235,000	0.05	6	4/1/2025
MML DYNAMIC BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	340,128.15	350,000	0.08	3.61	9/25/2040
MML DYNAMIC BOND FUND	FIXED INCOME	YPF SOCIEDAD ANONIMA	285,250.00	350,000	0.07	6.95	7/21/2027
MML DYNAMIC BOND FUND	FIXED INCOME	MORGAN STANLEY	553,119.68	585,000	0.13	3.591	7/22/2028
MML DYNAMIC BOND FUND	FIXED INCOME	TRIP RAIL MASTER FUNDING LLC	372,265.00	375,411	0.09	2.709	8/15/2047
MML DYNAMIC BOND FUND	FIXED INCOME	JP MORGAN CHASE COMMERCIAL MOR	143,791.89	145,000	0.03	3.63694	7/15/2034

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML DYNAMIC BOND FUND	FIXED INCOME	JP MORGAN CHASE COMMERCIAL MOR	134,547.13	136,000	0.03	4.33694	7/15/2034
MML DYNAMIC BOND FUND	FIXED INCOME	JP MORGAN CHASE COMMERCIAL MOR	119,444.36	121,000	0.03	5.33694	7/15/2034
MML DYNAMIC BOND FUND	FIXED INCOME	JP MORGAN CHASE COMMERCIAL MOR	168,644.11	170,000	0.04	6.13694	7/15/2034
MML DYNAMIC BOND FUND	FIXED INCOME	CROWN CASTLE INTL CORP	533,048.33	575,000	0.13	3.65	9/1/2027
MML DYNAMIC BOND FUND	FIXED INCOME	AMERICAN EXPRESS CO	1,076,175.39	1,115,000	0.26	2.5	8/1/2022
MML DYNAMIC BOND FUND	FIXED INCOME	ALBERTSONS COS LLC/SAFEW	153,125.00	175,000	0.04	5.75	3/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	SPARC EM SPC PANAMA METR	541,865.65	597,914	0.13	0.01	12/5/2022
MML DYNAMIC BOND FUND	FIXED INCOME	SPARC EM SPC PANAMA METR	464,456.27	512,498	0.11	0.01	12/5/2022
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	5,927,771.94	6,125,000	1.41	2.25	8/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	2,367,773.50	2,500,000	0.56	2.75	8/15/2047
MML DYNAMIC BOND FUND	FIXED INCOME	GENERAL MOTORS CO	207,882.13	210,000	0.05	3.38925	8/7/2020
MML DYNAMIC BOND FUND	FIXED INCOME	DIGITAL REALTY TRUST LP	235,954.65	250,000	0.06	3.7	8/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	CCO HLDGS LLC/CAP CORP	161,000.00	175,000	0.04	5	2/1/2028
MML DYNAMIC BOND FUND	FIXED INCOME	VEDANTA RESOURCES PLC	331,594.80	400,000	0.08	6.125	8/9/2024
MML DYNAMIC BOND FUND	FIXED INCOME	BRIGHTHOUSE FINANCIAL IN	485,859.14	575,000	0.12	3.7	6/22/2027
MML DYNAMIC BOND FUND	FIXED INCOME	DUKE ENERGY CORP	216,611.05	240,000	0.05	3.95	8/15/2047
MML DYNAMIC BOND FUND	FIXED INCOME	1011778 BC / NEW RED FIN	308,200.00	335,000	0.07	5	10/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	C+W SENIOR FINANCING DAC	734,000.00	800,000	0.17	6.875	9/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	GULFPORT ENERGY CORP	221,250.00	250,000	0.05	6.375	5/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	GS MORTGAGE SECURITIES TRUST	486,939.79	6,694,177	0.12	1.136273	8/10/2050
MML DYNAMIC BOND FUND	FIXED INCOME	CIM TRUST	2,308,065.57	2,380,922	0.55	3.015	6/25/2057
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	5,502,355.35	5,700,000	1.31	1.875	8/31/2024
MML DYNAMIC BOND FUND	FIXED INCOME	BDO UNIBANK INC	283,560.00	300,000	0.07	2.95	3/6/2023
MML DYNAMIC BOND FUND	FIXED INCOME	ISRAEL ELECTRIC CORP LTD	201,456.00	200,000	0.05	5	11/12/2024
MML DYNAMIC BOND FUND	FIXED INCOME	HASBRO INC	565,605.30	610,000	0.13	3.5	9/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	BANISTMO SA	190,000.00	200,000	0.05	3.65	9/19/2022
MML DYNAMIC BOND FUND	FIXED INCOME	MILLICOM INTL CELLULAR	178,000.00	200,000	0.04	5.125	1/15/2028
MML DYNAMIC BOND FUND	FIXED INCOME	VIKING CRUISES LTD	219,137.50	235,000	0.05	5.875	9/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	GEOPARK LTD	370,000.00	400,000	0.09	6.5	9/21/2024
MML DYNAMIC BOND FUND	FIXED INCOME	NEXTERA ENERGY OPERATING	151,300.00	170,000	0.04	4.5	9/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	5,580,260.81	5,710,000	1.32	2.125	9/30/2024
MML DYNAMIC BOND FUND	FIXED INCOME	AVANTOR INC	270,000.00	270,000	0.06	9	10/1/2025
MML DYNAMIC BOND FUND	FIXED INCOME	GREAT WOLF TRUST	232,527.73	236,000	0.06	6.67513	9/15/2034
MML DYNAMIC BOND FUND	FIXED INCOME	GREAT WOLF TRUST	279,806.84	286,000	0.07	4.70513	9/15/2034
MML DYNAMIC BOND FUND	FIXED INCOME	GREAT WOLF TRUST	436,204.87	443,000	0.10	5.70513	9/15/2034
MML DYNAMIC BOND FUND	FIXED INCOME	GILBERT PARK CLO LTD	470,636.00	500,000	0.11	5.38631	10/15/2030
MML DYNAMIC BOND FUND	FIXED INCOME	EQT CORP	525,869.78	610,000	0.12	3.9	10/1/2027
MML DYNAMIC BOND FUND	FIXED INCOME	CAESARS RESORT / FINCO	180,600.00	210,000	0.04	5.25	10/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	GOLDEN NUGGET INC	188,500.00	200,000	0.04	6.75	10/15/2024
MML DYNAMIC BOND FUND	FIXED INCOME	FREDDIEMAC STRIP	3,300,751.86	3,371,006	0.78	3	8/15/2047
MML DYNAMIC BOND FUND	FIXED INCOME	GILBERT PARK CLO LTD	948,623.00	1,000,000	0.23	8.83631	10/15/2030
MML DYNAMIC BOND FUND	FIXED INCOME	UNITED OVERSEAS BANK LTD	460,553.50	500,000	0.11	3.875	12/31/2099
MML DYNAMIC BOND FUND	FIXED INCOME	BEACON ROOFING SUPPLY IN	237,262.50	270,000	0.06	4.875	11/1/2025
MML DYNAMIC BOND FUND	FIXED INCOME	BANCOLOMBIA SA	385,504.00	400,000	0.09	4.875	10/18/2027
MML DYNAMIC BOND FUND	FIXED INCOME	BANCO SANTANDER SA	587,471.38	600,000	0.14	3.76694	2/23/2023
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	6,372,506.52	6,480,000	1.51	2.25	10/31/2024
MML DYNAMIC BOND FUND	FIXED INCOME	GOLDMAN SACHS GROUP INC	360,520.60	370,000	0.09	3.30663	10/31/2022
MML DYNAMIC BOND FUND	FIXED INCOME	FREDDIEMAC STRIP	2,908,273.53	2,971,648	0.69	3	10/15/2047
MML DYNAMIC BOND FUND	FIXED INCOME	CELGENE CORP	501,052.24	595,000	0.12	4.35	11/15/2047
MML DYNAMIC BOND FUND	FIXED INCOME	LLOYDS BANKING GROUP PLC	533,714.01	600,000	0.13	3.574	11/7/2028
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	5,129,335.75	5,310,000	1.22	2.25	11/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	3,019,368.18	3,190,000	0.72	2.75	11/15/2047

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML DYNAMIC BOND FUND	FIXED INCOME	INKIA ENERGY LTD	370,504.00	400,000	0.09	5.875	11/9/2027
MML DYNAMIC BOND FUND	FIXED INCOME	CORNING INC	499,383.82	595,000	0.12	4.375	11/15/2057
MML DYNAMIC BOND FUND	FIXED INCOME	QEP RESOURCES INC	136,950.00	165,000	0.03	5.625	3/1/2026
MML DYNAMIC BOND FUND	FIXED INCOME	MOSAIC CO	569,059.04	600,000	0.14	4.05	11/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	AERCAP IRELAND CAP/GLOBA	547,423.96	600,000	0.13	3.5	1/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	SPRITE LIMITED	457,680.99	461,111	0.11	4.25	12/15/2037
MML DYNAMIC BOND FUND	FIXED INCOME	MATCH GROUP INC	151,387.50	165,000	0.04	5	12/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	MACQUARIE GROUP LTD	249,897.18	260,000	0.06	3.189	11/28/2023
MML DYNAMIC BOND FUND	FIXED INCOME	ROYAL CARIBBEAN CRUISES	272,799.88	295,000	0.06	3.7	3/15/2028
MML DYNAMIC BOND FUND	FIXED INCOME	UNION BK OF PHILIPPINES	380,600.00	400,000	0.09	3.369	11/29/2022
MML DYNAMIC BOND FUND	FIXED INCOME	CREDITO REAL SAB DE CV	187,752.00	200,000	0.04	9.125	12/31/2099
MML DYNAMIC BOND FUND	FIXED INCOME	SYNCHRONY FINANCIAL	21,056.96	25,000	0.00	3.95	12/1/2027
MML DYNAMIC BOND FUND	FIXED INCOME	EXPEDIA INC	539,566.13	595,000	0.13	3.8	2/15/2028
MML DYNAMIC BOND FUND	FIXED INCOME	COSMOPOLITAN HOTEL TRUST	371,838.56	378,000	0.09	5.45513	11/15/2036
MML DYNAMIC BOND FUND	FIXED INCOME	COSMOPOLITAN HOTEL TRUST	739,411.61	754,000	0.18	6.19633	11/15/2036
MML DYNAMIC BOND FUND	FIXED INCOME	AMERICAN TOWER CORP	532,571.54	570,000	0.13	3.6	1/15/2028
MML DYNAMIC BOND FUND	FIXED INCOME	MINERVA LUXEMBOURG SA	348,000.00	400,000	0.08	5.875	1/19/2028
MML DYNAMIC BOND FUND	FIXED INCOME	BANK OF MONTREAL	416,700.00	450,000	0.10	3.803	12/15/2032
MML DYNAMIC BOND FUND	FIXED INCOME	PACKAGING CORP OF AMERIC	271,963.65	290,000	0.06	3.4	12/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	UBS COMMERCIAL MORTGAGE TRUST	557,086.64	580,000	0.13	4.45271	12/15/2050
MML DYNAMIC BOND FUND	FIXED INCOME	OCTAGON INVESTMENT PARTNERS XX	878,476.00	1,000,000	0.21	7.919	1/22/2030
MML DYNAMIC BOND FUND	FIXED INCOME	ANCHORAGE CAPITAL CLO LTD	984,809.00	1,000,000	0.23	3.42631	1/15/2030
MML DYNAMIC BOND FUND	FIXED INCOME	FREDDIE MAC	2,800,201.91	2,830,329	0.66	3	7/15/2046
MML DYNAMIC BOND FUND	FIXED INCOME	BNP PARIBAS	559,940.90	595,000	0.13	3.375	1/9/2025
MML DYNAMIC BOND FUND	FIXED INCOME	GENERAL MOTORS FINL CO	479,068.02	505,000	0.11	3.39825	1/5/2023
MML DYNAMIC BOND FUND	FIXED INCOME	UNITED MEXICAN STATES	687,967.35	735,000	0.16	3.75	1/11/2028
MML DYNAMIC BOND FUND	FIXED INCOME	REPUBLIC OF ARGENTINA	143,750.00	200,000	0.03	5.875	1/11/2028
MML DYNAMIC BOND FUND	FIXED INCOME	SUMITOMO MITSUI FINL GRP	804,777.27	815,000	0.19	3.18881	1/17/2023
MML DYNAMIC BOND FUND	FIXED INCOME	BBVA BANCOMER SA TEXAS	694,000.00	800,000	0.16	5.125	1/18/2033
MML DYNAMIC BOND FUND	FIXED INCOME	MARB BONDSCO PLC	185,352.00	200,000	0.04	6.875	1/19/2025
MML DYNAMIC BOND FUND	FIXED INCOME	CROWN AMER/CAP CORP VI	306,312.50	325,000	0.07	4.75	2/1/2026
MML DYNAMIC BOND FUND	FIXED INCOME	OWENS CORNING	264,563.12	350,000	0.06	4.4	1/30/2048
MML DYNAMIC BOND FUND	FIXED INCOME	AASET 2018 1 TRUST	913,812.03	910,589	0.22	3.844	1/16/2038
MML DYNAMIC BOND FUND	FIXED INCOME	UNIFIN FINANCIERA SA DE	330,000.00	400,000	0.08	8.875	12/31/2099
MML DYNAMIC BOND FUND	FIXED INCOME	CAPITAL ONE FINANCIAL CO	136,188.82	140,000	0.03	3.24038	1/30/2023
MML DYNAMIC BOND FUND	FIXED INCOME	PETROBRAS GLOBAL FINANCE	462,500.00	500,000	0.11	5.75	2/1/2029
MML DYNAMIC BOND FUND	FIXED INCOME	INVITATION HOMES TRUST	747,909.90	750,000	0.18	3.90513	3/17/2037
MML DYNAMIC BOND FUND	FIXED INCOME	INVITATION HOMES TRUST	1,138,598.99	1,145,000	0.27	3.70513	3/17/2037
MML DYNAMIC BOND FUND	FIXED INCOME	INDIGO NATURAL RES LLC	141,900.00	165,000	0.03	6.875	2/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	JBS USA LUX/JBS USA FIN	253,500.00	260,000	0.06	6.75	2/15/2028
MML DYNAMIC BOND FUND	FIXED INCOME	FREDDIE MAC	4,707,711.47	4,802,918	1.12	3	8/15/2042
MML DYNAMIC BOND FUND	FIXED INCOME	GRAN TIERRA ENERGY INTL	371,500.00	400,000	0.09	6.25	2/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	VANTAGE DATA CENTERS ISSUER, L	745,238.20	743,750	0.18	4.072	2/16/2043
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	4,663,924.77	4,640,000	1.11	2.625	2/28/2023
MML DYNAMIC BOND FUND	FIXED INCOME	CAL FUNDING LTD	460,321.72	458,333	0.11	3.96	2/25/2043
MML DYNAMIC BOND FUND	FIXED INCOME	MINITUBISHI UFJ FIN GRP	486,797.28	495,000	0.12	3.47813	3/2/2023
MML DYNAMIC BOND FUND	FIXED INCOME	WRKCO INC	520,059.74	530,000	0.12	3.75	3/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	CVS HEALTH CORP	505,757.12	520,000	0.12	5.05	3/25/2048
MML DYNAMIC BOND FUND	FIXED INCOME	EDISON INTERNATIONAL	246,079.85	260,000	0.06	4.125	3/15/2028
MML DYNAMIC BOND FUND	FIXED INCOME	USA COM PART/USA COM FIN	153,600.00	160,000	0.04	6.875	4/1/2026
MML DYNAMIC BOND FUND	FIXED INCOME	VALEANT PHARMA INTL	150,000.00	150,000	0.04	9.25	4/1/2026
MML DYNAMIC BOND FUND	FIXED INCOME	ITAU UNIBANCO HLDG SA/KY	331,187.50	350,000	0.08	6.5	12/31/2099

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML DYNAMIC BOND FUND	FIXED INCOME	ANGLO AMERICAN CAPITAL	543,872.45	585,000	0.13	4.5	3/15/2028
MML DYNAMIC BOND FUND	FIXED INCOME	TRITON CONTAINER FINANCE LLC	465,740.60	462,500	0.11	3.95	3/20/2043
MML DYNAMIC BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	499,574.25	500,000	0.12	3.83	8/25/2047
MML DYNAMIC BOND FUND	FIXED INCOME	SPRINT SPECTRUM / SPEC I	554,406.25	565,000	0.13	4.738	9/20/2029
MML DYNAMIC BOND FUND	FIXED INCOME	MACQUARIE GROUP LTD	280,031.99	280,000	0.07	4.15	3/27/2024
MML DYNAMIC BOND FUND	FIXED INCOME	ANHEUSER BUSCH INBEV WOR	259,915.34	290,000	0.06	4.6	4/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	5,530,863.79	5,530,000	1.31	2.5	3/31/2023
MML DYNAMIC BOND FUND	FIXED INCOME	FANNIE MAE	3,004,159.13	3,792,503	0.71	0.01	4/25/2048
MML DYNAMIC BOND FUND	FIXED INCOME	UBS COMMERCIAL MORTGAGE TRUST	343,751.78	5,135,545	0.08	0.899992	3/15/2051
MML DYNAMIC BOND FUND	FIXED INCOME	BLUEMOUNTAIN CLO LTD	909,286.00	1,000,000	0.22	5.069	4/20/2031
MML DYNAMIC BOND FUND	FIXED INCOME	DOLLAR TREE INC	533,551.45	555,000	0.13	4	5/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	HILTON DOMESTIC OPERATIN	542,400.00	565,000	0.13	5.125	5/1/2026
MML DYNAMIC BOND FUND	FIXED INCOME	DELTA AIR LINES INC	560,881.80	570,000	0.13	3.8	4/19/2023
MML DYNAMIC BOND FUND	FIXED INCOME	CREDIT AGRICOLE LONDON	523,518.97	535,000	0.12	3.75	4/24/2023
MML DYNAMIC BOND FUND	FIXED INCOME	AXA EQUITABLE HOLDINGS I	483,928.12	490,000	0.11	3.9	4/20/2023
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	5,476,176.13	5,420,000	1.30	2.75	4/30/2023
MML DYNAMIC BOND FUND	FIXED INCOME	COMETA ENERGIA SA	365,190.00	394,800	0.09	6.375	4/24/2035
MML DYNAMIC BOND FUND	FIXED INCOME	CONTINENTAL RESOURCES	249,301.86	265,000	0.06	4.375	1/15/2028
MML DYNAMIC BOND FUND	FIXED INCOME	CNOOC FINANCE 2015 US	569,626.65	570,000	0.14	3.75	5/2/2023
MML DYNAMIC BOND FUND	FIXED INCOME	CANACOL ENERGY LTD	184,002.00	200,000	0.04	7.25	5/3/2025
MML DYNAMIC BOND FUND	FIXED INCOME	CANACOL ENERGY LTD	368,004.00	400,000	0.09	7.25	5/3/2025
MML DYNAMIC BOND FUND	FIXED INCOME	DAIMLER FINANCE NA LLC	974,814.02	985,000	0.23	3.4215	5/4/2023
MML DYNAMIC BOND FUND	FIXED INCOME	GLP CAPITAL LP / FIN II	328,250.00	325,000	0.08	5.75	6/1/2028
MML DYNAMIC BOND FUND	FIXED INCOME	WESTPAC BANKING CORP	841,073.80	850,000	0.20	3.33613	5/15/2023
MML DYNAMIC BOND FUND	FIXED INCOME	BARCLAYS PLC	404,693.22	425,000	0.10	4.009	5/16/2024
MML DYNAMIC BOND FUND	FIXED INCOME	CENTENE CORP	34,037.50	35,000	0.01	5.375	6/1/2026
MML DYNAMIC BOND FUND	FIXED INCOME	GOLDMAN SACHS GROUP INC	345,518.53	360,000	0.08	3.78613	5/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	GLOBAL SC FINANCE SRL	572,920.52	560,220	0.14	4.29	5/17/2038
MML DYNAMIC BOND FUND	FIXED INCOME	EP ENER/EVEREST ACQ FIN	141,600.00	160,000	0.03	7.75	5/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	MICROCHIP TECHNOLOGY INC	551,109.50	565,000	0.13	4.333	6/1/2023
MML DYNAMIC BOND FUND	FIXED INCOME	PSEG POWER LLC	430,350.42	430,000	0.10	3.85	6/1/2023
MML DYNAMIC BOND FUND	FIXED INCOME	CREDIT SUISSE GROUP AG	423,517.68	430,000	0.10	4.01594	6/12/2024
MML DYNAMIC BOND FUND	FIXED INCOME	FREDDIE MAC SCRT	2,771,882.44	2,947,105	0.66	3	11/25/2057
MML DYNAMIC BOND FUND	FIXED INCOME	DBGS MORTGAGE TRUST	532,425.80	550,000	0.13	3.80513	6/15/2033
MML DYNAMIC BOND FUND	FIXED INCOME	DBGS MORTGAGE TRUST	530,192.47	550,000	0.13	4.90513	6/15/2033
MML DYNAMIC BOND FUND	FIXED INCOME	ALEXANDRIA REAL ESTATE E	424,829.50	420,000	0.10	4	1/15/2024
MML DYNAMIC BOND FUND	FIXED INCOME	GLS AUTO RECEIVABLES TRUST	501,489.90	500,000	0.12	3.71	3/15/2023
MML DYNAMIC BOND FUND	FIXED INCOME	COLLEGE AVE STUDENT LOANS	482,701.38	486,532	0.11	3.70625	12/26/2047
MML DYNAMIC BOND FUND	FIXED INCOME	EQM MIDSTREAM PARTNERS L	658,580.85	660,000	0.16	4.75	7/15/2023
MML DYNAMIC BOND FUND	FIXED INCOME	MARVELL TECHNOLOGY GROUP	558,378.69	560,000	0.13	4.2	6/22/2023
MML DYNAMIC BOND FUND	FIXED INCOME	MOSAIC SOLAR LOANS LLC	915,484.80	916,769	0.22	4.2	2/22/2044
MML DYNAMIC BOND FUND	FIXED INCOME	NATIXIS COMMERCIAL MORTGAGE SE	366,653.52	368,000	0.09	3.2565	6/15/2035
MML DYNAMIC BOND FUND	FIXED INCOME	NATIXIS COMMERCIAL MORTGAGE SE	365,537.27	368,000	0.09	4.5065	6/15/2035
MML DYNAMIC BOND FUND	FIXED INCOME	JP MORGAN CHASE COMMERCIAL MOR	545,532.81	551,000	0.13	4.05513	6/15/2032
MML DYNAMIC BOND FUND	FIXED INCOME	JP MORGAN CHASE COMMERCIAL MOR	541,001.22	551,000	0.13	4.55513	6/15/2032
MML DYNAMIC BOND FUND	FIXED INCOME	TRANSOCEAN GUARDIAN LTD	81,387.50	85,000	0.02	5.875	1/15/2024
MML DYNAMIC BOND FUND	FIXED INCOME	NATIONSTAR MTG HLD INC	141,375.00	145,000	0.03	8.125	7/15/2023
MML DYNAMIC BOND FUND	FIXED INCOME	CHENIERE ENERGY PARTNERS	223,800.00	240,000	0.05	5.25	10/1/2025
MML DYNAMIC BOND FUND	FIXED INCOME	BHMS MORTGAGE TRUST	546,606.41	552,000	0.13	4.35513	7/15/2035
MML DYNAMIC BOND FUND	FIXED INCOME	THUNDERBOLT AIRCRAFT LEASE LIM	495,440.54	491,071	0.12	4.147	9/15/2038
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	1,861,429.23	1,870,000	0.44	3	8/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	5,396,012.77	5,360,000	1.28	2.75	8/15/2021

