MassMutual Global Funding II

USD 12,000,000,000
GLOBAL DEBT ISSUANCE PROGRAM

This base prospectus supplement dated March 6, 2014 (this **"Supplement"**) is in addition to and must be read in conjunction with the base prospectus dated June 17, 2013 as supplemented by the base prospectus supplement dated August 28, 2013 and the base prospectus supplement dated November 27, 2013 (collectively, the **"Base Prospectus"**) prepared by MassMutual Global Funding II (the **"Issuer"**) under the Issuer's Global Debt Issuance Program (the **"Program"**). Capitalized terms used herein and not otherwise defined shall have the meanings of such terms set forth in the Base Prospectus.

This Supplement comprises a supplement in accordance with Article 16 of the Prospectus Directive 2003/71/EC. This Supplement has been approved by the Central Bank of Ireland, as competent authority under the Prospectus Directive 2003/71/EC. The Central Bank of Ireland only approves this Supplement as meeting the requirements imposed under Irish and EU law pursuant to the Prospectus Directive 2003/71/EC.

On March 6, 2014, Massachusetts Mutual Life Insurance Company (**"MassMutual"**) published its Management's Discussion and Analysis of the 2013 Financial Condition and Results of Operations, the consolidated text of which is set out in Annex 1 to this document. On February 21, 2014, MassMutual published its annual 2013 audited statutory statements (including any notes thereto, the **"2013 Statutory Financial Statements"**), the consolidated text of which is set out in Annex 2 to this document.

Except as disclosed in this Supplement, there has been no other significant new factor, material mistake or inaccuracy relating to the information included in the Base Prospectus since the publication of the Base Prospectus.

Where there is any inconsistency between this Supplement and the Base Prospectus, the language used in this Supplement shall prevail.

The Issuer accepts responsibility for the information contained in this Supplement. To the best of the knowledge and belief of the Issuer (which has taken all reasonable care to ensure that such is the case), the information contained in this Supplement is in accordance with the facts and does not omit anything likely to affect the import of such information.

Base Prospectus Supplement dated March 6, 2014

Annex 1

Massachusetts Mutual Life Insurance Company
Management's Discussion and Analysis
Of the 2013 Financial Condition and Results of Operations

General

Management's Discussion and Analysis of the 2013 Financial Condition and Results of Operations should be read in conjunction with the Audited Statutory Financial Statements and Statutory Annual Statements of Massachusetts Mutual Life Insurance Company (**"MassMutual," "us," "we" or "our"**). This Management's Discussion and Analysis reviews the financial condition of MassMutual as of December 31, 2013 and 2012, our results of operations for the past three years and, where appropriate, factors that may affect our future financial performance.

Overview

We are a growth-oriented, diversified financial services company that seeks to provide superior value for policyholders and other customers by achieving exceptional results. We are in the business of helping our customers achieve financial success while protecting their families and businesses. We are committed to maintaining a position of preeminent financial strength by achieving consistent and long-term profitable growth.

We hope to accomplish this by developing and distributing a broad and superior portfolio of innovative financial products and services, sophisticated asset/liability management, rigorous expense control, prudent underwriting standards, continued efforts to improve retention levels and continued commitment to the high credit quality and disciplined diversification in our investment portfolio.

Our insurance products include a wide range of products and services distributed through a network of general agents, agents and affiliated distributors, and broker dealers, to customers primarily in the United States. Products include whole life insurance, universal life insurance, variable universal life insurance, term life insurance, bank-owned and corporate-owned life insurance, individual annuities, group annuities, individual disability income insurance and long-term care insurance.

For the year ended December 31, 2013, statutory net loss was $286 million and net gain from operations was $191 million. As of December 31, 2013, we had $124.4 billion in statutory assets excluding separate accounts, $182.8 billion in total statutory assets, 2.3 million individual policies in force and $457 billion of life insurance in force. Our total adjusted capital, as defined by the National Association of Insurance Commissioners (the **"NAIC"**), increased to $14.5 billion as of December 31, 2013 compared to $14.4 billion as of December 31, 2012.

The following table sets forth the calculation of total adjusted capital:

	December 31, 2013	December 31, 2012
	(In Millions)	
Surplus [1]	$ 12,524	$ 12,687
AVR [2]	2,267	1,997
One-half of the apportioned dividend liability [2]	744	695
Foreign insurance subsidiaries deduction	(1,004)	(939)
Total adjusted capital [3]	**$ 14,531**	**$ 14,440**

[1] *Surplus includes $250 million of surplus notes maturing in 2023, $100 million of surplus notes maturing in 2024, $250 million of surplus notes maturing in 2033, $750 million of surplus notes maturing in 2039 and $400 million of surplus notes maturing in 2041.*

[2] *Consolidated for MassMutual, C.M. Life Insurance Company and MML Bay State Life Insurance Company.*

[3] *Defined by the NAIC as surplus plus consolidated Asset Valuation Reserve (**"AVR"**) and one-half of the consolidated apportioned dividend liability and a deduction for applicable foreign insurance subsidiaries.*

As of December 31, 2013, there were no significant statutory or regulatory issues which would impair our financial position or liquidity, but there can be no assurance that such issues will not arise in the future. To the best of management's knowledge, we are not included on any regulatory or similar "watch list."

Business of MassMutual

The principal product lines of MassMutual are the U.S. Insurance Group, Retirement Services, Worksite Insurance and Funding Agreements. The U.S. Insurance Group combines the Individual Life, Disability Income, Long-Term Care and Annuity lines of business.

Individual Life (**"Life"**) provides a broad range of products designed to meet a variety of needs, including death benefit protection, wealth transfer, income replacement, cash value accumulation, supplemental retirement and estate and business planning. MassMutual's individual life insurance products encompass whole life insurance, universal life insurance, variable life insurance and term life insurance. Participating life products with level premium are available. Our term products are designed to offer consumers competitive prices, convertibility options, and the peace of mind of doing business with a financially strong company. One key feature of our term products is the option to convert to any permanent MassMutual life insurance product in future years.

Disability Income offers a wide range of products to provide income protection to match clients' unique and changing needs. Products are sold in the individual, small business and worksite markets.

Long-Term Care offers products associated with long-term care services for chronically ill individuals. Products are sold in individual and multi-life (worksite and association) settings.

Annuity employs a full product suite to develop flexible, customized and efficient solutions for our customers' retirement needs for asset accumulation, easy access to funds and a guaranteed income stream. The current annuity product suite includes both fixed and variable deferred annuities as well as income annuities.

Our fixed deferred annuity products are used for accumulation and access needs. They are sold both through the career agency system and on a retail basis.

MassMutual also offers a single premium immediate annuity, sold both through our career agency system and on retail basis, which provides a guaranteed income stream that cannot be outlived.

Finally, MassMutual offers variable annuity products to meet asset accumulation needs. These products are sold with guaranteed minimum death benefits and offer an optional living benefit to protect the principal investment. This living benefit option is a guaranteed minimum accumulation benefit (**"GMAB"**) and provides the annuity contract holder with a guaranteed minimum account value at the end of the guarantee period. MassMutual hedges its variable annuity guarantees using a variety of derivatives managing both its equity market and interest rate exposures on a dynamic basis.

Retirement Services has been serving retirement plans for more than 65 years. Retirement Services offers a full range of products and services for corporate, union, nonprofit and governmental employers' defined benefit, defined contribution, nonqualified deferred compensation plans, investment only solutions and terminal funding annuity contracts, servicing approximately 2.5 million participants. On January 1, 2013, MassMutual completed its acquisition of The Hartford Insurance Group (**"The Hartford"**) Retirement Plans Group (**"RPG"**) business. The transaction was primarily structured as a reinsurance agreement, under which MassMutual paid $355 million as a ceding commission. The newly acquired RPG business focuses on the small- to mid-size and tax-exempt retirement markets and also provides administrative services for defined benefit programs.

Worksite Insurance provides a range of Executive Benefits (**"EB"**) products including corporate-owned life insurance (**"COLI"**), small and large case bank-owned life insurance (**"BOLI"**) and executive group carve out life insurance products. Our clients include financial institutions, corporations, professional firms and certain high net worth individuals.

Funding Agreements are specialized, institutional investment products for domestic and international institutional investors.

Financial Strength Ratings

Our financial strength ratings are AA+ (Very Strong, second category of 21) from Standard & Poor's, A++ (Superior, top category of 15) from A.M. Best Company, AA+ (Very Strong, second category of 19) from Fitch Ratings, and Aa2 (Excellent, third category of 21) from Moody's Investors Service. Each rating agency independently assigns ratings based on its own separate review and takes into account a variety of factors in making its decision. Ratings are subject to change and there can be no assurance of the ratings that will be afforded to us in the future.

Financial strength ratings are based upon an independent review of MassMutual and its domestic insurance subsidiaries and that of the industry in which we operate. As of December 31, 2013, we had one group life insurance contract with an account value of $438 million that contained a rating trigger. A rating trigger refers to a clause in our contracts requiring action by us or resulting in financial consequences in the event of a downgrade of our financial strength rating below a specified level. We are required to pursue the transfer of the risks of this contract to another company if MassMutual's rating were downgraded to "BBB" or its equivalent or below by Standard & Poor's, or "Baa2" or its equivalent or below by Moody's Investors Service.

Our commercial paper program has the top rating from both Standard & Poor's (A1+) and Moody's Investors Service (P1). The program is supported by a $1.0 billion bank credit facility expiring September 27, 2017. If our financial strength ratings fall to AA- (Standard & Poor's) or Aa3 (Moody's Investors Service), we will incur additional bank costs related to our bank credit facility.

Forward-Looking Information

Certain information contained in this discussion is or may be considered forward-looking. Forward-looking statements are those not based on historical information, but rather, relate to future operations, strategies, financial results or other developments, and contain terms such as “may,” “expects,” “should,” “believes,” “anticipates,” “intends,” “estimates,” “projects,” “goals,” “objectives” or similar expressions.

Forward-looking statements are based upon estimates and assumptions. These statements may change due to business uncertainties, economic uncertainties, competitive uncertainties, and other factors, many of which are beyond our control. Additionally, our business decisions are also subject to change. We do not publicly update or revise any forward-looking statements as a result of new information, future developments or otherwise.

Results of Operations

The following table sets forth the components of statutory net income (loss):

	Years Ended December 31,				
	2013	2012	2011	% Change 13 vs. 12	% Change 12 vs. 11
	($ In Millions)				
Revenue:					
Premium income	$ 20,437	$ 20,327	$ 13,491	1 %	51 %
Net investment income	5,471	4,928	4,783	11	3
Reserve adjustments on reinsurance ceded	50	57	48	(12)	19
Fees and other income	805	540	528	49	2
Total revenue	26,763	25,852	18,850	4	37
Benefits and expenses:					
Policyholders' benefits	18,368	10,921	10,109	68	8
Change in policyholders' reserves	5,892	10,827	5,239	(46)	107
Change in reserves due to the RPG reinsurance agreement	(2,050)	-	-	(100)	-
General insurance expenses	1,705	1,422	1,258	20	13
Ceding commission on reinsurance agreement	355	-	-	100	-
Commissions	783	605	541	29	12
State taxes, licenses and fees	186	159	139	17	14
Total benefits and expenses	25,239	23,934	17,286	5	38
Net gain from operations before dividends and federal income taxes	1,524	1,918	1,564	(21)	23
Dividends to policyholders	1,475	1,379	1,313	7	5
Net gain from operations before federal income taxes	49	539	251	(91)	115
Federal income tax benefit	(142)	(108)	(293)	(31)	63
Net gain from operations	191	647	544	(70)	19
Net realized capital (losses) gains after tax and transfers to interest maintenance reserve	(477)	109	(199)	(538)	155
Net (loss) income	**$ (286)**	**$ 756**	**$ 345**	**(138)%**	**119 %**

The $1.0 billion decrease in net income to a loss of $286 million in 2013 was due to net realized capital losses of $477 million in 2013 compared to net realized capital gains of $109 million in 2012, as well as a decrease in net gain from operations of $456 million. The major components of the decrease in net gain from operations included increases in policyholders' benefits of $7.4 billion, the ceding commission on reinsurance agreement with The Hartford of $355 million, general insurance expenses of $283 million, commissions of $178 million and dividends to policyholders of $96 million, partially offset by decreases in the change in policyholders' reserves of $4.9 billion, decrease in reserve due to the reinsurance agreement referenced below of $2.1 billion, as well as increases in net investment income of $543 million, fees and other income of $265 million, premium income of $110 million and federal income tax benefit of $34 million.

Net income increased $411 million to $756 million in 2012 from $345 million in 2011, due to a $308 million increase in net realized capital gains, as well as a $103 million increase in net gain from operations. The major components of the increase in net gain from operations include increases in premium income of $6.8 billion and net investment income of $145 million, partially offset by increases in the change in policyholders' reserves of $5.6 billion, policyholders' benefits of $812 million, general insurance expenses of $164 million, dividends to policyholders of $66 million and commissions of $64 million, as well as a decrease in federal income tax benefits of $185 million. The increase in realized capital gains is mainly due to tax benefits related to an Internal Revenue Service ("**IRS**") directive that addressed the timing of partial worthlessness tax deductions claimed by insurance companies.

On January 1, 2013, MassMutual entered into an indemnity reinsurance agreement with The Hartford to assume 100% of its RPG business. The reinsurance agreement contains coinsurance and modified coinsurance features. Under the agreement, MassMutual indemnifies The Hartford for $9.2 billion of policyholders' reserves and liabilities for deposit-type contracts, using coinsurance, and $26.3 billion of separate account liabilities using modified coinsurance. In addition, MassMutual reinsured contracts written on The Hartford's policy forms by MassMutual's Retirement Services Division during the post close period, which is expected to be 18 months. On execution of the coinsurance feature, MassMutual received invested assets with a fair value of $9.4 billion and $383 million of other assets, net of a ceding commission of $355 million, and assumed $5.3 billion of group annuities within policyholders' reserves, $3.9 billion of liabilities for deposit-type contracts and $879 million of other liabilities. Under the modified coinsurance feature, the separate account assets and related reserves were not transferred to or held by MassMutual. This transaction enables MassMutual to build its retirement business, add complementary markets and distribution capabilities, and nearly double the number of retirement plan participants it serves to approximately 2.5 million. For the year ended December 31, 2013, MassMutual has received or recorded $1.8 billion of premium pursuant to the reinsurance agreement.

Premium Income

Selected premium income information is presented below:

	Years Ended December 31,				
	2013	2012	2011	% Change 13 vs. 12	% Change 12 vs. 11
	($ In Millions)				
Premium income:					
Whole life	$ 3,894	$ 3,615	$ 3,315	8 %	9 %
Universal, variable and group life	1,444	1,369	808	5	69
Annuities and supplemental contracts	3,330	2,016	1,769	65	14
Disability income	463	459	454	1	1
Defined benefit and contribution	10,203	12,218	6,787	(16)	80
Terminal funding	921	474	209	94	127
Other	182	176	149	3	18
Total	**$ 20,437**	**$ 20,327**	**$ 13,491**	**1 %**	**51 %**

Premium income increased $110 million, or 1%, in 2013 primarily due to increases in annuities and supplemental contracts of $1.3 billion, terminal funding of $447 million, whole life of $279 million and universal, variable and group life of $75 million, partially offset by decreases in defined benefit and contribution contracts of $2.0 billion. The increase in annuity and supplemental contracts premium was largely due to competitive crediting rates for income and fixed annuities. The increase in terminal funding premium primarily reflected a single large sale. Whole life premium increased primarily due to higher sales and renewal premium driven by favorable mortality and persistency. Universal, variable and group life premium growth was mainly due to higher BOLI sales as bank interest in investment-oriented protection products has improved. The decrease in premium for defined benefit and contribution contracts was primarily due to lower sales of stable value option products, partially offset by the addition of the RPG business.

Premium income increased $6.8 billion, or 51%, in 2012 primarily due to increases in premium for defined benefit and contribution contracts of $5.4 billion, universal, variable and group life of $561 million, whole life insurance of $300 million, terminal funding of $265 million and annuities and supplemental contracts of $247 million. The increase in premium for defined benefit and contribution contracts was primarily due to higher sales of stable value option products. The increase in universal, variable and group life premium were driven by higher BOLI sales as bank interest in investment oriented protection products has recovered. Whole life premium increased primarily due to higher sales and renewals, as well as increased paid-up additions. The increase in terminal funding premium reflects opportunistic sales due to favorable pricing spreads.

Net Investment Income

The components of net investment income are set forth below:

	Years Ended December 31,				
	2013	2012	2011	% Change 13 vs 12	% Change 12 vs 11
	($ In Millions)				
Net investment income:					
Bonds	$ 3,149	$ 2,854	$ 2,763	10 %	3 %
Preferred stocks	19	14	11	36	27
Common stocks - subsidiaries and affiliates	180	29	254	521	(89)
Common stocks - unaffiliated	37	33	14	12	136
Mortgage loans	779	720	668	8	8
Policy loans	674	670	655	1	2
Real estate	195	190	179	3	6
Partnerships and LLCs	602	550	412	9	33
Derivatives	152	207	138	(27)	50
Cash, cash equivalents and short-term investments	12	12	9	-	33
Other	11	3	4	267	(25)
Total gross investment income	5,810	5,282	5,107	10	3
Amortization of the IMR	189	130	113	45	15
Less investment expenses	(528)	(484)	(437)	9	11
Net investment income	**$ 5,471**	**$ 4,928**	**$ 4,783**	**11 %**	**3 %**

Net investment income, including the RPG business, increased $543 million in 2013 primarily due to increases in income from bonds of $295 million; common stock of $155 million, reflecting a dividend received of $150 million from MassMutual Holding LLC (**"MMHLLC"**), a wholly owned subsidiary; mortgage loans of $59 million; increased amortization of the Interest Maintenance Reserve (**"IMR"**) of $59 million; and an increase in income distributions from partnerships and limited liability companies (**"LLCs"**) of $52 million. These items were partially offset by a decrease in income from derivatives of $55 million and increased investment expenses of $44 million.

Net investment income increased $145 million in 2012 primarily due to increases in income from partnerships and LLCs of $138 million, bonds of $91 million, derivatives of $69 million and mortgage loans of $52 million, as well as increased amortization of the IMR of $17 million. These items were partially offset by a decrease in income from common stock of affiliates of $225 million, reflecting a decrease in the dividend received from MMHLLC to $25 million in 2012 from $250 million in 2011.

The net annualized yield was 5.3% for the year ended December 31, 2013 and 5.8% for the years ended December 31, 2012 and 2011. MassMutual calculates the yield as (a) net investment income less affiliated dividends from MMHLLC divided by (b) the monthly average of cash and invested assets plus investment income due and accrued, net of foreign exchange adjustments, unrealized gains and losses, and investment-related liabilities, less half the year-to-date net investment income excluding affiliated dividends from MMHLLC.

Bond investment gross income increased $295 million in 2013 and $91 million in 2012 due to increased average asset balances, partially offset by lower yields. Average bond investments were $62.0 billion in 2013, $55.2 billion in 2012 and $51.9 billion in 2011. Yields were 4.8% in 2013, 5.2% in 2012 and 5.5% in 2011.

Income from common stocks of affiliates increased $151 million in 2013 and decreased $225 million in 2012, mainly reflecting changes in the dividends received from MMHLLC. The MMHLLC dividend was $175 million in 2013, $25 million in 2012 and $250 million in 2011.

Partnerships and LLCs gross investment income increased $52 million in 2013 and $138 million in 2012 due to increased income distributions related to greater earnings from various investments.

Derivative gross investment income decreased $55 million in 2013 primarily due to the maturing of swaps and the shortening of the swap portfolio for asset/liability management (closing out received fixed swaps or opening pay fixed swaps in the current year). Derivative gross investment income increased $69 million in 2012 primarily due to purchases of interest rate swaps in 2011 and 2012 as part of the ongoing asset/liability management program.

Mortgage loan gross investment income increased $59 million in 2013 and $52 million in 2012 primarily due to an increase in average assets, partially offset by a reduction in loan rates. Average mortgage loan investments were $15.2 billion in 2013, $13.2 billion in 2012 and $11.8 billion in 2011. Yields were 5.2% in 2013, 5.5% in 2012 and 5.8% in 2011.

Policy loan gross investment income increased $4 million in 2013 and $15 million in 2012 as a result of increased average loan balances, partially offset by lower yields. Average policy loans were $10.3 billion in 2013, $9.8 billion in 2012 and $9.2 billion in 2011. Yields were 6.6% in 2013, 6.9% in 2012 and 7.2% in 2011.

Amortization of IMR increased $59 million in 2013 primarily due to increased amortization from current year liabilities of $35 million and increased amortization of prior year net gains of $33 million, partially offset by decreased amortization of current year net gains of $9 million. The decreased amortization of current year net gains was primarily related to decreased amortization from mortgage forwards of $9 million. Amortization of IMR increased $17 million in 2012 primarily due to increased amortization of prior year net gains of $45 million, partially offset by decreased amortization of current year net gains of $28 million. The decreased amortization of current year net gains was primarily related to decreased amortization from futures of $17 million and mortgage forwards of $11 million.

Investment expenses increased $44 million in 2013, primarily due to an overall increase in asset levels and new investment initiatives. Investment expenses increased $47 million in 2012, primarily due to an overall increase in asset levels and an increase in interest expense related to a $400 million surplus note issued in January 2012.

Fees and Other Income

Fees and other income increased $265 million in 2013 and $12 million in 2012. The current year increase is almost entirely due to the fees earned from the RPG business. The increase in 2012 was due to higher fees earned from separate accounts for our annuity and retirement plan products, primarily due to growth in average assets.

Benefits and Expenses

Policyholders' benefits, which include supplementary contract payments, matured endowments, death, annuity, disability and surrender benefits, as well as interest and adjustments on contract or deposit-type contract funds, increased $7.4 billion in 2013. The increase was primarily due to redemptions on the RPG business, as well as higher redemptions of the defined benefit and contribution contracts. Policyholders' benefits increased $812 million in 2012, primarily due to higher redemptions of defined benefit and contribution contracts reflecting slightly higher redemption rates, as well as higher BOLI surrenders primarily driven by one large contract, partially offset by favorable whole life persistency.

The life insurance lapse rate, which is based on the amount of life insurance in force, improved to 4.7% in 2013 from 5.1% in 2012 and 5.2% in 2011.

Change in policyholders' reserves, which includes transfers to and from separate accounts, decreased $4.9 billion in 2013. The decrease reflects lower premium and higher benefits on defined benefit and contribution contracts, partially offset by increased sales of annuity and BOLI products. Change in policyholders' reserves increased $5.6 billion in 2012, primarily due to the growth in premium, partially offset by higher policyholders' benefits and lower reserves for product guarantees on variable annuities of $565 million.

The change in reserves related to reinsurance agreement relates to the RPG modified coinsurance contract with The Hartford. The $2.1 billion reduction in expense essentially offsets the impact of contract redemptions included in policyholders' benefits and contributions into reinsured accounts recorded as premium.

General insurance expenses increased $283 million, or 20%, in 2013 primarily due to higher compensation, benefits and operational costs incurred in the RPG business. General insurance expenses increased $164 million in 2012 primarily due to business growth, investments in technology and operational initiatives, higher benefit costs and increased incentive compensation in conjunction with higher profitability.

Ceding commissions on reinsurance agreement of $355 million in 2013 are related to The Hartford acquisition.

Commissions, including commissions and expense allowances on reinsurance assumed, increased $178 million in 2013 due to the addition of the RPG business and the growth for our annuity, whole life and BOLI products. Commissions increased $64 million in 2012 driven by continued growth for whole life and BOLI products.

Dividends to policyholders increased $96 million in 2013 and $66 million in 2012, driven by normal growth, as well as an increase in dividend interest rate to 7.10% for 2013 from 7.00% in 2012 and 2011.

Federal income tax benefits increased $34 million in 2013, from $108 million in 2012 to $142 million in 2013. The increase in tax benefit was primarily due to lower taxable income and greater utilization of tax credits, partially offset by the non-recurrence of a $77 million tax benefit related to a policyholder dividend litigation decision in 2012.

Federal income tax benefits decreased $185 million in 2012, from a $293 million benefit in 2011 to a $108 million benefit in 2012. The decrease in tax benefit was primarily due to higher taxable income and lower utilization of tax credits.

Net Realized Capital Gains (Losses)

Net realized capital (losses) gains, including other-than-temporary impairments **("OTTI")**, were comprised of the following:

	Years Ended December 31,				
	2013	**2012**	**2011**	**% Change 13 vs.12**	**% Change 12 vs.11**
	($ In Millions)				
Net realized capital gains (losses):					
Bonds	$ 18	$ 106	$ 123	(83)%	(14)%
Preferred stocks	14	11	-	27	100
Common stocks - subsidiaries and affiliates	33	63	18	(48)	250
Common stocks - unaffiliated	49	13	21	277	(38)
Mortgage loans	(20)	22	(61)	(191)	(136)
Real estate	54	21	30	157	(30)
Partnerships and LLCs	(46)	(40)	(27)	15	48
Derivatives	(735)	(67)	458	997	(115)
Other	(39)	(5)	2	680	(350)
Net realized capital (losses) gains before federal and state taxes and deferral to the IMR	(672)	124	564	(642)	(78)
Net federal and state tax (expense) benefit	(147)	293	(174)	(150)	(268)
Net realized capital (losses) gains before deferral to the IMR	(819)	417	390	(296)	7
Net after tax losses (gains) deferred to the IMR	342	(308)	(589)	(211)	(48)
Net realized capital (losses) gains	**$ (477)**	**$ 109**	**$ (199)**	**(538)%**	**(155)%**

NM = not meaningful or in excess of 900%

Net realized capital gains decreased $586 million in 2013 primarily due to an increase in losses from derivatives of $668 million, primarily from interest rate swaps, an increase in federal and state taxes on realized capital gains of $440 million, a decrease in gains on bonds of $88 million and a decrease in gains on mortgage loans of $42 million, partially offset by an increase in deferred losses of $650 million to the IMR.

Net realized capital gains increased $308 million in 2012 primarily due to a decrease in federal and state taxes on realized capital gains of $467 million, mainly due to an IRS industry directive that addressed the proper timing of partial worthlessness tax deductions claimed by insurance companies for certain securities, including regular interests in mortgage backed securities. In the fourth quarter of 2012, MassMutual recorded a net federal income tax benefit of $397 million in realized capital gains, with a net decrease of $392 million in deferred tax assets through surplus.

In 2013, $342 million of net after-tax losses were deferred into the IMR including derivatives of $362 million which were partially offset by after-tax gains on bonds of $20 million. In 2012, $308 million of net after-tax gains were deferred into the IMR including bonds of $168 million and derivatives of $140 million. Gains and losses deferred to the IMR are amortized into income over the estimated life of the investment sold. See "Management's Discussion and Analysis of Financial Condition and Results of Operations - Investments."

Investments are written down when a decline in value is considered to be other than temporary. In 2013, we recognized $115 million of impairment losses compared to $272 million in 2012. Of the $115 million of OTTI in 2013, $45 million was related to partnerships and LLCs, $32 million to bonds, $22 million to mortgage loans and $16 million to common stock. MassMutual employs a systematic methodology to evaluate OTTI. The methodology to evaluate declines in value utilizes a quantitative and qualitative process ensuring that available evidence concerning the declines is evaluated in a disciplined manner.

Bond net realized capital gains and losses on sales and OTTI, before IMR deferrals, were comprised of the following:

	Years Ended December 31,				
	2013	2012	2011	% Change 13 vs. 12	% Change 12 vs. 11
	($ In Millions)				
Gross realized capital gains on sales	$ 245	$ 292	$ 436	(16)%	(33)%
Gross realized capital losses on sales ...	(195)	(38)	(152)	(413)	75
OTTI	(32)	(148)	(161)	78	8
Net realized capital gains (losses)	**$ 18**	**$ 106**	**$ 123**	**(83)%**	**(14)%**

Bond net realized capital gains decreased $88 million in 2013 primarily driven by falling market values due to rising interest rates, partially offset by a $116 million decrease in OTTI. Bond net realized capital gains decreased $17 million in 2012 primarily driven by a $20 million decrease in interest related gains and a $10 million increase in credit related losses, partially offset by a $13 million decrease in OTTI.

Common stock net realized capital gains increased $6 million to a gain of $82 million in 2013, from a gain of $76 million in 2012. Contributing to this improvement were increased gains on sales of $36 million on unaffiliated common stocks, partially offset by a decrease in gains of $30 million on affiliated common stocks and an increase in OTTI of $12 million. Common stock net realized capital gains increased $37 million to a gain of $76 million in 2012 from a gain of $39 million in 2011. Contributing to this improvement were increased net gains on sales of $46 million on affiliated common stocks, partially offset by decreased gains of $8 million on unaffiliated common stocks and increased OTTI of $1 million.

Mortgage loan net realized capital gains decreased $42 million in 2013 primarily due to decreased gains on foreign exchange of $38 million and on recoveries of $6 million. Mortgage loan net realized capital gains increased $83 million in 2012 primarily due to a decrease in OTTI of $41 million and increased gains on foreign exchange of $39 million.

Real estate net realized capital gains increased $33 million to a gain of $54 million in 2013 from a gain of $21 million in 2012. Current year's gains of $54 million were primarily from the sale of two properties. Real estate net realized capital gains decreased $9 million to a gain of $21 million in 2012 from a gain of $30 million in 2011. Prior year's gains of $21 million were primarily from the sale of three properties and a gain from the discounted payoff of an encumbrance on one property.

Partnerships and LLCs net realized capital losses increased $6 million in 2013 primarily due to a decrease in gains from sales and liquidations of $57 million and an increase in foreign exchange losses on distributions of $1 million, partially offset by decreased OTTI of $52 million. Partnerships and LLCs net realized capital losses increased $13 million in 2012 primarily due to increased OTTI of $43 million, partially offset by an increase in gains from dispositions of $30 million. As of December 31, 2012 and 2011, we did not hold any partnerships or LLCs with significant subprime exposure.