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML DYNAMIC BOND FUND	FIXED INCOME	VISTRA OPERATIONS CO LLC	226,187.50	235,000	0.05	5.5	9/1/2026
MML DYNAMIC BOND FUND	FIXED INCOME	WELLCARE HEALTH PLANS	193,000.00	200,000	0.05	5.375	8/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	WELLTOWER INC	561,395.35	560,000	0.13	3.95	9/1/2023
MML DYNAMIC BOND FUND	FIXED INCOME	HCA INC	311,200.00	320,000	0.07	5.375	9/1/2026
MML DYNAMIC BOND FUND	FIXED INCOME	WELLS FARGO COMMERCIAL MORTGAG	267,909.15	270,000	0.06	5.1456	8/15/2051
MML DYNAMIC BOND FUND	FIXED INCOME	DRYDEN SENIOR LOAN FUND	471,847.50	500,000	0.11	5.71613	8/15/2031
MML DYNAMIC BOND FUND	FIXED INCOME	VERSCEND ESCROW CORP	222,780.00	237,000	0.05	9.75	8/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	WILLIS ENGINE SECURITIZATION T	912,965.36	889,852	0.22	4.75	9/15/2043
MML DYNAMIC BOND FUND	FIXED INCOME	SYMPHONY CLO LTD	469,800.00	500,000	0.11	5.39989	10/15/2031
MML DYNAMIC BOND FUND	FIXED INCOME	HIGHBRIDGE LOAN MANAGEMENT LTD	461,185.50	500,000	0.11	5.43631	10/15/2030
MML DYNAMIC BOND FUND	CASH EQUIVALENT	TREASURY BILL	1,314,412.00	1,320,000	0.31	2.316	3/7/2019
MML DYNAMIC BOND FUND	FIXED INCOME	NABORS INDUSTRIES INC	151,413.94	200,000	0.04	5.75	2/1/2025
MML DYNAMIC BOND FUND	FIXED INCOME	WILLIS NORTH AMERICA INC	560,570.96	565,000	0.13	4.5	9/15/2028
MML DYNAMIC BOND FUND	FIXED INCOME	HSBC HOLDINGS PLC	822,242.77	835,000	0.20	4.15594	9/12/2026
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	5,457,262.50	5,420,000	1.29	2.75	9/15/2021
MML DYNAMIC BOND FUND	FIXED INCOME	AVOLON HOLDINGS FNDG LTD	300,825.00	315,000	0.07	5.125	10/1/2023
MML DYNAMIC BOND FUND	FIXED INCOME	CIGNA CORP	492,380.63	500,000	0.12	3.32631	7/15/2023
MML DYNAMIC BOND FUND	FIXED INCOME	ELDORADO RESORTS INC	75,600.00	80,000	0.02	6	9/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	OAK HILL CREDIT PARTNERS	470,170.50	500,000	0.11	5.6894	10/20/2030
MML DYNAMIC BOND FUND	FIXED INCOME	ENEL FINANCE INTL NV	552,449.17	565,000	0.13	4.25	9/14/2023
MML DYNAMIC BOND FUND	FIXED INCOME	GLP CAPITAL LP / FIN II	210,276.45	215,000	0.05	5.3	1/15/2029
MML DYNAMIC BOND FUND	FIXED INCOME	REFINITIV US HOLDINGS	188,175.00	195,000	0.04	6.25	5/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	INTERPUBLIC GROUP COS	516,116.34	545,000	0.12	5.4	10/1/2048
MML DYNAMIC BOND FUND	FIXED INCOME	BOC AVIATION LTD	562,023.58	565,000	0.13	3.94663	9/26/2023
MML DYNAMIC BOND FUND	FIXED INCOME	GS MORTGAGE SECURITIES TRUST	547,920.41	551,000	0.13	3.90513	9/15/2031
MML DYNAMIC BOND FUND	FIXED INCOME	BANCO SANTANDER MEXICO	250,937.50	250,000	0.06	5.95	10/1/2028
MML DYNAMIC BOND FUND	FIXED INCOME	US TREASURY N/B	3,764,187.25	3,670,000	0.89	3	9/30/2025
MML DYNAMIC BOND FUND	FIXED INCOME	HILCORP ENERGY I/HILCORP	145,200.00	165,000	0.03	6.25	11/1/2028
MML DYNAMIC BOND FUND	FIXED INCOME	MARATHON PETROLEUM CORP	542,885.02	530,000	0.13	5.125	12/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	COMCAST CORP	561,569.74	555,000	0.13	3.95	10/15/2025
MML DYNAMIC BOND FUND	FIXED INCOME	MSCG TRUST	722,496.11	733,000	0.17	5.50513	10/15/2037
MML DYNAMIC BOND FUND	FIXED INCOME	MILLICOM INTL CELLULAR	202,520.00	200,000	0.05	6.625	10/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	MADISON PARK FUNDING LTD	466,242.50	500,000	0.11	5.419	10/22/2030
MML DYNAMIC BOND FUND	FIXED INCOME	FED HM LN PC POOL G61645	2,918,851.83	2,862,606	0.69	4	10/1/2048
MML DYNAMIC BOND FUND	FIXED INCOME	SUNOCO LP/FINANCE CORP	156,337.50	165,000	0.04	5.5	2/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	JBS INVESTMENTS II GMBH	196,000.00	200,000	0.05	7	1/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	TRANSOCEAN INC	183,225.00	210,000	0.04	7.25	11/1/2025
MML DYNAMIC BOND FUND	FIXED INCOME	BAT CAPITAL CORP	178,188.37	180,000	0.04	3.49613	8/15/2022
MML DYNAMIC BOND FUND	FIXED INCOME	UNITED RENTALS NORTH AM	187,150.00	190,000	0.04	6.5	12/15/2026
MML DYNAMIC BOND FUND	FIXED INCOME	CHARLES SCHWAB CORP	550,126.90	550,000	0.13	3.55	2/1/2024
MML DYNAMIC BOND FUND	FIXED INCOME	GRAY TELEVISION INC	257,890.05	265,000	0.06	7	5/15/2027
MML DYNAMIC BOND FUND	FIXED INCOME	VOLKSWAGEN GROUP AMERICA	694,264.02	700,000	0.16	4.25	11/13/2023
MML DYNAMIC BOND FUND	FIXED INCOME	ANHEUSER BUSCH CO/INBEV	231,846.37	250,000	0.06	4.9	2/1/2046
MML DYNAMIC BOND FUND	FIXED INCOME	DOWDUPONT INC	451,940.07	435,000	0.11	5.419	11/15/2048
MML DYNAMIC BOND FUND	FIXED INCOME	CSAIL COMMERCIAL MORTGAGE TRUS	396,989.71	405,000	0.09	4.8937	11/15/2051
MML DYNAMIC BOND FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	1,834,837.62	1,834,838	0.44	1.25	1/2/2019
MML EQUITY ROTATION FUND	EQUITY	JPMORGAN CHASE + CO	702,864.00	7,200	2.45	0	
MML EQUITY ROTATION FUND	EQUITY	CHEVRON CORP	361,182.80	3,320	1.26	0	
MML EQUITY ROTATION FUND	EQUITY	VIACOM INC CLASS B	205,600.00	8,000	0.72	0	
MML EQUITY ROTATION FUND	EQUITY	MASTERCARD INC A	1,180,949.00	6,260	4.11	0	
MML EQUITY ROTATION FUND	EQUITY	SPIRIT AEROSYSTEMS HOLD CL A	180,225.00	2,500	0.63	0	
MML EQUITY ROTATION FUND	EQUITY	AERCAP HOLDINGS NV	79,200.00	2,000	0.28	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY ROTATION FUND	EQUITY	DELTA AIR LINES INC	184,630.00	3,700	0.64		0
MML EQUITY ROTATION FUND	EQUITY	ULTA BEAUTY INC	78,348.80	320	0.27		0
MML EQUITY ROTATION FUND	EQUITY	VISA INC CLASS A SHARES	641,228.40	4,860	2.23		0
MML EQUITY ROTATION FUND	EQUITY	GRAND CANYON EDUCATION INC	101,908.40	1,060	0.35		0
MML EQUITY ROTATION FUND	EQUITY	MERCK + CO. INC.	374,409.00	4,900	1.30		0
MML EQUITY ROTATION FUND	EQUITY	DOLLAR GENERAL CORP	104,837.60	970	0.36		0
MML EQUITY ROTATION FUND	EQUITY	BERKSHIRE HATHAWAY INC CL B	973,938.60	4,770	3.39		0
MML EQUITY ROTATION FUND	EQUITY	SEAGATE TECHNOLOGY	196,809.00	5,100	0.69		0
MML EQUITY ROTATION FUND	EQUITY	KEMET CORP	40,342.00	2,300	0.14		0
MML EQUITY ROTATION FUND	EQUITY	GENERAL MOTORS CO	227,460.00	6,800	0.79		0
MML EQUITY ROTATION FUND	EQUITY	HCA HEALTHCARE INC	925,908.00	7,440	3.22		0
MML EQUITY ROTATION FUND	EQUITY	MARATHON PETROLEUM CORP	431,776.17	7,317	1.50		0
MML EQUITY ROTATION FUND	EQUITY	ALLISON TRANSMISSION HOLDING	184,422.00	4,200	0.64		0
MML EQUITY ROTATION FUND	EQUITY	ROWAN COMPANIES PLC A	58,730.00	7,000	0.20		0
MML EQUITY ROTATION FUND	EQUITY	WORKDAY INC CLASS A	868,659.20	5,440	3.02		0
MML EQUITY ROTATION FUND	EQUITY	EPR PROPERTIES	121,657.00	1,900	0.42		0
MML EQUITY ROTATION FUND	EQUITY	ASML HOLDING NV NY REG SHS	126,052.20	810	0.44		0
MML EQUITY ROTATION FUND	EQUITY	EATON CORP PLC	233,444.00	3,400	0.81		0
MML EQUITY ROTATION FUND	EQUITY	INTUIT INC	267,716.00	1,360	0.93		0
MML EQUITY ROTATION FUND	EQUITY	MAGNA INTERNATIONAL INC	240,885.00	5,300	0.84		0
MML EQUITY ROTATION FUND	EQUITY	UNITED THERAPEUTICS CORP	266,805.00	2,450	0.93		0
MML EQUITY ROTATION FUND	EQUITY	PROGRESSIVE CORP	150,825.00	2,500	0.53		0
MML EQUITY ROTATION FUND	EQUITY	AMAZON.COM INC	671,380.59	447	2.34		0
MML EQUITY ROTATION FUND	EQUITY	AGCO CORP	244,948.00	4,400	0.85		0
MML EQUITY ROTATION FUND	EQUITY	APACHE CORP	10,500.00	400	0.04		0
MML EQUITY ROTATION FUND	EQUITY	ARCHER DANIELS MIDLAND CO	208,947.00	5,100	0.73		0
MML EQUITY ROTATION FUND	EQUITY	DEVON ENERGY CORP	360,640.00	16,000	1.26		0
MML EQUITY ROTATION FUND	EQUITY	EASTMAN CHEMICAL CO	21,933.00	300	0.08		0
MML EQUITY ROTATION FUND	EQUITY	LOCKHEED MARTIN CORP	479,167.20	1,830	1.67		0
MML EQUITY ROTATION FUND	EQUITY	NORFOLK SOUTHERN CORP	373,850.00	2,500	1.30		0
MML EQUITY ROTATION FUND	EQUITY	OCCIDENTAL PETROLEUM CORP	165,726.00	2,700	0.58		0
MML EQUITY ROTATION FUND	EQUITY	UNION PACIFIC CORP	27,646.00	200	0.10		0
MML EQUITY ROTATION FUND	EQUITY	RELIANCE STEEL + ALUMINUM	149,457.00	2,100	0.52		0
MML EQUITY ROTATION FUND	EQUITY	TOLL BROTHERS INC	197,580.00	6,000	0.69		0
MML EQUITY ROTATION FUND	EQUITY	ATMOS ENERGY CORP	166,896.00	1,800	0.58		0
MML EQUITY ROTATION FUND	EQUITY	CELGENE CORP	252,514.60	3,940	0.88		0
MML EQUITY ROTATION FUND	EQUITY	COLUMBIA SPORTSWEAR CO	100,908.00	1,200	0.35		0
MML EQUITY ROTATION FUND	EQUITY	GENTEX CORP	92,966.00	4,600	0.32		0
MML EQUITY ROTATION FUND	EQUITY	GILEAD SCIENCES INC	475,380.00	7,600	1.65		0
MML EQUITY ROTATION FUND	EQUITY	UNIVERSAL HEALTH SERVICES B	109,566.40	940	0.38		0
MML EQUITY ROTATION FUND	EQUITY	AMGEN INC	1,294,555.50	6,650	4.51		0
MML EQUITY ROTATION FUND	EQUITY	APPLE INC	113,572.80	720	0.40		0
MML EQUITY ROTATION FUND	EQUITY	CVS HEALTH CORP	94,938.48	1,449	0.33		0
MML EQUITY ROTATION FUND	EQUITY	CISCO SYSTEMS INC	259,980.00	6,000	0.91		0
MML EQUITY ROTATION FUND	EQUITY	EXXON MOBIL CORP	20,457.00	300	0.07		0
MML EQUITY ROTATION FUND	EQUITY	MICROSOFT CORP	678,487.60	6,680	2.36		0
MML EQUITY ROTATION FUND	EQUITY	MICRON TECHNOLOGY INC	215,764.00	6,800	0.75		0
MML EQUITY ROTATION FUND	EQUITY	PFIZER INC	1,169,820.00	26,800	4.07		0
MML EQUITY ROTATION FUND	EQUITY	GENUINE PARTS CO	141,149.40	1,470	0.49		0
MML EQUITY ROTATION FUND	EQUITY	TORCHMARK CORP	52,171.00	700	0.18		0
MML EQUITY ROTATION FUND	CASH	US DOLLAR	2,584.97	2,585	0.01		0
MML EQUITY ROTATION FUND	EQUITY	JOHNSON + JOHNSON	336,820.50	2,610	1.17		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML EQUITY ROTATION FUND	EQUITY	STATE STREET CORP	195,517.00	3,100	0.68		0
MML EQUITY ROTATION FUND	EQUITY	CHECK POINT SOFTWARE TECH	143,710.00	1,400	0.50		0
MML EQUITY ROTATION FUND	EQUITY	AFLAC INC	164,016.00	3,600	0.57		0
MML EQUITY ROTATION FUND	EQUITY	MANPOWERGROUP INC	317,520.00	4,900	1.11		0
MML EQUITY ROTATION FUND	EQUITY	HORMEL FOODS CORP	136,576.00	3,200	0.48		0
MML EQUITY ROTATION FUND	EQUITY	TEVA PHARMACEUTICAL SP ADR	282,186.00	18,300	0.98		0
MML EQUITY ROTATION FUND	EQUITY	VERIZON COMMUNICATIONS INC	781,458.00	13,900	2.72		0
MML EQUITY ROTATION FUND	EQUITY	QUANTA SERVICES INC	162,540.00	5,400	0.57		0
MML EQUITY ROTATION FUND	EQUITY	NEWS CORP CLASS A	27,240.00	2,400	0.09		0
MML EQUITY ROTATION FUND	EQUITY	HD SUPPLY HOLDINGS INC	146,328.00	3,900	0.51		0
MML EQUITY ROTATION FUND	EQUITY	HORIZON PHARMA PLC	326,318.00	16,700	1.14		0
MML EQUITY ROTATION FUND	EQUITY	ALPHABET INC CL C	51,780.50	50	0.18		0
MML EQUITY ROTATION FUND	EQUITY	ALPHABET INC CL A	1,034,510.40	990	3.60		0
MML EQUITY ROTATION FUND	EQUITY	US FOODS HOLDING CORP	1,382,668.00	43,700	4.81		0
MML EQUITY ROTATION FUND	EQUITY	BROADCOM INC	127,140.00	500	0.44		0
MML EQUITY ROTATION FUND	EQUITY	GRAFTECH INTERNATIONAL LTD	10,296.00	900	0.04		0
MML EQUITY ROTATION FUND	EQUITY	LINDE PLC	31,208.00	200	0.11		0
MML EQUITY ROTATION FUND	EQUITY	CIGNA CORP	46,226.53	243	0.16		0
MML EQUITY ROTATION FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	3,778,230.85	3,778,231	13.15	1.25	1/2/2019
MML EQUITY ROTATION FUND	EQUITY	FOOT LOCKER INC	138,320.00	2,600	0.48		0
MML EQUITY ROTATION FUND	EQUITY	3M CO	76,216.00	400	0.27		0
MML EQUITY ROTATION FUND	EQUITY	YUM BRANDS INC	202,224.00	2,200	0.70		0
MML EQUITY ROTATION FUND	EQUITY	BIOGEN INC	204,625.60	680	0.71		0
MML EQUITY ROTATION FUND	EQUITY	PATTERSON COS INC	178,906.00	9,100	0.62		0
MML EQUITY ROTATION FUND	EQUITY	HERBALIFE NUTRITION LTD	778,140.00	13,200	2.71		0
MML SPECIAL SITUATIONS FUND	EQUITY	LAMB WESTON HOLDINGS INC	863,079.48	11,733	3.79		0
MML SPECIAL SITUATIONS FUND	EQUITY	INGEVITY CORP	555,617.91	6,639	2.44		0
MML SPECIAL SITUATIONS FUND	EQUITY	LIBERTY EXPEDIA HOLD A	53,189.60	1,360	0.23		0
MML SPECIAL SITUATIONS FUND	EQUITY	VAREX IMAGING CORP	177,600.00	7,500	0.78		0
MML SPECIAL SITUATIONS FUND	EQUITY	DXC TECHNOLOGY CO	205,980.58	3,874	0.91		0
MML SPECIAL SITUATIONS FUND	EQUITY	APTIV PLC	288,086.03	4,679	1.27		0
MML SPECIAL SITUATIONS FUND	EQUITY	LIBERTY LATIN AMERIC CL A	783,368.00	54,100	3.44		0
MML SPECIAL SITUATIONS FUND	EQUITY	GCI LIBERTY INC CLASS A	141,590.40	3,440	0.62		0
MML SPECIAL SITUATIONS FUND	EQUITY	NVENT ELECTRIC PLC	52,556.40	2,340	0.23		0
MML SPECIAL SITUATIONS FUND	EQUITY	PERSPECTA INC	438,025.14	25,437	1.93		0
MML SPECIAL SITUATIONS FUND	EQUITY	AVANOS MEDICAL INC	273,219.00	6,100	1.20		0
MML SPECIAL SITUATIONS FUND	EQUITY	KLX ENERGY SERVICES HOLDING	84,420.00	3,600	0.37		0
MML SPECIAL SITUATIONS FUND	EQUITY	GARRETT MOTION INC	3,776.04	306	0.02		0
MML SPECIAL SITUATIONS FUND	EQUITY	RESIDEO TECHNOLOGIES INC	10,480.50	510	0.05		0
MML SPECIAL SITUATIONS FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	4,985,125.19	4,985,125	21.92	1.25	1/2/2019
MML SPECIAL SITUATIONS FUND	EQUITY	WEST PHARMACEUTICAL SERVICES	303,893.00	3,100	1.34		0
MML SPECIAL SITUATIONS FUND	EQUITY	CITY HOLDING CO	122,270.31	1,809	0.54		0
MML SPECIAL SITUATIONS FUND	EQUITY	OSHKOSH CORP	122,742.62	2,002	0.54		0
MML SPECIAL SITUATIONS FUND	EQUITY	HONEYWELL INTERNATIONAL INC	404,287.20	3,060	1.78		0
MML SPECIAL SITUATIONS FUND	CASH	US DOLLAR	14,644.92	14,645	0.06		0
MML SPECIAL SITUATIONS FUND	EQUITY	AVERY DENNISON CORP	215,592.00	2,400	0.95		0
MML SPECIAL SITUATIONS FUND	EQUITY	DANAHER CORP	556,848.00	5,400	2.45		0
MML SPECIAL SITUATIONS FUND	EQUITY	MARATHON PETROLEUM CORP	182,399.91	3,091	0.80		0
MML SPECIAL SITUATIONS FUND	EQUITY	ABBVIE INC	580,797.00	6,300	2.55		0
MML SPECIAL SITUATIONS FUND	EQUITY	ZOETIS INC	1,685,138.00	19,700	7.41		0
MML SPECIAL SITUATIONS FUND	EQUITY	NEWS CORP CLASS A	65,830.00	5,800	0.29		0
MML SPECIAL SITUATIONS FUND	EQUITY	MURPHY USA INC	383,200.00	5,000	1.68		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SPECIAL SITUATIONS FUND	EQUITY	GAMING AND LEISURE PROPERTIE	449,109.00	13,900	1.97		0
MML SPECIAL SITUATIONS FUND	EQUITY	ALLEGION PLC	677,535.00	8,500	2.98		0
MML SPECIAL SITUATIONS FUND	EQUITY	ONE GAS INC	581,080.00	7,300	2.55		0
MML SPECIAL SITUATIONS FUND	EQUITY	PENTAIR PLC	88,405.20	2,340	0.39		0
MML SPECIAL SITUATIONS FUND	EQUITY	RAYONIER ADVANCED MATERIALS	48,990.00	4,600	0.22		0
MML SPECIAL SITUATIONS FUND	EQUITY	TIMKENSTEEL CORP	62,054.00	7,100	0.27		0
MML SPECIAL SITUATIONS FUND	EQUITY	SYNCHRONY FINANCIAL	223,808.40	9,540	0.98		0
MML SPECIAL SITUATIONS FUND	EQUITY	KEYSIGHT TECHNOLOGIES IN	904,505.60	14,570	3.98		0
MML SPECIAL SITUATIONS FUND	EQUITY	LIBERTY BROADBAND A	251,335.00	3,500	1.11		0
MML SPECIAL SITUATIONS FUND	EQUITY	CABLE ONE INC	410,050.00	500	1.80		0
MML SPECIAL SITUATIONS FUND	EQUITY	TOPBUILD CORP	342,000.00	7,600	1.50		0
MML SPECIAL SITUATIONS FUND	EQUITY	PAYPAL HOLDINGS INC	2,943,150.00	35,000	12.94		0
MML SPECIAL SITUATIONS FUND	EQUITY	LUMENTUM HOLDINGS INC	189,045.00	4,500	0.83		0
MML SPECIAL SITUATIONS FUND	EQUITY	J ALEXANDER S HOLDINGS	94,645.00	11,500	0.42		0
MML SPECIAL SITUATIONS FUND	EQUITY	HEWLETT PACKARD ENTERPRISE	1,077,936.00	81,600	4.74		0
MML SPECIAL SITUATIONS FUND	EQUITY	FOUR CORNERS PROPERTY TRUST	269,860.00	10,300	1.19		0
MML SPECIAL SITUATIONS FUND	EQUITY	LIBERTY MEDIA COR SIRIUSXM C	207,088.00	5,600	0.91		0
MML SPECIAL SITUATIONS FUND	EQUITY	LIBERTY MEDIA COR SIRIUSXM A	206,080.00	5,600	0.91		0
MML SPECIAL SITUATIONS FUND	EQUITY	LIBERTY MEDIA CORP LIBERTY C	162,710.00	5,300	0.72		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML TOTAL RETURN BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	2,022,260.05	2,001,735	0.45	3.98988	4/25/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	976,779.38	994,718	0.22	2.81988	1/25/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL 985524	31,701.13	29,465	0.01	5.5	6/1/2038
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL 988578	178,378.34	165,807	0.04	5.5	8/1/2038
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA TBA 30 YR 4	1,946,857.08	1,910,000	0.43	4	1/14/2049
MML TOTAL RETURN BOND FUND	FIXED INCOME	FHLMC TBA 30 YR 4	219,106.84	215,000	0.05	4	1/14/2049
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II TBA 30 YR 4.5	4,617,786.94	4,465,000	1.02	4.5	1/23/2049
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL 995482	153,101.51	142,291	0.03	5.5	1/1/2039
MML TOTAL RETURN BOND FUND	FIXED INCOME	FLORIDA GAS TRANSMISSION	1,015,023.82	1,000,000	0.23	7.9	5/15/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	CITIGROUP INC	1,224,488.47	1,200,000	0.27	8.5	5/22/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL 931504	101,553.25	97,122	0.02	4.5	7/1/2039
MML TOTAL RETURN BOND FUND	FIXED INCOME	MORGAN STANLEY	507,399.43	500,000	0.11	5.625	9/23/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	NEW YORK NY	850,350.00	750,000	0.19	5.206	10/1/2031
MML TOTAL RETURN BOND FUND	FIXED INCOME	LOS ANGELES CA UNIF SCH DIST	1,157,250.00	1,000,000	0.26	5.755	7/1/2029
MML TOTAL RETURN BOND FUND	FIXED INCOME	CONTL AIRLINES 2009 2	1,577,433.62	1,536,112	0.35	7.25	5/10/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	CITIGROUP MORTGAGE LOAN TRUST	2,307,161.52	2,400,000	0.51	2.79625	8/25/2036
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II TBA 30 YR 4	1,039,344.17	1,015,000	0.23	4	1/23/2049
MML TOTAL RETURN BOND FUND	FIXED INCOME	FORD MOTOR CREDIT CO LLC	835,733.14	805,000	0.19	8.125	1/15/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	NEW YORK ST DORM AUTH ST PERSO	857,160.00	750,000	0.19	5.289	3/15/2033
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA TBA 15 YR 3	49,906.25	50,000	0.01	3	1/17/2034
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA TBA 30 YR 3.5	1,924,097.56	1,925,000	0.43	3.5	1/14/2049
MML TOTAL RETURN BOND FUND	FIXED INCOME	WELLS FARGO COMMERCIAL MORTGAG	507,137.90	500,000	0.11	4.393	11/15/2043
MML TOTAL RETURN BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	916,881.18	923,455	0.20	3.13988	1/25/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	FHLMC TBA 15 YR 3.5	632,666.00	625,000	0.14	3.5	1/17/2034
MML TOTAL RETURN BOND FUND	FIXED INCOME	GENERAL ELECTRIC CO	1,022,633.92	1,020,000	0.23	4.625	1/7/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL 466919	1,452,444.56	1,426,602	0.32	3.93	1/1/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	HCA INC	200,900.00	196,000	0.04	6.5	2/15/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL AI2733	223,843.97	211,080	0.05	5	5/1/2041
MML TOTAL RETURN BOND FUND	FIXED INCOME	GENERAL ELECTRIC CO	371,109.77	370,000	0.08	4.65	10/17/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	950,149.15	948,679	0.21	3.45625	9/25/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	FRESENIUS MED CARE II	490,462.08	485,000	0.11	5.625	7/31/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	RUBY PIPELINE LLC	653,275.91	630,682	0.14	6	4/1/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	1,105,075.28	1,111,954	0.25	3.20625	1/25/2029
MML TOTAL RETURN BOND FUND	FIXED INCOME	WELLTOWER INC	750,210.48	750,000	0.17	4.125	4/1/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	ANTHEM INC	492,652.56	500,000	0.11	3.125	5/15/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	GS MORTGAGE SECURITIES TRUST	371,469.57	370,000	0.08	3.551	4/10/2034
MML TOTAL RETURN BOND FUND	FIXED INCOME	BERKSHIRE HATHAWAY FIN	764,964.29	750,000	0.17	4.4	5/15/2042
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL MA1148	2,274,909.26	2,260,692	0.50	3.5	8/1/2042
MML TOTAL RETURN BOND FUND	FIXED INCOME	LG+E AND KU ENERGY LLC	1,219,482.17	1,200,000	0.27	4.375	10/1/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL AM0359	490,487.70	500,000	0.11	2.31	8/1/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	ANTHEM INC	521,505.27	530,000	0.12	3.3	1/15/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	DUKE ENERGY CAROLINAS	960,747.79	1,000,000	0.21	4	9/30/2042
MML TOTAL RETURN BOND FUND	FIXED INCOME	MORGAN STANLEY BAML TRUST	1,560,560.95	1,582,829	0.35	2.858	11/15/2045
MML TOTAL RETURN BOND FUND	FIXED INCOME	MORGAN STANLEY REREMIC TRUST	840,213.91	860,844	0.19	2.8925	11/26/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	BAUSCH HEALTH COS INC	126,270.00	138,000	0.03	5.5	3/1/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL AB4262	705,764.86	695,094	0.16	3.5	1/1/2032
MML TOTAL RETURN BOND FUND	FIXED INCOME	NOMURA RESECURITIZATION TRUST	173,951.77	174,683	0.04	2.51088	5/26/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	SFAVE COMMERCIAL MORTGAGE SECU	335,463.35	370,000	0.07	3.872	1/5/2043
MML TOTAL RETURN BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	1,018,515.91	1,024,490	0.23	3.10625	4/25/2040
MML TOTAL RETURN BOND FUND	FIXED INCOME	SPRINT CORP	49,000.00	49,000	0.01	7.625	2/15/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	ANTERO RESOURCES CORP	117,500.00	125,000	0.03	5.125	12/1/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	1,227,740.60	1,238,873	0.27	3.09625	4/25/2046