The following sets forth the net realized and change in unrealized capital gains and losses (which are charged directly to surplus) from derivatives:

	Years Ended December 31,		
	2013	**2012**	**2011**
		(In Millions)	
Net realized capital (losses) gains…….	$ (735)	$ (67)	$ 458
Net change in unrealized capital (losses) gains……	(949)	(568)	943
Net realized and change in unrealized capital (losses) gains….	**$ (1,684)**	**$ (635)**	**$ 1,401**

Derivative net realized capital losses increased $668 million in 2013. Derivative instruments had realized losses of $735 million in 2013 compared to realized losses of $67 million in 2012, primarily resulting from the increase in interest rates (an increase of 112 bps in the 30-year swap curve rate), and repositioning the portfolio as part of ongoing asset/liability management . The increase was primarily driven by increased losses on financial futures of $408 million, mortgage-backed security forwards of $127 million, interest rate swaps of $78 million, financial options of $66 million, forward contracts of $43 million and credit default swaps $21 million, partially offset by increased gains on currency swaps of $75 million.

Derivative net realized capital gains decreased $532 million in 2012. Derivative instruments had realized losses of $67 million in 2012 compared to realized gains of $458 million in 2011, primarily resulting from changes in interest rates and currency rates. The decrease was primarily driven by decreased gains on financial futures of $544 million, interest rate swaps of $59 million, currency swaps of $38 million and mortgage-backed security forwards of $32 million, partially offset by increased gains on financial options of $102 million and forward contracts of $46 million.

Realized capital (losses) gains do not reflect the changes in the AVR and other investment reserves, which are recorded as a change in surplus.

Fluctuations in market conditions will impact future investment results.

Statement of Financial Position

The following table sets forth MassMutual's assets, liabilities and surplus:

	December 31, 2013	December 31, 2012	% Change
	($ In Millions)		
Assets:			
Bonds	$ 67,196	$ 56,891	18 %
Preferred stocks	494	336	47
Common stocks - subsidiaries and affiliates	6,450	5,775	12
Common stocks - unaffiliated	928	834	11
Mortgage loans	16,465	13,957	18
Policy loans	10,585	10,022	6
Real estate	849	1,133	(25)
Partnerships and limited liability companies	7,189	6,538	10
Derivatives	6,117	2,858	114
Cash, cash equivalents and short-term investments	4,198	2,816	49
Other invested assets	19	1	NM
Total invested assets	120,490	101,161	19
Investment income due and accrued	1,514	385	293
Federal income taxes	164	286	(43)
Deferred income taxes	1,166	607	92
Other than invested assets	1,050	870	21
Total assets excluding separate accounts	124,384	103,309	20
Separate account assets	58,392	52,340	12
Total assets	**$ 182,776**	**$ 155,649**	**17 %**
Liabilities and Surplus:			
Policyholders' reserves	$ 86,154	$ 73,734	17 %
Liabilities for deposit-type contracts	9,409	5,323	77
Contract claims and other benefits	379	320	18
Policyholders' dividends	1,497	1,400	7
General expenses due or accrued	763	980	(22)
Asset valuation reserve	2,195	1,929	14
Repurchase agreements	3,487	3,822	(9)
Commercial paper	250	250	-
Derivative collateral	565	1,304	(57)
Derivatives	4,418	202	NM
Other liabilities	2,753	1,367	101
Total liabilities excluding separate accounts	111,870	90,631	23
Separate account liabilities	58,382	52,331	12
Total liabilities	**170,252**	**142,962**	19
Surplus	12,524	12,687	(1)
Total liabilities and surplus	**$ 182,776**	**$ 155,649**	**17 %**

NM = not meaningful or in excess of 900%

Assets

Total assets were $182.8 billion as of December 31, 2013, an increase of $27.1 billion, or 17%, from year-end 2012, primarily due to increases in invested assets of $19.3 billion, separate account assets of $6.1 billion and investment income due and accrued of $1.1 billion.

Invested assets increased to $120.5 billion as of December 31, 2013 from $101.2 billion as of December 31, 2012, primarily due to $9.4 billion of investments transferred in conjunction with the RPG reinsurance agreement. The components of the growth included increases in bonds of $10.3 billion, derivative assets of $3.3 billion, mortgage loans of $2.5 billion, cash, cash equivalents and short-term investments of $1.4 billion, common stocks of $769 million, partnerships and LLCs of $651 million and policy loans of $563 million.

Bonds increased $10.3 billion, or 18%, in 2013, including $29.7 billion of purchases that were partially offset by $19.7 billion of sales, paydowns and maturities, as well as OTTI of $32 million mostly attributed to structured and corporate securities. Bond purchases include $8.6 billion related to the RPG reinsurance agreement. Bond OTTI decreased $116 million from the prior year resulting from stabilization of the housing market and improved borrower credit fundamentals. Bonds in NAIC Categories 1 and 2 (including exempt) were 52% of total invested assets as of December 31, 2013 and 53% as of December 31, 2012. The percentage of total invested assets representing bond investments in NAIC Categories 3 through 6 was 4% as of December 31, 2013 and 2012. See "Investments" for more discussion of NAIC investment categories.

For loan-backed and structured securities, if the present value of cash flows expected to be collected is less than the amortized cost basis of the security, an OTTI is recognized in earnings as a realized loss equal to the difference between the investment's amortized cost basis and the present value of cash flows expected to be collected. The expected cash flows are discounted at the security's effective interest rate. Internal inputs used in determining the amount of the OTTI on structured securities include collateral performance, prepayment speeds, default rates, and loss severity based on borrower and loan characteristics, as well as deal structure including subordination, over-collateralization and cash flow priority. In addition, if we have the intent to sell, or the inability, or lack of intent to retain the investment for a period sufficient to recover the amortized cost basis, an OTTI is recognized in earnings as a realized loss equal to the entire difference between the investment's amortized cost basis and its fair value at the balance sheet date.

Asset-backed securities (**"ABS"**) and mortgage-backed securities (**"MBS"**) are evaluated for OTTI on a quarterly basis using scenarios customized by collateral type. Cash flow estimates are based on various assumptions and inputs obtained from external industry sources along with internal analysis and actual experience. Assumptions are based on the specifics of each security including collateral type, loan type, vintage and subordination level in the structure. Where applicable, assumptions include prepayment speeds, default rates and loss severity, weighted average maturity and changes in the collateral values.

MassMutual has a review process for determining if collateralized debt obligations (**"CDO"**) are at risk for OTTI. For the senior, mezzanine and junior debt tranches, cash flows are modeled using five scenarios based on the current ratings and values of the underlying corporate credit risks and incorporating prepayment and default assumptions that vary according to collateral attributes of each deal. The prepayment and default assumptions are varied within each model based upon rating (base case), historical expectations (default), rating change improvement (optimistic), rating change downgrade (pessimistic) and fair value (market). The default rates produced by these five scenarios are assigned an expectation weight according to current market and economic conditions and are fed into a sixth scenario. OTTI is recorded if this sixth scenario results in the default of any principal or interest payments due.

For the most subordinated junior CDO tranches, the present value of the projected cash flows in the sixth scenario is measured using an effective yield. If the current book value of the security is greater than the present value measured using an effective yield, an OTTI is taken in an amount sufficient to produce its effective yield. Certain CDOs cannot be modeled using all six scenarios because of limitations on the data needed for all scenarios. The cash flows for these CDOs, including foreign denominated CDOs, are projected using a customized scenario management believes is reasonable for the applicable collateral pool.

Residential mortgage-backed securities (**"RMBS"**) are included in the U.S. government, special revenue, and industrial and miscellaneous bond categories. The Alt-A category includes option adjustable rate mortgages and the subprime category includes 'scratch and dent' or reperforming pools, high loan-to-value pools, and pools where the borrowers have very impaired credit but the average loan-to-value is low, typically 70% or below. In identifying Alt-A and subprime exposure, management used a combination of qualitative and quantitative factors, including FICO scores and loan-to-value ratios.

As of December 31, 2013 and 2012, RMBS had a total carrying value of $2.8 billion and $3.0 billion and a fair value of $3.1 billion and $3.2 billion, of which approximately 25% and 38%, based on carrying value, was classified as Alt-A, respectively. As of December 31, 2013 and 2012, Alt-A and subprime RMBS had a total carrying value of $1.3 billion and $1.7 billion and a fair value of $1.5 billion and $1.7 billion, respectively.

During the year ended December 31, 2013, there were no significant credit downgrades for the securities held by MassMutual that were backed by residential mortgage pools.

Leveraged loans are loans extended to companies that already have considerable amounts of debt. We report leveraged loans as bonds. These leveraged loans have interest rates higher than typical loans reflecting the additional risk of default from issuers with high debt-to-equity ratios.

As of December 31, 2013 and 2012, total leveraged loans and leveraged loan CDOs had a carrying value of $7.3 billion and $5.5 billion and a fair value of $7.6 billion and $5.6 billion, of which approximately 83% and 84%, based on carrying value, were domestic leveraged loans and CDOs, respectively.

MassMutual holds bonds backed by pools of commercial mortgages. The mortgages in these pools have varying risk characteristics related to underlying collateral type, borrower's risk profile and ability to refinance, and the return provided to the borrower from the underlying collateral. These investments had a carrying value of $3.1 billion and fair value of $3.2 billion as of December 31, 2013 and a carrying value of $2.9 billion and fair value of $3.2 billion as of December 31, 2012.

Preferred stocks increased $158 million, or 47%, primarily due to the reclassification of a hybrid bond investment of $142 million into preferred stock.

Common stocks – subsidiaries and affiliates increased $675 million, or 12%, primarily due to an increase in the value of MMHLLC of $220 million, mainly from earnings and unrealized gains of subsidiaries, an increase in the value of C.M. Life Insurance Company of $110 million, as well as net acquisitions of $305 million.

Common stocks – unaffiliated increased $94 million, or 11%, in 2013 primarily due to net acquisitions of $117 million, partially offset by unrealized capital losses of $23 million.

Mortgage loans increased $2.5 billion, or 18%, in 2013 due to $2.6 billion of net acquisitions, including $736 million attributable to the reinsurance agreement related to RPG, and a $5 million net decrease in investment reserves, partially offset by $34 million of transfers out of mortgage loans to partnerships and LLCs and a $12 million net loss on foreign currency revaluation. Of the $5 million net decrease in reserves, $22 million was recognized in OTTI and $9 million was due to recoveries, partially offset by $26 million of additions.

Policy loans increased $563 million, or 5%, in 2013 primarily due to normal growth in whole life products, as well as increases for leveraged COLI products.

Real estate decreased $284 million, or 25%, in 2013 primarily due to a $207 million increase in encumbrances, $96 million in depreciation, and $76 million in net sales which included $54 million in realized gains, partially offset by $91 million of capital improvements and $4 million in purchases. As of December 31, 2013, commercial office buildings and hotels represented 45% and 32%, respectively, of our real estate portfolio compared to 36% and 46% for the same property types as of December 31, 2012. We believe that investing in hotels and commercial office buildings leverages our expertise in this field.

Partnerships and LLCs increased $651 million, or 10%, in 2013 primarily due to $1.8 billion of contributions, $619 million of undistributed earnings and a net transfer into partnerships and LLCs of $11 million, partially offset by a return of capital of $757 million, sales and liquidations of $531 million, distributions recorded as net investment income of $524 million and $1 million of other losses. As of December 31, 2013, MassMutual did not hold any partnerships or LLCs with significant subprime or Alt-A exposure.

In 2013, MassMutual adopted a new reporting practice from the NAIC, which requires companies to report derivative assets and liabilities on a gross basis, without regard to counterparty netting. Derivative assets and liabilities were not restated in the prior year to conform to the current period gross presentation. For the prior year, the balance of derivative assets on a gross basis was $8.9 billion and gross liabilities were $6.3 billion. On a gross basis, the decrease in derivative assets of $2.8 billion in 2013 was primarily a result of a decrease in interest rate swaps of $2.6 billion caused by an increase in the related swap curve rates, as well as a repositioning of the portfolio as part of ongoing asset-liability management activity.

Cash, cash equivalents and short-term investments increased $1.4 billion, or 49%, in 2013. Cash, cash equivalents and short-term investments increased due to net cash provided from operations of $7.9 billion and net cash provided from financing and other sources of $7.9 billion, partially offset by net investment purchases of $14.5 billion.

Investment income due and accrued increased $1.1 billion to $1.5 billion as of December 31, 2013. The change is primarily due to an increase in accrued derivative income of $1.0 billion reflecting the change to report derivative assets and liabilities on a gross basis.

Deferred income taxes increased $559 million, or 92%, in 2013, primarily due to an overall increase in the available net deferred tax assets, driven by reductions in unrealized gains on derivatives and other invested assets.

Separate account assets increased $6.1 billion, or 12%, in 2013, primarily due to market value appreciation of $7.1 billion, partially offset by net customer cash outflows of $1.1 billion. Separate account assets and liabilities represent segregated funds administered and invested by MassMutual for the benefit of individual and group variable annuity, variable life and other insurance contract/policyholders to meet specific investment objectives. Separate account assets can only be used to satisfy separate account liabilities and are not available to satisfy the general obligations of MassMutual, except for seed money (assets transferred from the general investments of MassMutual) placed in our separate accounts.

Liabilities

Total liabilities increased $27.3 billion, or 19%, in 2013 primarily due to increases in policyholders' reserves of $12.4 billion, separate account liabilities of $6.1 billion, derivative liabilities of $4.2 billion, liabilities for deposit-type contracts of $4.1 billion, other liabilities of $1.4 billion and AVR of $266 million, partially offset by decreases in derivative collateral of $739 million and repurchase agreements of $335 million.

Policyholders' reserves increased $12.4 billion, or 17%, is primarily due to reserve increases of $5.4 billion related to the RPG reinsurance agreement, as well as whole life reserves of $2.1 billion, universal, variable and group life reserves of $2.0 billion, annuity reserves of $1.9 billion and terminal funding reserves of $816 million. The increase reflects net growth of the in force blocks and strong cash flows into MassMutual's protection and annuity products, partially offset by the release of $283 million of reserves for variable annuity product guarantees.

Certain variable annuity contracts include additional death or other insurance benefit features, such as guaranteed minimum death benefits (**"GMDBs"**), guaranteed minimum income benefits (**"GMIBs"**), GMABs and guaranteed minimum withdrawal benefits (**"GMWBs"**). In general, these benefit guarantees require the contract or policyholder to adhere to a company-approved asset allocation strategy. Election of these benefits on certain annuity contracts is generally only available at contract issue.

The following shows the liabilities for GMDBs, GMIBs, GMABs and GMWBs (in millions):

Liability as of January 1, 2012	$ 805
Incurred guarantee benefits	(243)
Paid guarantee benefits	(5)
Liability as of December 31, 2012	557
Incurred guarantee benefits	(281)
Paid guarantee benefits	(2)
Liability as of December 31, 2013	$ 274

MassMutual held reserves in accordance with the stochastic scenarios as of December 31, 2013 and 2012. As of December 31, 2013 and 2012, MassMutual held additional reserves above those indicated based on the stochastic scenarios in order to maintain a prudent level of reserve adequacy, which are included in the table above.

The decrease in reserves for variable annuity product guarantees in 2013 and 2012 was driven by favorable equity markets.

The following summarizes the account values, net amount at risk and weighted average attained age for variable annuity contracts with GMDBs, GMIBs, GMABs and GMWBs classified as policyholders' reserves and separate account liabilities. The net amount at risk is defined as the minimum guarantee less the account value calculated on a policy-by-policy basis, but not less than zero.

	December 31, 2013			December 31, 2012		
	Account Value	Net Amount at Risk	Weighted Average Attained Age	Account Value	Net Amount at Risk	Weighted Average Attained Age
	($ In Millions)					
GMDB	$ 19,931	$ 42	62	$ 9,976	$ 64	62
GMIB	4,678	294	64	4,260	609	63
GMAB	2,493	2	57	1,925	10	57
GMWB	234	3	67	211	10	66

Liabilities for deposit-type contracts increased $4.1 billion in 2013 primarily due to contracts transferred in conjunction with the RPG reinsurance agreement.

The liability for policyholders' dividends increased $97 million in 2013, which is in line with the growth in whole life reserves.

General expenses due or accrued decreased $217 million, or 22%, in 2013 primarily due to a significant increase in the discount rate for pension liabilities.

AVR increased $266 million, or 14%, in 2013 due to increases in all reserve components. Increases of $103 million in the bonds, preferred stock, derivatives and short-term investments reserve was primarily due to a $201 million increase in reserve contributions, partially offset by $81 million in unrealized capital losses and $17 million in realized capital losses. The $70 million increase in the common stock reserve was primarily due to $149 million in net unrealized capital gains, $52 million in realized capital gains and a $24 million decrease in reserve contributions, partially offset by a $107 million adjustment down to the maximum AVR reserve. The $59 million increase in the real estate and other invested asset reserve was primarily due to $65 million in net unrealized capital gains and $23 million in increased reserve contributions, partially offset by a $34 million adjustment down to the maximum AVR reserve. The increase in the mortgage loan reserve of $34 million was primarily due to a $51 million increase in reserve contributions, partially offset by $12 million in realized capital losses and $5 million in unrealized capital losses.

The liability for repurchase agreements decreased $335 million, or 9%, in 2013. Repurchase agreements are used as a tool for overall portfolio management to help ensure MassMutual maintains adequate assets in order to provide yield, spread and duration to support liabilities and other corporate needs. MassMutual increases and decreases repurchase agreements in response to changing market conditions and changing liability needs.

Derivative cash collateral decreased $739 million, or 57%, to $565 million as of December 31, 2013 from $1.3 billion as of December 31, 2012. This balance represents only the cash portion, with additional securities collateral held by a trustee off balance sheet. Securities collateral held decreased $682 million, or 42%, to $1.0 billion as of December 31, 2013 from $1.6 billion as of December 31, 2012. The derivative collateral liability is a function of contractual requirements. When certain threshold exposure levels and transfer amount levels are reached, MassMutual calls in additional collateral or returns excess collateral held. The net change in collateral held is consistent with the change in net derivative market values.

Other liabilities primarily consist of derivative interest expense liability, IMR, amounts held for agents and pending securities settlements. Other liabilities increased $1.4 billion, or 101%, in 2013 primarily due to an increase in derivative interest expense liability of $1.2 billion reflecting ongoing portfolio asset/liability management, as well as an increase in unsettled bond purchases of $278 million.

Commercial paper had a carrying value and face amount of $250 million as of December 31, 2013 and 2012. MassMutual issues commercial paper in the form of notes in minimum denominations of $250 thousand up to a total aggregation of $1 billion. These notes have maturities up to a maximum of 270 days from the date of issue and are sold at par less a discount representing an interest factor or, if interest bearing, at par. The notes are not redeemable or subject to voluntary prepayments by MassMutual.

Surplus

Surplus decreased $163 million in 2013 to $12.5 billion as of December 31, 2013. The following table shows the change in surplus:

	December 31, 2013 (In Millions)
Beginning surplus	$ 12,687
Net loss	(286)
Change in net unrealized capital losses, net of tax	(211)
Change in net unrealized foreign exchange capital gains, net of tax	40
Change in other net deferred income taxes	264
Change in nonadmitted assets	112
Change in reserve valuation basis	(56)
Change in asset valuation reserve	(266)
Prior period adjustments	(84)
Change in minimum pension liability	305
Other	19
Net decrease	(163)
Ending surplus	**$ 12,524**

Liquidity and Capital Resources

Liquidity

We manage our liquidity position by matching our exposure to cash demands with adequate sources of cash and other liquid assets. Our principal sources of liquidity are operating cash flows and holdings of cash, cash equivalents and other readily marketable assets.

Our investment portfolio is structured to ensure a strong liquidity position in order to permit timely payment of policy and contract benefits without requiring an uneconomic sale of assets. In general, liquid assets include cash and cash equivalents, public bonds, unaffiliated preferred stock and unaffiliated public common stock, all of which generally have ready markets with large numbers of buyers. The statement value of these assets as of December 31, 2013 was approximately $39.6 billion. While the investment portfolio does contain assets (primarily mortgage loans, real estate, other invested assets, private bonds, affiliated common stock and affiliated preferred stock) which are generally considered illiquid for liquidity monitoring purposes, there is some ability to raise cash from these assets if needed.

We utilize sophisticated asset/liability analysis techniques in the management of the investments supporting our liabilities. Additionally, we test the adequacy of the projected cash flows provided by assets to meet all of our future policyholder and other obligations. We perform these studies using stress tests regarding future credit and other asset losses, market interest rate fluctuations, claim losses and other considerations. The result provides a picture of the adequacy of the underlying assets, reserves and capital. We analyze a variety of scenarios modeling potential demands on liquidity, taking into account the provisions of our policies and contracts in force, our cash flow position, and the volume of cash and readily marketable securities in our portfolio. We proactively manage our liquidity position on an ongoing basis to meet cash needs while minimizing adverse impacts on investment returns.

In most scenarios that we have tested, operating cash flow is more than sufficient to satisfy our obligations. Even in the most extreme scenarios tested, obligations can be met through cash flow and the sale of some of our liquid assets. These stress test scenarios assume no new business that would result in immediate positive cash flow. In addition, if we were in a stress situation, some uses of cash could be suspended, including new investments in illiquid instruments.

Cash, Cash Equivalents and Short-term Investments

Historically, we have consistently generated net positive cash flows from operations. Cash flows provided from operations were $7.9 billion in 2013, $5.9 billion in 2012 and $4.3 billion in 2011. Our primary cash flow sources include defined benefit and contribution premium, life insurance premium, annuity premium, investment income, principal repayments on invested assets, and net transfers from separate accounts and financial product deposits.

Cash, cash equivalents and short-term investments increased $1.4 billion, or 49%, in 2013. Cash, cash equivalents and short-term investments increased due to net cash provided from operations of $7.9 billion and net cash provided from financing and other sources of $7.9 billion, partially offset by net investment purchases of $14.5 billion.

Net cash provided from operations increased $2.0 billion, or 33%, to $7.9 billion in 2013. The increase was the result of transfers from separate accounts of $6.8 billion and lower commissions and other expenses of $1.5 billion, higher net investment income of $556 million and premium and other income collected of $358 million, partially offset by higher benefit payments of $7.2 billion.

Net cash provided from operations increased $1.6 billion, or 38%, to $5.9 billion in 2012. The increase was largely attributable to increases in premium and other income collected of $6.8 billion and net investment income of $286 million, partially offset by an increase in net transfers to the separate accounts of $4.8 billion and an increase in benefit payments of $707 million.

Net cash used to purchase investments increased $8.8 billion to $14.5 billion in 2013 compared to $5.7 billion in 2012. Purchases of investments and the net increase in policy loans were $38.0 billion in 2013, while sales and maturities of investments and receipts from repayments of loans were $23.5 billion. Net purchases of investments in 2013 included bonds of $10.0 billion, mortgage loans of $2.5 billion, derivatives of $726 million and partnerships of $640 million. Bond purchases of $8.6 billion and mortgage loan purchases of $736 million were transferred as part of the RPG reinsurance agreement.

Net cash used to purchase investments was $5.7 billion in 2012. Purchases of investments and the net increase in policy loans were $26.4 billion in 2012, while sales and maturities of investments and receipts from repayments of loans were $20.7 billion. Net purchases of investments in 2013 included bonds of $2.9 billion, mortgage loans of $1.5 billion and partnerships and LLCs of $509 million.

Net cash from financing activities and other sources increased $7.0 billion in 2013, primarily due to increases in deposits for policyholders' reserves related to the RPG reinsurance agreement of $5.3 billion and liabilities for deposit-type contracts related to the RPG reinsurance agreement of $3.9 billion. Offsetting the increases were higher net withdrawals on deposit-type contracts of $726 million, higher repurchase and reverse repurchase agreements of $577 million and lower derivative collateral of $497 million.

Net cash from financing activities and other sources decreased $47 million in 2012, primarily due to decreases in the change in derivative collateral of $501 million, net deposits on deposit-type contracts of $317 million and other cash provided of $173 million, partially offset by an increase from the change in securities sold under agreements to repurchase of $545 million and cash provided from surplus notes of $399 million.

Institutional Investment Product Contract Terms

Funding agreements are investment contracts sold to domestic and international institutional investors. The terms of the funding agreements do not give the holder the right to terminate the contract prior to the contractually stated maturity date. Consistent with past years, no funding agreements have been issued with put provisions or ratings-sensitive triggers. Currency swaps are employed to eliminate foreign exchange risk from all funding agreements issued to back non-U.S. dollar denominated notes. Assets received for funding agreements may be invested in the general account of MassMutual. As of December 31, 2013, funding agreement balances in the general account totaled $4,028 million, consisting of $3,425 million in note programs, $601 million in Federal Home Loan Bank of Boston (**"FHLB Boston"**) funding agreements and $2 million of various other agreements. As of December 31, 2012, funding agreement balances in the general account totaled $4,054 million, consisting of $3,447 million in note programs, $601 million in FHLB Boston funding agreements and $6 million in various other agreements.

Under most of MassMutual's funding agreement programs, MassMutual creates an investment vehicle or trust for the purpose of issuing medium-term notes (**"MTNs"**) to investors. Proceeds from the sale of the MTNs issued by these unconsolidated affiliates are used to purchase funding agreements from MassMutual. The payment terms of any particular series of notes are matched by the payment terms of the funding agreement securing the series. Notes were issued from MassMutual's $2 billion European Medium-Term Note Program with approximately $135 million remaining in run-off. Notes are currently issued from MassMutual's $12 billion Global Medium-Term Note Program.

MassMutual uses funding agreements with FHLB Boston in an investment spread strategy, consistent with its other investment spread operations. These funding agreements are collateralized by securities with estimated fair values of $650 million as of December 31, 2013. MassMutual's borrowing capacity with the FHLB Boston is subject to the lower of the limitation on the pledge of collateral for a loan set forth in New York Insurance Law Section 1411(C) and by MassMutual's internal limit. MassMutual's unused capacity was $2.1 billion as of December 31, 2013. As a member of the FHLB Boston, MassMutual holds common stock of the FHLB Boston at a statement value of $52 million as of December 31, 2013 and 2012. All FHLB Boston funding agreement assets and liabilities are classified in MassMutual's general account. MassMutual accounts for these funds consistent with its other deposit-type contracts.

As of December 31, 2013, the maturity schedule for funding agreement liabilities was as follows:

	Funding Agreements (In Millions)
2014	$ 753
2015	402
2016	653
2017	552
2018	960
Thereafter	708
Total	**$ 4,028**

Dividends from Subsidiaries

MassMutual does not rely on dividends from its subsidiaries to meet its operating cash flow requirements. Dividend payments from insurance subsidiaries are generally subject to certain restrictions imposed by statutory authorities. Additionally, dividend payments from other subsidiaries are limited to their retained earnings.

For C.M. Life Insurance Company and MML Bay State Life Insurance Company, substantially all of the statutory shareholder's equity of approximately $1.1 billion as of December 31, 2013 was subject to dividend restrictions. Dividend restrictions, imposed by various state regulations, limit the payment of dividends to MassMutual without the prior approval from the insurance department of the particular insurance subsidiary's state of domicile.

MassMutual's wholly owned subsidiary, MMHLLC, is the parent of subsidiaries which include retail and institutional asset management, registered broker dealers, and international life and annuity operations. Dividends from MMHLLC are recorded in net investment income and are limited to MassMutual's retained earnings in MMHLLC.

Capital Resources

As of December 31, 2013 and 2012, MassMutual's total adjusted capital, as defined by the NAIC, was $14.5 billion and $14.4 billion, respectively. The NAIC has a Risk Based Capital (**"RBC"**) model to compare total adjusted capital with a standard design in order to reflect an insurance company's risk profile. Although MassMutual believes that there is no single appropriate means of measuring RBC needs, MassMutual feels that the NAIC approach to RBC measurement is reasonable, and MassMutual manages its capital position with significant attention to maintaining adequate total adjusted capital relative to RBC. Our total adjusted capital was well in excess of all RBC standards as of December 31, 2013 and 2012. MassMutual believes that it enjoys a strong capital position in light of its risks and that it is well positioned to meet policyholder and other obligations.

Debt

On September 27, 2012, MassMutual signed a $1 billion, five year credit facility, with a syndicate of lenders that could be used for general corporate purposes and to support commercial paper borrowings. The credit facility replaces an existing $1 billion credit facility, which was due to expire April 2013. The facility has an upsize option for an additional $500 million. The terms of the credit facility provide for, among other provisions, covenants pertaining to liens, fundamental changes, transactions with affiliates and adjusted statutory surplus. As of and for the years ended December 31, 2013 and 2012, MassMutual was in compliance with all covenants under the credit facilities. For the years ended December 31, 2013 and 2012, there were no draws on the credit facilities.

Investments

General

As of December 31, 2013, approximately 32% of our assets are separate account assets, which are directed by our policyholders. Separate account assets consist principally of marketable securities reported at fair value and are not available to satisfy liabilities that arise from any of our other businesses. The following discussion focuses on the general investments of MassMutual, which does not include our separate account assets.

As of December 31, 2013, we had $120.5 billion of invested assets, an increase of $19.3 billion from the prior year. We manage the portfolio of invested assets to support the general liabilities of MassMutual in light of liability characteristics and yield, liquidity and diversification considerations.

The following table sets forth our invested assets:

	December 31,			
	2013		2012	
	Carrying Value	% of Total	Carrying Value	% of Total
	($ In Millions)			
Bonds	$ 67,196	56 %	$ 56,891	56 %
Preferred stocks	494	-	336	-
Common stocks - subsidiaries and affiliates	6,450	5	5,775	6
Common stocks - unaffiliated	928	1	834	1
Mortgage loans	16,465	14	13,957	14
Policy loans	10,585	9	10,022	10
Real estate	849	1	1,133	1
Partnerships and LLCs	7,189	6	6,538	6
Derivatives	6,117	5	2,858	3
Cash, cash equivalents and short-term investments	4,198	3	2,816	3
Other invested assets	19	-	1	-
Total invested assets	**$ 120,490**	**100 %**	**$ 101,161**	**100 %**

The following sets forth earnings yields by asset type:

	December 31,	
	2013	2012
Long & short-term bonds	4.8 %	5.2 %
Common & preferred stocks	1.6	1.5
Mortgage loans	5.2	5.5
Real estate	2.7	2.0
Partnerships and LLCs	9.2	9.1
Derivatives	NM	NM
Policy loans	6.6	6.9
Total portfolio	**5.3 %**	**5.8 %**

Bonds, Cash Equivalents and Short-Term Investments

Bonds consist primarily of government backed securities and high quality marketable corporate debt securities. We invest a significant portion of our investment funds in high quality publicly traded bonds to maintain and manage liquidity and reduce the risk of default in the portfolio.