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML TOTAL RETURN BOND FUND	FIXED INCOME	WILLIAMS COMPANIES INC	670,166.39	683,000	0.15	3.6	3/15/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	ENERGY TRANSFER OPERATNG	346,040.25	400,000	0.08	5.15	3/15/2045
MML TOTAL RETURN BOND FUND	FIXED INCOME	VIRGIN MEDIA SECURED FIN	183,250.00	200,000	0.04	5.25	1/15/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	RITE AID CORP	253,590.00	321,000	0.06	6.125	4/1/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	CORE INDUSTRIAL TRUST	409,780.85	412,672	0.09	3.04	2/10/2034
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL MA1512	328,196.87	323,434	0.07	3.5	7/1/2033
MML TOTAL RETURN BOND FUND	FIXED INCOME	AT+T INC	211,266.80	250,000	0.05	4.35	6/15/2045
MML TOTAL RETURN BOND FUND	FIXED INCOME	JERSEY CENTRAL PWR + LT	832,904.50	800,000	0.18	4.7	4/1/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	COMM MORTGAGE TRUST	340,147.44	325,000	0.08	4.353	8/10/2030
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL MA1607	685,903.00	687,595	0.15	3	10/1/2033
MML TOTAL RETURN BOND FUND	FIXED INCOME	MIDAMERICAN ENERGY CO	1,532,576.88	1,400,000	0.34	4.8	9/15/2043
MML TOTAL RETURN BOND FUND	FIXED INCOME	TENET HEALTHCARE CORP	25,285.00	26,000	0.01	4.5	4/1/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	1,483,536.20	1,430,000	0.33	4.73988	10/25/2083
MML TOTAL RETURN BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	715,456.35	700,000	0.16	4.33988	7/25/2073
MML TOTAL RETURN BOND FUND	FIXED INCOME	HCP INC	500,763.55	500,000	0.11	4.25	11/15/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	NOBLE ENERGY INC	124,268.37	140,000	0.03	5.25	11/15/2043
MML TOTAL RETURN BOND FUND	FIXED INCOME	WILLIAMS COMPANIES INC	573,002.44	570,000	0.13	4.5	11/15/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	PENNSYLVANIA HIGHER EDUCATION	1,105,934.60	1,101,215	0.25	3.25625	11/25/2042
MML TOTAL RETURN BOND FUND	FIXED INCOME	ENERGY TRANSFER LP	407,000.00	400,000	0.09	5.875	1/15/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	DUKE REALTY LP	1,008,319.01	1,000,000	0.22	3.875	2/15/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	RBSCF TRUST	331,699.47	330,000	0.07	3.8336	1/15/2032
MML TOTAL RETURN BOND FUND	FIXED INCOME	HCA INC	367,290.00	371,000	0.08	5	3/15/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	AT+T INC	1,165,208.27	1,300,000	0.26	4.8	6/15/2044
MML TOTAL RETURN BOND FUND	FIXED INCOME	INTELSAT JACKSON HLDG	48,720.00	56,000	0.01	5.5	8/1/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	MACQUARIE BANK LTD	747,756.38	750,000	0.17	2.6	6/24/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	TSY INFL IX N/B	975,264.32	1,017,037	0.22	0.125	7/15/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	HCP INC	492,079.68	500,000	0.11	3.875	8/15/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	BANK OF NY MELLON CORP	192,475.05	195,000	0.04	3.25	9/11/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	WEA FINANCE LLC/WESTFIEL	497,786.08	500,000	0.11	2.7	9/17/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	FARMERS EXCHANGE CAP III	938,668.04	970,000	0.21	5.454	10/15/2054
MML TOTAL RETURN BOND FUND	FIXED INCOME	BAYER US FINANCE LLC	843,205.57	850,000	0.19	2.375	10/8/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	BOSTON SCIENTIFIC CORP	666,421.81	650,000	0.15	6	1/15/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	GENERAL ELECTRIC CO	885,307.69	875,000	0.20	5.5	1/8/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	ROCKIES EXPRESS PIPELINE	381,000.00	381,000	0.08	5.625	4/15/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	CALIFORNIA ST	897,396.00	850,000	0.20	7.95	3/1/2036
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL AD6374	29,612.93	27,908	0.01	5	5/1/2040
MML TOTAL RETURN BOND FUND	FIXED INCOME	CSC HOLDINGS LLC	100,250.00	100,000	0.02	8.625	2/15/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	MORGAN STANLEY	257,719.04	250,000	0.06	5.5	7/24/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	DUQUESNE LIGHT HOLDINGS	1,042,884.38	1,000,000	0.23	6.4	9/15/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	BERKSHIRE HATHAWAY FIN	507,810.47	500,000	0.11	4.3	5/15/2043
MML TOTAL RETURN BOND FUND	FIXED INCOME	CITIGROUP COMMERCIAL MORTGAGE	338,846.86	340,000	0.08	3.251	5/10/2035
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL AM2808	372,018.19	375,000	0.08	2.7	3/1/2023
MML TOTAL RETURN BOND FUND	CASH	POUND STERLING	(0.01)	(0)	0.00	0	
MML TOTAL RETURN BOND FUND	CASH	MEXICAN PESO (NEW)	(0.02)	(0)	0.00	0	
MML TOTAL RETURN BOND FUND	CASH	US DOLLAR	(815,702.23)	(815,702)	0.18	0	
MML TOTAL RETURN BOND FUND	FIXED INCOME	SPRINT CAPITAL CORP	67,095.00	71,000	0.01	6.875	11/15/2028
MML TOTAL RETURN BOND FUND	CASH	EURO CURRENCY	6.74	6	0.00	0	
MML TOTAL RETURN BOND FUND	FIXED INCOME	NORTHWEST AIR 2001 1 A1	374,554.81	348,718	0.08	7.041	10/1/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	JERSEY CITY NJ MUNI UTILITIES	938,247.00	850,000	0.21	5.47	5/15/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	FHLMC TBA 30 YR 4.5	2,069,375.00	2,000,000	0.46	4.5	1/14/2049
MML TOTAL RETURN BOND FUND	FIXED INCOME	WELLS FARGO MORTGAGE BACKED SE	168,242.89	169,114	0.04	4.71723	1/25/2035
MML TOTAL RETURN BOND FUND	FIXED INCOME	WAMU MORTGAGE PASS THROUGH CER	905,053.44	940,775	0.20	2.83625	1/25/2045

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML TOTAL RETURN BOND FUND	FIXED INCOME	IMPAC CMB TRUST	1,162,333.55	1,229,566	0.26	3.02625	4/25/2035
MML TOTAL RETURN BOND FUND	FIXED INCOME	FIRST HORIZON MORTGAGE PASS TH	671,114.35	711,625	0.15	4.694978	11/25/2035
MML TOTAL RETURN BOND FUND	FIXED INCOME	WAMU MORTGAGE PASS THROUGH CER	906,590.10	953,166	0.20	2.79625	10/25/2045
MML TOTAL RETURN BOND FUND	FIXED INCOME	AT+T INC	417,446.69	425,000	0.09	5.25	3/1/2037
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08757	516,449.66	516,067	0.11	3.5	4/1/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	MGM GROWTH/MGM FINANCE	99,000.00	100,000	0.02	5.625	5/1/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	CHANGE HEALTH / FIN INC	113,765.00	122,000	0.03	5.75	3/1/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	WELLS FARGO + COMPANY	442,623.48	475,000	0.10	3	4/22/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	AMCOR FINANCE USA INC	615,526.96	650,000	0.14	3.625	4/28/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA3663	455,068.34	451,016	0.10	3.5	5/20/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA3666	284,003.44	272,109	0.06	5	5/20/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08710	372,434.06	381,464	0.08	3	6/1/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08711	1,498,255.08	1,496,209	0.33	3.5	6/1/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	1,084,853.22	1,100,000	0.24	3.03988	10/25/2064
MML TOTAL RETURN BOND FUND	FIXED INCOME	GENERAL MOTORS FINL CO	503,102.06	505,000	0.11	2.4	5/9/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08716	2,079,977.30	2,077,137	0.46	3.5	8/1/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	CORE INDUSTRIAL TRUST	413,654.38	416,849	0.09	3.077	2/10/2034
MML TOTAL RETURN BOND FUND	FIXED INCOME	AMGEN INC	467,594.02	500,000	0.10	4.4	5/1/2045
MML TOTAL RETURN BOND FUND	FIXED INCOME	AMGEN INC	197,334.91	200,000	0.04	2.125	5/1/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	ABBVIE INC	479,592.40	500,000	0.11	3.6	5/14/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G60023	2,536,460.37	2,523,547	0.56	3.5	4/1/2045
MML TOTAL RETURN BOND FUND	FIXED INCOME	SHELL INTERNATIONAL FIN	425,539.19	415,000	0.09	4.375	5/11/2045
MML TOTAL RETURN BOND FUND	FIXED INCOME	ENERGY TRANSFER LP	247,650.00	254,000	0.05	5.5	6/1/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	WELLTOWER INC	819,145.71	830,000	0.18	4	6/1/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	1,438,320.18	1,443,532	0.32	3.10625	2/27/2051
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL AL6829	1,088,124.85	1,118,984	0.24	2.964	5/1/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	REYNOLDS AMERICAN INC	188,025.76	195,000	0.04	4.45	6/12/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL AM9188	727,096.66	780,000	0.16	3.12	6/1/2035
MML TOTAL RETURN BOND FUND	FIXED INCOME	SEALED AIR CORP	187,625.00	190,000	0.04	5.5	9/15/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL AM4236	635,320.36	609,387	0.14	3.94	8/1/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	ACCESS GROUP INC	689,609.53	689,816	0.15	3.20625	7/25/2056
MML TOTAL RETURN BOND FUND	CASH EQUIVALENT	TSY INF LIX N/B	863,147.73	895,348	0.19	0.375	7/15/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL AM9623	743,003.50	755,000	0.16	3.34	7/1/2030
MML TOTAL RETURN BOND FUND	FIXED INCOME	AERCAP IRELAND CAP/GLOBA	491,414.08	490,000	0.11	4.5	5/15/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	CELGENE CORP	693,512.08	750,000	0.15	5	8/15/2045
MML TOTAL RETURN BOND FUND	FIXED INCOME	PLAINS ALL AMER PIPELINE	590,065.37	600,000	0.13	4.65	10/15/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	GILEAD SCIENCES INC	514,605.67	525,000	0.11	3.65	3/1/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	AMERICAN CAMPUS CMNTYS	498,287.90	500,000	0.11	3.35	10/1/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	WELLS FARGO + COMPANY	702,435.01	725,000	0.16	3.55	9/29/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	WEA FINANCE LLC/WESTFIEL	699,027.95	700,000	0.16	3.25	10/5/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	CENTRAL GARDEN + PET CO	35,910.00	36,000	0.01	6.125	11/15/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	BALL CORP	351,312.50	350,000	0.08	4.375	12/15/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G60344	1,684,120.44	1,639,670	0.37	4	12/1/2045
MML TOTAL RETURN BOND FUND	FIXED INCOME	CLEAR CHANNEL INTL BV	80,600.00	80,000	0.02	8.75	12/15/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	LEVEL 3 FINANCING INC	150,000.00	160,000	0.03	5.375	5/1/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	SPECTRUM BRANDS INC	232,676.50	245,000	0.05	5.75	7/15/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	APPLE INC	899,757.58	850,000	0.20	4.65	2/23/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	COMM MORTGAGE TRUST	336,095.44	340,000	0.07	3.545	2/10/2036
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA3521	971,788.89	963,136	0.22	3.5	3/20/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G18592	555,291.08	555,986	0.12	3	3/1/2031
MML TOTAL RETURN BOND FUND	FIXED INCOME	AT+T INC	156,456.88	160,000	0.03	3.95	1/15/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	HARBORVIEW MORTGAGE LOAN TRUST	1,750,128.07	2,041,422	0.39	2.66963	11/19/2036

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL FN0039	804,723.87	807,735	0.18	3.201	9/1/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	MORGAN STANLEY CAPITAL I TRUST	402,655.88	400,000	0.09	3.727	10/12/2050
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA3597	302,033.27	299,344	0.07	3.5	4/20/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	RANGE RESOURCES CORP	102,500.00	125,000	0.02	4.875	5/15/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	GLP CAPITAL LP / FIN II	687,361.95	695,000	0.15	5.375	4/15/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	GOLDMAN SACHS GROUP INC	1,987,366.18	2,000,000	0.44	2.55	10/23/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	CONSTELLATION BRANDS INC	501,858.65	500,000	0.11	3.875	11/15/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G07848	2,465,749.73	2,449,389	0.55	3.5	4/1/2044
MML TOTAL RETURN BOND FUND	FIXED INCOME	WALGREENS BOOTS ALLIANCE	393,917.13	400,000	0.09	3.8	11/18/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	WALGREENS BOOTS ALLIANCE	250,380.18	275,000	0.06	4.8	11/18/2044
MML TOTAL RETURN BOND FUND	FIXED INCOME	SPRINT CORP	20,797.14	21,000	0.00	7.125	6/15/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	SABINE PASS LIQUEFACTION	302,573.56	290,000	0.07	5.75	5/15/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL AM0827	945,682.67	954,993	0.21	2.6	11/1/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	VENTAS REALTY LP	1,435,898.73	1,500,000	0.32	3.5	2/1/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL 466960	1,108,274.88	1,090,660	0.25	3.89	12/1/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	WELLS FARGO + COMPANY	188,030.87	195,000	0.04	2.625	7/22/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	BANK OF AMERICA CORP	505,783.83	515,000	0.11	2.369	7/21/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	MORGAN STANLEY	502,841.75	510,000	0.11	3.399	7/22/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08715	2,850,583.70	2,919,699	0.63	3	8/1/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	DELL INT LLC / EMC CORP	398,817.90	400,000	0.09	3.48	6/1/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	NXP BV/NXP FUNDING LLC	197,500.00	200,000	0.04	4.125	6/1/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	BAXALTA INC	214,070.22	216,000	0.05	2.875	6/23/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	AETNA INC	461,238.93	485,000	0.10	2.8	6/15/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	GE CAPITAL INTL FUNDING	653,301.99	780,000	0.14	4.418	11/15/2035
MML TOTAL RETURN BOND FUND	FIXED INCOME	GE CAPITAL INTL FUNDING	699,665.11	725,000	0.16	2.342	11/15/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	CENTENE CORP	423,055.00	422,000	0.09	5.625	2/15/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08722	360,276.46	359,785	0.08	3.5	9/1/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	RAYMOND JAMES FINANCIAL	384,300.95	400,000	0.09	4.95	7/15/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	JPMORGAN CHASE + CO	826,557.77	895,000	0.18	2.95	10/1/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	TEVA PHARMACEUTICALS NE	272,700.16	277,000	0.06	1.7	7/19/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	POST HOLDINGS INC	32,760.00	36,000	0.01	5	8/15/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	VERIZON COMMUNICATIONS	299,974.16	340,000	0.07	4.125	8/15/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	BANC OF AMERICA FUNDING CORPOR	1,075,475.70	1,104,909	0.24	2.5	3/25/2040
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08726	2,723,994.19	2,790,040	0.60	3	10/1/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	AXALTA COATING SYSTEMS	141,750.00	150,000	0.03	4.875	8/15/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	GRAPHIC PACKAGING INTERN	188,000.00	200,000	0.04	4.125	8/15/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	KRAFT HEINZ FOODS CO	483,877.56	500,000	0.11	3.95	7/15/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G67700	1,404,724.19	1,399,749	0.31	3.5	8/1/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	MOLINA HEALTHCARE INC	217,125.00	225,000	0.05	5.375	11/15/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA3937	365,529.59	362,387	0.08	3.5	9/20/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	SIEMENS FINANCIERINGSMAT	513,001.27	550,000	0.11	2	9/15/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08732	958,697.34	981,942	0.21	3	11/1/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	SOUTHERN CO GAS CAPITAL	95,318.19	100,000	0.02	2.45	10/1/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	IQVIA INC	191,000.00	200,000	0.04	5	10/15/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	GILEAD SCIENCES INC	409,907.74	445,000	0.09	4.15	3/1/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	SHIRE ACQ INV IRELAND DA	492,992.91	500,000	0.11	1.9	9/23/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	PROV ST JOSEPH HLTH OBL	786,392.29	845,000	0.17	2.746	10/1/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08737	345,417.02	353,905	0.08	3	12/1/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	GENERAL MOTORS FINL CO	495,644.02	500,000	0.11	2.35	10/4/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	WELLS FARGO + COMPANY	782,237.14	845,000	0.17	3	10/23/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	MONDELEZ INTL HLDINGS NE	1,178,359.82	1,195,000	0.26	1.625	10/28/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	SPRINT SPECTRUM / SPEC I	437,894.53	443,438	0.10	3.36	3/20/2023

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML TOTAL RETURN BOND FUND	FIXED INCOME	DIAMONDBACK ENERGY INC	15,440.00	16,000	0.00	4.75	11/1/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08741	2,397,230.28	2,456,139	0.53	3	1/1/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08742	1,466,172.57	1,465,085	0.33	3.5	1/1/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G18627	1,656,432.88	1,660,584	0.37	3	1/1/2032
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL V61427	412,526.58	421,938	0.09	2.5	12/1/2031
MML TOTAL RETURN BOND FUND	FIXED INCOME	CHARTER COMM OPT LLC/CAP	205,587.74	200,000	0.05	6.484	10/23/2045
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA4126	2,366,104.98	2,399,948	0.53	3	12/20/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA4127	1,233,267.54	1,223,044	0.27	3.5	12/20/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	TRANSOCEAN PROTEUS LTD	63,578.00	66,400	0.01	6.25	12/1/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	PARSLEY ENERGY LLC/FINAN	193,200.00	210,000	0.04	5.375	1/15/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA4199	305,413.44	292,623	0.07	5	1/20/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	CITIGROUP INC	991,969.68	1,000,000	0.22	2.45	1/10/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	EMERA US FINANCE LP	1,059,268.17	1,068,000	0.24	2.15	6/15/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	ZAYO GROUP LLC/ZAYO CAP	100,852.50	113,000	0.02	5.75	1/15/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	CCO HLDGS LLC/CAP CORP	113,630.80	122,000	0.03	5.125	5/1/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	ALIMENTATION COUCHE TARD	188,170.83	195,000	0.04	2.7	7/26/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	CROWN CASTLE INTL CORP	592,940.71	625,000	0.13	3.2	9/1/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	KRAFT HEINZ FOODS CO	748,073.77	750,000	0.17	3.02113	8/9/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	GULFPORT ENERGY CORP	41,595.00	47,000	0.01	6.375	5/15/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA4718	271,652.35	275,625	0.06	3	9/20/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA4722	841,971.24	805,263	0.19	5	9/20/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA4719	549,058.74	544,845	0.12	3.5	9/20/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	CIGNA HOLDING CO	864,423.60	945,000	0.19	3.05	10/15/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08791	918,804.91	941,685	0.20	3	12/1/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	JPMORGAN CHASE + CO	485,359.85	500,000	0.11	3.782	2/1/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL AN4431	802,568.82	805,000	0.18	3.22	1/1/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA4262	1,464,857.58	1,452,714	0.33	3.5	2/20/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA4836	2,156,736.70	2,188,973	0.48	3	11/20/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA4838	977,553.27	953,420	0.22	4	11/20/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	LLOYDS BANKING GROUP PLC	407,181.28	430,000	0.09	2.907	11/7/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08800	188,177.81	188,215	0.04	3.5	2/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	ALEXANDRIA REAL ESTATE E	433,146.19	450,000	0.10	3.45	4/30/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	TELEFLEX INC	99,242.50	107,000	0.02	4.625	11/15/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G67706	1,901,407.79	1,896,444	0.42	3.5	12/1/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	BOSTON PROPERTIES LP	410,595.82	430,000	0.09	3.2	1/15/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL AN7345	971,645.83	1,025,506	0.22	3.21	11/1/2037
MML TOTAL RETURN BOND FUND	FIXED INCOME	POST HOLDINGS INC	161,000.00	175,000	0.04	5.625	1/15/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	IHS MARKIT LTD	235,290.00	253,000	0.05	4	3/1/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	CHARTER COMM OPT LLC/CAP	859,385.56	950,000	0.19	3.75	2/15/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	MATTHEWS INTERNATIONAL C	111,600.00	120,000	0.02	5.25	12/1/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	AMERICAN TOWER CORP	413,713.21	430,000	0.09	3	6/15/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	CENTRAL GARDEN + PET CO	217,485.00	243,000	0.05	5.125	2/1/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	ITRON INC	98,820.00	108,000	0.02	5	1/15/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	VOYA CLO LTD	891,354.14	895,806	0.20	3.20988	7/25/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	VALVOLINE INC	195,500.00	200,000	0.04	5.5	7/15/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL CA0996	363,600.67	363,133	0.08	3.5	1/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	SILGAN HOLDINGS INC	233,125.00	250,000	0.05	4.75	3/15/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	SANTANDER UK GROUP HLDGS	611,993.52	645,000	0.14	3.373	1/5/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	OMAN GOV INTERNTL BOND	176,075.20	200,000	0.04	5.625	1/17/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	CSC HOLDINGS LLC	183,936.00	200,000	0.04	5.375	2/1/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	WELLS FARGO BANK NA	1,487,240.48	1,500,000	0.33	2.4	1/15/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	HOLOGIC INC	144,000.00	160,000	0.03	4.625	2/1/2028

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML TOTAL RETURN BOND FUND	FIXED INCOME	PNC BANK NA	1,075,548.47	1,090,000	0.24	2.5	1/22/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	CITIGROUP INC	736,688.18	750,000	0.16	3.142	1/24/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	BANK OF AMERICA CORP	1,068,534.90	1,085,000	0.24	2.738	1/23/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	GOLDMAN SACHS GROUP INC	606,856.38	650,000	0.13	3.814	4/23/2029
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G67707	4,458,533.40	4,441,358	0.99	3.5	1/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	T MOBILE USA INC	243,445.00	269,000	0.05	4.75	2/1/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	MGM GROWTH/MGM FINANCE	70,000.00	80,000	0.02	4.5	1/15/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	POST HOLDINGS INC	37,500.00	40,000	0.01	5.75	3/1/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	MORGAN STANLEY	3,395,088.27	3,395,000	0.75	3.41413	2/14/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	LEVEL 3 FINANCING INC	77,775.00	85,000	0.02	5.25	3/15/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	WELLCARE HEALTH PLANS	72,187.50	75,000	0.02	5.25	4/1/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	VERIZON COMMUNICATIONS	656,249.91	630,000	0.15	5.25	3/16/2037
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA4382	408,642.14	405,254	0.09	3.5	4/20/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	CHOBANI LLC/FINANCE CORP	109,462.50	139,000	0.02	7.5	4/15/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL MA3027	1,160,149.51	1,136,227	0.26	4	6/1/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	1,111,115.72	1,100,000	0.25	3.55625	7/26/2066
MML TOTAL RETURN BOND FUND	FIXED INCOME	JPMORGAN CHASE + CO	805,611.43	845,000	0.18	3.54	5/1/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	AEP TRANSMISSION CO LLC	826,101.97	855,000	0.18	3.1	12/1/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	FREDDIE MAC	1,340,932.87	1,420,657	0.30	2.75	4/15/2053
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G67703	2,013,709.11	2,007,201	0.45	3.5	4/1/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA4454	615,791.56	590,356	0.14	5	5/20/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	1011778 BC / NEW RED FIN	275,080.00	299,000	0.06	4.25	5/15/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	AIMCO	303,039.87	304,319	0.07	3.569	7/20/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	WELLS FARGO + COMPANY	542,442.96	565,000	0.12	3.584	5/22/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	FHLMC MULTIFAMILY STRUCTURED P	1,761,512.49	1,775,000	0.39	3.291	3/25/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	TC PIPELINES LP	477,298.50	500,000	0.11	3.9	5/25/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	BECTON DICKINSON AND CO	387,407.99	400,000	0.09	2.894	6/6/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	BECTON DICKINSON AND CO	433,133.22	440,000	0.10	2.404	6/5/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	CANADIAN NATL RESOURCES	161,307.78	171,000	0.04	3.85	6/1/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	SBA COMMUNICATIONS CORP	92,120.00	98,000	0.02	4.875	9/1/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL AS9830	1,178,668.92	1,154,011	0.26	4	6/1/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL MA3088	1,653,033.58	1,618,947	0.37	4	8/1/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	FORD MOTOR CREDIT CO LLC	559,891.41	575,000	0.12	2.425	6/12/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	KFC HLD/PIZZA HUT/TACO	195,300.00	210,000	0.04	4.75	6/1/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	INTELSAT JACKSON HLDG	223,624.40	223,000	0.05	9.75	7/15/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	FIRST QUALITY FINANCE CO	155,730.00	174,000	0.03	5	7/1/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	DIAMONDBACK ENERGY INC	100,360.00	104,000	0.02	4.75	11/1/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	SIRIUS XM RADIO INC	209,000.00	220,000	0.05	3.875	8/1/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL AS9972	1,028,476.52	1,006,961	0.23	4	7/1/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	JP MORGAN CHASE BANK NA	2,197,408.76	2,215,000	0.49	2.604	2/1/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	MAGNETITE CLO LTD	984,583.00	1,000,000	0.22	3.23631	1/15/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	TRANSMONTAIGE PARTNERS	116,350.00	130,000	0.03	6.125	2/15/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	CELGENE CORP	412,709.78	440,000	0.09	3.9	2/20/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	JP MORGAN CHASE BANK NA	1,762,662.36	1,765,000	0.39	2.86813	2/13/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	TSY INFL IX N/B	1,885,175.68	1,989,331	0.42	1	2/15/2048
MML TOTAL RETURN BOND FUND	CASH EQUIVALENT	TSY INFL IX N/B	505,024.85	532,927	0.11	1	2/15/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	RUSSIAN FEDERATION	198,001.60	200,000	0.04	4.75	5/27/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	LAMAR MEDIA CORP	96,354.88	99,250	0.02	0	3/14/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	SPRINT CORP	166,887.50	169,000	0.04	7.625	3/1/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	DELOS FIN S A R L	573,565.50	591,000	0.13	0	10/6/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL MA3333	1,025,189.57	1,004,972	0.23	4	4/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL MA3332	4,177,564.30	4,177,401	0.93	3.5	4/1/2048

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G67708	4,142,113.96	4,137,750	0.92	3.5	3/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	KINDER MORGAN INC	489,368.64	500,000	0.11	4.3	3/1/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	CVS HEALTH CORP	1,060,144.74	1,090,000	0.24	5.05	3/25/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08816	2,303,624.69	2,304,075	0.51	3.5	6/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	ZIMMER BIOMET HOLDINGS	648,866.51	655,000	0.14	3.55363	3/19/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	CAMPBELL SOUP CO	646,621.25	650,000	0.14	3.3	3/15/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	SPRINT SPECTRUM / SPEC I	853,687.50	870,000	0.19	4.738	9/20/2029
MML TOTAL RETURN BOND FUND	FIXED INCOME	ANHEUSER BUSCH INBEV WOR	416,092.09	435,000	0.09	4	4/13/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G67710	2,915,818.25	2,914,111	0.65	3.5	3/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G67711	1,901,529.98	1,855,010	0.42	4	3/1/2048
MML TOTAL RETURN BOND FUND	CASH EQUIVALENT	TREASURY BILL	528,027.05	531,000	0.12	0	3/28/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	GENERAL MILLS INC	617,346.31	630,000	0.14	4.2	4/17/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	DRYDEN SENIOR LOAN FUND	957,224.78	975,000	0.21	3.33631	4/15/2029
MML TOTAL RETURN BOND FUND	FIXED INCOME	LCM LTD PARTNERSHIP	727,990.54	740,000	0.16	3.349	4/20/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	KAZMUNAYGAS NATIONAL CO	196,304.80	200,000	0.04	5.375	4/24/2030
MML TOTAL RETURN BOND FUND	FIXED INCOME	GOLDMAN SACHS GROUP INC	187,665.72	195,000	0.04	4.223	5/1/2029
MML TOTAL RETURN BOND FUND	FIXED INCOME	COOPERAT RABOBANK UA/NY	846,889.54	850,000	0.19	3.125	4/26/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	JP MORGAN CHASE BANK NA	483,039.53	485,000	0.11	3.086	4/26/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	CITIBANK NA	2,202,200.60	2,205,000	0.49	3.05	5/1/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	BACARDI LTD	189,580.90	210,000	0.04	5.3	5/15/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	BACARDI LTD	187,392.06	195,000	0.04	4.7	5/15/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL CA1710	2,625,666.99	2,534,581	0.58	4.5	5/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL CA1711	873,248.64	842,955	0.19	4.5	5/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	BANK OF AMERICA CORP	1,238,338.73	1,274,000	0.27	3.004	12/20/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	NEXTERA ENERGY CAPITAL	1,980,540.76	2,000,000	0.44	3.0615	5/4/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	GLP CAPITAL LP / FIN II	188,654.80	190,000	0.04	5.25	6/1/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G67713	1,952,517.59	1,906,494	0.43	4	6/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	SANTANDER UK PLC	1,243,901.13	1,250,000	0.28	3.4	6/1/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	VODAFONE GROUP PLC	407,428.81	420,000	0.09	4.375	5/30/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08833	588,551.73	562,094	0.13	5	7/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	L3 TECHNOLOGIES INC	639,857.65	640,000	0.14	4.4	6/15/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	GOLDMAN SACHS BANK USA	998,190.80	1,000,000	0.22	3.2	6/5/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	KRAFT HEINZ FOODS CO	1,008,493.25	1,020,000	0.22	4.625	1/30/2029
MML TOTAL RETURN BOND FUND	FIXED INCOME	UNION PACIFIC CORP	424,420.45	425,000	0.09	3.95	9/10/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	BAYER US FINANCE II LLC	811,539.50	850,000	0.18	4.375	12/15/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL MA3444	1,925,913.83	1,859,102	0.43	4.5	8/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	BANK OF AMERICA CORP	815,444.32	860,000	0.18	3.093	10/1/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	FANNIEMAE ACES	671,588.32	677,925	0.15	2.77088	9/25/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	RANGE RESOURCES CORP	66,000.00	75,000	0.01	5	3/15/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	NEXTERA ENERGY OPERATING	157,530.00	177,000	0.03	4.5	9/15/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	SUNOCO LOGISTICS PARTNER	583,596.78	644,000	0.13	5.4	10/1/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	MULTI COLOR CORP	111,800.00	130,000	0.02	4.875	11/1/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	GOLDMAN SACHS GROUP INC	604,605.30	645,000	0.13	3.272	9/29/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	PILGRIM S PRIDE CORP	137,940.00	152,000	0.03	5.875	9/30/2027
MML TOTAL RETURN BOND FUND	FIXED INCOME	BAUSCH HEALTH COS INC	109,102.50	117,000	0.02	5.5	11/1/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	SL GREEN OPERATING PARTN	483,099.17	500,000	0.11	3.25	10/15/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL MA3210	831,479.22	831,447	0.18	3.5	12/1/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08795	723,265.77	741,276	0.16	3	1/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	NORTHROP GRUMMAN CORP	597,120.83	640,000	0.13	3.25	1/15/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	CATALENT PHARMA SOLUTION	75,800.00	80,000	0.02	4.875	1/15/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	GNMA II POOL MA4837	528,870.83	524,812	0.12	3.5	11/20/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	TRANSOCEAN GUARDIAN LTD	145,540.00	152,000	0.03	5.875	1/15/2024