The NAIC Securities Valuation Office (**"SVO"**) rates investment credit risk based upon the issuer's credit profile. NAIC rating designations range from 1 to 6. The NAIC designation of 1 denotes obligations of the highest quality in which credit risk is at its lowest and the issuer's credit profile is stable, whereas the NAIC designation of 6 is assigned to obligations that are in or near default. Classes 1 and 2 are investment grade and Classes 3 through 6 are non-investment grade.

MassMutual used SVO ratings for the bond portfolio along with what we believe were the equivalent rating agency designations except for RMBS and commercial mortgage-backed securities (**"CMBS"**) that were rated by outside modelers. The following sets forth the NAIC class ratings for the bond portfolio including RMBS and CMBS as of December 31, 2013 and 2012. Our presentation consists of long-term bonds, short-term securities and cash equivalents.

Total Portfolio Credit Quality

		December 31,			
		2013		2012	
NAIC Class	Equivalent Rating Agency Designation	Carrying Value	% of Total	Carrying Value	% of Total
		($ In Millions)			
1	Aaa/Aa/A	$ 38,977	55 %	$ 34,501	59 %
2	Baa	27,130	38	20,811	35
3	Ba	2,145	3	1,754	3
4	B	1,710	2	1,109	2
5	Caa and lower	525	1	679	1
6	In or near default	382	1	124	-
	Total	**$ 70,869**	**100 %**	**$ 58,978**	**100 %**

The following summarizes NAIC designations for RMBS and CMBS subject to modeling as of December 31, 2013 and 2012:

	December 31,							
	2013				2012			
	RMBS		CMBS		RMBS		CMBS	
NAIC Class	Carrying Value	% of Total	Carrying Value	% of Total	Carrying Value	% of Total	Carrying Value	% of Total
	($ In Millions)							
1	$ 1,493	100 %	$ 2,935	100 %	$ 1,856	97 %	$ 2,775	100 %
2	-	-	-	-	22	1	-	-
3	3	-	8	-	21	1	8	-
4	-	-	7	-	15	1	8	-
5	2	-	-	-	6	-	-	-
6	-	-	2	-	-	-	-	-
	$ 1,498	**100 %**	**$ 2,952**	**100 %**	**$ 1,920**	**100 %**	**$ 2,791**	**100 %**

The following sets forth the SVO ratings for our publicly traded portfolio, along with what we believe are the equivalent rating agency designations for all bonds except RMBS and CMBS, which were rated by outside modelers. Our presentation consists of long-term bonds, short-term securities and cash equivalents.

Publicly Traded Credit Quality

		December 31,			
		2013		2012	
NAIC Class	Equivalent Rating Agency Designation	Carrying Value	% of Total	Carrying Value	% of Total
		($ In Millions)			
1	Aaa/Aa/A	$ 24,053	69 %	$ 22,075	72 %
2	Baa	9,934	28	7,528	25
3	Ba	716	2	513	2
4	B	391	1	283	1
5	Caa and lower	96	-	76	-
6	In or near default	61	-	46	-
	Total	**$ 35,251**	**100 %**	**$ 30,521**	**100 %**

The following sets forth the SVO ratings for our privately placed portfolio, along with what we believe are the equivalent rating agency designations for all bonds except RMBS and CMBS, which were rated by outside modelers. Our presentation consists of long-term bonds, short-term securities and cash equivalents.

Privately Placed Credit Quality

		December 31,			
		2013		2012	
NAIC Class	Equivalent Rating Agency Designation	Carrying Value	% of Total	Carrying Value	% of Total
		($ In Millions)			
1	Aaa/Aa/A	$ 14,924	42 %	$ 12,426	44 %
2	Baa	17,196	48	13,283	47
3	Ba	1,429	4	1,241	4
4	B	1,319	4	826	3
5	Caa and lower	429	1	603	2
6	In or near default	321	1	78	-
	Total	**$ 35,618**	**100 %**	**$ 28,457**	**100 %**

We use our investments in the privately placed portfolio to enhance the value of the overall portfolio, increase diversification and obtain higher yields than can be earned by investing in public market securities of comparable quality. To control risk when using privately placed securities, we rely upon broader access to management information, stronger negotiated protective covenants, call protection features and a higher level of collateralization than can customarily be achieved in the public market.

The strength of the privately placed portfolio is demonstrated by the predominance of NAIC Class 1 and 2 securities.

The following sets forth the total bond portfolio, including short-term securities and cash equivalents, by industry category, as of December 31, 2013:

	Portfolio by Industry					
	December 31, 2013					
	Public		Private		Total	
Industry Category	Carrying Value	% of Total	Carrying Value	% of Total	Carrying Value	% of Total
	($ In Millions)					
Government	$ 11,620	33 %	$ 222	1 %	$ 11,842	17 %
Finance	1,861	5	6,355	18	8,216	12
Utilities	2,399	7	5,051	14	7,450	11
Asset-backed securities	1,011	3	6,152	17	7,163	10
Consumer services	1,994	6	4,579	13	6,573	9
Mortgage-backed securities	4,459	13	869	2	5,328	8
Capital goods	2,250	6	2,907	8	5,157	7
Natural resources	2,738	8	2,402	7	5,140	7
Healthcare	1,767	5	941	3	2,708	4
Technology	1,499	4	886	2	2,385	3
Real estate investment trusts	799	2	1,302	4	2,101	3
Media	906	3	827	2	1,733	2
Retail	684	2	793	2	1,477	2
Transportation	433	1	928	3	1,361	2
Consumer goods	254	1	900	3	1,154	2
Telecommunications	440	1	459	1	899	1
Conglomerates	137	-	45	-	182	-
Total	**$ 35,251**	**100 %**	**$ 35,618**	**100 %**	**$ 70,869**	**100 %**

MBS consist mainly of RMBS and collateralized mortgage obligations (both primarily government-backed or government agency-backed) as well as CMBS of generally high quality, which are supported by well-diversified collateral. We do not originate any residential mortgages but invest in residential mortgage loan pools that may contain mortgages of subprime credit quality.

With the exception of government securities, only finance and utility group holdings exceeded 10% of the total bond portfolio. We believe that the finance industry group holdings are well diversified and include a number of issues that are effectively supported by large pools of assets that are themselves diversified by industry and issuer. In addition, a majority of the utility group is comprised of electricity providers, which tend to be conservative, non-cyclical investments.

Bond Portfolio Surveillance and Underperforming Investments

Bonds are generally valued at amortized cost using the constant yield interest method with the exception of NAIC Category 6 bonds, which are obligations that are in or near default, and certain RMBS and CMBS, which are rated by outside modelers, which are carried at the lower of amortized cost or fair value. NAIC ratings are applied to bonds and other securities. Categories 1 and 2 are considered investment grade, while Categories 3 through 6 are considered below investment grade. Bond transactions are recorded on a trade date basis, except for private placement bonds that are recorded on the funding date.

For fixed income securities that do not have a fixed schedule of payments, such as ABS, MBS, including RMBS and CMBS, and structured securities, including CDOs, amortization or accretion is revalued quarterly based on the current estimated cash flows, using either the prospective or retrospective adjustment methodologies for each type of security. Certain fixed income securities with the highest ratings from a rating agency follow the retrospective method of accounting. Under the retrospective method, the recalculated effective yield equates the present value of the actual and anticipated cash flows, including new prepayment assumptions, to the original cost of the investment. Prepayment assumptions are based on borrower constraints and economic incentives such as the original term, age and coupon of the loan as affected by the interest rate environment. The current carrying value is then increased or decreased to the amount that would have resulted had the revised yield been applied since inception, and investment income is correspondingly decreased or increased. All other fixed income securities, such as floating rate bonds and interest only securities, including those that have been impaired, follow the prospective method of accounting. Under the prospective method, the recalculated future effective yield equates the carrying value of the investment to the present value of the anticipated future cash flows.

The fair value of bonds is based on quoted market prices when available. If quoted market prices are not available, values provided by other third-party organizations are used. If values provided by other third-party organizations are unavailable, fair value is estimated using internal models by discounting expected future cash flows using observable current market rates applicable to yield, credit quality and maturity of the investment or using quoted market values for comparable investments. Internal inputs used in the determination of fair value include estimated prepayment speeds, default rates, discount rates and collateral values, among others. Structure characteristics and cash flow priority are also considered. Fair values resulting from internal models are those expected to be received in an orderly transaction between willing market participants at the financial statement date.

To identify underperforming investments, we employ a systematic methodology to evaluate OTTI by conducting a quarterly analysis of all bonds. We consider the following factors, where applicable depending on the type of securities, in the evaluation of whether a decline in value is other than temporary: (a) the likelihood that we will be able to collect all amounts due according to the contractual terms of the debt security; (b) the present value of the expected future cash flows of the security; (c) the characteristics, quality and value of the underlying collateral or issuer securing the position; (d) collateral structure; (e) the length of time and extent to which the fair value has been below amortized cost; (f) the financial condition and near-term prospects of the issuer; (g) adverse conditions related to the security or industry; (h) the rating of the security; and (i) our ability and intent to hold the investment for a period of time sufficient to allow for an anticipated recovery to amortized cost.

We also consider other qualitative and quantitative factors in determining the existence of OTTI including, but not limited to, unrealized loss trend analysis and significant short-term changes in value.

When a bond is other-than-temporarily impaired, a new cost basis is established. For loan-backed and structured securities, any difference between the new amortized cost basis and any increased present value of future cash flows expected to be collected is accreted into net investment income over the expected life of the bond.

The impairment review process provides a framework for deriving OTTI in a manner consistent with market participant assumptions. In these analyses, collateral type, investment structure and credit quality are critical elements in determining OTTI.

We actively review the bond portfolio to estimate the likelihood and amount of financial defaults or write-downs in the portfolio and to make timely decisions as to the potential sale or renegotiation of terms of specific investments.

The NAIC defines underperforming bonds as those which are not currently receiving interest and/or principal payments which are deemed to be caused by the inability of the obligor to make such payments as called for in the bond contract.

The following sets forth the carrying value of bonds in NAIC Classes 5 and 6 split between performing and underperforming status:

	December 31,	
	2013	2012
	(In Millions)	
Performing:		
Public	$ 155	$ 118
Private	732	654
Total performing	887	772
Underperforming		
Public	2	3
Private	18	28
Total underperforming	20	31
Total	**$ 907**	**$ 803**

The following is a summary of the fair values and gross unrealized losses aggregated by bond category and length of time that the securities were in a continuous unrealized loss position:

	December 31, 2013					
	Less Than 12 Months			12 Months or Longer		
	Fair Value	Unrealized Losses	Number of Issuers	Fair Value	Unrealized Losses	Number of Issuers
	($ In Millions)					
U.S. government and agencies	$ 1,820	$ 51	7	$ 52	$ 3	3
All other governments	46	5	27	29	4	18
States, territories and possessions	693	52	49	32	6	3
Special revenue	584	20	167	72	5	142
Industrial and miscellaneous	16,056	697	1,299	2,412	202	402
Parent, subsidiaries and affiliates	169	3	8	642	49	10
Total	**$ 19,368**	**$ 828**	**1,557**	**$ 3,239**	**$ 269**	**578**

Note: The unrealized losses include $37 million of losses embedded in the carrying value, which include $36 million from NAIC Category 6 bonds and $1 million from RMBS and CMBS whose ratings were obtained from outside modelers.

The following is a summary of the gross unrealized losses aggregated by bond category, length of time that the securities were in a continuous unrealized loss position and investment grade:

	December 31, 2013					
	Less Than 12 Months			12 Months or Longer		
	Investment Grade	Below Investment Grade	Total	Investment Grade	Below Investment Grade	Total
	($ In Millions)					
U.S. government and agencies	$ 51	$ -	$ 51	$ 3	$ -	$ 3
All other governments	4	1	5	4	-	4
States, territories and possessions	52	-	52	6	-	6
Special revenue	19	1	20	5	-	5
Industrial and miscellaneous	670	27	697	184	18	202
Parent, subsidiaries and affiliates	3	-	3	1	48	49
Total	**$ 799**	**$ 29**	**$ 828**	**$ 203**	**$ 66**	**$ 269**

Unrealized losses for the less than 12 months category for Industrial and Miscellaneous increased to $697 million in 2013 from $56 million in 2012, primarily due to increasing interest rates. Rising interest rates also contributed to the increase in unrealized losses in government securities.

Based on our policies, as of December 31, 2013, we have not deemed these investments to be other-than-temporarily impaired because the investment's carrying value is expected to be realized based on our analysis of fair value or, for loan-backed and structured securities, based on present value of cash flows, and we have the ability and intent not to sell these investments until recovery, which may be at maturity.

Mortgage Loans

Mortgage loans represented 14% of total invested assets as of December 31, 2013. Mortgage loans consist of whole loans on commercial real estate and residential mortgage loan pools. Commercial mortgage loans were 89% of the mortgage loan portfolio as of December 31, 2013.

Commercial Mortgage Loans

Our commercial mortgage loan portfolio, which includes $43 million of mezzanine loans, consisted of fixed and variable rate loans.

As of December 31, 2013, 96% of the commercial mortgage loan portfolio consisted of bullet loans. Bullet loans are loans that do not fully amortize over their term; instead, full payment is due at the end of their term.

We had $974 million of bullet loans mature during 2013, of which 28 loans totaling $824 million, or 84%, were paid in full, 1 loan for $67 million, or 7%, extended its maturity, 3 loans totaling $57 million, or 6%, refinanced in the normal course of business and 1 loan totaling $26 million, or 3%, transferred to partnerships and LLCs. Bullet loans of $721 million are scheduled to mature in 2014.

As of December 31, 2013, we had 2 loans within our commercial mortgage loan portfolio with valuation allowances totaling $9 million.

The maturities of our commercial mortgage loans are well diversified, and we carefully monitor and manage them based on our liquidity position.