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML TOTAL RETURN BOND FUND	FIXED INCOME	CHS/COMMUNITY HEALTH SYS	59,250.00	60,000	0.01	8.625	1/15/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08843	1,018,605.47	983,677	0.23	4.5	10/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	FED HM LN PC POOL G08844	620,678.10	592,776	0.14	5	10/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	TRANSOCEAN PONTUS LTD	133,170.00	138,000	0.03	6.125	8/1/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	TSY INFL IX N/B	2,889,045.37	2,951,653	0.64	0.75	7/15/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	WELLS FARGO BANK NA	759,259.30	760,000	0.17	3.325	7/23/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	CITIBANK NA	250,317.69	250,000	0.06	3.4	7/23/2021
MML TOTAL RETURN BOND FUND	FUTURE	US 5YR NOTE (CBT) MAR19	-	45,700,000	0.03	0	3/29/2019
MML TOTAL RETURN BOND FUND	FUTURE	US 2YR NOTE (CBT) MAR19	-	26,000,000	0.00	0	3/29/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	BANK OF AMERICA CORP	1,741,786.41	1,750,000	0.39	4.271	7/23/2029
MML TOTAL RETURN BOND FUND	FIXED INCOME	IHS MARKIT LTD	376,988.15	385,000	0.08	4.75	8/1/2028
MML TOTAL RETURN BOND FUND	FUTURE	EURO-BOBL FUTURE MAR19	-	(6,400,000)	0.00	0	3/7/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL CA2208	1,696,688.58	1,637,829	0.38	4.5	8/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	FANNIE MAE	757,749.25	747,025	0.17	3.5	1/25/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	INDONESIA ASAHAN ALUMINI	209,775.60	200,000	0.05	6.53	11/15/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	ANHEUSER BUSCH CO/INBEV	556,431.29	600,000	0.12	4.9	2/1/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	SWFCME002 IRS USD R F 3.07080	21,197,517.69	20,975,000	4.70	3.0708	11/21/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	SWFCME002 IRS USD P V 03MLIBOR	(20,975,000.00)	(20,975,000)	4.66	1	11/21/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	BWFCME003 IRS USD R V 03MLIBOR	8,620,000.00	8,620,000	1.91	1	11/21/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	BWFCME003 IRS USD P F 3.08180	(8,823,113.66)	(8,620,000)	1.96	3.0818	11/21/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	GS MORTGAGE BACKED SECURITIES	1,751,895.64	1,782,019	0.39	3.75	10/25/2057
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL BL0242	1,021,971.30	1,000,000	0.23	3.82	11/1/2030
MML TOTAL RETURN BOND FUND	FIXED INCOME	PETROLEOS MEXICANOS	373,000.00	400,000	0.08	6.5	1/23/2029
MML TOTAL RETURN BOND FUND	FIXED INCOME	MATADOR RESOURCES CO	96,600.00	105,000	0.02	5.875	9/15/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	CSC HOLDINGS LLC	188,500.00	200,000	0.04	5.5	5/15/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	WRKCO INC	395,714.65	385,000	0.09	4.9	3/15/2029
MML TOTAL RETURN BOND FUND	FIXED INCOME	HOME DEPOT INC	220,214.98	215,000	0.05	3.9	12/6/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	JPMORGAN CHASE + CO	977,717.99	970,000	0.22	4.023	12/5/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	STATE STREET CORP	195,464.10	195,000	0.04	3.776	12/3/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	FREDDIE MAC	1,166,664.30	1,129,545	0.26	4	6/15/2047
MML TOTAL RETURN BOND FUND	FIXED INCOME	US TREASURY N/B	3,041,070.31	3,025,000	0.67	2.625	12/31/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL BL1132	942,505.13	920,000	0.21	3.73	1/1/2029
MML TOTAL RETURN BOND FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	2,589,411.92	2,589,412	0.57	1.25	1/2/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	622,205.14	630,000	0.14	3.30625	3/25/2067
MML TOTAL RETURN BOND FUND	FIXED INCOME	WALMART INC	940,256.26	930,000	0.21	3.55	6/26/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	TENET HEALTHCARE CORP	171,120.00	184,000	0.04	4.625	7/15/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	FANNIE MAE	1,309,338.84	1,291,148	0.29	3.5	5/25/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	US TREASURY N/B	920,760.45	925,000	0.20	3	8/15/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	FORD MOTOR CREDIT CO LLC	388,662.76	405,000	0.09	3.30519	10/12/2021
MML TOTAL RETURN BOND FUND	FIXED INCOME	WELL CARE HEALTH PLANS	38,600.00	40,000	0.01	5.375	8/15/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	BANC OF AMERICA MERRILL LYNCH	643,981.54	620,000	0.14	4.09075	8/10/2038
MML TOTAL RETURN BOND FUND	FIXED INCOME	INTELSAT JACKSON HLDG	110,580.00	114,000	0.02	8.5	10/15/2024
MML TOTAL RETURN BOND FUND	FIXED INCOME	CIGNA CORP	798,873.35	800,000	0.18	4.125	11/15/2025
MML TOTAL RETURN BOND FUND	FIXED INCOME	AIR LEASE CORP	565,853.52	575,000	0.13	3.5	1/15/2022
MML TOTAL RETURN BOND FUND	FIXED INCOME	GLP CAPITAL LP / FIN II	303,189.30	310,000	0.07	5.3	1/15/2029
MML TOTAL RETURN BOND FUND	FIXED INCOME	US TREASURY N/B	3,429,975.71	3,375,000	0.76	2.875	9/30/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	GOVERNMENT NATIONAL MORTGAGE A	837,920.69	831,638	0.19	3.5	9/20/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	COMCAST CORP	1,031,098.16	1,020,000	0.23	4.7	10/15/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	FREDDIE MAC	996,538.01	1,014,331	0.22	3	4/15/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	CREDIT SUISSE MORTGAGE TRUST	1,972,320.82	1,948,638	0.44	3.85	9/25/2057
MML TOTAL RETURN BOND FUND	CASH EQUIVALENT	FORD MOTOR CREDIT CO	807,885.91	815,000	0.18	0.01	4/4/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	VERIZON COMMUNICATIONS	301,232.94	300,000	0.07	4.329	9/21/2028

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML TOTAL RETURN BOND FUND	CASH EQUIVALENT	TREASURY BILL	1,032,669.81	1,040,000	0.23	0	4/18/2019
MML TOTAL RETURN BOND FUND	FIXED INCOME	US TREASURY N/B	21,395,750.70	21,045,000	4.75	2.875	10/31/2023
MML TOTAL RETURN BOND FUND	FIXED INCOME	AT+T INC	492,520.70	530,000	0.11	5.15	11/15/2046
MML TOTAL RETURN BOND FUND	FIXED INCOME	US TREASURY N/B	21,440,447.45	20,050,000	4.76	3.375	11/15/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	US TREASURY N/B	9,875,264.50	9,520,000	2.19	3.125	11/15/2028
MML TOTAL RETURN BOND FUND	FIXED INCOME	FHLMC MULTIFAMILY STRUCTURED P	806,487.65	785,000	0.18	3.9	10/25/2033
MML TOTAL RETURN BOND FUND	FIXED INCOME	T MOBILE USA INC	95,420.00	104,000	0.02	4.5	2/1/2026
MML TOTAL RETURN BOND FUND	FIXED INCOME	FNMA POOL MA3305	418,383.96	418,368	0.09	3.5	3/1/2048
MML TOTAL RETURN BOND FUND	FIXED INCOME	BROADCOM CRP / CAYMN FI	740,633.35	750,000	0.16	2.375	1/15/2020
MML TOTAL RETURN BOND FUND	FIXED INCOME	PETROBRAS GLOBAL FINANCE	185,000.00	200,000	0.04	5.75	2/1/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	WINGSTOP FUNDING LLC	131,268.63	130,000	0.06	4.97	12/5/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	MARINER FINANCE ISSUANCE TRUST	913,058.07	903,000	0.44	4.2	11/20/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	KREF 2018 FL1 LTD.	1,132,255.96	1,150,000	0.54	3.652	6/15/2036
MML SHORT-DURATION BOND FUND	FIXED INCOME	TACO BELL FUNDING, LLC	1,009,886.20	1,000,000	0.48	4.318	11/25/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	DEEPHAVEN RESIDENTIAL MORTGAGE	920,756.37	915,080	0.44	4.285	10/25/2058
MML SHORT-DURATION BOND FUND	FIXED INCOME	ANTARES HOLDINGS	652,438.62	660,000	0.31	6	8/15/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	GENPACT LUXEMBOURG SARL	1,027,129.39	1,035,000	0.49	3.7	4/1/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	MARLETTE FUNDING TRUST	509,796.18	510,515	0.24	3.2	9/15/2028
MML SHORT-DURATION BOND FUND	FUTURE	US 10YR NOTE (CBT)MAR19	-	21,800,000	0.04	0	3/20/2019
MML SHORT-DURATION BOND FUND	FIXED INCOME	SECURITIZED EQUIPMENT RECEIV	270,902.88	270,000	0.13	3.76	10/11/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	SECURITIZED EQUIPMENT RECEIV	311,124.62	310,000	0.15	4.2	10/11/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	COMMONBOND STUDENT LOAN TRUST	230,665.07	230,000	0.11	4.12	9/25/2045
MML SHORT-DURATION BOND FUND	FIXED INCOME	SOFI CONSUMER LOAN PROGRAM TRU	247,540.01	248,022	0.12	3.2	8/25/2027
MML SHORT-DURATION BOND FUND	FIXED INCOME	VSE VOI MORTGAGE LLC	290,747.09	288,552	0.14	4.02	2/20/2036
MML SHORT-DURATION BOND FUND	EQUITY	SWAPS BARCLAYS BOC	(110,000.00)	(110,000)	0.05	0	
MML SHORT-DURATION BOND FUND	FIXED INCOME	SEQUOIA MORTGAGE TRUST	232,134.00	230,789	0.11	4	9/25/2048
MML SHORT-DURATION BOND FUND	FUTURE	US 10YR ULTRA FUT MAR19	-	(8,000,000)	0.02	0	3/20/2019
MML SHORT-DURATION BOND FUND	FIXED INCOME	DIAMOND RESORTS OWNER TRUST	332,989.33	330,288	0.16	3.7	1/21/2031
MML SHORT-DURATION BOND FUND	FIXED INCOME	WILLIS ENGINE SECURITIZATION T	263,745.55	257,068	0.13	4.75	9/15/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	DRIVE AUTO RECEIVABLES TRUST	231,003.03	230,000	0.11	3.66	11/15/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	CAL FUNDING III LTD	289,585.04	282,750	0.14	4.34	9/25/2043
MML SHORT-DURATION BOND FUND	FIXED INCOME	WABTEC CORP	840,721.44	870,000	0.40	4.15	3/15/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	NAVISTAR FINANCIAL DEALER NOTE	160,317.70	160,000	0.08	3.55625	9/25/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	NAVISTAR FINANCIAL DEALER NOTE	231,559.06	230,000	0.11	4.05625	9/25/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	INTERPUBLIC GROUP COS	201,247.64	200,000	0.10	3.75	10/1/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	TRAFIGURA SECURITISATION FINAN	610,158.60	610,000	0.29	3.18513	3/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	TRAFIGURA SECURITISATION FINAN	928,356.36	920,000	0.44	4.29	3/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	329,342.00	956,000	0.16	0	2/25/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	DEEPHAVEN RESIDENTIAL MORTGAGE	717,334.38	712,255	0.34	3.963	8/25/2058
MML SHORT-DURATION BOND FUND	FIXED INCOME	CANADIAN PACER AUTO RECEIVABLE	182,590.15	180,000	0.09	3.63	1/19/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	GLS AUTO RECEIVABLES TRUST	304,078.78	304,015	0.14	3.35	8/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	ECMC GROUP STUDENT LOAN TRUST	530,894.79	531,343	0.25	3.30625	9/25/2068
MML SHORT-DURATION BOND FUND	FIXED INCOME	MSCG TRUST	88,395.69	90,000	0.04	3.63513	10/15/2037
MML SHORT-DURATION BOND FUND	FIXED INCOME	STORE MASTER FUNDING LLC	326,227.61	319,733	0.16	4.4	10/20/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	ASCENTIUM EQUIPMENT RECEIVABLE	652,567.04	640,000	0.31	5.18	7/10/2026
MML SHORT-DURATION BOND FUND	FIXED INCOME	ASCENTIUM EQUIPMENT RECEIVABLE	721,969.31	709,000	0.34	3.76	5/10/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	ADAMS OUTDOOR ADVERTISING	410,896.76	399,523	0.20	4.81	11/15/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	BX TRUST	413,223.05	419,374	0.20	4.15513	11/15/2035
MML SHORT-DURATION BOND FUND	FIXED INCOME	TREMAN PARK CLO LTD	989,652.00	1,000,000	0.47	3.53454	10/20/2028
MML SHORT-DURATION BOND FUND	FIXED INCOME	AASET 2018 2 TRUST	341,087.81	337,654	0.16	4.454	11/18/2038
MML SHORT-DURATION BOND FUND	FIXED INCOME	BANC OF AMERICA MERRILL LYNCH	129,408.36	130,000	0.06	3.80513	9/15/2034
MML SHORT-DURATION BOND FUND	FIXED INCOME	FORD MOTOR CREDIT CO LLC	531,955.80	575,000	0.25	3.85113	2/15/2023

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SHORT-DURATION BOND FUND	FIXED INCOME	FIRST INVESTORS AUTO OWNER TRU	290,767.02	290,000	0.14	3.22	1/17/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	MARLETTE FUNDING TRUST	201,282.52	201,435	0.10	3.06	7/17/2028
MML SHORT-DURATION BOND FUND	FIXED INCOME	LENDMARK FUNDING TRUST	349,409.59	350,000	0.17	3.81	12/21/2026
MML SHORT-DURATION BOND FUND	FIXED INCOME	BARCLAYS PLC	461,826.38	485,000	0.22	4.009	5/16/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	SEQUOIA MORTGAGE TRUST	859,143.66	854,677	0.41	4	6/25/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	KEURIG DR PEPPER INC	622,836.58	625,000	0.30	4.057	5/25/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	170,475.71	170,000	0.08	3.17513	12/15/2059
MML SHORT-DURATION BOND FUND	FIXED INCOME	HERO FUNDING TRUST	500,147.06	480,408	0.24	4.67	9/20/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	DRIVE AUTO RECEIVABLES TRUST	199,793.88	200,000	0.10	3.22	4/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	PSMC 2018 1 TRUST	604,283.16	611,979	0.29	3.5	6/25/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	AVANT LOANS FUNDING TRUST	193,205.75	193,518	0.09	3.09	6/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	MICROCHIP TECHNOLOGY INC	386,875.19	390,000	0.18	3.922	6/1/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	DEEPHAVEN RESIDENTIAL MORTGAGE	787,178.40	785,328	0.38	3.684	4/25/2058
MML SHORT-DURATION BOND FUND	FIXED INCOME	ENERGY TRANSFER OPERATNG	1,044,672.43	1,060,000	0.50	4.2	9/15/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	CASTLELAKE AIRCRAFT STRUCTURED	362,416.77	356,791	0.17	4.125	6/15/2043
MML SHORT-DURATION BOND FUND	FIXED INCOME	COLLEGE AVE STUDENT LOANS	579,241.66	583,838	0.28	3.70625	12/26/2047
MML SHORT-DURATION BOND FUND	FIXED INCOME	TRINITY RAIL LEASING L.P.	578,786.76	569,884	0.28	3.82	6/17/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	TRITON CONTAINER FINANCE LLC	525,909.21	522,500	0.25	4.19	6/22/2043
MML SHORT-DURATION BOND FUND	FIXED INCOME	RYDER SYSTEM INC	479,037.86	482,000	0.23	3.75	6/9/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	BAYER US FINANCE II LLC	938,022.44	980,000	0.45	3.79819	12/15/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	TIAA BANK MORTGAGE LOAN TRUST	320,927.95	325,361	0.15	3.5	7/25/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	HERTZ VEHICLE FINANCING LLC	334,475.03	330,000	0.16	4.37	7/25/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	MOSAIC SOLAR LOANS LLC	329,574.53	330,037	0.16	4.2	2/22/2044
MML SHORT-DURATION BOND FUND	FIXED INCOME	JP MORGAN CHASE COMMERCIAL MOR	846,773.57	850,000	0.40	3.45513	6/15/2032
MML SHORT-DURATION BOND FUND	FIXED INCOME	CPS AUTO TRUST	180,032.60	180,000	0.09	3.43	7/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	260,297.81	258,261	0.12	3.94	6/20/2035
MML SHORT-DURATION BOND FUND	FIXED INCOME	BHMS MORTGAGE TRUST	941,182.96	950,000	0.45	3.95513	7/15/2035
MML SHORT-DURATION BOND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	700,884.94	700,000	0.33	3.25625	9/27/2066
MML SHORT-DURATION BOND FUND	FIXED INCOME	OSCAR US FUNDING TRUST	262,611.70	260,000	0.13	3.63	9/10/2025
MML SHORT-DURATION BOND FUND	FUTURE	US 5YR NOTE (CBT) MAR19	-	(61,900,000)	0.07	0	3/29/2019
MML SHORT-DURATION BOND FUND	FUTURE	US 2YR NOTE (CBT) MAR19	-	15,200,000	0.01	0	3/29/2019
MML SHORT-DURATION BOND FUND	FIXED INCOME	SEQUOIA MORTGAGE TRUST	604,896.97	598,016	0.29	4	8/25/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	COMMONBOND STUDENT LOAN TRUST	201,980.57	202,000	0.10	4.35	2/25/2046
MML SHORT-DURATION BOND FUND	CASH EQUIVALENT	TYSON FOODS INC	1,399,586.22	1,400,000	0.67	0	1/4/2019
MML SHORT-DURATION BOND FUND	FIXED INCOME	TESLA AUTO LEASE TRUST	175,610.77	175,000	0.08	3.71	8/20/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	NP FERRUM LLC	44,759.07	45,265	0.02	2.707	2/19/2045
MML SHORT-DURATION BOND FUND	FIXED INCOME	NP FERRUM LLC	132,583.32	131,145	0.06	3.968	3/19/2046
MML SHORT-DURATION BOND FUND	CASH EQUIVALENT	SCHLUMBERGER HOLDINGS	499,705.89	500,000	0.24	0	1/8/2019
MML SHORT-DURATION BOND FUND	FIXED INCOME	BM1047968 CDS USD R F 3.00000	343,883.70	410,000	0.16	3	11/17/2045
MML SHORT-DURATION BOND FUND	FIXED INCOME	BM1047968 CDS USD P V 01MEVENT	(410,000.00)	(410,000)	0.20	1	11/17/2045
MML SHORT-DURATION BOND FUND	FIXED INCOME	JP MORGAN MORTGAGE TRUST	592,955.28	602,791	0.28	3.5	9/25/2048

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SHORT-DURATION BOND FUND	FIXED INCOME	DT AUTO OWNER TRUST	289,266.82	290,000	0.14	3.04	1/18/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	CVS HEALTH CORP	301,735.01	305,000	0.14	3.7	3/9/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	RETL	453,222.89	457,865	0.22	3.55513	3/15/2033
MML SHORT-DURATION BOND FUND	FIXED INCOME	PSMC TRUST	578,033.33	585,512	0.28	3.5	2/25/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	COMMONBOND STUDENT LOAN TRUST	229,349.77	230,000	0.11	3.82	2/25/2044
MML SHORT-DURATION BOND FUND	FIXED INCOME	OSCAR US FUNDING TRUST	248,756.59	249,325	0.12	2.91	4/12/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	ANHEUSER BUSCH INBEV WOR	1,051,506.36	1,075,000	0.50	3.5	1/12/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	BRE GRAND ISLANDER TIMESHARE I	165,941.42	168,114	0.08	2.94	5/25/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	BANCO SANTANDER SA	1,177,608.31	1,200,000	0.56	3.5	4/11/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	GLOBAL SC FINANCE SRL	272,345.77	273,708	0.13	3.85	4/15/2037
MML SHORT-DURATION BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	207,500.00	200	0.10	0	3/25/2033
MML SHORT-DURATION BOND FUND	FIXED INCOME	AVERY POINT CLO LTD	251,260.85	251,861	0.12	3.56456	1/18/2025
MML SHORT-DURATION BOND FUND	FIXED INCOME	SHERWIN WILLIAMS CO	517,885.25	535,000	0.25	2.75	6/1/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	MARTIN MARIETTA MATERIAL	392,869.03	395,000	0.19	3.32694	5/22/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	ENEL FINANCE INTL NV	456,970.21	485,000	0.22	2.875	5/25/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	CLI FUNDING LLC	494,994.46	496,841	0.24	3.62	5/18/2042
MML SHORT-DURATION BOND FUND	FIXED INCOME	DRIVE AUTO RECEIVABLES TRUST	139,760.59	140,000	0.07	2.75	9/15/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	290,148.75	300,912	0.14	3.61	8/25/2042
MML SHORT-DURATION BOND FUND	FIXED INCOME	BLACKROCK TCP CAP CORP	650,437.34	675,000	0.31	4.125	8/11/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	MCCORMICK + CO	552,705.26	570,000	0.26	2.7	8/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	TRITON CONTAINER FINANCE LLC	910,984.12	914,083	0.43	3.62	8/20/2042
MML SHORT-DURATION BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	361,020.02	360,411	0.17	3.30625	7/26/2066
MML SHORT-DURATION BOND FUND	FIXED INCOME	DISCOVERY COMMUNICATIONS	416,182.74	435,000	0.20	2.95	3/20/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	2,144,018.06	2,150,000	1.02	3.08988	10/25/2065
MML SHORT-DURATION BOND FUND	FIXED INCOME	FANNIE MAE	600,565.03	606,048	0.29	3	4/25/2040
MML SHORT-DURATION BOND FUND	FIXED INCOME	HERTZ VEHICLE FINANCING LLC	907,564.93	910,000	0.43	3.56	10/25/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	EQT CORP	535,748.16	565,000	0.26	3	10/1/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	DENALI CAPITAL CLO X LTD	348,081.65	350,000	0.17	3.558	10/26/2027
MML SHORT-DURATION BOND FUND	FIXED INCOME	OCP CLO LTD	636,441.65	650,000	0.30	3.89881	4/17/2027
MML SHORT-DURATION BOND FUND	FIXED INCOME	MOSAIC SOLAR LOANS LLC	227,791.46	243,849	0.11	0	6/22/2043
MML SHORT-DURATION BOND FUND	FIXED INCOME	ELARA HGV TIMESHARE ISSUER	189,870.82	192,070	0.09	2.69	3/25/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	HERCULES CAPITAL INC	1,083,193.12	1,110,000	0.52	4.625	10/23/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	GLENORE FUNDING LLC	246,844.00	260,000	0.12	3	10/27/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	1,106,997.79	1,161,621	0.53	2.68988	1/27/2042
MML SHORT-DURATION BOND FUND	FIXED INCOME	NP SPE II LLC	164,963.52	167,025	0.08	3.372	10/21/2047
MML SHORT-DURATION BOND FUND	FIXED INCOME	FLAGSHIP CREDIT AUTO TRUST	640,838.38	650,000	0.31	2.92	11/15/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	FIRST INVESTORS AUTO OWNER TRU	337,019.15	340,000	0.16	2.72	4/17/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	NEUBERGER BERMAN CLO LTD	242,101.25	250,000	0.12	3.68631	1/15/2028
MML SHORT-DURATION BOND FUND	FIXED INCOME	HERO FUNDING TRUST	263,543.59	266,328	0.13	3.19	9/20/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	AMERICAN CREDIT ACCEPTANCE REC	766,520.37	770,000	0.37	2.94	1/10/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	AMERICAN TOWER CORP	615,759.20	640,000	0.29	3	6/15/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	MARINER FINANCE ISSUANCE TRUST	890,575.65	900,000	0.42	2.92	12/20/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	FREDDIE MAC	367,386.90	370,003	0.18	3	3/15/2041
MML SHORT-DURATION BOND FUND	FIXED INCOME	FANNIE MAE	288,760.93	290,188	0.14	3	1/25/2041
MML SHORT-DURATION BOND FUND	FIXED INCOME	JP MORGAN MORTGAGE TRUST	549,019.73	556,034	0.26	3.5	12/25/2048
MML SHORT-DURATION BOND FUND	OPTIONS	BM1106269 SWAPTION	271,071.65	6,340,000	0.13	0	12/13/2032
MML SHORT-DURATION BOND FUND	OPTIONS	BM1105998 SWAPTION	731,473.24	12,910,000	0.35	0	12/13/2032
MML SHORT-DURATION BOND FUND	FIXED INCOME	EDLINC STUDENT LOAN FUNDING TR	579,285.83	572,609	0.28	3.35	12/1/2047
MML SHORT-DURATION BOND FUND	FIXED INCOME	GENERAL MOTORS FINL CO	1,214,821.24	1,290,000	0.58	3.25	1/5/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	FREDDIE MAC	272,242.52	274,491	0.13	3	5/15/2039
MML SHORT-DURATION BOND FUND	FIXED INCOME	CPS AUTO TRUST	97,171.67	97,584	0.05	2.16	5/17/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	704,037.78	710,000	0.34	3.08988	1/25/2041

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SHORT-DURATION BOND FUND	FIXED INCOME	HERTZ VEHICLE FINANCING LLC	1,534,368.73	1,560,000	0.73	3.29	2/25/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	CITIGROUP INC	977,339.65	995,000	0.47	3.142	1/24/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	HERTZ VEHICLE FINANCING LLC	759,865.72	770,000	0.36	3.6	2/25/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	JP MORGAN MORTGAGE TRUST	394,835.12	400,132	0.19	3.5	6/25/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	GOLDMAN SACHS GROUP INC	2,041,774.51	2,105,000	0.97	3.2	2/23/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	718,200.00	1,000,000	0.34	0	2/25/2042
MML SHORT-DURATION BOND FUND	FIXED INCOME	EXETER AUTOMOBILE RECEIVABLES	268,674.57	270,000	0.13	2.75	4/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	845,238.13	850,000	0.40	3.22625	3/25/2067
MML SHORT-DURATION BOND FUND	FIXED INCOME	BROADCOM CRP / CAYMN FI	711,660.52	740,000	0.34	3	1/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	DEEPHAVEN RESIDENTIAL MORTGAGE	424,231.47	430,078	0.20	3.027	12/25/2057
MML SHORT-DURATION BOND FUND	FIXED INCOME	VMC FINANCE LLC	335,305.68	338,173	0.16	3.27513	3/15/2035
MML SHORT-DURATION BOND FUND	OPTIONS	BM1107812 SWAPTION	752,031.01	14,580,000	0.36	0	1/31/2033
MML SHORT-DURATION BOND FUND	OPTIONS	BM1107929 SWAPTION	347,404.02	7,310,000	0.17	0	1/31/2033
MML SHORT-DURATION BOND FUND	FIXED INCOME	DISCOVER BANK	898,410.82	923,000	0.43	3.35	2/6/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	TESLA AUTO LEASE TRUST	149,525.76	150,000	0.07	2.75	2/20/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	TPG REAL ESTATE FINANCE	306,959.39	311,021	0.15	3.20513	2/15/2035
MML SHORT-DURATION BOND FUND	FIXED INCOME	SEQUOIA MORTGAGE TRUST	351,612.58	349,799	0.17	4	2/25/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	CELGENE CORP	497,990.79	510,000	0.24	3.25	2/20/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	370,216.81	372,779	0.18	2.53	2/18/2042
MML SHORT-DURATION BOND FUND	FIXED INCOME	FLAGSHIP CREDIT AUTO TRUST	1,245,850.88	1,250,000	0.59	3.13	1/17/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	FLAGSHIP CREDIT AUTO TRUST	499,448.55	501,760	0.24	2.59	6/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	SEQUOIA MORTGAGE TRUST	701,056.20	710,467	0.33	3.5	3/25/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	RYDER SYSTEM INC	172,695.80	175,000	0.08	3.4	3/1/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	PNMAC GMSR ISSUER TRUST	250,537.08	250,000	0.12	5.35625	2/25/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	TLF NATIONAL TAX LIEN TRUST	372,329.00	373,331	0.18	3.09	12/15/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	GALAXY CLO LTD	592,458.60	600,000	0.28	3.469	4/20/2031
MML SHORT-DURATION BOND FUND	FIXED INCOME	BECTON DICKINSON AND CO	1,074,095.09	1,085,000	0.51	3.678	12/29/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	FORD MOTOR CREDIT CO LLC	394,611.40	405,000	0.19	3.21825	4/5/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	HEALTHCARE TRUST OF AMER	267,292.61	275,000	0.13	2.95	7/1/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	CARDINAL HEALTH INC	1,078,052.19	1,090,000	0.51	3.55819	6/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	COMMONBOND STUDENT LOAN TRUST	168,214.25	168,219	0.08	5.28	5/25/2041
MML SHORT-DURATION BOND FUND	FIXED INCOME	SYNCHRONY BANK	1,032,543.65	1,105,000	0.49	3	6/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	VERIZON COMMUNICATIONS	474,942.99	480,000	0.23	2.946	3/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	BAIN CAPITAL CREDIT CLO, LIMIT	347,623.50	350,000	0.17	3.719	7/20/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	WELK RESORTS LLC	213,670.46	217,253	0.10	3.41	6/15/2033
MML SHORT-DURATION BOND FUND	FIXED INCOME	JACKSON NATL LIFE GLOBAL	913,620.76	945,000	0.44	2.5	6/27/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	DRIVE AUTO RECEIVABLES TRUST	269,785.13	270,000	0.13	2.84	4/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	MARLETTE FUNDING TRUST	52,339.71	52,411	0.02	2.39	7/15/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	LENDMARK FUNDING TRUST	236,879.62	240,000	0.11	2.83	12/22/2025
MML SHORT-DURATION BOND FUND	FIXED INCOME	TRAFIGURA SECURITISATION FINAN	259,795.90	260,000	0.12	4.15513	12/15/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	SIRIUS XM RADIO INC	1,089,650.00	1,147,000	0.52	3.875	8/1/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	DXC TECHNOLOGY CO	228,012.38	230,000	0.11	2.875	3/27/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	MITSUBISHI UFJ FIN GRP	1,137,044.24	1,170,000	0.54	2.665	7/25/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	BANK OF AMERICA CORP	2,079,635.10	2,150,000	0.99	2.816	7/21/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	645,250.00	1,000,000	0.31	0	9/25/2040
MML SHORT-DURATION BOND FUND	FIXED INCOME	DAE FUNDING LLC	199,875.00	205,000	0.10	4	8/1/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	TRIP RAIL MASTER FUNDING LLC	134,015.40	135,148	0.06	2.709	8/15/2047
MML SHORT-DURATION BOND FUND	FIXED INCOME	ENSTAR GROUP LTD	578,839.10	575,000	0.28	4.5	3/10/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	DELTA AIR LINES INC	733,942.64	750,000	0.35	3.625	3/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	313,677.11	316,652	0.15	2.91	3/20/2034
MML SHORT-DURATION BOND FUND	FIXED INCOME	OSCAR US FUNDING TRUST	239,219.52	240,000	0.11	2.82	6/10/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	MARLETTE FUNDING TRUST	78,146.17	78,178	0.04	2.827	3/15/2024

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SHORT-DURATION BOND FUND	FIXED INCOME	CAPITAL AUTOMOTIVE REIT	256,784.47	255,667	0.12	3.87	4/15/2047
MML SHORT-DURATION BOND FUND	FIXED INCOME	WESTGATE RESORTS	200,894.29	202,403	0.10	3.05	12/20/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	TAL ADVANTAGE LLC	425,482.23	417,153	0.20	4.5	4/20/2042
MML SHORT-DURATION BOND FUND	FIXED INCOME	MAGNETITE CLO LTD	697,165.70	700,000	0.33	3.56456	1/18/2027
MML SHORT-DURATION BOND FUND	FIXED INCOME	MOLSON COORS BREWING CO	318,170.40	330,000	0.15	2.1	7/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	SUMITOMO MITSUI FINL GRP	566,550.43	585,000	0.27	2.058	7/14/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	190,374.48	191,747	0.09	2.78	7/20/2033
MML SHORT-DURATION BOND FUND	FIXED INCOME	SMB PRIVATE EDUCATION LOAN TRU	115,946.19	114,233	0.06	3.90513	2/17/2032
MML SHORT-DURATION BOND FUND	FIXED INCOME	TEVA PHARMACEUTICALS NE	1,034,113.57	1,125,000	0.49	2.2	7/21/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	SOFI CONSUMER LOAN PROGRAM TRU	148,735.15	148,945	0.07	3.09	10/27/2025
MML SHORT-DURATION BOND FUND	FIXED INCOME	EARNEST STUDENT LOAN PROGRAM L	269,052.53	270,561	0.13	2.68	7/25/2035
MML SHORT-DURATION BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	667,384.74	662,426	0.32	3.75625	6/25/2065
MML SHORT-DURATION BOND FUND	FIXED INCOME	MVVW OWNER TRUST	42,429.83	43,384	0.02	2.25	12/20/2033
MML SHORT-DURATION BOND FUND	FIXED INCOME	ECMC GROUP STUDENT LOAN TRUST	449,124.62	440,763	0.21	3.85625	7/26/2066
MML SHORT-DURATION BOND FUND	FIXED INCOME	NISSAN MOTOR ACCEPTANCE	361,875.38	380,000	0.17	1.9	9/14/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	TCI SYMPHONY CLO	299,996.10	300,000	0.14	3.91631	10/13/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	73,874.21	73,814	0.04	3.45625	1/25/2039
MML SHORT-DURATION BOND FUND	FIXED INCOME	ALM LOAN FUNDING	370,185.00	370,000	0.18	3.91631	10/15/2028
MML SHORT-DURATION BOND FUND	FIXED INCOME	VSE VOI MORTGAGE LLC	385,974.88	392,394	0.18	2.54	7/20/2033
MML SHORT-DURATION BOND FUND	FIXED INCOME	ARES CAPITAL CORP	29,125.07	30,000	0.01	3.625	1/19/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	PITNEY BOWES INC	1,254,575.00	1,340,000	0.60	3.875	10/1/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	MADISON PARK FUNDING LTD	420,213.78	420,000	0.20	3.96988	10/25/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	SHIRE ACQ INV IRELAND DA	227,241.20	235,000	0.11	2.4	9/23/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	SHIRE ACQ INV IRELAND DA	340,314.13	360,000	0.16	2.875	9/23/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	AMERICAN TOWER CORP	397,158.10	415,000	0.19	2.25	1/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	415,236.18	437,416	0.20	2.69988	10/25/2040
MML SHORT-DURATION BOND FUND	FIXED INCOME	EXETER AUTOMOBILE RECEIVABLES	256,906.82	257,245	0.12	2.84	8/16/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	NEXTGEAR FLOORPLAN MASTER OWNE	476,630.40	480,000	0.23	2.19	9/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	528,607.94	524,933	0.25	4.40563	10/25/2044
MML SHORT-DURATION BOND FUND	FIXED INCOME	SMB PRIVATE EDUCATION LOAN TRU	281,291.58	279,272	0.13	3.55513	9/15/2034
MML SHORT-DURATION BOND FUND	FIXED INCOME	SOFI CONSUMER LOAN PROGRAM TRU	135,222.63	135,308	0.06	3.05	12/26/2025
MML SHORT-DURATION BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	572,069.18	560,000	0.27	3.80625	3/25/2066
MML SHORT-DURATION BOND FUND	FIXED INCOME	NEW RESIDENTIAL ADVANCE RECEIV	968,919.12	975,000	0.46	2.5751	10/15/2049
MML SHORT-DURATION BOND FUND	FIXED INCOME	CNH INDUSTRIAL CAP LLC	630,745.50	635,000	0.30	3.875	10/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	ORANGE LAKE TIMESHARE TRUST	660,344.46	669,294	0.31	2.61	3/8/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	ORANGE LAKE TIMESHARE TRUST	272,579.89	274,457	0.13	2.91	3/8/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	FLAGSHIP CREDIT AUTO TRUST	904,342.89	910,000	0.43	2.41	10/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	EARNEST STUDENT LOAN PROGRAM L	236,499.27	239,148	0.11	2.72	1/25/2041
MML SHORT-DURATION BOND FUND	FIXED INCOME	GOODGREEN TRUST	402,222.28	408,844	0.19	3.23	10/15/2052
MML SHORT-DURATION BOND FUND	FIXED INCOME	VELOCITY COMMERCIAL CAPITAL LO	223,569.95	224,902	0.11	2.99694	10/25/2046
MML SHORT-DURATION BOND FUND	FIXED INCOME	DIAMOND RESORTS OWNER TRUST	351,139.39	355,563	0.17	3.08	11/20/2028
MML SHORT-DURATION BOND FUND	FIXED INCOME	SIMON PROPERTY GROUP LP	437,029.80	450,000	0.21	2.35	1/30/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	PENNSYLVANIA HIGHER EDUCATION	520,666.50	518,084	0.25	3.45625	11/25/2065
MML SHORT-DURATION BOND FUND	FIXED INCOME	SHELLPOINT CO ORIGINATOR TRUST	746,326.53	767,792	0.36	3	10/25/2031
MML SHORT-DURATION BOND FUND	FIXED INCOME	OHA LOAN FUNDING LTD	598,836.00	600,000	0.29	4.32719	1/23/2027
MML SHORT-DURATION BOND FUND	FIXED INCOME	NEW RESIDENTIAL ADVANCE RECEIV	698,816.21	700,000	0.33	3.1068	12/15/2050
MML SHORT-DURATION BOND FUND	FIXED INCOME	CHARTER COMM OPT LLC/CAP	504,455.55	505,000	0.24	3.579	7/23/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	OHA LOAN FUNDING LTD	589,984.07	590,000	0.28	4.02613	8/15/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	LCM LTD PARTNERSHIP	588,766.90	590,000	0.28	3.869	10/20/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	NEW RESIDENTIAL MORTGAGE LOAN	318,248.73	317,258	0.15	3.75	11/25/2056
MML SHORT-DURATION BOND FUND	FIXED INCOME	HERO FUNDING TRUST	273,062.24	269,898	0.13	3.57	9/20/2047
MML SHORT-DURATION BOND FUND	FIXED INCOME	SPRINGLEAF FUNDING TRUST	1,417,726.05	1,426,015	0.68	2.9	11/15/2029

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SHORT-DURATION BOND FUND	FIXED INCOME	NELNET PRIVATE EDUCATION LOAN	157,946.78	162,201	0.08	3.6	12/26/2040
MML SHORT-DURATION BOND FUND	FIXED INCOME	NELNET PRIVATE EDUCATION LOAN	224,548.45	225,257	0.11	4.25625	12/26/2040
MML SHORT-DURATION BOND FUND	FIXED INCOME	SUMITOMO MITSUI FINL GRP	147,243.63	150,000	0.07	2.846	1/11/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	CPS AUTO TRUST	1,146,522.63	1,150,000	0.55	2.68	5/17/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	ACCESS GROUP INC	1,231,717.69	1,250,000	0.59	1.699	7/1/2039
MML SHORT-DURATION BOND FUND	FIXED INCOME	ATHENE GLOBAL FUNDING	1,252,697.15	1,240,000	0.60	4	1/25/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	PARK AEROSPACE HOLDINGS	1,011,037.50	1,045,000	0.48	5.25	8/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	TECH DATA CORP	235,467.67	240,000	0.11	3.7	2/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	MOSAIC SOLAR LOANS LLC	86,326.50	85,691	0.04	4.45	6/20/2042
MML SHORT-DURATION BOND FUND	FIXED INCOME	FLAGSHIP CREDIT AUTO TRUST	613,304.26	615,000	0.29	2.83	3/15/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	NAVIENT STUDENT LOAN TRUST	758,343.75	750,000	0.36	3.65625	7/26/2066
MML SHORT-DURATION BOND FUND	FIXED INCOME	RACE POINT CLO LTD	696,728.20	700,000	0.33	3.9845	2/20/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	MARINER FINANCE ISSUANCE TRUST	401,726.20	400,000	0.19	3.62	2/20/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	HILTON GRAND VACATIONS TRUST	212,924.22	217,769	0.10	2.96	12/26/2028
MML SHORT-DURATION BOND FUND	FIXED INCOME	SOFI CONSUMER LOAN PROGRAM TRU	309,775.63	310,470	0.15	3.28	2/25/2026
MML SHORT-DURATION BOND FUND	FIXED INCOME	ECMC GROUP STUDENT LOAN TRUST	879,226.84	869,371	0.42	3.70625	12/27/2066
MML SHORT-DURATION BOND FUND	FIXED INCOME	STANDARD INDUSTRIES INC	548,800.00	560,000	0.26	5.5	2/15/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	FLAGSHIP CREDIT AUTO TRUST	34,087.17	34,101	0.02	2.77	12/15/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	EXPRESS SCRIPTS HOLDING	1,190,613.19	1,195,000	0.57	3.3	2/25/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	AMERICAN INTL GROUP	548,134.74	550,000	0.26	3.3	3/1/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	101,587.95	99,482	0.05	4.50625	4/25/2040
MML SHORT-DURATION BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	138,067.87	136,359	0.07	4.25625	8/25/2036
MML SHORT-DURATION BOND FUND	FIXED INCOME	DIGITAL REALTY TRUST LP	219,297.62	220,000	0.10	3.4	10/1/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	ENTERGY TEXAS INC	93,468.62	95,000	0.04	2.55	6/1/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	MASCO CORP	268,739.79	270,000	0.13	3.5	4/1/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	CNH INDUSTRIAL CAPITAL L	116,851.50	115,000	0.06	4.875	4/1/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	TRINITY ACQUISITION PLC	465,433.48	470,000	0.22	3.5	9/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	AIRCATTLE LTD	1,214,754.82	1,210,000	0.58	5	4/1/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	HUNTSMAN INTERNATIONAL L	1,259,375.00	1,250,000	0.60	5.125	11/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	NEXTGEAR FLOORPLAN MASTER OWNE	371,386.65	370,000	0.18	4.15513	4/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	838,295.67	850,000	0.40	3.03988	10/25/2064
MML SHORT-DURATION BOND FUND	FIXED INCOME	S+P GLOBAL INC	435,856.95	435,000	0.21	3.3	8/14/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	EARNEST STUDENT LOAN PROGRAM L	133,764.60	131,892	0.06	4.55625	2/26/2035
MML SHORT-DURATION BOND FUND	FIXED INCOME	CVS HEALTH CORP	810,486.29	840,000	0.39	2.125	6/1/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	DELL INT LLC / EMC CORP	723,803.95	725,000	0.35	4.42	6/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	NXP BV/NXP FUNDING LLC	562,875.00	570,000	0.27	4.125	6/1/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	SOCIAL PROFESSIONAL LOAN PROGR	128,052.30	126,461	0.06	3.70625	6/25/2033
MML SHORT-DURATION BOND FUND	FIXED INCOME	FLIR SYSTEMS INC	226,763.62	230,000	0.11	3.125	6/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	OXFORD FINANCE FUNDING TRUST	152,136.11	151,666	0.07	3.968	6/17/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	MARRIOTT INTERNATIONAL	28,841.82	30,000	0.01	2.3	1/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	HYUNDAI CAPITAL AMERICA	64,582.18	65,000	0.03	2	7/1/2019
MML SHORT-DURATION BOND FUND	FIXED INCOME	SOFI CONSUMER LOAN PROGRAM TRU	427,127.37	427,117	0.20	3.26	8/25/2025
MML SHORT-DURATION BOND FUND	FIXED INCOME	ELARA HGV TIMESHARE ISSUER	340,715.52	344,151	0.16	2.73	4/25/2028
MML SHORT-DURATION BOND FUND	FIXED INCOME	SOFI CONSUMER LOAN PROGRAM TRU	163,873.82	163,868	0.08	3.28	9/15/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	MARRIOTT INTERNATIONAL	764,243.93	775,000	0.36	2.875	3/1/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	29,469.99	29,808	0.01	2.54	4/27/2026
MML SHORT-DURATION BOND FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	50,641.42	51,154	0.02	2.58	9/20/2032
MML SHORT-DURATION BOND FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	19,572.64	19,675	0.01	3.08	9/20/2032
MML SHORT-DURATION BOND FUND	FIXED INCOME	FREDDIE MAC	430,319.10	433,452	0.21	3	8/15/2040
MML SHORT-DURATION BOND FUND	FIXED INCOME	FIRST HORIZON NATIONAL	1,129,931.34	1,130,000	0.54	3.5	12/15/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	HYUNDAI CAPITAL AMERICA	790,988.10	800,000	0.38	3	10/30/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	FLAGSHIP CREDIT AUTO TRUST	7,974.25	7,979	0.00	2.38	10/15/2020

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SHORT-DURATION BOND FUND	FIXED INCOME	PENSKE TRUCK LEASING/PTL	148,981.53	150,000	0.07	3.3	4/1/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	ARBYS FUNDING LLC	301,221.08	291,000	0.14	4.969	10/30/2045
MML SHORT-DURATION BOND FUND	FIXED INCOME	DIAMOND RESORTS OWNER TRUST	61,196.36	61,393	0.03	2.99	5/22/2028
MML SHORT-DURATION BOND FUND	FIXED INCOME	BLUE VIRGO	111,218.57	111,219	0.05	3	12/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	DIAMOND RESORTS OWNER TRUST	41,326.62	41,482	0.02	3.54	5/22/2028
MML SHORT-DURATION BOND FUND	FIXED INCOME	AMEREN CORP	448,917.41	455,000	0.21	2.7	11/15/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	WESTGATE RESORTS	108,065.48	108,283	0.05	3.2	7/20/2028
MML SHORT-DURATION BOND FUND	FIXED INCOME	BUNGE LTD FINANCE CORP	1,077,388.04	1,080,000	0.51	3.5	11/24/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	127,060.60	125,356	0.06	4.20625	1/25/2040
MML SHORT-DURATION BOND FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	552,624.72	548,602	0.26	3.2	1/25/2040
MML SHORT-DURATION BOND FUND	FIXED INCOME	MACQUARIE BANK LTD	128,565.57	130,000	0.06	2.85	1/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	BM1058452 CDS USD R F 3.00000	343,883.70	410,000	0.16	3	5/11/2063
MML SHORT-DURATION BOND FUND	FIXED INCOME	BM1058452 CDS USD P V 01MEVENT	(410,000.00)	(410,000)	0.20	1	5/11/2063
MML SHORT-DURATION BOND FUND	FIXED INCOME	BM1058742 CDS USD R F 3.00000	125,811.11	150,000	0.06	3	5/11/2063
MML SHORT-DURATION BOND FUND	FIXED INCOME	BM1058742 CDS USD P V 01MEVENT	(150,000.00)	(150,000)	0.07	1	5/11/2063
MML SHORT-DURATION BOND FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	77,910.27	78,181	0.04	3.06	7/25/2031
MML SHORT-DURATION BOND FUND	FIXED INCOME	CROWN CASTLE INTL CORP	513,820.75	514,000	0.24	3.4	2/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	ENTERPRISE FLEET FINANCING LLC	4,644.54	4,647	0.00	1.83	9/20/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	GRAPHIC PACKAGING INTERN	941,640.00	944,000	0.45	4.75	4/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	FRS LLC	8,917.40	8,945	0.00	1.8	4/15/2043
MML SHORT-DURATION BOND FUND	FIXED INCOME	GLOBAL SC FINANCE SRL	125,980.92	127,833	0.06	2.98	4/17/2028
MML SHORT-DURATION BOND FUND	FIXED INCOME	BRUNSWICK CORP	1,068,509.48	1,088,000	0.51	4.625	5/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	GLENORE FUNDING LLC	579,372.61	590,000	0.28	4.125	5/30/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	HIGHER EDUCATION FUNDING	836,365.75	950,000	0.40	0	1/1/2044
MML SHORT-DURATION BOND FUND	FIXED INCOME	O REILLY AUTOMOTIVE INC	505,477.67	503,000	0.24	3.85	6/15/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	CREDIT SUISSE ABS REPACKAGING	77,160.35	82,410	0.04	2.5	1/25/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	MVV OWNER TRUST	63,219.30	63,941	0.03	2.15	4/22/2030

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SHORT-DURATION BOND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	596,108.71	600,000	0.28	2.855961	6/25/2035
MML SHORT-DURATION BOND FUND	FIXED INCOME	WESTGATE RESORTS	53,529.27	53,632	0.03	2.15	12/20/2026
MML SHORT-DURATION BOND FUND	FIXED INCOME	MVW OWNER TRUST	106,824.70	108,710	0.05	2.25	9/22/2031
MML SHORT-DURATION BOND FUND	FIXED INCOME	GATX CORP	450,577.21	455,000	0.21	2.6	3/30/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	GOVERNMENT NATIONAL MORTGAGE A	133,016.06	125,080	0.06	3.88324	5/20/2041
MML SHORT-DURATION BOND FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	119,466.91	120,011	0.06	2.3	10/20/2031
MML SHORT-DURATION BOND FUND	FIXED INCOME	EDP FINANCE BV	452,470.08	452,000	0.22	4.125	1/15/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	LENNAR CORP	1,020,290.00	1,028,000	0.49	4.5	11/15/2019
MML SHORT-DURATION BOND FUND	FIXED INCOME	ARES CAPITAL CORP	679,422.54	678,000	0.32	3.875	1/15/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	KINROSS GOLD CORP	547,250.00	550,000	0.26	5.95	3/15/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	PENSKE TRUCK LEASING/PTL	19,776.73	20,000	0.01	3.375	2/1/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	SEQUOIA MORTGAGE TRUST	409,316.34	423,833	0.20	2.5	1/25/2045
MML SHORT-DURATION BOND FUND	FIXED INCOME	OSCAR US FUNDING TRUST	212,225.77	212,865	0.10	2.44	6/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	291,950.94	293,039	0.14	3.05	3/22/2032
MML SHORT-DURATION BOND FUND	FIXED INCOME	SIERRA RECEIVABLES FUNDING CO	237,450.68	240,406	0.11	2.4	3/22/2032
MML SHORT-DURATION BOND FUND	FIXED INCOME	HARRIS CORPORATION	945,875.46	954,000	0.45	2.7	4/27/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	HERO FUNDING TRUST	604,213.36	595,362	0.29	3.84	9/21/2040
MML SHORT-DURATION BOND FUND	FIXED INCOME	EXETER AUTOMOBILE RECEIVABLES	536,716.99	535,407	0.26	3.9	3/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	128,239.01	130,000	0.06	4.00625	6/25/2054
MML SHORT-DURATION BOND FUND	FIXED INCOME	CNH INDUSTRIAL CAPITAL L	350,352.50	353,000	0.17	3.375	7/15/2019
MML SHORT-DURATION BOND FUND	FIXED INCOME	WELK RESORTS LLC	71,371.75	72,529	0.03	2.79	6/16/2031
MML SHORT-DURATION BOND FUND	FIXED INCOME	REYNOLDS AMERICAN INC	534,179.44	540,000	0.25	4	6/12/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	DRB PRIME STUDENT LOAN TRUST	17,372.34	17,472	0.01	2.32	4/25/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	CAZENOVIA CREEK FUNDING LLC	22,491.04	22,618	0.01	2	12/10/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	ENTERGY NEW ORLEANS STORE RECO	65,439.62	66,510	0.03	2.67	6/1/2027
MML SHORT-DURATION BOND FUND	FIXED INCOME	IMPERIAL BRANDS FIN PLC	1,070,765.59	1,087,000	0.51	2.95	7/21/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	ACCESS GROUP INC	223,254.89	223,322	0.11	3.20625	7/25/2056
MML SHORT-DURATION BOND FUND	FIXED INCOME	ACCESS GROUP INC	126,044.25	140,000	0.06	4.00625	7/25/2058
MML SHORT-DURATION BOND FUND	FIXED INCOME	AERCAP IRELAND CAP/GLOBA	1,012,914.74	1,010,000	0.48	4.5	5/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	ELARA HGV TIMESHARE ISSUER	62,306.09	63,928	0.03	3.02	2/25/2027
MML SHORT-DURATION BOND FUND	FIXED INCOME	LYONDELLBASELL IND NV	528,509.34	500,000	0.25	6	11/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	CONTINENTAL RESOURCES	563,969.87	568,000	0.27	5	9/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	O REILLY AUTOMOTIVE INC	124,323.97	123,000	0.06	3.8	9/1/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	CHURCH + DWIGHT CO INC	555,666.21	565,000	0.26	2.875	10/1/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	NEWCREST FINANCE PTY LTD	568,014.29	565,000	0.27	4.2	10/1/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	RPM INTERNATIONAL INC	7,924.39	8,000	0.00	3.45	11/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	GLENCORE FINANCE CANADA	253,196.22	254,000	0.12	4.25	10/25/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	MORGAN STANLEY	1,217,849.48	1,220,000	0.58	3.75	2/25/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	AMERICAN TOWER TRUSTE I	489,749.05	500,000	0.23	3.07	3/15/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	JPMORGAN CHASE + CO	1,020,081.67	990,000	0.49	4.5	1/24/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	HUGHES SATELLITE SYSTEMS	890,726.25	883,000	0.42	6.5	6/15/2019
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	763,864.02	770,000	0.36	3.23988	1/25/2040
MML SHORT-DURATION BOND FUND	FIXED INCOME	DRUG ROYALTY CORPORATION, INC.	12,695.56	12,667	0.01	7.32163	7/15/2024
MML SHORT-DURATION BOND FUND	FIXED INCOME	MOLSON COORS BREWING CO	195,820.89	197,000	0.09	3.5	5/1/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	ERICSSON LM	1,475,422.41	1,500,000	0.70	4.125	5/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	KINROSS GOLD CORP	468,825.00	470,000	0.22	5.125	9/1/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	PENSKE TRUCK LEASING/PTL	890,406.69	860,000	0.42	4.875	7/11/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	LYONDELLBASELL IND NV	365,397.13	365,000	0.17	5	4/15/2019
MML SHORT-DURATION BOND FUND	FIXED INCOME	NORTHSTAR EDUCATION FINANCE, I	197,097.45	198,587	0.09	3.25925	10/30/2045
MML SHORT-DURATION BOND FUND	FIXED INCOME	COUNTRYWIDE PARTNERSHIP TRUST	100,145.61	102,644	0.05	3.21513	2/25/2035
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLC STUDENT LOAN TRUST	339,071.37	365,431	0.16	2.81613	2/15/2045
MML SHORT-DURATION BOND FUND	FIXED INCOME	RAAC SERIES	890.46	890	0.00	2.75625	2/25/2037