The following sets forth the commercial mortgage loan portfolio by geographic distribution:

	Commercial Mortgage Loans by Geographic Distribution December 31,			
	2013		2012	
	Carrying Value	% of Total	Carrying Value	% of Total
	($ In Millions)			
United States:				
West	$ 4,858	33 %	$ 3,451	29 %
Northeast	2,741	19	1,989	17
Mid-Atlantic	2,073	14	1,863	16
Midwest	1,818	12	1,604	14
Southwest	1,652	11	1,837	15
Southeast	712	5	604	5
United Kingdom	420	3	124	1
Canada	373	3	340	3
Total	**$ 14,647**	**100 %**	**$ 11,812**	**100 %**

The following sets forth the commercial mortgage loan portfolio loan-to-value ratios by property type:

	December 31, 2013				
	Less than 80%	81% to 95%	Above 95%	Total	% of Total
	($ In Millions)				
Office	$ 5,246	$ 151	$ 138	$ 5,535	38 %
Apartments	3,169	12	80	3,261	22
Industrial and other	2,737	161	4	2,902	20
Retail	1,380	-	248	1,628	11
Hotels	1,293	-	28	1,321	9
Total	**$ 13,825**	**$ 324**	**$ 498**	**$ 14,647**	**100 %**

	December 31, 2012				
	Less than 80%	81% to 95%	Above 95%	Total	% of Total
	($ In Millions)				
Office	$ 4,189	$ 230	$ 122	$ 4,541	39 %
Apartments	2,419	82	105	2,606	22
Industrial and other	1,719	695	5	2,419	20
Retail	1,123	29	248	1,400	12
Hotels	816	11	19	846	7
Total	**$ 10,266**	**$ 1,047**	**$ 499**	**$ 11,812**	**100 %**

Residential Mortgage Loans

Residential mortgage loans are seasoned pools of homogeneous residential mortgage loans, most of which are Federal Housing Administration (**"FHA"**) insured or Veterans Administration (**"VA"**) guaranteed. As of December 31, 2013 and 2012, we had no direct subprime exposure through the purchases of unsecuritized whole-loan pools. We had mortgages with residential mortgage-backed exposure with a carrying value of $1.8 billion as of December 31, 2013 and $2.1 billion as of December 31, 2012, most of which were FHA insured or VA guaranteed.

Mortgage Loan Portfolio Surveillance and Underperforming Investments

We actively monitor, manage and directly service our commercial mortgage loan portfolio. We perform or review all aspects of loan origination and portfolio management, including lease analysis, property transfer analysis, economic and financial reviews, tenant analysis, and management of default and bankruptcy proceedings.

We revalue underperforming properties each year and re-inspect these properties at least every other year based on internal quality ratings. The criteria used to determine whether a current or potential problem exists includes borrower bankruptcies, major tenant bankruptcies, requests for restructuring, delinquent tax payments, late payments, loan-to-value or debt service coverage deficiencies, and overall vacancy levels.

There were no current or potential problem mortgage loans consisting of restructured mortgage loans where the modified terms are less than current market conditions as of December 31, 2013 and 2012. There were no commercial mortgage loans in the process of foreclosure or in default as of December 31, 2013. The AVR contains a mortgage loan component, which increased to $148 million as of December 31, 2013 from $114 million as of December 31, 2012. See "Investment Reserves."

Real Estate

Our real estate portfolio includes real estate properties we occupy and real estate we originally acquired as investments or through foreclosure or deed in lieu of foreclosure.

As of December 31, 2013, our real estate portfolio consisted of 36 properties with a statement value of $849 million of which $114 million was occupied by us. As of December 31, 2012, our real estate portfolio consisted of 36 properties with a statement value of $1.1 billion of which $100 million was occupied by us. The portfolio uses leverage to maximize return with $420 million and $213 million in third party non-recourse debt outstanding as of December 31, 2013 and 2012, respectively.

The following tables illustrate the diversity of our real estate portfolio by property type and geographic distribution:

Real Estate by Property Type

	December 31,					
	2013			2012		
	Carrying Value	% of Total		Carrying Value	% of Total	
	($ In Millions)					
Office	$ 384	45	%	$ 409	36	%
Hotel	269	32		523	46	
Retail	119	14		123	11	
Industrial & Other	44	5		44	4	
Apartments	33	4		34	3	
Total	**$ 849**	**100**	**%**	**$ 1,133**	**100**	**%**

Real Estate by Geographic Distribution

	December 31,					
	2013			2012		
	Carrying Value	% of Total		Carrying Value	% of Total	
	($ In Millions)					
West	$ 210	25	%	$ 243	21	%
Northeast	184	22		199	18	
Mid-Atlantic	179	21		233	21	
Southeast	127	15		306	27	
Southwest	114	13		114	10	
Midwest	35	4		38	3	
Total	**$ 849**	**100**	**%**	**$ 1,133**	**100**	**%**

We review individual property valuations on a quarterly basis. Asset managers establish our real estate valuations using third party valuation software which projects income on a lease-by-lease basis. Included in the valuation are budgeted expenses, leasing assumptions, and capital expenditures. We review these valuations for technical accuracy, methodology and the appropriateness of the assumed rates of return. Generally, external independent appraisers value a rotating selection of properties on a quarterly basis. If an external appraisal is not obtained, an internal appraisal is performed. For 2013, this sample consisted of 11 properties, or 31% of the properties in the real estate portfolio. As of December 31, 2013, our real estate and other invested asset AVR totaled $1.0 billion.

Partnerships and LLCs

Holdings of partnership and LLC holdings, at carrying value, by annual statement category are:

	December 31,	
	2013	**2012**
	(In Millions)	
Common stocks	$ 3,322	$ 2,906
Real Estate	1,801	1,600
Fixed maturities/preferred stocks	1,349	1,482
LIHTCs	270	219
Mortgage loans	205	277
Surplus notes	181	-
Other	61	54
Total	**$ 7,189**	**$ 6,538**

The gain and loss activity of partnerships and LLCs was as follows:

	Years Ended December 31,		
	2013	**2012**	**2011**
	(In Millions)		
Gross realized capital gains on sales	$ 1	$ 58	$ 35
Gross realized capital losses on sales	-	-	(8)
OTTI	(45)	(97)	(54)

Partnerships and LLCs, except for investments in partnerships that generate and realize low income housing tax credits (**"LIHTC"**), are accounted for using the equity method with the change in the equity value of the underlying investment recorded in surplus. When it appears probable that we will be unable to recover the outstanding cost of an investment, or there is evidence indicating an inability of the investee to sustain earnings to justify the carrying value of the investment, an OTTI is recognized in realized capital losses reflecting the excess of the cost over the estimated fair value of the investment. The estimated fair value is determined by assessing the value of the partnership or LLCs underlying assets, cash flow, current financial condition and other market factors. Distributions received are recognized as net investment income to the extent the distribution does not exceed previously recorded accumulated undistributed earnings. As of December 31, 2013, we did not hold any partnerships or LLCs with significant subprime or Alt-A exposure.

We invest in partnerships that generate LIHTC which are carried at amortized cost unless considered impaired. Under the amortized cost method, the excess of the carrying value of the investment over its estimated residual value is amortized into income during the period in which tax benefits are recognized. We had $270 million of partnerships and LLCs which generate LIHTC as of December 31, 2013 and $219 million as of December 31, 2012. These investments currently have unexpired tax credits which range from one to ten years and have an initial 15 year holding period requirement. For determining OTTI on partnerships which generate LIHTC, we use the present value of all future benefits, the majority of which are tax credits, discounted at a risk free rate ranging from 0.3% for future benefits of two years to 2.8% for future benefits of ten or more years, and compare the results to its current book values. OTTI for the year ended December 31, 2013 was $1 million and for the year ended December 31, 2012 were $5 million. There were no write-downs or reclassifications made during the years ended December 31, 2013 or 2012 due to forfeiture or ineligibility of tax credits

Derivatives

We use derivative financial instruments in the normal course of business to manage risks, primarily to reduce currency, interest rate and duration imbalances determined in asset/liability analyses. We also use a combination of derivatives and fixed income investments to create synthetic investment positions. These combined investments are created opportunistically when they are economically more attractive than the actual instrument or when the simulated instruments are unavailable. Synthetic assets can be created either to hedge and reduce the credit exposure or to create an investment in a particular asset. We held synthetic assets with a net notional amount of $4.2 billion as of December 31, 2013 and $2.7 billion as of December 31, 2012. Of this amount, $3.1 billion as of December 31, 2013 and $1.5 billion as of December 31, 2012, were considered replicated asset transactions as defined under statutory accounting principles as the pairing of a long derivative contract with a cash instrument held.

Our principal derivative market risk exposures are interest rate risk, which includes the impact of inflation, and credit risk. Interest rate risk pertains to the change in fair value of the derivative instruments as market interest rates move. We are exposed to credit-related losses in the event of nonperformance by counterparties to derivative financial instruments. To minimize credit risk, we and our derivative counterparties generally enter into master agreements that require collateral to be posted in the amount owed under each transaction, subject to minimum transfer amounts. These same master agreements allow for contracts in a positive position, where we are due amounts, to be offset by contracts in a negative position. This right of offset, combined with collateral obtained from counterparties, reduces our exposure. Net collateral pledged by the counterparties was $752 million as of December 31, 2013 and $2.3 billion as of December 31, 2012. In the event of default the full market value exposure at risk in a net gain position, net of offsets and collateral, was $53 million as of December 31, 2013 and $30 million as of December 31, 2012. The statutory reporting rules define net amount at risk as net collateral pledged and statement values excluding accrued interest. The net amount at risk was $338 million as of December 31, 2013 and $110 million as of December 31, 2012. We regularly monitor counterparty credit ratings and exposures, derivative positions and valuations and the value of collateral posted to ensure counterparties are credit-worthy and the concentration of exposure is minimized. We monitor this exposure as part of our management of MassMutual's overall credit exposures.

The following summarizes the carrying values and notional amounts of the our derivative financial instruments:

	December 31, 2013			
	Assets		Liabilities	
	Carrying Value	Notional Amount	Carrying Value	Notional Amount
	(In Millions)			
Interest rate swaps……	$ 5,804	$ 54,851	$ 4,235	$ 48,950
Options……..	200	8,604	1	83
Currency swaps…….	87	379	130	2,120
Forward contracts…….	13	470	40	3,332
Credit default swaps…….	13	1,132	12	752
Financial futures - long positions.	-	1,710	-	-
Financial futures - short positions.	-	479	-	-
Total……..	$ 6,117	$ 67,625	$ 4,418	$ 55,237

	December 31, 2012			
	Assets		Liabilities	
	Carrying Value	Notional Amount	Carrying Value	Notional Amount
	(In Millions)			
Interest rate swaps…….	$ 2,403	$ 104,023	$ 156	$ 8,993
Options……..	305	9,583	(4)	43
Currency swaps……..	121	1,327	50	575
Forward contracts……..	16	3,199	-	249
Credit default swaps……..	13	1,164	-	35
Financial futures - long positions.	-	2,270	-	-
Financial futures - short positions.	-	352	-	-
Total……	$ 2,858	$ 121,918	$ 202	$ 9,895

Derivative assets and derivative liabilities in the current year are presented on a gross basis per amendments to SSAP No. 86, "Accounting for Derivative Instruments and Hedging Activities." Prior year amounts that were presented on a net basis have not been restated as the amendments were effective on a prospective basis. For 2012, the balance of derivative assets on a gross basis was $8,931 million and the balance of derivative liabilities on a gross basis was $6,275 million. In addition, Derivative due and accrued (which reside in other than invested assets) and interest expense (which reside in other liabilities) were not restated to conform to current year presentation. For the prior year, the balance of derivative income due and accrued was $569 million and the balance of derivative interest expense was $999 million.

In most cases, the notional amounts are not a measure of MassMutual's credit exposure. The exceptions to this rule are credit default swaps that are in the form of a replicated asset and mortgage-backed forwards. In the event of default, MassMutual is fully exposed to the notional amounts of $2.3 billion as of December 31, 2013 and $2.7 billion as of December 31, 2012. Collateral is exchanged for all derivative types except mortgage-backed forwards. For all other contracts, the collateral amounts exchanged are calculated on the basis of the notional amounts and the other terms of the instruments, which relate to interest rates, exchange rates, security prices or financial or other indices.

Investment Reserves

We establish and record appropriate write-downs or investment reserves in accordance with statutory practice.

We determine the fair value of bonds in accordance with principles established by the SVO using criteria that include the net worth and capital structure of the borrower, the value of the collateral, the presence of additional credit support, and our evaluation of the borrower's ability to compete in a relevant market.

In the case of real estate and commercial mortgage loans, we make borrower and property-specific assessments as well.

The AVR is a contingency reserve to offset potential losses of stocks, real estate investments, partnerships and LLCs, as well as credit-related declines in bonds, mortgage loans and derivatives.

During 2012 we refined our method of allocating taxes to the AVR to better match our deferred tax assets. The impact of this refinement is included in the change in AVR, decreasing surplus by $57 million.

As of December 31, 2013, the AVR totaled $2.2 billion, which represents a 14% increase from December 31, 2012. This increase was primarily due to a $252 million reserve contribution, current year net unrealized capital gains of $128 million and $27 million in net realized capital gains, partially offset by a write-down to the maximum reserve of $141 million, comprised of $107 million for common stock and $34 million for real estate and other invested assets.

The following represents the change in AVR for the years 2013 and 2012:

	Bonds, Preferred Stocks, Derivatives and Short-term Investments	Mortgage Loans	Common Stock	Real Estate and Other Invested Assets	Total
			(In Millions)		
Balance at December 31, 2011	$ 115	$ 59	$ 632	$ 877	$ 1,683
Change in reserve contributions [1]	159	25	(109)	10	85
Net realized capital gains (losses) [2]	(153)	34	43	30	(46)
Net unrealized capital gains [3]	9	7	598	138	752
Transfer among categories	11	(11)	-	-	-
Adjustment down to maximum	-	-	(441)	(104)	(545)
Net change to AVR [4]	26	55	91	74	246
Balance at December 31, 2012	141	114	723	951	1,929
Change in reserve contributions [1]	201	51	(24)	23	251
Net realized capital gains (losses) [2]	(17)	(12)	52	5	28
Net unrealized capital gains [3]	(81)	(5)	149	65	128
Adjustment down to maximum	-	-	(107)	(34)	(141)
Net change to AVR [4]	103	34	70	59	266
Balance at December 31, 2013	**$ 244**	**$ 148**	**$ 793**	**$ 1,010**	**$ 2,195**

[1] *Amounts represent contributions calculated using a statutory formula plus amounts we deem necessary. The statutory formula provides for maximums that, when exceeded, cause a negative contribution. Additionally, these amounts represent the net impact on surplus for investments gains and losses not related to changes in interest rates.*

[2] *These amounts offset realized capital gains (losses), net of tax, that have been recorded in net income. Amounts include realized capital gains (losses), net of tax, on sales not related to interest rate fluctuations, such as repayments of mortgage loans at a discount, mortgage loan foreclosures, and real estate permanent write-downs.*

[3] *These amounts offset unrealized capital gains (losses), net of deferred tax, recorded as a change in surplus. Amounts include unrealized losses due to market value reductions of common stocks, bonds and NAIC quality rating of 6, and preferred stocks with NAIC ratings of 4 through 6, net of changes in the undistributed earnings of subsidiaries.*

[4] *Amounts represent the reserve contributions (note 1) plus transfers and amounts already recorded (notes 2 and 3). This net change in reserves is recorded as a change in surplus.*

Quantitative and Qualitative Information about Market Risk

All non-guaranteed separate account assets and liabilities have been excluded from the following discussion since all market risks associated with those accounts are assumed by the contract holders.

Assets, such as bonds, stocks, mortgage loans on real estate, policy loans and derivatives are financial instruments, which are subject to the risk of market volatility and potential market disruptions. These risks may reduce the value of our financial instruments or impact future cash flows and earnings from those instruments. We do not hold or issue any financial instruments for the purpose of trading.