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SHORT-DURATION BOND FUND	FIXED INCOME	GCCFC COMMERCIAL MORTGAGE TRUS	110,864.09	109,826	0.05	5.66622	7/10/2038
MML SHORT-DURATION BOND FUND	FIXED INCOME	COUNTRYWIDE HOME LOANS	704.33	777	0.00	3.991	9/25/2033
MML SHORT-DURATION BOND FUND	FIXED INCOME	GSR MORTGAGE LOAN TRUST	1,069.36	1,117	0.00	4.103501	8/25/2034
MML SHORT-DURATION BOND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	214,441.09	217,384	0.10	2.59988	10/25/2033
MML SHORT-DURATION BOND FUND	FIXED INCOME	NELNET STUDENT LOAN TRUST	224,591.53	226,738	0.11	2.92375	3/23/2037
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	146,566.47	146,925	0.07	2.78988	7/25/2025
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	252,857.08	254,726	0.12	2.62988	10/25/2028
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	552,562.39	595,483	0.26	2.77988	1/25/2044
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	166,913.28	176,478	0.08	2.79988	1/25/2055
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	421,275.59	440,546	0.20	2.78988	1/25/2041
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	914,131.20	940,000	0.44	2.63988	3/25/2044
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	646,045.31	689,225	0.31	2.70988	3/25/2044
MML SHORT-DURATION BOND FUND	FIXED INCOME	KEYCORP STUDENT LOAN TRUST	20,027.02	20,076	0.01	3.13163	9/27/2035
MML SHORT-DURATION BOND FUND	FIXED INCOME	ACCESS GROUP INC	34,393.17	35,230	0.02	3.59	7/1/2038
MML SHORT-DURATION BOND FUND	FIXED INCOME	TIAA SEASONED COMMERCIAL MORTG	10,446.59	10,422	0.00	5.48141	8/15/2039
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	112,117.15	116,053	0.05	2.59988	1/26/2043
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 888586	19,258.87	18,321	0.01	4.379	10/1/2034
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 725692	18,435.33	17,579	0.01	4.318	10/1/2033
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 523499	59.49	52	0.00	8	11/1/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	GNMA POOL 499410	269.55	238	0.00	7	7/15/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 775539	9,035.36	8,681	0.00	4.179	5/1/2034
MML SHORT-DURATION BOND FUND	FIXED INCOME	ISRAEL ELECTRIC CORP LTD	283,118.86	283,000	0.13	7.25	1/15/2019
MML SHORT-DURATION BOND FUND	EQUITY	CCBRCIUS4 SWBC BRC	(940,000.00)	(940,000)	0.45	0	
MML SHORT-DURATION BOND FUND	EQUITY	SWAP CREDIT SUISSE BOC	(1,100,000.00)	(1,100,000)	0.52	0	
MML SHORT-DURATION BOND FUND	FIXED INCOME	ENTERGY TEXAS INC	800,203.95	798,000	0.38	7.125	2/1/2019
MML SHORT-DURATION BOND FUND	FIXED INCOME	HOLCIM US FINANCE SARL +	983,163.82	960,000	0.47	6	12/30/2019
MML SHORT-DURATION BOND FUND	FIXED INCOME	WEYERHAEUSER CO	138,716.04	135,000	0.07	7.375	10/1/2019
MML SHORT-DURATION BOND FUND	FIXED INCOME	RPM INTERNATIONAL INC	741,253.62	728,000	0.35	6.125	10/15/2019
MML SHORT-DURATION BOND FUND	FIXED INCOME	INCITEC PIVOT FIN LLC	921,917.32	902,000	0.44	6	12/10/2019
MML SHORT-DURATION BOND FUND	FIXED INCOME	LINCOLN NATIONAL CORP	516,074.77	500,000	0.25	6.25	2/15/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	MASCO CORP	67,900.61	65,000	0.03	7.125	3/15/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	CREDIT SUISSE SEASONED LOAN TR	103,995.52	104,438	0.05	2.55513	10/25/2034
MML SHORT-DURATION BOND FUND	FIXED INCOME	SVB FINANCIAL GROUP	77,365.68	75,000	0.04	5.375	9/15/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	321 HENDERSON RECEIVABLES LLC	224,178.30	221,059	0.11	3.82	12/15/2048
MML SHORT-DURATION BOND FUND	FIXED INCOME	CNA FINANCIAL CORP	467,515.93	443,000	0.22	5.75	8/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	GSAMP TRUST	13,949.25	14,048	0.01	3.15125	4/25/2035
MML SHORT-DURATION BOND FUND	FIXED INCOME	CIGNA HOLDING CO	807,209.01	790,000	0.38	4.5	3/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	COLLEGE LOAN CORPORATON TRUST	197,077.95	209,032	0.09	2.92631	1/15/2037
MML SHORT-DURATION BOND FUND	FIXED INCOME	WILLIS TOWERS WATSON PLC	386,947.77	370,000	0.18	5.75	3/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	LOUISIANA ST PUBLIC FACS AUTH	40,587.63	40,551	0.02	3.38988	4/26/2027
MML SHORT-DURATION BOND FUND	FIXED INCOME	REINSURANCE GRP OF AMER	622,929.09	600,000	0.30	5	6/1/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	PUGET ENERGY INC	269,398.47	255,000	0.13	6.5	12/15/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	TRIP RAIL MASTER FUNDING LLC	711,236.46	668,991	0.34	6.024	7/15/2041
MML SHORT-DURATION BOND FUND	FIXED INCOME	PUGET ENERGY INC	275,035.64	260,000	0.13	6	9/1/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	BANCOLOMBIA SA	202,312.50	195,000	0.10	5.95	6/3/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	CIGNA HOLDING CO	319,234.38	316,000	0.15	4	2/15/2022
MML SHORT-DURATION BOND FUND	FIXED INCOME	LEIDOS HOLDINGS INC	828,737.50	835,000	0.40	4.45	12/1/2020
MML SHORT-DURATION BOND FUND	FIXED INCOME	GNMA POOL 371146	63.89	61	0.00	7	9/15/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 532819	34.41	30	0.00	8	3/1/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 534703	579.87	503	0.00	8	5/1/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 529453	566.28	496	0.00	7.5	1/1/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	SPRINT COMMUNICATIONS	491,275.00	430,000	0.23	9.25	4/15/2022

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SHORT-DURATION BOND FUND	FIXED INCOME	GNMA POOL 500928	879.54	780	0.00	7	5/15/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	GNMA II POOL 080136	156.92	154	0.00	3.125	11/20/2027
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 252926	26.98	24	0.00	8	12/1/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	GNMA POOL 352022	968.00	907	0.00	7	11/15/2023
MML SHORT-DURATION BOND FUND	FIXED INCOME	GNMA POOL 510083	197.15	176	0.00	7	7/15/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 531196	68.81	61	0.00	7.5	2/1/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 530299	71.84	65	0.00	7.5	3/1/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	GNMA II POOL 008746	830.83	816	0.00	3.125	11/20/2025
MML SHORT-DURATION BOND FUND	FIXED INCOME	GNMA POOL 493723	540.17	476	0.00	7	8/15/2029
MML SHORT-DURATION BOND FUND	CASH	US DOLLAR	1,239,462.05	1,239,462	0.59	0	
MML SHORT-DURATION BOND FUND	CASH	EURO CURRENCY	5.41	5	0.00	0	
MML SHORT-DURATION BOND FUND	FIXED INCOME	US TREASURY N/B	3,477,128.94	3,020,000	1.66	8	11/15/2021
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 253437	31.50	27	0.00	8	9/1/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 253481	14.29	12	0.00	8	10/1/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	FED HM LN PC POOL C01079	366.73	321	0.00	7.5	10/1/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	FED HM LN PC POOL C01135	1,158.58	1,018	0.00	7.5	2/1/2031
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 575667	2,639.75	2,308	0.00	7	3/1/2031
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 535996	1,294.38	1,135	0.00	7.5	6/1/2031
MML SHORT-DURATION BOND FUND	FIXED INCOME	GNMA POOL 478658	461.97	409	0.00	7	5/15/2029
MML SHORT-DURATION BOND FUND	FIXED INCOME	GNMA POOL 491089	1,779.04	1,633	0.00	7	12/15/2028
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 602008	886.88	772	0.00	8	8/1/2031
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 190317	684.54	593	0.00	8	8/1/2031
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 597220	709.74	613	0.00	8	9/1/2031
MML SHORT-DURATION BOND FUND	FIXED INCOME	FNMA POOL 596656	163.63	160	0.00	8	8/1/2031
MML SHORT-DURATION BOND FUND	FIXED INCOME	GNMA POOL 581417	2,621.48	2,307	0.00	7	7/15/2032
MML SHORT-DURATION BOND FUND	FIXED INCOME	SLM STUDENT LOAN TRUST	50,000.00	50,000	0.02	4.49	6/15/2030
MML SHORT-DURATION BOND FUND	FIXED INCOME	MERRILL LYNCH MORTGAGE INVESTO	492.79	509	0.00	4.597355	7/25/2033
MML SHORT-DURATION BOND FUND	FIXED INCOME	COUNTRYWIDE HOME LOANS	3,409.92	3,525	0.00	3.713667	2/25/2034
MML SHORT-DURATION BOND FUND	FIXED INCOME	STRUCTURED ADJUSTABLE RATE MOR	4,154.53	4,315	0.00	4.347054	3/25/2034
MML SHORT-DURATION BOND FUND	FIXED INCOME	WAMU MORTGAGE PASS THROUGH CER	11,809.95	12,233	0.01	3.557369	4/25/2044
MML SHORT-DURATION BOND FUND	FIXED INCOME	COUNTRYWIDE ASSET BACKED CERTI	10,359.00	10,463	0.00	2.77513	9/25/2034
MML SHORT-DURATION BOND FUND	FIXED INCOME	INDYMAC INDX MORTGAGE LOAN TRU	7,137.21	7,570	0.00	3.943459	8/25/2034
MML SHORT-DURATION BOND FUND	FIXED INCOME	BANC OF AMERICA MORTGAGE SECUR	5,663.73	5,752	0.00	4.640364	8/25/2034
MML SHORT-DURATION BOND FUND	FIXED INCOME	MERRILL LYNCH MORTGAGE INVESTO	603.15	651	0.00	3.79216	2/25/2034
MML SHORT-DURATION BOND FUND	FIXED INCOME	COMPASS BANK	1,175,576.28	1,150,000	0.56	5.5	4/1/2020
MML HIGH YIELD FUND	FIXED INCOME	ENERGY TRANSFER LP	1,312,850.00	1,364,000	1.11	4.25	3/15/2023
MML HIGH YIELD FUND	FIXED INCOME	NORTHWEST ACQ/DOMINION	873,215.20	884,000	0.74	7.125	11/1/2022
MML HIGH YIELD FUND	FIXED INCOME	SIMMONS FOODS INC	342,930.00	483,000	0.29	5.75	11/1/2024
MML HIGH YIELD FUND	FIXED INCOME	WARRIOR MET COAL INC	336,457.50	339,000	0.28	8	11/1/2024
MML HIGH YIELD FUND	FIXED INCOME	ACRISURE LLC / FIN INC	674,327.50	791,000	0.57	7	11/15/2025
MML HIGH YIELD FUND	FIXED INCOME	PLATFORM SPECIALTY PROD	387,090.00	414,000	0.33	5.875	12/1/2025
MML HIGH YIELD FUND	FIXED INCOME	WELLTEC A/S	987,500.00	1,000,000	0.83	9.5	12/1/2022
MML HIGH YIELD FUND	FIXED INCOME	POST HOLDINGS INC	430,560.00	468,000	0.36	5.625	1/15/2028
MML HIGH YIELD FUND	FIXED INCOME	JAMES HARDIE INTL FIN	414,675.00	485,000	0.35	5	1/15/2028
MML HIGH YIELD FUND	FIXED INCOME	STANDARD INDUSTRIES INC	1,129,800.00	1,345,000	0.95	4.75	1/15/2028
MML HIGH YIELD FUND	FIXED INCOME	APEX TOOL / BC MOUNTAIN	961,610.00	1,138,000	0.81	9	2/15/2023
MML HIGH YIELD FUND	FIXED INCOME	SPRINT CORP	416,725.00	422,000	0.35	7.625	3/1/2026
MML HIGH YIELD FUND	FIXED INCOME	VALEANT PHARMA INTL	600,000.00	600,000	0.51	9.25	4/1/2026
MML HIGH YIELD FUND	FIXED INCOME	KCA DEUTAG UK FINANCE PL	274,505.00	341,000	0.23	9.625	4/1/2023
MML HIGH YIELD FUND	EQUITY	FIELDWOOD	468,396.00	13,011	0.39	0	
MML HIGH YIELD FUND	FIXED INCOME	FIELDWOOD ENERGY LLC	336,636.55	387,384	0.28	0	4/11/2023
MML HIGH YIELD FUND	FIXED INCOME	TEVA PHARMACEUTICALS NE	303,412.22	315,000	0.26	6	4/15/2024

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML HIGH YIELD FUND	FIXED INCOME	NETFLIX INC	578,161.50	595,000	0.49	5.875	11/15/2028
MML HIGH YIELD FUND	FIXED INCOME	CHESAPEAKE ENERGY CORP	221,507.50	251,000	0.19	8	1/15/2025
MML HIGH YIELD FUND	FIXED INCOME	TRANSDIGM UK HOLDINGS	374,332.50	393,000	0.32	6.875	5/15/2026
MML HIGH YIELD FUND	FIXED INCOME	CHESAPEAKE ENERGY CORP	21,000.00	25,000	0.02	8	6/15/2027
MML HIGH YIELD FUND	FIXED INCOME	MICHAELS STORES INC	906,062.50	950,000	0.76	0	1/30/2023
MML HIGH YIELD FUND	FIXED INCOME	FIELDWOOD ENERGY LLC	628,603.56	674,554	0.53	0	4/11/2022
MML HIGH YIELD FUND	FIXED INCOME	VERTAFORE INC	900,419.50	950,000	0.76	0	7/2/2025
MML HIGH YIELD FUND	EQUITY	FIELDWOOD ENERGY LLC	114,948.00	3,193	0.10	0	
MML HIGH YIELD FUND	FIXED INCOME	TRANSOCEAN GUARDIAN LTD	257,567.50	269,000	0.22	5.875	1/15/2024
MML HIGH YIELD FUND	FIXED INCOME	KINROSS GOLD CORP	552,800.00	640,000	0.47	4.5	7/15/2027
MML HIGH YIELD FUND	FIXED INCOME	SIMMONS FOODS INC	189,945.00	189,000	0.16	7.75	1/15/2024
MML HIGH YIELD FUND	FIXED INCOME	TENET HEALTHCARE CORP	372,000.00	400,000	0.31	4.625	7/15/2024
MML HIGH YIELD FUND	FIXED INCOME	PGT ESCROW ISSUER INC	362,480.00	368,000	0.31	6.75	8/1/2026
MML HIGH YIELD FUND	FIXED INCOME	INTELSAT CONNECT FINANCE	354,320.00	412,000	0.30	9.5	2/15/2023
MML HIGH YIELD FUND	FIXED INCOME	KGA ESCROW LLC	419,610.00	426,000	0.35	7.5	8/15/2023
MML HIGH YIELD FUND	FIXED INCOME	SM ENERGY CO	166,380.00	188,000	0.14	6.625	1/15/2027
MML HIGH YIELD FUND	EQUITY	APPVION HLDG CORP	-	2,106	0.00	0	
MML HIGH YIELD FUND	EQUITY	APPVION HLDG CORP	22,425.53	2,106	0.02	0	
MML HIGH YIELD FUND	FIXED INCOME	CB144A APPCION ESC	-	2,157,000	0.00	9	6/1/2020
MML HIGH YIELD FUND	FIXED INCOME	WILLIAM LYON HOMES INC	174,600.00	194,000	0.15	6	9/1/2023
MML HIGH YIELD FUND	FIXED INCOME	INTELSAT JACKSON HLDG	862,330.00	889,000	0.73	8.5	10/15/2024
MML HIGH YIELD FUND	FIXED INCOME	CHENIERE ENERGY PARTNERS	677,875.00	725,000	0.57	5.625	10/1/2026
MML HIGH YIELD FUND	FIXED INCOME	ELDORADO RESORTS INC	306,180.00	324,000	0.26	6	9/15/2026
MML HIGH YIELD FUND	FIXED INCOME	REFINITIV US HOLDINGS	286,917.50	314,000	0.24	8.25	11/15/2026
MML HIGH YIELD FUND	FIXED INCOME	STARFRUIT FINCO/STAR US	652,125.00	705,000	0.55	8	10/1/2026
MML HIGH YIELD FUND	FIXED INCOME	ENVISION HEALTHCARE CORP	682,485.00	789,000	0.57	8.75	10/15/2026
MML HIGH YIELD FUND	FIXED INCOME	CSC HOLDINGS LLC	563,587.50	565,000	0.47	7.5	4/1/2028
MML HIGH YIELD FUND	FIXED INCOME	CB144A JUPITER RES INC	11,081.69	2,607	0.01	8.5	10/1/2022
MML HIGH YIELD FUND	CASH EQUIVALENT	COX ENTERPRISES INC	1,999,705.12	2,000,000	1.68	0	1/2/2019
MML HIGH YIELD FUND	FIXED INCOME	C+S GROUP ENTERPRISES LL	986,225.00	1,030,000	0.83	5.375	7/15/2022
MML HIGH YIELD FUND	FIXED INCOME	KOSMOS ENERGY LTD	796,000.00	800,000	0.67	7.875	8/1/2021
MML HIGH YIELD FUND	FIXED INCOME	MALLINCKRODT FIN/SB	305,300.00	355,000	0.26	5.75	8/1/2022
MML HIGH YIELD FUND	FIXED INCOME	FERRELLGAS LP/FERRELLGAS	407,500.00	500,000	0.34	6.75	1/15/2022
MML HIGH YIELD FUND	FIXED INCOME	JUPITER RESOURCES INC	785,400.00	2,310,000	0.66	8.5	10/1/2022
MML HIGH YIELD FUND	FIXED INCOME	YORK RISK SERVICES HLDG	689,440.00	992,000	0.58	8.5	10/1/2022
MML HIGH YIELD FUND	FIXED INCOME	AMERICAN AIRLINES GROUP	1,895,727.50	1,891,000	1.60	5.5	10/1/2019
MML HIGH YIELD FUND	FIXED INCOME	TRIUMPH GROUP INC	265,350.00	305,000	0.22	5.25	6/1/2022
MML HIGH YIELD FUND	FIXED INCOME	SPRINT CORP	1,619,422.50	1,578,000	1.36	7.875	9/15/2023
MML HIGH YIELD FUND	FIXED INCOME	SPRINT CORP	762,507.50	745,000	0.64	7.25	9/15/2021
MML HIGH YIELD FUND	FIXED INCOME	TIBCO SOFTWARE INC	3,013,657.50	2,877,000	2.54	11.375	12/1/2021
MML HIGH YIELD FUND	FIXED INCOME	BAUSCH HEALTH COS INC	413,580.00	452,000	0.35	5.5	3/1/2023
MML HIGH YIELD FUND	FIXED INCOME	KINROSS GOLD CORP	438,795.00	441,000	0.37	5.95	3/15/2024
MML HIGH YIELD FUND	FIXED INCOME	ENDO DAC/FIN LLC/FINCO	703,867.50	981,000	0.59	6	2/1/2025
MML HIGH YIELD FUND	FIXED INCOME	ALTICE LUXEMBOURG SA	523,250.00	700,000	0.44	7.625	2/15/2025
MML HIGH YIELD FUND	FIXED INCOME	ALTICE FINANCING SA	576,000.00	600,000	0.49	6.625	2/15/2023
MML HIGH YIELD FUND	FIXED INCOME	CITGO HOLDING INC	1,710,540.00	1,677,000	1.44	10.75	2/15/2020
MML HIGH YIELD FUND	FIXED INCOME	WYNN LAS VEGAS LLC/CORP	130,550.00	140,000	0.11	5.5	3/1/2025
MML HIGH YIELD FUND	FIXED INCOME	PILGRIM S PRIDE CORP	231,562.50	247,000	0.20	5.75	3/15/2025
MML HIGH YIELD FUND	FIXED INCOME	PLATFORM SPECIALTY PROD	423,000.00	423,000	0.36	6.5	2/1/2022
MML HIGH YIELD FUND	FIXED INCOME	BAUSCH HEALTH COS INC	1,433,517.50	1,643,000	1.21	6.125	4/15/2025
MML HIGH YIELD FUND	FIXED INCOME	BAUSCH HEALTH COS INC	178,525.00	193,000	0.15	5.875	5/15/2023
MML HIGH YIELD FUND	FIXED INCOME	KOSMOS ENERGY LTD	1,804,770.00	1,823,000	1.52	7.875	8/1/2021

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML HIGH YIELD FUND	FIXED INCOME	MALLINCKRODT FIN/SB	274,620.00	398,000	0.23	5.5	4/15/2025
MML HIGH YIELD FUND	FIXED INCOME	CCO HLDGS LLC/CAP CORP	797,340.00	822,000	0.67	5.875	5/1/2027
MML HIGH YIELD FUND	FIXED INCOME	BROOKFIELD RESIDENTIAL	448,037.50	491,000	0.38	6.375	5/15/2025
MML HIGH YIELD FUND	FIXED INCOME	GENESIS ENERGY LP/GENESI	707,625.00	765,000	0.60	6	5/15/2023
MML HIGH YIELD FUND	FIXED INCOME	GCI LLC	1,503,500.00	1,550,000	1.27	6.875	4/15/2025
MML HIGH YIELD FUND	FIXED INCOME	VISTAJET MALTA FIN / VIS	658,760.00	688,000	0.55	7.75	6/1/2020
MML HIGH YIELD FUND	FIXED INCOME	KENAN ADVANTAGE GROUP	3,064,000.00	3,200,000	2.58	7.875	7/31/2023
MML HIGH YIELD FUND	FIXED INCOME	MIDCONTINENT COMM + FIN	885,600.00	864,000	0.75	6.875	8/15/2023
MML HIGH YIELD FUND	FIXED INCOME	AVANOS MEDICAL INC	1,290,250.00	1,300,000	1.09	6.25	10/15/2022
MML HIGH YIELD FUND	FIXED INCOME	MALLINCKRODT FIN/SB	153,520.00	202,000	0.13	5.625	10/15/2023
MML HIGH YIELD FUND	FIXED INCOME	RHP HOTEL PPTY/RHP FINAN	769,275.00	789,000	0.65	5	4/15/2023
MML HIGH YIELD FUND	FIXED INCOME	T MOBILE USA INC	692,580.00	679,000	0.58	6.5	1/15/2026
MML HIGH YIELD FUND	FIXED INCOME	HCA INC	1,132,310.00	1,138,000	0.95	5.875	2/15/2026
MML HIGH YIELD FUND	FIXED INCOME	CCO HLDGS LLC/CAP CORP	1,492,500.00	1,500,000	1.26	5.875	4/1/2024
MML HIGH YIELD FUND	FIXED INCOME	CALUMET SPECIALTY PROD	155,040.00	204,000	0.13	7.75	4/15/2023
MML HIGH YIELD FUND	FIXED INCOME	T MOBILE USA INC	453,000.00	453,000	0.38	6	4/15/2024
MML HIGH YIELD FUND	FIXED INCOME	CARLSON TRAVEL INC	782,265.00	862,000	0.66	9.5	12/15/2024
MML HIGH YIELD FUND	FIXED INCOME	PBF HOLDING CO LLC	44,885.00	47,000	0.04	7	11/15/2023
MML HIGH YIELD FUND	FIXED INCOME	PARK AEROSPACE HOLDINGS	240,907.50	249,000	0.20	5.25	8/15/2022
MML HIGH YIELD FUND	FIXED INCOME	EP ENER/EVEREST ACQ FIN	262,762.50	637,000	0.22	8	2/15/2025
MML HIGH YIELD FUND	FIXED INCOME	POST HOLDINGS INC	296,581.29	309,000	0.25	5.5	3/1/2025
MML HIGH YIELD FUND	FIXED INCOME	POST HOLDINGS INC	358,125.00	382,000	0.30	5.75	3/1/2027
MML HIGH YIELD FUND	FIXED INCOME	PEABODY ENERGY CORP	1,341,510.00	1,383,000	1.13	6	3/31/2022
MML HIGH YIELD FUND	FIXED INCOME	TRANSDIGM INC	1,133,670.00	1,219,000	0.95	6.375	6/15/2026
MML HIGH YIELD FUND	FIXED INCOME	LPL HOLDINGS INC	1,278,750.00	1,364,000	1.08	5.75	9/15/2025
MML HIGH YIELD FUND	FIXED INCOME	SUNCOKE ENRGY PART LP/FI	959,817.50	1,013,000	0.81	7.5	6/15/2025
MML HIGH YIELD FUND	FIXED INCOME	CONSOLIDATED ENERGY FIN	623,887.50	655,000	0.53	6.875	6/15/2025
MML HIGH YIELD FUND	FIXED INCOME	INTELSAT JACKSON HLDG	132,369.60	132,000	0.11	9.75	7/15/2025
MML HIGH YIELD FUND	FIXED INCOME	CENTURYLINK ESCROW LLC	1,250,767.51	1,343,467	1.05	0	1/31/2025
MML HIGH YIELD FUND	FIXED INCOME	FERL PRT LP/FERL PRT FIN	321,035.00	449,000	0.27	8.625	6/15/2020
MML HIGH YIELD FUND	FIXED INCOME	UNITED RENTALS NORTH AM	320,287.50	365,000	0.27	4.875	1/15/2028
MML HIGH YIELD FUND	FIXED INCOME	VFH PARENT LLC/ORCHESTRA	1,435,599.69	1,477,000	1.21	6.75	6/15/2022
MML HIGH YIELD FUND	FIXED INCOME	CCO HLDGS LLC/CAP CORP	999,120.00	1,086,000	0.84	5	2/1/2028
MML HIGH YIELD FUND	FIXED INCOME	MPT OPER PARTNERSP/FINL	492,848.13	539,000	0.42	5	10/15/2027
MML HIGH YIELD FUND	FIXED INCOME	UNITED RENTALS NORTH AM	222,232.50	249,000	0.19	4.625	10/15/2025
MML HIGH YIELD FUND	FIXED INCOME	GOLDEN NUGGET INC	232,320.00	242,000	0.20	8.75	10/1/2025
MML HIGH YIELD FUND	EQUITY	PINNACLE AGRICULTURE ENTERPRIS	114,453.50	1,144,535	0.10	0	
MML HIGH YIELD FUND	FIXED INCOME	AVANTOR INC	1,397,000.00	1,397,000	1.18	9	10/1/2025
MML HIGH YIELD FUND	FIXED INCOME	AVANTOR INC	640,590.00	652,000	0.54	6	10/1/2024
MML HIGH YIELD FUND	FIXED INCOME	PILGRIM S PRIDE CORP	795,877.50	877,000	0.67	5.875	9/30/2027
MML HIGH YIELD FUND	FIXED INCOME	JONAH NRG LLC/FINANCE	630,400.00	985,000	0.53	7.25	10/15/2025
MML HIGH YIELD FUND	FIXED INCOME	PINNACLE OPERATING CORP	1,083,889.30	1,667,522	0.91	9	5/15/2023
MML HIGH YIELD FUND	FIXED INCOME	BAUSCH HEALTH COS INC	292,900.00	290,000	0.25	7	3/15/2024
MML HIGH YIELD FUND	FIXED INCOME	BAUSCH HEALTH COS INC	171,855.00	171,000	0.14	6.5	3/15/2022
MML HIGH YIELD FUND	FIXED INCOME	FIRST QUANTUM MINERALS L	579,920.00	659,000	0.49	7.25	4/1/2023
MML HIGH YIELD FUND	FIXED INCOME	FIRST QUANTUM MINERALS L	537,900.00	652,000	0.45	7.5	4/1/2025
MML HIGH YIELD FUND	FIXED INCOME	NRG ENERGY INC	707,265.00	702,000	0.60	6.625	1/15/2027
MML HIGH YIELD FUND	FIXED INCOME	USIS MERGER SUB INC	767,531.60	836,000	0.65	6.875	5/1/2025
MML HIGH YIELD FUND	FIXED INCOME	ALLIANCE RES OP/FINANCE	670,672.50	669,000	0.56	7.5	5/1/2025
MML HIGH YIELD FUND	FIXED INCOME	HUGHES SATELLITE SYSTEMS	737,581.25	805,000	0.62	5.25	8/1/2026
MML HIGH YIELD FUND	FIXED INCOME	HUGHES SATELLITE SYSTEMS	249,220.00	272,000	0.21	6.625	8/1/2026
MML HIGH YIELD FUND	FIXED INCOME	TEMPO ACQUISITION LLC/FI	651,200.00	704,000	0.55	6.75	6/1/2025