We have market risk exposure to changes in interest rates, which can cause changes in the fair value, cash flows, and earnings of certain financial instruments. To manage our exposure to interest rate changes, we use sophisticated quantitative asset/liability management techniques. Through asset/liability management we match the market sensitivity of assets with the liabilities they support. If these sensitivities are closely matched, the impact of interest rate changes is effectively offset on an economic basis as the change in value of the asset is offset by a corresponding change in the value of the supported liability. In addition, we invest a significant portion of our investment funds in high quality bonds in order to maintain and manage liquidity and reduce the risk of default in the portfolio.

Based upon the information and assumptions we used in our asset/liability analysis as of December 31, 2013, we estimate that a hypothetical immediate 10% increase in the 10-year treasury rate, approximately thirty (30) basis points, would decrease the net fair value of our financial instruments by $1.7 billion. Whereas, a hypothetical immediate 10% decrease in the rate would increase the net fair value of our financial instruments by $1.8 billion. A significant portion of our liabilities, such as insurance policy and claim reserves, are not considered financial instruments and are excluded from the above analysis. Because of our asset/liability management, a corresponding change in fair values of these liabilities, based on the present value of estimated cash flows, should significantly offset the net change in fair value of assets estimated above.

Revenues and profitability from variable products will vary from period to period, driven in part by changes in the capital and equity markets. Specifically, certain fees we charge for variable annuity product separate accounts are based on the separate account asset levels. Separate account asset levels change as the underlying investments' market values change. Based on our experience, management believes that a 10% change in the equity markets would change the annualized fees by approximately $18 million.

Certain variable annuity contracts include additional death or other insurance benefit features, such as GMDBs, GMIBs, GMABs and GMWBs. Election of these benefits on annuity contracts is generally only available at contract issue. The liability for GMDBs, GMIBs, GMABs and GMWBs was $274 million as of December 31, 2013.

MassMutual sells certain universal life and variable universal life contracts which include features such as GMDBs, or other guarantees that ensure continued death benefit coverage when the policy would otherwise lapse even if the account value is reduced to zero, as long as the policyholder makes scheduled premium payments. The value of the guarantee is only available to the beneficiary in the form of a death benefit. As of December 31, 2013, the net liability for guarantees on universal life and variable universal life type contracts, including GMDB reserves, was $2.3 billion.

Currency exchange risk

MassMutual has currency risk due to its non-U.S. dollar investments and medium-term notes along with its international operations. MassMutual mitigates currency risk through the use of cross-currency swaps and forward contracts. Cross-currency swaps are used to minimize currency risk for certain non-U.S. dollar assets and liabilities through a pre-specified exchange of interest and principal. Forward contracts are used to hedge movements in exchange rates.

Investment and interest rate risks

Investment earnings can be influenced by a number of factors including changes in interest rates, credit spreads, equity markets, portfolio asset allocation and general economic conditions. MassMutual employs a rigorous asset/liability management process to help mitigate the economic impacts of various investment risks, in particular interest rate risk.

As interest rates increase, certain debt securities may experience slower amortization or prepayment speeds than assumed at purchase, impacting the expected maturity of these securities and the ability to reinvest the proceeds at the higher yields. Rising interest rates may also result in a decrease in the fair value of the investment portfolio. As interest rates decline, certain debt securities may experience accelerated amortization and prepayment speeds than what was assumed at purchase. During such periods, MassMutual is at risk of lower net investment income as it may not be able to reinvest the proceeds at comparable yields. Declining interest rates may also increase the fair value of the investment portfolio.

Interest rates also have an impact on MassMutual's products with guaranteed minimum payouts and on interest credited to account holders. As interest rates decrease, investment spreads may contract as interest rates approach minimum guarantees, potentially resulting in an increased liability of MassMutual.

In periods of increasing interest rates, life insurance policy loans, surrenders and withdrawals may increase as policyholders seek investments with higher perceived returns. This could result in cash outflows requiring MassMutual to sell invested assets at a time when the prices of those assets are adversely affected by the increase in market interest rates, which could cause MassMutual to realize investment losses.

Asset-based fees calculated as a percentage of the separate account assets are a source of revenue to MassMutual. Gains and losses in the equity markets may result in corresponding increases and decreases in MassMutual's separate account assets and related revenue.

Credit and other market risks

Credit risk is the risk that issuers of investments owned by MassMutual may default or that other parties may not be able to pay amounts due to MassMutual. MassMutual manages its investments to limit credit risk by diversifying its portfolio among various security types and industry sectors as well as purchasing credit default swaps to transfer some of the risk.

Housing market trends began to improve in May 2012. Real estate values are up approximately 13.7% nationally in 2013 according to the Case-Shiller index. Increased demand and slowing rates of foreclosures and delinquencies have improved the supply/demand fundamentals. There are regional differences in price performance that are likely to continue. The rate of foreclosure resolutions remains low but is improved from post-crisis bottoms.

Liquidity for securities issued in 2008 and earlier has been favorable. During the year, prices improved sharply due to limited supply and improved housing market expectations. Profit taking began in mid-May 2013 as loss adjusted yields began to widen from very tight levels. More recently, prices have been fairly stable and have recovered to their highs for the year.

U.S. economic growth continues to be fueled by the housing recovery, private sector resiliency and slow but continued, global recovery. Real estate fundamentals remain strong, particularly in the major markets, and continue to improve. These factors coupled with strong investor demand provided liquidity to the market. Weakness in the public sector, sluggish job growth and macro-economic issues are factors that are closely monitored to identify any impact on the commercial real estate markets.

Despite the passage of legislation funding the federal government and increasing the U.S. debt ceiling, uncertainty related to the U.S. fiscal situation and economic stability remains. These uncertainties continue to be risk factors for MassMutual's investment portfolio.

MassMutual has a review process for determining the nature and timing of OTTI on securities containing these risk characteristics. Cash flows are modeled for all bonds deemed to be at risk for impairment using prepayment, default, and loan loss severity assumptions that vary according to collateral attributes and housing price trends since origination. These assumptions are reviewed quarterly and changes are made as market conditions warrant.

Internal models utilized in testing for impairment calculate the present value of cash flows expected to be received over the average life of the security, discounted at the purchase yield or discount margin. The RMBS sector is highly sensitive to evolving conditions that can impair the cash flows realized by investors and the ultimate emergence of losses is subject to uncertainty. If defaults were to increase above the stresses imposed in MassMutual's analysis and/or default severities were to be worse than expected, management would need to reassess whether such credit events have changed MassMutual's assessment of OTTI in light of changes in the expected performance of these assets.

Management's judgment regarding OTTI and estimated fair value depends upon the evolving investment sector and economic conditions that can alter the anticipated cash flows realized by investors. It can also be affected by the market liquidity, a lack of which can make it difficult to obtain accurate market prices for RMBS and other investments, including CMBS and leveraged loans. Further deterioration in economic fundamentals could affect management's judgment regarding OTTI. In addition, deterioration in market conditions may affect carrying values assigned by management. These factors could negatively impact MassMutual's results of operations, surplus and disclosed fair values. MassMutual has investments in structured products exposed primarily to the credit risk of corporate bank loans, corporate bonds or credit default swap contracts referencing corporate credit risk. Most of these structured investments are backed by corporate loans and are commonly known as collateralized loan obligations that are classified as CDOs. The portfolios backing these investments are actively managed and diversified by industry and individual issuer concentrations. Due to the complex nature of CDOs and the reduced level of transparency to the underlying collateral pools for many market participants, the recovery in CDO valuations generally lags the overall recovery in the underlying assets. Management believes its scenario analysis approach, based primarily on actual collateral data and forward looking assumptions, does capture the credit and most other risks in each pool. However, in a rapidly changing economic environment, the credit and other risks in each collateral pool will be more volatile and actual credit performance of CDOs investment may differ from MassMutual's assumptions.

MassMutual has investments in European leveraged loans that have higher yields than investment grade debt instruments, reflecting additional risk of default. The average secondary price of leveraged loans in Europe was up 5.5% during 2013, driven by underlying corporate performance and a pick-up in prepayments and primary activity. Underlying concerns over the macroeconomic outlook and debt burden of certain parts of the Eurozone remain, but MassMutual's direct exposure on loans to companies in these countries is limited. While significant progress has been made on the refinancing required in the European loan market, a number of weaker borrowers continue to face maturities over the next three years and uncertainty over the sources of this refinancing may lead to an increase in reported default rates going forward.

Market risk arises within MassMutual's employee benefit plans to the extent that the obligations of the plans are not fully matched by assets with determinable cash flows. Pension and postretirement obligations are subject to change due to fluctuations in the discount rates used to measure the liabilities as well as factors such as changes in inflation, salary increases and participants living longer. The risks are that market fluctuations could result in assets that are insufficient over time to cover the level of projected benefit obligations. In addition, increases in inflation and members living longer could increase the pension and postretirement obligations. Management determines the level of this risk using reports prepared by independent actuaries and takes action, where appropriate, in terms of setting investment strategy and determining contribution levels. In the event that the pension obligations arising under MassMutual's employee benefit plans exceed the assets set aside to meet the obligations, MassMutual may be required to make additional contributions or increase its level of contributions to these plans.

Annex 2

MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY

STATUTORY FINANCIAL STATEMENTS

As of December 31, 2013 and 2012 and
for the years ended December 31, 2013, 2012 and 2011

MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY
STATUTORY FINANCIAL STATEMENTS

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MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY
STATUTORY STATEMENTS OF FINANCIAL POSITION

	December 31,	
	2013	2012
	(In Millions)	
Assets:		
Bonds	$ 67,196	$ 56,891
Preferred stocks	494	336
Common stocks - subsidiaries and affiliates	6,450	5,775
Common stocks - unaffiliated	928	834
Mortgage loans	16,465	13,957
Policy loans	10,585	10,022
Real estate	849	1,133
Partnerships and limited liability companies	7,189	6,538
Derivatives	6,117	2,858
Cash, cash equivalents and short-term investments	4,198	2,816
Other invested assets	19	1
Total invested assets	120,490	101,161
Investment income due and accrued	1,514	385
Federal income taxes	164	286
Deferred income taxes	1,166	607
Other than invested assets	1,050	870
Total assets excluding separate accounts	124,384	103,309
Separate account assets	58,392	52,340
Total assets	$ 182,776	$ 155,649
Liabilities and Surplus:		
Policyholders' reserves	$ 86,154	$ 73,734
Liabilities for deposit-type contracts	9,409	5,323
Contract claims and other benefits	379	320
Policyholders' dividends	1,497	1,400
General expenses due or accrued	763	980
Asset valuation reserve	2,195	1,929
Repurchase agreements	3,487	3,822
Commercial paper	250	250
Derivative collateral	565	1,304
Derivatives	4,418	202
Other liabilities	2,753	1,367
Total liabilities excluding separate accounts	111,870	90,631
Separate account liabilities	58,382	52,331
Total liabilities	170,252	142,962
Surplus	12,524	12,687
Total liabilities and surplus	$ 182,776	155,649

See notes to statutory financial statements

MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY
STATUTORY STATEMENTS OF INCOME (LOSS)

	Years Ended December 31,		
	2013	2012	2011
	(In Millions)		
Revenue:			
Premium income	$ 20,437	$ 20,327	$ 13,491
Net investment income	5,471	4,928	4,783
Reserve adjustments on reinsurance ceded	50	57	48
Fees and other income	805	540	528
Total revenue	26,763	25,852	18,850
Benefits and expenses:			
Policyholders' benefits	18,368	10,921	10,109
Change in policyholders' reserves	5,892	10,827	5,239
Change in reserves due to the RPG reinsurance agreement	(2,050)	-	-
General insurance expenses	1,705	1,422	1,258
Ceding commission on reinsurance agreement	355	-	-
Commissions	783	605	541
State taxes, licenses and fees	186	159	139
Total benefits and expenses	25,239	23,934	17,286
Net gain from operations before dividends and federal income taxes	1,524	1,918	1,564
Dividends to policyholders	1,475	1,379	1,313
Net gain from operations before federal income taxes	49	539	251
Federal income tax benefit	(142)	(108)	(293)
Net gain from operations	191	647	544
Net realized capital (losses) gains after tax and transfers to interest maintenance reserve	(477)	109	(199)
Net (loss) income	$ (286)	$ 756	$ 345

See notes to statutory financial statements

MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY
STATUTORY STATEMENTS OF CHANGES IN SURPLUS

	Years Ended December 31,		
	2013	2012	2011
	(In Millions)		
Surplus, beginning of year	$ 12,687	$ 11,417	$ 10,352
Increase (decrease) due to:			
Net (loss) income	(286)	756	345
Change in net unrealized capital gains, net of tax	(211)	743	1,432
Change in net unrealized foreign exchange capital gains, net of tax	40	(8)	(53)
Change in other net deferred income taxes	264	(551)	(11)
Change in nonadmitted assets	112	156	(120)
Change in reserve valuation basis	(56)	-	-
Change in asset valuation reserve	(266)	(246)	(255)
Change in surplus notes	-	399	-
Prior period adjustments	(84)	(32)	1
Change in minimum pension liability	305	52	(273)
Other	19	1	(1)
Net (decrease) increase	(163)	1,270	1,065
Surplus, end of year	$ 12,524	$ 12,687	$ 11,417

See notes to statutory financial statements

MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY
STATUTORY STATEMENTS OF CASH FLOWS

	Years Ended December 31,		
	2013	2012	2011
	(In Millions)		
Cash from operations:			
Premium and other income collected	$ 21,237	$ 20,879	$ 14,046
Net investment income	5,345	4,789	4,503
Benefit payments	(17,914)	(10,670)	(9,963)
Net transfers from (to) separate accounts	1,078	(5,755)	(997)
Commissions and other expenses	(562)	(2,021)	(2,164)
Dividends paid to policyholders	(1,377)	(1,313)	(1,208)
Federal and foreign income taxes recovered	112	26	88
Net cash from operations	7,919	5,935	4,305
Cash from investments:			
Proceeds from investments sold, matured or repaid:			
Bonds	19,724	16,842	18,638
Preferred and common stocks - unaffiliated	674	132	303
Mortgage loans	2,200	2,056	1,990
Real estate	130	103	115
Partnerships	1,408	1,006	1,031
Common stocks - affiliated	137	646	2
Derivatives	(550)	63	624
Other	(214)	(131)	146
Total investment proceeds	23,509	20,717	22,849
Cost of investments acquired:			
Bonds	(29,723)	(19,737)	(21,216)
Preferred and common stocks - unaffiliated	(559)	(342)	(460)
Mortgage loans	(4,749)	(3,582)	(3,159)
Real estate	112	(121)	(245)
Partnerships	(2,048)	(1,515)	(1,327)
Common stocks - affiliated	(732)	(461)	(717)
Derivatives	(176)	(203)	132
Other	454	134	(101)
Total investments acquired	(37,421)	(25,827)	(27,093)
Net increase in policy loans	(563)	(543)	(519)
Net cash used in investing activities	(14,475)	(5,653)	(4,763)
Cash from financing and other sources:			
Net (withdrawals) deposits on deposit-type contracts	(138)	588	905
Cash provided from surplus notes	-	399	-
Change in repurchase and reverse repurchase agreements	(335)	242	(303)
Change in derivative collateral	(739)	(242)	259
Deposits for policyholders' reserves related to reinsurance agreement	5,298	-	-
Liabilities for deposit-type contracts related to reinsurance agreement	3,885	-	-
Other cash (used) provided	(33)	(84)	89
Net cash from financing and other sources	7,938	903	950
Net change in cash, cash equivalents and short-term investments	1,382	1,185	492
Cash, cash equivalents and short-term investments, beginning of year	2,816	1,631	1,139
Cash, cash equivalents and short-term investments, end of year	$ 4,198	$ 2,816	$ 1,631

See notes to statutory financial statements

1. Nature of operations

These statutory financial statements include the accounts of Massachusetts Mutual Life Insurance Company (the Company), which is organized as a mutual life insurance company.