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML HIGH YIELD FUND	FIXED INCOME	WYNN LAS VEGAS LLC/CORP	432,960.00	492,000	0.36	5.25	5/15/2027
MML HIGH YIELD FUND	FIXED INCOME	ALLEGHENY TECHNOLOGIES	1,168,160.00	1,192,000	0.98	5.95	1/15/2021
MML HIGH YIELD FUND	FIXED INCOME	GENERAL ELECTRIC CO	560,676.66	559,000	0.47	4.65	10/17/2021
MML HIGH YIELD FUND	FIXED INCOME	TRANSOCEAN INC	124,875.00	150,000	0.11	9.35	12/15/2041
MML HIGH YIELD FUND	FIXED INCOME	KINROSS GOLD CORP	454,580.00	476,000	0.38	6.875	9/1/2041
MML HIGH YIELD FUND	FIXED INCOME	CLEAR CHANNEL WORLDWIDE	1,439,100.00	1,476,000	1.21	7.625	3/15/2020
MML HIGH YIELD FUND	FIXED INCOME	NEW GOLD INC	838,320.00	998,000	0.71	6.25	11/15/2022
MML HIGH YIELD FUND	FIXED INCOME	GETTY IMAGES INC	878,871.54	906,053	0.74	0	10/18/2019
MML HIGH YIELD FUND	FIXED INCOME	ZACHRY HOLDINGS INC	1,479,800.00	1,510,000	1.25	7.5	2/1/2020
MML HIGH YIELD FUND	FIXED INCOME	LBC TANK TERMINAL HLDING	988,790.00	1,111,000	0.83	6.875	5/15/2023
MML HIGH YIELD FUND	FIXED INCOME	SONIC AUTOMOTIVE INC	65,340.00	72,000	0.06	5	5/15/2023
MML HIGH YIELD FUND	FIXED INCOME	TRIUMPH GROUP INC	378,745.00	422,000	0.32	4.875	4/1/2021
MML HIGH YIELD FUND	FIXED INCOME	KEHE DISTRIBUTORS LLC/FI	617,500.00	650,000	0.52	7.625	8/15/2021
MML HIGH YIELD FUND	FIXED INCOME	CENTURYLINK INC	481,875.00	500,000	0.41	6.75	12/1/2023
MML HIGH YIELD FUND	FIXED INCOME	TENET HEALTHCARE CORP	340,850.00	340,000	0.29	8.125	4/1/2022
MML HIGH YIELD FUND	FIXED INCOME	HECLA MINING CO	1,245,580.00	1,271,000	1.05	6.875	5/1/2021
MML HIGH YIELD FUND	FIXED INCOME	CALUMET SPECIALTY PROD	292,315.00	362,000	0.25	7.625	1/15/2022
MML HIGH YIELD FUND	FIXED INCOME	NIELSEN FINANCE LLC/CO	596,875.00	625,000	0.50	5	4/15/2022

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML HIGH YIELD FUND	FIXED INCOME	ENDO FIN LLC/ENDO FINCO	105,640.00	139,000	0.09	5.375	1/15/2023
MML FUNDAMENTAL VALUE FUND	EQUITY	METLIFE INC	1,720,414.00	41,900	0.95	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	ASTRAZENECA PLC SPONS ADR	2,317,919.40	61,030	1.28	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	UNILEVER N V NY SHARES	1,973,922.00	36,690	1.09	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	UNITEDHEALTH GROUP INC	2,204,712.00	8,850	1.21	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	SEALED AIR CORP	1,473,732.00	42,300	0.81	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	BLACKROCK INC	2,368,704.60	6,030	1.30	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	VERIZON COMMUNICATIONS INC	5,262,192.00	93,600	2.89	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	INTEL CORP	4,483,222.90	95,530	2.47	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	ELI LILLY + CO	3,119,811.20	26,960	1.72	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	UNITED TECHNOLOGIES CORP	2,540,612.80	23,860	1.40	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	ANALOG DEVICES INC	2,407,531.50	28,050	1.32	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	NEWELL BRANDS INC	927,641.00	49,900	0.51	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	KONINKLIJKE PHILIPS NVR NY	2,091,502.70	59,570	1.15	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	JPMORGAN CHASE + CO	7,773,480.60	79,630	4.28	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	ROCHE HOLDING AG GENUSSCHEIN	2,851,319.29	11,531	1.57	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	ZIMMER BIOMET HOLDINGS INC	1,973,791.60	19,030	1.09	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	CHEVRON CORP	5,328,534.20	48,980	2.93	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	COMCAST CORP CLASS A	4,942,698.00	145,160	2.72	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	VIACOM INC CLASS B	1,107,927.00	43,110	0.61	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	CONCHO RESOURCES INC	1,812,187.70	17,630	1.00	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	INVESCO LTD	1,730,748.60	103,390	0.95	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	PHILIP MORRIS INTERNATIONAL	3,091,655.60	46,310	1.70	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	NETAPP INC	1,699,401.60	28,480	0.93	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	INTACT FINANCIAL CORP	1,979,876.57	27,250	1.09	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	AMERICAN INTERNATIONAL GROUP	1,474,722.20	37,420	0.81	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	INGERSOLL RAND PLC	1,935,900.60	21,220	1.07	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	MERCK + CO. INC.	4,679,348.40	61,240	2.57	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	CITIGROUP INC	4,160,635.20	79,920	2.29	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	FORTUNE BRANDS HOME + SECURI	1,841,375.30	48,470	1.01	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	MONDELEZ INTERNATIONAL INC A	2,126,393.60	53,120	1.17	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	EATON CORP PLC	2,199,179.80	32,030	1.21	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	BRIXMOR PROPERTY GROUP INC	1,037,260.90	70,610	0.57	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	ANTHEM INC	2,915,193.00	11,100	1.60	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	CROWN CASTLE INTL CORP	2,944,959.30	27,110	1.62	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	MEDTRONIC PLC	3,468,213.84	38,129	1.91	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	EVERSOURCE ENERGY	2,475,422.40	38,060	1.36	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	ALLERGAN PLC	1,796,390.40	13,440	0.99	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	KRAFT HEINZ CO/THE	2,060,152.64	47,866	1.13	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	CHUBB LTD	3,186,224.70	24,665	1.75	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	US FOODS HOLDING CORP	2,017,050.00	63,750	1.11	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	PARK HOTELS + RESORTS INC	1,720,395.60	66,220	0.95	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	HILTON WORLDWIDE HOLDINGS IN	1,988,142.00	27,690	1.09	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	DOWDUPONT INC	3,212,008.80	60,060	1.77	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	QURATE RETAIL INC	1,948,876.80	99,840	1.07	0	
MML FUNDAMENTAL VALUE FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	1,847,206.43	1,847,206	1.02	1.25	1/2/2019
MML FUNDAMENTAL VALUE FUND	EQUITY	CATERPILLAR INC	2,610,017.80	20,540	1.44	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	HALLIBURTON CO	1,505,225.40	56,630	0.83	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	KLA TENCOR CORP	1,413,047.10	15,790	0.78	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	MAXIM INTEGRATED PRODUCTS	2,161,125.00	42,500	1.19	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	QUALCOMM INC	2,593,388.70	45,570	1.43	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	SKECHERS USA INC CL A	763,610.40	33,360	0.42	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date	
MML FUNDAMENTAL VALUE FUND	EQUITY	CANADIAN NATURAL RESOURCES	1,939,810.70	80,390		1.07	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	M + T BANK CORP	2,305,824.30	16,110		1.27	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	SEMPRA ENERGY	1,775,397.90	16,410		0.98	0	
MML FUNDAMENTAL VALUE FUND	CASH	CANADIAN DOLLAR	11,876.46	16,214		0.01	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	EOG RESOURCES INC	2,762,812.80	31,680		1.52	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	EDISON INTERNATIONAL	1,634,976.00	28,800		0.90	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	DOMINION ENERGY INC	2,540,403.00	35,550		1.40	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	FMC CORP	2,186,997.20	29,570		1.20	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	LOCKHEED MARTIN CORP	1,916,668.80	7,320		1.05	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	OCCIDENTAL PETROLEUM CORP	2,107,789.20	34,340		1.16	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	PIONEER NATURAL RESOURCES CO	1,583,500.80	12,040		0.87	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	UNION PACIFIC CORP	2,130,124.30	15,410		1.17	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	CISCO SYSTEMS INC	4,888,057.30	112,810		2.69	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	EXXON MOBIL CORP	2,121,390.90	31,110		1.17	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	HOME DEPOT INC	2,003,421.20	11,660		1.10	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	NOKIA CORP SPON ADR	2,180,812.20	374,710		1.20	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	WELLS FARGO + CO	4,153,651.20	90,140		2.29	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	PNC FINANCIAL SERVICES GROUP	3,865,044.60	33,060		2.13	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	BANK OF AMERICA CORP	5,666,953.60	229,990		3.12	0	
MML FUNDAMENTAL VALUE FUND	CASH	US DOLLAR	11,390.08	11,390		0.01	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	BRISTOL MYERS SQUIBB CO	2,376,525.60	45,720		1.31	0	
MML FUNDAMENTAL VALUE FUND	EQUITY	MARSH + MCLENNAN COS	2,342,257.50	29,370		1.29	0	
MML FOCUSED EQUITY FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	1,658,197.60	1,658,198		2.77	1.25	1/2/2019
MML FOCUSED EQUITY FUND	EQUITY	CANADIAN NATL RAILWAY CO	2,366,293.95	31,950		3.95	0	
MML FOCUSED EQUITY FUND	EQUITY	LOCKHEED MARTIN CORP	1,469,707.92	5,613		2.46	0	
MML FOCUSED EQUITY FUND	EQUITY	UNION PACIFIC CORP	2,230,755.74	16,138		3.73	0	
MML FOCUSED EQUITY FUND	EQUITY	DIAGEO PLC	2,371,108.05	66,710		3.96	0	
MML FOCUSED EQUITY FUND	EQUITY	GENERAL DYNAMICS CORP	1,637,813.78	10,418		2.74	0	
MML FOCUSED EQUITY FUND	EQUITY	MICROSOFT CORP	1,786,311.59	17,587		2.98	0	
MML FOCUSED EQUITY FUND	EQUITY	PNC FINANCIAL SERVICES GROUP	2,228,304.60	19,060		3.72	0	
MML FOCUSED EQUITY FUND	CASH	US DOLLAR	0.21	0		0.00	0	
MML FOCUSED EQUITY FUND	EQUITY	BRISTOL MYERS SQUIBB CO	2,397,213.64	46,118		4.00	0	
MML FOCUSED EQUITY FUND	EQUITY	MARSH + MCLENNAN COS	1,639,181.50	20,554		2.74	0	
MML FOCUSED EQUITY FUND	EQUITY	COSTCO WHOLESALE CORP	1,342,448.90	6,590		2.24	0	
MML FOCUSED EQUITY FUND	EQUITY	JOHNSON + JOHNSON	1,347,282.00	10,440		2.25	0	
MML FOCUSED EQUITY FUND	EQUITY	MCDONALD S CORP	2,680,951.86	15,098		4.48	0	
MML FOCUSED EQUITY FUND	EQUITY	AMERICAN EXPRESS CO	2,380,331.04	24,972		3.98	0	
MML FOCUSED EQUITY FUND	EQUITY	COCA COLA CO/THE	2,648,380.20	55,932		4.42	0	
MML FOCUSED EQUITY FUND	EQUITY	NIKE INC CL B	2,388,642.52	32,218		3.99	0	
MML FOCUSED EQUITY FUND	EQUITY	PEPSICO INC	2,526,235.68	22,866		4.22	0	
MML FOCUSED EQUITY FUND	EQUITY	UNITED PARCEL SERVICE CL B	1,184,989.50	12,150		1.98	0	
MML FOCUSED EQUITY FUND	EQUITY	PUBLIC STORAGE	2,208,900.33	10,913		3.69	0	
MML FOCUSED EQUITY FUND	EQUITY	COLGATE PALMOLIVE CO	2,205,335.04	37,052		3.68	0	
MML FOCUSED EQUITY FUND	EQUITY	TJX COMPANIES INC	2,410,993.86	53,889		4.03	0	
MML FOCUSED EQUITY FUND	EQUITY	UNITEDHEALTH GROUP INC	1,194,779.52	4,796		2.00	0	
MML FOCUSED EQUITY FUND	EQUITY	DANAHER CORP	1,332,310.40	12,920		2.23	0	
MML FOCUSED EQUITY FUND	EQUITY	3M CO	1,327,682.72	6,968		2.22	0	
MML FOCUSED EQUITY FUND	EQUITY	VISA INC CLASS A SHARES	1,779,870.60	13,490		2.97	0	
MML FOCUSED EQUITY FUND	EQUITY	ACCENTURE PLC CL A	1,931,413.97	13,697		3.23	0	
MML FOCUSED EQUITY FUND	EQUITY	AMERICAN TOWER CORP	2,500,034.76	15,804		4.18	0	
MML FOCUSED EQUITY FUND	EQUITY	MEDTRONIC PLC	2,691,688.32	29,592		4.50	0	
MML FOCUSED EQUITY FUND	EQUITY	CHUBB LTD	2,376,266.10	18,395		3.97	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML FOCUSED EQUITY FUND	EQUITY	LINDE PLC	1,619,071.04	10,376	2.70	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	TJX COMPANIES INC	1,090,761.20	24,380	1.08	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	VERISIGN INC	1,276,925.19	8,611	1.26	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	ELECTRONIC ARTS INC	538,245.11	6,821	0.53	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	ADOBE INC	1,608,340.16	7,109	1.59	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	GARTNER INC	300,935.36	2,354	0.30	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	INTUIT INC	1,366,729.55	6,943	1.35	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	EXPEDITORS INTL WASH INC	514,624.22	7,558	0.51	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	AMAZON.COM INC	4,067,334.76	2,708	4.01	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	ROPER TECHNOLOGIES INC	1,131,110.88	4,244	1.12	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	NORFOLK SOUTHERN CORP	1,155,645.12	7,728	1.14	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	THERMO FISHER SCIENTIFIC INC	1,309,395.29	5,851	1.29	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	FACTSET RESEARCH SYSTEMS INC	347,225.55	1,735	0.34	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	GILEAD SCIENCES INC	1,307,169.90	20,898	1.29	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	PROCTER + GAMBLE CO/THE	2,281,822.08	24,824	2.25	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	AMGEN INC	2,152,271.52	11,056	2.12	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	APPLE INC	4,080,576.06	25,869	4.02	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	CVS HEALTH CORP	875,478.24	13,362	0.86	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	CISCO SYSTEMS INC	1,334,087.37	30,789	1.32	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	HOME DEPOT INC	2,196,375.06	12,783	2.17	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	MICROSOFT CORP	8,050,844.48	79,264	7.94	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	BAXTER INTERNATIONAL INC	1,136,777.22	17,271	1.12	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	EMERSON ELECTRIC CO	705,229.25	11,803	0.70	0	
MML FUNDAMENTAL GROWTH FUND	CASH	US DOLLAR	81,540.39	81,540	0.08	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	EDWARDS LIFESCIENCES CORP	1,038,952.11	6,783	1.02	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	BRISTOL MYERS SQUIBB CO	1,187,794.98	22,851	1.17	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	LOWE S COS INC	1,154,407.64	12,499	1.14	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	BP PLC SPONS ADR	447,418.08	11,799	0.44	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	MCDONALD S CORP	2,090,886.75	11,775	2.06	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	AMERICAN EXPRESS CO	1,477,555.32	15,501	1.46	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	DANAHER CORP	1,154,634.64	11,197	1.14	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	VERIZON COMMUNICATIONS INC	1,944,143.82	34,581	1.92	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	GLOBAL PAYMENTS INC	1,411,127.79	13,683	1.39	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	RAYTHEON COMPANY	1,001,835.55	6,533	0.99	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	CHEVRON CORP	788,727.50	7,250	0.78	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	BIOGEN INC	1,464,878.56	4,868	1.44	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	SALESFORCE.COM INC	2,143,032.62	15,646	2.11	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	CF INDUSTRIES HOLDINGS INC	981,411.56	22,556	0.97	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	TD AMERITRADE HOLDING CORP	1,071,097.92	21,877	1.06	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	MASTERCARD INC A	2,549,982.05	13,517	2.52	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	EXPERIAN PLC	707,680.71	29,117	0.70	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	VMWARE INC CLASS A	1,052,747.01	7,677	1.04	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	VISA INC CLASS A SHARES	3,164,844.78	23,987	3.12	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	NETAPP INC	1,147,633.11	19,233	1.13	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	FORTINET INC	646,829.12	9,184	0.64	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	SS+C TECHNOLOGIES HOLDINGS	819,874.25	18,175	0.81	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	FLEETCOR TECHNOLOGIES INC	1,160,564.28	6,249	1.14	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	O REILLY AUTOMOTIVE INC	1,242,686.97	3,609	1.23	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	AMERICAN TOWER CORP	2,131,135.68	13,472	2.10	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	GUIDEWIRE SOFTWARE INC	355,900.28	4,436	0.35	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	FACEBOOK INC CLASS A	236,093.09	1,801	0.23	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	SERVICENOW INC	499,608.30	2,806	0.49	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML FUNDAMENTAL GROWTH FUND	EQUITY	ICON PLC	930,958.05	7,205	0.92	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	INTERCONTINENTAL EXCHANGE IN	1,605,508.29	21,313	1.58	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	ANTHEM INC	1,606,507.71	6,117	1.58	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	MONSTER BEVERAGE CORP	453,414.64	9,212	0.45	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	PAYPAL HOLDINGS INC	1,393,371.30	16,570	1.37	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	ALPHABET INC CL C	6,106,992.17	5,897	6.02	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	S+P GLOBAL INC	1,059,575.90	6,235	1.05	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	FORTIVE CORP W/D	717,804.94	10,609	0.71	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	IHS MARKIT LTD	1,054,860.30	21,990	1.04	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	WORLDPAY INC CLASS A	754,440.53	9,871	0.74	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	BOOKING HOLDINGS INC	1,479,558.78	859	1.46	0	
MML FUNDAMENTAL GROWTH FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	4,245,255.78	4,245,256	4.19	1.25	1/2/2019
MML FUNDAMENTAL GROWTH FUND	EQUITY	NIKE INC CL B	1,331,850.96	17,964	1.31	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	ROSS STORES INC	993,324.80	11,939	0.98	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	CHECK POINT SOFTWARE TECH	1,609,346.70	15,678	1.59	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	AUTOZONE INC	1,462,903.30	1,745	1.44	0	
MML FUNDAMENTAL GROWTH FUND	EQUITY	FISERV INC	593,211.28	8,072	0.59	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	SKECHERS USA INC CL A	1,563,867.69	68,321	0.88	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	OASIS PETROLEUM INC	1,229,595.50	222,350	0.69	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	QEP RESOURCES INC	1,570,708.07	278,989	0.88	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	BOOZ ALLEN HAMILTON HOLDINGS	2,084,848.06	46,258	1.17	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	BANKUNITED INC	2,327,355.96	77,734	1.31	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	STAG INDUSTRIAL INC	2,495,464.00	100,300	1.40	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	HOLLYFRONTIER CORP	1,158,890.40	22,670	0.65	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	KEMPER CORP	276,140.80	4,160	0.15	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	CUBESMART	2,732,435.60	95,240	1.53	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	MRC GLOBAL INC	1,278,279.60	104,520	0.72	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	INGREDION INC	1,925,706.60	21,069	1.08	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	BLOOMIN BRANDS INC	2,267,199.70	126,730	1.27	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	SANMINA CORP	633,018.60	26,310	0.36	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	ICON PLC	2,543,111.22	19,682	1.43	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	TAYLOR MORRISON HOME CORP A	1,621,005.00	101,950	0.91	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	CDW CORP/DE	706,756.00	8,720	0.40	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	EMPIRE STATE REALTY TRUST A	2,357,825.62	165,694	1.32	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	CRITEO SA SPON ADR	1,015,356.80	44,690	0.57	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	ESSENT GROUP LTD	2,116,425.60	61,920	1.19	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	STERLING BANCORP/DE	2,222,576.20	134,620	1.25	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	HOUGHTON MIFFLIN HARCOURT CO	1,395,272.80	157,480	0.78	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	SYNOVUS FINANCIAL CORP	1,742,175.40	54,460	0.98	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	TRINSEO SA	1,873,775.40	40,930	1.05	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	MICHAELS COS INC/THE	1,633,059.40	120,610	0.92	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	ORION ENGINEERED CARBONS SA	1,594,333.76	63,067	0.89	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	NOMAD FOODS LTD	2,166,744.80	129,590	1.22	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	SPX FLOW INC	746,658.90	24,545	0.42	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	ONEMAIN HOLDINGS INC	1,262,351.30	51,970	0.71	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	MOLINA HEALTHCARE INC	1,885,320.84	16,222	1.06	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	TEXAS CAPITAL BANCSHARES INC	2,007,530.46	39,294	1.13	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	WELLCARE HEALTH PLANS INC	1,381,598.68	5,852	0.78	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	ATLAS AIR WORLDWIDE HOLDINGS	998,215.40	23,660	0.56	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	ENERSYS	1,766,325.99	22,759	0.99	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	AMERICAN CAMPUS COMMUNITIES	2,820,645.72	68,148	1.58	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	NUANCE COMMUNICATIONS INC	2,052,727.11	155,157	1.15	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
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Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SMALL/MID CAP VALUE FUND	EQUITY	HANOVER INSURANCE GROUP INC/	1,433,935.60	12,280	0.80		0
MML SMALL/MID CAP VALUE FUND	EQUITY	HELIX ENERGY SOLUTIONS GROUP	519,197.70	95,970	0.29		0
MML SMALL/MID CAP VALUE FUND	EQUITY	PORTLAND GENERAL ELECTRIC CO	2,196,077.45	47,897	1.23		0
MML SMALL/MID CAP VALUE FUND	EQUITY	COMMVAULT SYSTEMS INC	1,202,836.04	20,356	0.68		0
MML SMALL/MID CAP VALUE FUND	EQUITY	BLACK HILLS CORP	1,662,226.06	26,477	0.93		0
MML SMALL/MID CAP VALUE FUND	EQUITY	DRIL QUIP INC	1,073,092.02	35,734	0.60		0
MML SMALL/MID CAP VALUE FUND	EQUITY	REGAL BELOIT CORP	2,130,080.40	30,408	1.20		0
MML SMALL/MID CAP VALUE FUND	EQUITY	TEREX CORP	1,186,061.40	43,020	0.67		0
MML SMALL/MID CAP VALUE FUND	EQUITY	UMPQUA HOLDINGS CORP	2,157,598.20	135,698	1.21		0
MML SMALL/MID CAP VALUE FUND	EQUITY	CAMDEN PROPERTY TRUST	2,900,543.10	32,942	1.63		0
MML SMALL/MID CAP VALUE FUND	EQUITY	CYPRESS SEMICONDUCTOR CORP	1,857,247.20	146,010	1.04		0
MML SMALL/MID CAP VALUE FUND	EQUITY	WEBSTER FINANCIAL CORP	1,813,034.07	36,783	1.02		0
MML SMALL/MID CAP VALUE FUND	CASH	US DOLLAR	0.28	0	0.00		0
MML SMALL/MID CAP VALUE FUND	EQUITY	ZIONS BANCORP NA	2,982,208.74	73,201	1.67		0
MML SMALL/MID CAP VALUE FUND	EQUITY	AMDOCS LTD	1,968,170.84	33,598	1.10		0
MML SMALL/MID CAP VALUE FUND	EQUITY	SEALED AIR CORP	269,766.12	7,743	0.15		0
MML SMALL/MID CAP VALUE FUND	EQUITY	NCR CORPORATION	2,506,926.52	108,619	1.41		0
MML SMALL/MID CAP VALUE FUND	EQUITY	NETSCOUT SYSTEMS INC	1,967,197.50	83,250	1.10		0
MML SMALL/MID CAP VALUE FUND	EQUITY	STEELCASE INC CL A	1,532,888.12	103,364	0.86		0
MML SMALL/MID CAP VALUE FUND	EQUITY	QUANTA SERVICES INC	2,052,458.80	68,188	1.15		0
MML SMALL/MID CAP VALUE FUND	EQUITY	OIL STATES INTERNATIONAL INC	1,135,831.20	79,540	0.64		0
MML SMALL/MID CAP VALUE FUND	EQUITY	PATTERSON UTI ENERGY INC	1,251,936.00	120,960	0.70		0
MML SMALL/MID CAP VALUE FUND	EQUITY	PNM RESOURCES INC	1,896,837.67	46,163	1.06		0
MML SMALL/MID CAP VALUE FUND	EQUITY	VERINT SYSTEMS INC	2,394,957.55	56,605	1.34		0
MML SMALL/MID CAP VALUE FUND	EQUITY	HAWAIIAN HOLDINGS INC	1,510,123.80	57,180	0.85		0
MML SMALL/MID CAP VALUE FUND	EQUITY	SRC ENERGY INC	527,434.00	112,220	0.30		0
MML SMALL/MID CAP VALUE FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	1,149,375.10	1,149,375	0.65	1.25	1/2/2019
MML SMALL/MID CAP VALUE FUND	EQUITY	BMC STOCK HOLDINGS INC	1,214,700.12	78,469	0.68		0
MML SMALL/MID CAP VALUE FUND	EQUITY	MGM GROWTH PROPERTIES LLC A	1,767,515.66	66,926	0.99		0
MML SMALL/MID CAP VALUE FUND	EQUITY	US FOODS HOLDING CORP	2,880,505.60	91,040	1.62		0
MML SMALL/MID CAP VALUE FUND	EQUITY	ALCOA CORP	1,685,703.60	63,420	0.95		0
MML SMALL/MID CAP VALUE FUND	EQUITY	PARK HOTELS + RESORTS INC	2,169,693.72	83,514	1.22		0
MML SMALL/MID CAP VALUE FUND	EQUITY	HUNTINGTON BANCSHARES INC	1,261,708.16	105,848	0.71		0
MML SMALL/MID CAP VALUE FUND	EQUITY	SCHOLASTIC CORP	1,134,124.20	28,170	0.64		0
MML SMALL/MID CAP VALUE FUND	EQUITY	COMERICA INC	2,034,597.80	29,620	1.14		0
MML SMALL/MID CAP VALUE FUND	EQUITY	ASSOCIATED BANC CORP	1,744,231.23	88,137	0.98		0
MML SMALL/MID CAP VALUE FUND	EQUITY	SOTHEBY S	1,993,636.58	50,167	1.12		0
MML SMALL/MID CAP VALUE FUND	EQUITY	COTT CORPORATION	2,127,439.16	152,614	1.19		0
MML SMALL/MID CAP VALUE FUND	EQUITY	ALLIANT ENERGY CORP	2,664,031.50	63,054	1.50		0
MML SMALL/MID CAP VALUE FUND	EQUITY	AMERICAN FINANCIAL GROUP INC	1,993,561.13	22,021	1.12		0
MML SMALL/MID CAP VALUE FUND	EQUITY	SUN COMMUNITIES INC	2,682,804.67	26,377	1.51		0
MML SMALL/MID CAP VALUE FUND	EQUITY	EVEREST RE GROUP LTD	3,688,854.40	16,940	2.07		0
MML SMALL/MID CAP VALUE FUND	EQUITY	ALASKA AIR GROUP INC	2,527,100.50	41,530	1.42		0
MML SMALL/MID CAP VALUE FUND	EQUITY	AVNET INC	2,237,478.00	61,980	1.26		0
MML SMALL/MID CAP VALUE FUND	EQUITY	LENNAR CORP A	1,851,168.60	47,284	1.04		0
MML SMALL/MID CAP VALUE FUND	EQUITY	OLD REPUBLIC INTL CORP	1,808,164.71	87,903	1.01		0
MML SMALL/MID CAP VALUE FUND	EQUITY	AAR CORP	576,454.92	15,438	0.32		0
MML SMALL/MID CAP VALUE FUND	EQUITY	GRANITE CONSTRUCTION INC	1,529,834.40	37,980	0.86		0
MML SMALL/MID CAP VALUE FUND	EQUITY	KULICKE + SOFFA INDUSTRIES	596,951.50	29,450	0.34		0
MML SMALL/MID CAP VALUE FUND	EQUITY	OSHKOSH CORP	1,996,253.60	32,560	1.12		0
MML SMALL/MID CAP VALUE FUND	EQUITY	RPC INC	1,265,699.19	128,237	0.71		0
MML SMALL/MID CAP VALUE FUND	EQUITY	SELECTIVE INSURANCE GROUP	1,484,924.98	24,367	0.83		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
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Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML SMALL/MID CAP VALUE FUND	EQUITY	SKYWEST INC	2,050,956.40	46,120	1.15	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	SOUTHWEST GAS HOLDINGS INC	1,848,240.00	24,160	1.04	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	ANIXTER INTERNATIONAL INC	610,878.88	11,248	0.34	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	MELLANOX TECHNOLOGIES LTD	919,181.00	9,950	0.52	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	AECOM	1,449,364.50	54,693	0.81	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	GENPACT LTD	2,612,820.93	96,807	1.47	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	GRAPHIC PACKAGING HOLDING CO	1,810,896.08	170,197	1.02	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	SIGNET JEWELERS LTD	1,369,922.40	43,120	0.77	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	REINSURANCE GROUP OF AMERICA	3,647,382.30	26,010	2.05	0	
MML SMALL/MID CAP VALUE FUND	EQUITY	TUTOR PERINI CORP	1,390,667.60	87,080	0.78	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML BALANCED ALLOCATION FUND	EQUITY	MML MID CAP VALUE FD	13,551,381.12	1,449,346	2.67		0
MML BALANCED ALLOCATION FUND	EQUITY	MML BLUE CHIP GROWTH FD	14,319,625.28	980,796	2.82		0
MML BALANCED ALLOCATION FUND	EQUITY	MML EQUITY INCOME FD	16,666,058.35	1,659,966	3.28		0
MML BALANCED ALLOCATION FUND	EQUITY	MML INFLATION PROTECTED BD FD	18,608,637.80	1,914,469	3.66		0
MML BALANCED ALLOCATION FUND	EQUITY	MML MANAGED BOND FUND	86,417,648.86	7,240,997	17.02		0
MML BALANCED ALLOCATION FUND	EQUITY	OPP VAR ACC GLOBAL FUND	8,827,672.88	232,307	1.74		0
MML BALANCED ALLOCATION FUND	EQUITY	MML INCOME AND GROWTH FD	17,457,907.53	2,056,291	3.44		0
MML BALANCED ALLOCATION FUND	EQUITY	MML SMALL COMPANY VALUE FUND	5,608,566.08	404,658	1.10		0
MML BALANCED ALLOCATION FUND	EQUITY	MML FOREIGN FD	14,176,316.15	1,532,575	2.79		0
MML BALANCED ALLOCATION FUND	EQUITY	MML GLOBAL FD	15,989,550.60	1,559,956	3.15		0
MML BALANCED ALLOCATION FUND	EQUITY	MML LARGE CAP GROWTH FD	5,951,118.91	614,785	1.17		0
MML BALANCED ALLOCATION FUND	EQUITY	MML SHORT DURATION BOND FUND	23,866,310.54	2,488,666	4.70		0
MML BALANCED ALLOCATION FUND	EQUITY	MML HIGH YIELD FUND	13,437,551.51	1,481,538	2.65		0
MML BALANCED ALLOCATION FUND	EQUITY	MML TOTAL RETURN BOND FUND	54,159,581.06	5,330,667	10.66		0
MML BALANCED ALLOCATION FUND	EQUITY	MML FUNDAMENTAL VALUE FUND	15,134,714.34	1,222,513	2.98		0
MML BALANCED ALLOCATION FUND	EQUITY	MML STRG EMERGING MARKETS FUND	600,593.47	59,347	0.12		0
MML BALANCED ALLOCATION FUND	EQUITY	MML FUNDAMENTAL GROWTH FUND	9,289,466.33	991,405	1.83		0
MML BALANCED ALLOCATION FUND	EQUITY	MML FOCUSED EQUITY FUND	2,687,560.48	504,233	0.53		0
MML BALANCED ALLOCATION FUND	EQUITY	OPPENHEIMER DISCOVERY MID CAP	4,330,133.21	63,076	0.85		0
MML BALANCED ALLOCATION FUND	EQUITY	MML SMALL/MID CAP VALUE	3,547,754.22	334,063	0.70		0
MML BALANCED ALLOCATION FUND	EQUITY	OPP GLOBAL MULTI ALT FD/VA	36,229,988.13	3,817,702	7.13		0
MML BALANCED ALLOCATION FUND	EQUITY	MML INTERNATIONAL EQUITY FUND	12,461,899.46	1,398,642	2.45		0
MML BALANCED ALLOCATION FUND	EQUITY	OPPENHEIMER INTERNATIONAL GROW	11,079,935.90	5,458,097	2.18		0
MML BALANCED ALLOCATION FUND	EQUITY	MML DYNAMIC BOND FUND	63,752,628.82	6,633,988	12.55		0
MML BALANCED ALLOCATION FUND	EQUITY	MML SER INVT FD	15,692,670.59	559,453	3.09		0
MML BALANCED ALLOCATION FUND	EQUITY	OPPENHEIMER MAIN STREET FUND/V	8,298,100.18	309,515	1.63		0
MML MODERATE ALLOCATION FUND	EQUITY	MML INTERNATIONAL EQUITY FUND	65,866,175.36	7,392,388	3.23		0
MML MODERATE ALLOCATION FUND	EQUITY	OPPENHEIMER INTERNATIONAL GROW	35,317,170.76	17,397,621	1.73		0
MML MODERATE ALLOCATION FUND	EQUITY	MML DYNAMIC BOND FUND	209,820,148.31	21,833,522	10.28		0
MML MODERATE ALLOCATION FUND	EQUITY	MML SER INVT FD	76,574,751.33	2,729,938	3.75		0
MML MODERATE ALLOCATION FUND	EQUITY	OPPENHEIMER MAIN STREET FUND/V	25,674,274.22	957,638	1.26		0
MML MODERATE ALLOCATION FUND	EQUITY	MML SMALL CAP GROWTH EQUITY FD	12,860,105.57	1,003,383	0.63		0
MML MODERATE ALLOCATION FUND	EQUITY	MML MID CAP GROWTH FD	68,405,477.44	4,907,136	3.35		0
MML MODERATE ALLOCATION FUND	EQUITY	MML MID CAP VALUE FD	69,126,568.42	7,393,216	3.39		0
MML MODERATE ALLOCATION FUND	EQUITY	MML BLUE CHIP GROWTH FD	69,294,776.77	4,746,218	3.39		0
MML MODERATE ALLOCATION FUND	EQUITY	MML EQUITY INCOME FD	82,090,172.65	8,176,312	4.02		0
MML MODERATE ALLOCATION FUND	EQUITY	MML INFLATION PROTECTED BD FD	62,730,545.15	6,453,760	3.07		0
MML MODERATE ALLOCATION FUND	EQUITY	MML MANAGED BOND FUND	261,870,347.89	21,942,305	12.83		0
MML MODERATE ALLOCATION FUND	EQUITY	OPP VAR ACC GLOBAL FUND	37,665,635.04	991,201	1.84		0
MML MODERATE ALLOCATION FUND	EQUITY	MML INCOME AND GROWTH FD	81,410,809.52	9,589,024	3.99		0
MML MODERATE ALLOCATION FUND	EQUITY	MML SMALL COMPANY VALUE FUND	27,837,568.78	2,008,483	1.36		0
MML MODERATE ALLOCATION FUND	EQUITY	MML FOREIGN FD	68,158,971.91	7,368,538	3.34		0
MML MODERATE ALLOCATION FUND	EQUITY	MML GLOBAL FD	73,665,241.00	7,186,853	3.61		0
MML MODERATE ALLOCATION FUND	EQUITY	MML LARGE CAP GROWTH FD	22,092,694.96	2,282,303	1.08		0
MML MODERATE ALLOCATION FUND	EQUITY	MML SHORT DURATION BOND FUND	84,136,564.85	8,773,364	4.12		0
MML MODERATE ALLOCATION FUND	EQUITY	MML HIGH YIELD FUND	42,569,899.32	4,693,484	2.09		0
MML MODERATE ALLOCATION FUND	EQUITY	MML TOTAL RETURN BOND FUND	175,042,375.93	17,228,580	8.57		0
MML MODERATE ALLOCATION FUND	EQUITY	MML FUNDAMENTAL VALUE FUND	72,225,182.72	5,834,021	3.54		0
MML MODERATE ALLOCATION FUND	EQUITY	MML STRG EMERGING MARKETS FUND	52,900,676.44	5,227,340	2.59		0
MML MODERATE ALLOCATION FUND	EQUITY	MML FUNDAMENTAL GROWTH FUND	40,049,374.34	4,274,213	1.96		0
MML MODERATE ALLOCATION FUND	EQUITY	MML FOCUSED EQUITY FUND	20,985,975.44	3,937,331	1.03		0
MML MODERATE ALLOCATION FUND	EQUITY	OPPENHEIMER DISCOVERY MID CAP	22,685,184.63	330,447	1.11		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML MODERATE ALLOCATION FUND	EQUITY	MML SMALL/MID CAP VALUE	22,177,321.87	2,088,260	1.09	0	
MML MODERATE ALLOCATION FUND	EQUITY	OPP GLOBAL MULTI ALT FD/VA	158,427,061.26	16,694,106	7.76	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML DYNAMIC BOND FUND	81,481,511.39	8,478,825	5.61	0	
MML GROWTH ALLOCATION FUND	EQUITY	OPPENHEIMER MAIN STREET FUND/V	24,624,971.27	918,499	1.69	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML SMALL/MID CAP VALUE	21,784,981.89	2,051,317	1.50	0	
MML GROWTH ALLOCATION FUND	EQUITY	OPPENHEIMER DISCOVERY MID CAP	20,070,503.15	292,360	1.38	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML SMALL CAP GROWTH EQUITY FD	11,889,197.53	927,630	0.82	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML MID CAP GROWTH FD	65,525,098.26	4,700,509	4.51	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML MID CAP VALUE FD	64,673,041.32	6,916,903	4.45	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML BLUE CHIP GROWTH FD	61,820,594.71	4,234,287	4.25	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML EQUITY INCOME FD	73,474,362.93	7,318,164	5.06	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML INFLATION PROTECTED BD FD	57,831,762.32	5,949,770	3.98	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML MANAGED BOND FUND	109,788,382.31	9,199,247	7.56	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML STRG EMERGING MARKETS FUND	51,435,566.92	5,082,566	3.54	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML FUNDAMENTAL GROWTH FUND	30,815,375.48	3,288,727	2.12	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML SER INVT FD	69,125,768.68	2,464,377	4.76	0	
MML GROWTH ALLOCATION FUND	EQUITY	OPPENHEIMER INTERNATIONAL GROW	31,899,740.63	15,714,158	2.20	0	
MML GROWTH ALLOCATION FUND	EQUITY	OPP VAR ACC GLOBAL FUND	32,160,543.31	846,330	2.21	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML INCOME AND GROWTH FD	73,646,205.70	8,674,465	5.07	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML SMALL COMPANY VALUE FUND	26,604,653.66	1,919,528	1.83	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML FOREIGN FD	62,924,066.25	6,802,602	4.33	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML GLOBAL FD	67,099,377.97	6,546,281	4.62	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML LARGE CAP GROWTH FD	20,810,673.71	2,149,863	1.43	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML SHORT DURATION BOND FUND	41,566,338.63	4,334,342	2.86	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML HIGH YIELD FUND	11,646,363.27	1,284,053	0.80	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML TOTAL RETURN BOND FUND	71,142,701.56	7,002,234	4.90	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML FUNDAMENTAL VALUE FUND	64,870,914.94	5,239,977	4.46	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML FOCUSED EQUITY FUND	19,201,581.49	3,602,548	1.32	0	
MML GROWTH ALLOCATION FUND	EQUITY	OPP GLOBAL MULTI ALT FD/VA	123,894,118.59	13,055,229	8.53	0	
MML GROWTH ALLOCATION FUND	EQUITY	MML INTERNATIONAL EQUITY FUND	61,352,726.34	6,885,828	4.22	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML SMALL CAP GROWTH EQUITY FD	1,389,491.83	108,412	1.00	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML MID CAP GROWTH FD	8,024,717.11	575,661	5.75	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML MID CAP VALUE FD	7,508,175.42	803,013	5.38	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML BLUE CHIP GROWTH FD	7,492,620.98	513,193	5.37	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML EQUITY INCOME FD	8,137,735.16	810,531	5.83	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML INFLATION PROTECTED BD FD	3,658,525.55	376,392	2.62	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML MANAGED BOND FUND	3,292,209.12	275,857	2.36	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	OPP VAR ACC GLOBAL FUND	3,381,971.46	88,999	2.42	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML INCOME AND GROWTH FD	7,974,746.80	939,311	5.71	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML SMALL COMPANY VALUE FUND	3,274,681.20	236,268	2.35	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML FOREIGN FD	7,087,331.31	766,198	5.08	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML GLOBAL FD	7,840,600.36	764,937	5.62	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML LARGE CAP GROWTH FD	2,769,961.78	286,153	1.98	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML SHORT DURATION BOND FUND	2,924,441.96	304,947	2.10	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML TOTAL RETURN BOND FUND	1,883,099.11	185,344	1.35	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML FUNDAMENTAL VALUE FUND	7,637,762.25	616,944	5.47	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML STRG EMERGING MARKETS FUND	6,760,669.26	668,050	4.84	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML FUNDAMENTAL GROWTH FUND	3,631,211.35	387,536	2.60	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML FOCUSED EQUITY FUND	2,954,364.98	554,290	2.12	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	OPPENHEIMER DISCOVERY MID CAP	2,551,637.02	37,169	1.83	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML SMALL/MID CAP VALUE	2,427,737.72	228,601	1.74	0	
MML AGGRESSIVE ALLOCATION FUND	EQUITY	OPP GLOBAL MULTI ALT FD/VA	12,794,288.47	1,348,186	9.17	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML INTERNATIONAL EQUITY FUND	8,134,205.41	912,930	5.83		0
MML AGGRESSIVE ALLOCATION FUND	EQUITY	OPPENHEIMER INTERNATIONAL GROW	3,627,671.63	1,787,030	2.60		0
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML DYNAMIC BOND FUND	2,110,206.66	219,584	1.51		0
MML AGGRESSIVE ALLOCATION FUND	EQUITY	MML SER INVT FD	6,491,984.79	231,443	4.65		0
MML AGGRESSIVE ALLOCATION FUND	EQUITY	OPPENHEIMER MAIN STREET FUND/V	3,789,297.68	141,339	2.72		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	MERCADOLIBRE INC	922,477.50	3,150	0.72		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	DP WORLD LTD	1,370,271.92	80,142	1.08		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	VALE SA SP ADR	1,381,916.30	104,770	1.08		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	SINOPHARM GROUP CO H	2,029,121.60	484,600	1.59		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	SBERBANK OF RUSSIA PJSC	1,134,535.77	426,599	0.89		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	OBEROI REALTY LTD	100,341.37	15,775	0.08		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	AIA GROUP LTD	3,680,427.93	447,400	2.89		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	GLENCORE PLC	4,690,823.51	1,271,791	3.68		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	YANDEX NV A	1,543,059.65	56,419	1.21		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	PRADA S.P.A.	1,300,357.73	397,900	1.02		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	BDO UNIBANK INC	146,331.10	58,700	0.11		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	MONCLER SPA	61,919.45	1,853	0.05		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	TENCENT HOLDINGS LTD	4,826,408.21	121,759	3.79		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	GRUPO DE INV SURAMERICANA	88,983.90	9,010	0.07		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	ALIBABA GROUP HOLDING SP ADR	7,378,341.03	53,829	5.79		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	GRUPO AVAL ACCIONES Y VALORE	584,454.00	99,060	0.46		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	WALMART DE MEXICO SAB DE CV	498,954.36	196,185	0.39		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	LUKOIL PJSC SPON ADR	959,845.63	13,446	0.75		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	LUKOIL PJSC SPON ADR	230,428.20	3,230	0.18		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	CHINA INTERNATIONAL CAPITA H	582,567.26	312,800	0.46		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	STEINHOFF INTERNATIONAL H NV	50,294.58	423,383	0.04		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	HUTCHISON CHINA MEDITECH ADR	308,644.03	13,367	0.24		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	YUM CHINA HOLDINGS CO	890,221.50	26,550	0.70		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	SAMSUNG BIOLOGICS CO LTD	1,281,318.09	3,682	1.01		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	ZTO EXPRESS CAYMAN INC ADR	1,280,805.30	80,910	1.01		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	DONG E E JIAOCO LTD A	500,256.51	86,899	0.39		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	WUXI BIOLOGICS CAYMAN INC	540,946.04	85,500	0.42		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	ATACADAO DISTRIBUICAO COMERC	1,670,821.75	356,500	1.31		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	BANCO SANTANDER MEXICO B	564,428.58	455,337	0.44		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	B3 SA BRASIL BOLSA BALCAO	2,117,680.31	306,565	1.66		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	PING AN HEALTHCARE AND TECHN	30,630.96	8,670	0.02		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	HUAZHU GROUP LTD ADR	2,432,834.25	84,975	1.91		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	PINDUODUO INC ADR	1,117,063.20	49,780	0.88		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	MEITUAN DIANPING CLASS B	569,226.42	101,200	0.45		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	INNOVENT BIOLOGICS INC	145,235.37	47,000	0.11		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	SHANGHAI JUNSHI BIOSCIENCE H	172,709.28	56,000	0.14		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	ODISHA CEMENT LIMITED	153,998.42	9,774	0.12		0
MML STRATEGIC EMERGING MARKETS FUND	CASH EQUIVALENT	FIXED INC CLEARING CORP.REPO	6,912,728.80	6,912,729	5.43	1.25	1/2/2019
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	LG HOUSEHOLD + HEALTH CARE	2,041,804.54	2,068	1.60		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	ITAU UNIBANCO H SPON PRF ADR	690,481.30	75,545	0.54		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	JIANGSU HENGRUI MEDICINE C A	1,486,926.35	192,450	1.17		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	ZEE ENTERTAINMENT ENTERP	55,136.25	503,840	0.04		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	POLYUS PJSC 144A GDR	347,990.00	8,900	0.27		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	MEITUAN DIANPING CLASS B	851,089.84	159,800	0.67		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	SHOPRITE HOLDINGS LTD	1,006,006.45	76,531	0.79		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	KAKAO CORP	348,225.22	3,790	0.27		0
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	HONG KONG EXCHANGES + CLEAR	2,187,738.95	76,236	1.72		0

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	JARDINE STRATEGIC HLDGS LTD	1,800,755.67	49,289	1.41	0	
MML STRATEGIC EMERGING MARKETS FUND	CASH	PHILIPPINE PESO	220.00	11,569	0.00	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	FOMENTO ECONOMICO MEX SP ADR	973,225.50	11,310	0.76	0	
MML STRATEGIC EMERGING MARKETS FUND	CASH	BRAZILIAN REAL	1.04	4	0.00	0	
MML STRATEGIC EMERGING MARKETS FUND	CASH	CHILEAN PESO	-	(1)	-	0	
MML STRATEGIC EMERGING MARKETS FUND	CASH	SOUTH KOREAN WON	4.48	5,002	0.00	0	
MML STRATEGIC EMERGING MARKETS FUND	CASH	POUND STERLING	0.20	0	-	0	
MML STRATEGIC EMERGING MARKETS FUND	CASH	HONG KONG DOLLAR	2.25	18	0.00	0	
MML STRATEGIC EMERGING MARKETS FUND	CASH	MEXICAN PESO (NEW)	16,895.53	332,027	0.01	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	KERING	4,953,933.40	10,585	3.89	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	FOMENTO ECONOMICO MEXICA UBD	2,033,314.78	236,467	1.60	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	LOJAS AMERICANAS SA PREF	1,627,137.68	318,700	1.28	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	S.A.C.I. FALABELLA	985,117.33	134,893	0.77	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	AYALA LAND INC	882,282.90	1,140,100	0.69	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	HOUSING DEVELOPMENT FINANCE	4,920,352.89	174,766	3.86	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	ZEE ENTERTAINMENT ENTERPRISE	1,706,937.04	250,928	1.34	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	COMMERCIAL INTERNATIONAL BAN	561,545.72	134,115	0.44	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	INDOCEMENT TUNGGAL PRAKARSA	588,128.98	458,500	0.46	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	FIRSTRAND LTD	2,277,576.09	499,892	1.79	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	AMOREPACIFIC GROUP	299,585.07	4,617	0.24	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	SAMSUNG ELECTRONICS CO LTD	1,307,870.79	37,799	1.03	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	SM PRIME HOLDINGS INC	820,870.54	1,205,900	0.64	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	TAIWAN SEMICONDUCTOR MANUFAC	6,780,165.29	934,000	5.32	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	SIAM COMMERCIAL BANK FOREIGN	649,049.45	158,300	0.51	0	
MML STRATEGIC EMERGING MARKETS FUND	CASH	US DOLLAR	3.70	4	0.00	0	
MML STRATEGIC EMERGING MARKETS FUND	CASH	EURO CURRENCY	0.01	0	-	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	CREDICORP LTD	1,702,425.60	7,680	1.34	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	LVMH MOET HENNESSY LOUIS VUI	2,913,774.48	9,916	2.29	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	GRUPO AEROPORT DEL SURESTE B	666,184.22	44,166	0.52	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	GRUPO MEXICO SAB DE CV SER B	1,239,031.65	600,176	0.97	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	APOLLO HOSPITALS ENTERPRISE	460,516.33	25,593	0.36	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	JOLLIBEE FOODS CORP	870,497.29	156,890	0.68	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	GRUPO FINANCIERO INBURSA O	1,092,527.41	756,788	0.86	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	ALSEA SAB DE CV	327,025.50	125,422	0.26	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	BANCO DE CHILE	213,158.10	1,489,731	0.17	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	KOTAK MAHINDRA BANK LTD	4,253,557.72	237,473	3.34	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	NAVER CORP	1,240,702.07	11,387	0.97	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	BIOCON LTD	850,174.45	94,547	0.67	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	ULTRATECH CEMENT LTD	750,647.99	13,159	0.59	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	BANK CENTRAL ASIA TBK PT	742,265.26	410,600	0.58	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	EMAAAR PROPERTIES PJSC	519,490.23	461,797	0.41	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	TATA CONSULTANCY SVCS LTD	1,452,403.36	53,483	1.14	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	AKBANK T.A.S.	563,639.03	435,978	0.44	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	ANADOLU EFES BIRACILIK VE	545,357.70	140,145	0.43	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	TURKIYE GARANTI BANKASI	466,128.72	314,571	0.37	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	SM INVESTMENTS CORP	1,699,937.52	97,445	1.33	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	AYALA CORPORATION	470,624.65	27,500	0.37	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	BIM BIRLESIK MAGAZALAR AS	397,919.47	24,202	0.31	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	NOVATEK PJSC SPONS GDR REG S	5,407,104.42	31,664	4.24	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	AMOREPACIFIC CORP	968,223.40	5,186	0.76	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	GENTING BHD	22,598.46	15,300	0.02	0	
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	SUNNY OPTICAL TECH	648,377.55	73,900	0.51	0	

MML Series Investment Fund and MML Series Investment Fund II Portfolio Holdings
As of 12/31/2018

Fund Name	Asset Class	Security Name	Base Market Value	Shares/Par Value	Percent of Fund	Interest Rate	Maturity Date
MML STRATEGIC EMERGING MARKETS FUND	EQUITY	CHOLAMANDALAM INVESTMENT AND	456,412.34	25,312	0.36		0
MML AMERICAN FUNDS GROWTH FUND	CASH	US DOLLAR	0.01	0	-		0
MML AMERICAN FUNDS GROWTH FUND	EQUITY	AMERICAN FDS INS SER	162,591,712.91	2,324,067	100.00		0
MML AMERICAN FUNDS INTERNATIONAL FUND	EQUITY	AMER FD INS INTERNATIONAL FD	56,808,366.45	3,216,782	100.00		0
MML AMERICAN FUNDS CORE ALLOCATION FUND	EQUITY	AMER FDS INS BOND FD	349,558,422.79	33,386,669	36.52		0
MML AMERICAN FUNDS CORE ALLOCATION FUND	EQUITY	AMER FD INS INTERNATIONAL FD	122,225,445.66	6,921,033	12.77		0
MML AMERICAN FUNDS CORE ALLOCATION FUND	EQUITY	AMER FDS INS GRWTH INC FD	252,066,408.76	5,553,347	26.33		0
MML AMERICAN FUNDS CORE ALLOCATION FUND	EQUITY	AMER FDS INS BLUE CHIP INC GRT	233,389,568.57	18,852,146	24.38		0
MML AMERICAN FUNDS CORE ALLOCATION FUND	CASH	US DOLLAR	5.83	6	0.00		0