The Company and its subsidiaries provide life insurance, disability income insurance, long-term care insurance, annuities, retirement products, investment management, mutual funds and trust services to individual and institutional customers.

2. Summary of significant accounting policies

a. Basis of presentation

The statutory financial statements have been prepared in conformity with the statutory accounting practices of the National Association of Insurance Commissioners (NAIC) and the accounting practices prescribed or permitted by the Commonwealth of Massachusetts Division of Insurance (the Division).

Statutory accounting practices are different in some respects from financial statements prepared in accordance with United States of America (U.S.) generally accepted accounting principles (GAAP). The more significant differences between statutory accounting principles and U.S. GAAP are as follows: (a) bonds are generally carried at amortized cost, whereas U.S. GAAP generally reports bonds at fair value; (b) changes in the fair value of derivative financial instruments are recorded as changes in surplus, whereas U.S. GAAP generally reports these changes as revenue unless deemed an effective hedge; (c) interest rate swap replications are carried at amortized cost, whereas U.S. GAAP would carry them at fair value; (d) embedded derivatives are recorded as part of the underlying contract, whereas U.S. GAAP would identify and bifurcate certain embedded derivatives from the underlying contract or security and account for them separately at fair value; (e) income recognition on partnerships and limited liability companies (LLCs), which are accounted for under the equity method, is limited to the amount of cash distribution, whereas U.S. GAAP does not have this limitation; (f) majority-owned noninsurance subsidiaries, variable interest entities where the Company is the primary beneficiary, and certain other controlled entities are accounted for using the equity method, whereas U.S. GAAP would consolidate these entities; (g) changes in the balances of deferred income taxes, which provide for book versus tax temporary differences, are subject to limitation and are recorded in surplus, whereas U.S. GAAP would generally include the change in deferred taxes in net income; (h) certain group annuity and variable universal life contracts, which do not pass-through all investment gains to contract holders, are maintained in the separate accounts and are presented on a single line in the statutory financial statements, whereas U.S. GAAP reports these contracts as general investments of the Company; (i) assets are reported at admitted asset value and assets designated as nonadmitted are excluded through a charge against surplus, whereas U.S. GAAP recognizes all assets, subject to valuation allowances; (j) statutory policy reserves are based upon prescribed methods, such as the Commissioners' Reserve Valuation Method, Commissioners' Annuity Reserve Valuation Method or net level premium method, and prescribed statutory mortality, morbidity and interest assumptions, whereas U.S. GAAP reserves would generally be based upon the net level premium method or the estimated gross margin method with estimates of future mortality, morbidity, persistency and interest; (k) policyholder reserves are presented net of reinsurance ceded, unearned ceded premium and unpaid ceded claims, whereas U.S. GAAP would report these reinsurance balances as an asset; (l) an asset valuation reserve (AVR) is reported as a contingency reserve to stabilize surplus against fluctuations in the statement value of common stocks, real estate investments, partnerships and LLCs as well as credit-related declines in the value of bonds, mortgage loans and certain derivatives to the extent AVR is greater than zero for the appropriate asset category, whereas U.S. GAAP does not record this reserve; (m) after-tax realized capital gains (losses) that result from changes in the overall level of interest rates for all types of fixed-income investments and interest-related hedging activities are deferred into the interest maintenance reserve (IMR) and amortized into revenue, whereas U.S. GAAP reports these gains and losses as revenue; (n) changes to the mortgage loan valuation allowance are recognized in net unrealized capital gains (losses), net of tax, in the Statutory Statements of Changes in Surplus, whereas U.S. GAAP reports these changes in net realized capital gains (losses); (o) the overfunded status of pension and other postretirement plans, which is the excess of the fair value of the plan assets over the projected benefit obligation, is a nonadmitted asset for statutory accounting whereas U.S. GAAP recognizes the overfunded status as an asset; (p) surplus notes are reported in surplus, whereas U.S. GAAP would report these notes as liabilities; (q) payments received for universal and variable

life insurance products, certain variable and fixed deferred annuities and group annuity contracts are reported as premium income and corresponding change in reserves, whereas U.S. GAAP would treat these payments as deposits to policyholders' account balances; (r) certain acquisition costs, such as commissions and other variable costs, directly related to acquiring new business are charged to current operations as incurred, whereas U.S. GAAP would generally capitalize these expenses and amortize them based on profit emergence over the expected life of the policies or over the premium payment period; and (s) comprehensive income is not presented, whereas U.S. GAAP presents changes in unrealized capital gains (losses) and foreign currency translations as other comprehensive income.

The preparation of financial statements requires management to make estimates and assumptions that impact the reported amounts of assets and liabilities, the disclosure of assets and liabilities as of the date of the statutory financial statements and the reported amounts of revenues and expenses during the reporting periods. The most significant estimates include those used in determining the carrying values of investments including the amount of mortgage loan investment valuation reserves, other-than-temporary impairment(s) (OTTI), the value of the investment in MassMutual Holding LLC (MMHLLC), the liabilities for policyholders' reserves, the determination of admissible deferred tax assets (DTAs), the liability for taxes and litigation contingencies. Future events including, but not limited to, changes in the level of mortality, morbidity, interest rates, persistency, asset valuations and defaults could cause results to differ from the estimates used in the statutory financial statements. Although some variability is inherent in these estimates, management believes the amounts presented are appropriate.

b. Corrections of errors and reclassifications

Under statutory accounting principles, corrections of prior year errors are recorded in current year surplus on a pretax basis with any associated tax impact reported through earnings.

The following summarizes corrections of prior year errors:

	Year Ended December 31, 2013		
	Increase (Decrease) to:		Correction
	Prior Year Income	Current Year Surplus	of Asset or Liability Balances
	(In Millions)		
Policyholders' reserves	$ (74)	$ (74)	$ 74
Premium income	(12)	(12)	12
Other invested assets	2	2	(2)
Total	$ (84)	$ (84)	$ 84

	Year Ended December 31, 2012		
	Increase (Decrease) to:		Correction
	Prior Year Income	Current Year Surplus	of Asset or Liability Balances
	(In Millions)		
Policyholders' reserves	$ (22)	$ (22)	$ 22
General insurance expenses	(11)	(11)	11
Premium income	(3)	(3)	3
Net investment income	4	4	(4)
Total	$ (32)	$ (32)	$ 32

	Year Ended December 31, 2011			
	Increase (Decrease) to:			Correction
	Prior Year Income	Prior Year Surplus	Current Year Surplus	of Asset or Liability Balances
	(In Millions)			
Policyholders' reserves	$ (11)	$ -	$ (11)	$ 11
General insurance expenses	(8)	-	(8)	8
Net investment income	(7)	2	(5)	5
Other	8	-	8	(8)
Derivatives and other invested assets	7	-	7	(7)
Other than invested assets	7	(2)	5	(5)
Premium income	5	-	5	(5)
Total	$ 1	$ -	$ 1	$ (1)

Certain prior year amounts within these financial statements have been reclassified to conform to the current year presentation.

c. Bonds

Bonds are generally valued at amortized cost using the constant yield interest method with the exception of NAIC Category 6 bonds, which are obligations that are in or near default, and certain residential mortgage-backed securities (RMBS) and commercial mortgage-backed securities (CMBS), which are rated by outside modelers, which are carried at the lower of amortized cost or fair value. NAIC ratings are applied to bonds and other securities. Categories 1 and 2 are considered investment grade, while Categories 3 through 6 are considered below investment grade. Bond transactions are recorded on a trade date basis, except for private placement bonds, which are recorded on the funding date.

For fixed income securities that do not have a fixed schedule of payments, such as asset-backed securities (ABS), mortgage-backed securities (MBS), including RMBS and CMBS, and structured securities, including collateralized debt obligations (CDOs), amortization or accretion is revalued quarterly based on the current estimated cash flows, using either the prospective or retrospective adjustment methodologies for each type of security. Certain fixed income securities with the highest ratings from a rating agency follow the retrospective method of accounting. Under the retrospective method, the recalculated effective yield equates the present value of the actual and anticipated cash flows, including new prepayment assumptions, to the original cost of the investment. Prepayment assumptions are based on borrower constraints and economic incentives such as the original term, age and coupon of the loan as affected by the interest rate environment. The current carrying value is then increased or decreased to the amount that would have resulted had the revised yield been applied since inception, and investment income is

correspondingly decreased or increased. All other fixed income securities, such as floating rate bonds and interest only securities, including those that have been impaired, follow the prospective method of accounting. Under the prospective method, the recalculated future effective yield equates the carrying value of the investment to the present value of the anticipated future cash flows.

The fair value of bonds is based on quoted market prices when available. If quoted market prices are not available, values provided by other third-party organizations are used. If values provided by other third-party organizations are unavailable, fair value is estimated using internal models by discounting expected future cash flows using observable current market rates applicable to yield, credit quality and maturity of the investment or using quoted market values for comparable investments. Internal inputs used in the determination of fair value include estimated prepayment speeds, default rates, discount rates and collateral values, among others. Structure characteristics and cash flow priority are also considered. Fair values resulting from internal models are those expected to be received in an orderly transaction between willing market participants at the financial statement date.

Refer to *Note 2bb. "Realized capital gains (losses) including other-than-temporary impairments and unrealized capital gains (losses)"* for information on the Company's policy for determining OTTI.

d. Preferred stocks

Preferred stocks in good standing are generally valued at amortized cost. Preferred stocks not in good standing, those that are rated Categories 4 through 6 by the Securities Valuation Office (SVO) of the NAIC, are valued at the lower of amortized cost or fair value. Fair values are based on quoted market prices, when available. If quoted market prices are not available, the Company estimates fair value using broker-dealer quotations or internal models. These models use inputs not directly observable or correlated with observable market data. Typical inputs integrated into the Company's internal discounted expected earnings models include, but are not limited to, earnings before interest, taxes, depreciation and amortization estimates. Fair values resulting from internal models are those expected to be received in an orderly transaction between willing market participants at the financial statement date.

Refer to *Note 2bb. "Realized capital gains (losses) including other-than-temporary impairments and unrealized capital gains (losses)"* for information on the Company's policy for determining OTTI.

e. Common stocks - subsidiaries and affiliates

Common stocks of unconsolidated subsidiaries, primarily C.M. Life Insurance Company (C.M. Life), MML Bay State Life Insurance Company (MML Bay State) and MMHLLC, are accounted for using the statutory equity method. The Company accounts for the value of its investment in its subsidiary, MMHLLC, at its underlying U.S. GAAP equity value adjusted to remove certain nonadmitted and intangible assets, as well as a portion of its noncontrolling interests (NCI) and appropriated retained earnings (ARE), after consideration of MMHLLC's fair value and the Company's capital levels. The Division has affirmed the statutory recognition of the Company's application of the NCI guidelines in MMHLLC's statutory carrying value. However, the Company has limited this recognition to $2,157 million and $2,165 million as of December 31, 2013 and 2012, respectively. Operating results, less dividend distributions, for MMHLLC are reflected as net unrealized capital gains (losses) in the Statutory Statements of Changes in Surplus. Dividend distributions received from MMHLLC are recorded in net investment income and are limited to MMHLLC's U.S. GAAP retained earnings. The cost basis of common stocks - subsidiaries and affiliates is adjusted for impairments deemed to be other than temporary, consistent with common stocks - unaffiliated.

Refer to *Note 4d. "Common stocks - subsidiaries and affiliates"* for further information on the valuation of MMHLLC.

f. Common stocks - unaffiliated

Unaffiliated common stocks are carried at fair value, which is based on quoted market prices when available. If quoted market prices are not available, values provided by other third-party organizations are used. If values from other third parties are unavailable, fair values are determined by management using estimates based upon internal models. The Company's internal models include estimates based upon comparable company analysis, review of financial statements, broker quotes and last traded price. Fair values resulting from internal models are those expected to be received in an orderly transaction between willing market participants at the financial statement date.

Refer to *Note 2bb. "Realized capital gains (losses) including other-than-temporary impairments and unrealized capital gains (losses)"* for information on the Company's policy for determining OTTI.

g. Mortgage loans

Mortgage loans are valued at the unpaid principal balance of the loan, net of unamortized premium and discount, valuation allowances, nonrefundable commitment fees and mortgage interest points. Interest income earned on impaired loans is accrued on the outstanding principal balance of the loan based on the loan's contractual coupon rate. Interest is not accrued for impaired loans more than 60 days past due, for loans delinquent more than 90 days, or when collection of interest is improbable. The Company continually monitors mortgage loans where the accrual of interest has been discontinued, and will resume the accrual of interest on a mortgage loan when the facts and circumstances of the borrower and property indicate that the payments will continue to be received according to the terms of the original or modified mortgage loan agreement.

Refer to *Note 2bb. "Realized capital gains (losses) including other-than-temporary impairments and unrealized capital gains (losses)"* for information on the Company's policy for determining OTTI.

h. Policy loans

Policy loans are carried at the outstanding loan balance less amounts unsecured by the cash surrender value of the policy. At issuance, policy loans are fully secured by the cash surrender value of the policy. Unsecured amounts can occur when subsequent charges are incurred on the underlying policy without the receipt of additional premium. If the premium is not paid during the contractual grace period, the policy will lapse. Unsecured nonadmitted amounts were less than $1 million as of December 31, 2013 and 2012. Policy loans earn interest calculated based upon either a fixed or a variable interest rate. Accrued investment income on policy loans more than 90 days past due is included in the unpaid balance of the policy loan not to exceed the cash surrender value of the underlying contract.

i. Real estate

Investment real estate, which the Company has the intent to hold for the production of income, and real estate occupied by the Company, are carried at depreciated cost, less encumbrances. Depreciation is calculated using the straight-line method over the estimated useful life of the real estate holding, not to exceed 40 years. Depreciation expense is included in net investment income.

Real estate held for sale is initially carried at the lower of depreciated cost or fair value less estimated selling costs and is no longer depreciated. Adjustments to carrying value, including for further declines in fair value, are recorded in a valuation reserve, which is included in realized capital losses.

Fair value is generally estimated using the present value of expected future cash flows discounted at a rate commensurate with the underlying risks. The Company also obtains external appraisals for a rotating selection of properties annually. If an external appraisal is not obtained, an internal appraisal is performed.

Refer to *Note 2bb. "Realized capital gains (losses) including other-than-temporary impairments and unrealized capital gains (losses)"* for information on the Company's policy for determining OTTI.

j. Partnerships and limited liability companies

Partnerships and LLCs, except for partnerships that generate and realize low income housing tax credits (LIHTCs), are accounted for using the equity method with the change in the equity value of the underlying investment recorded in surplus. Distributions received are recognized as net investment income to the extent the distribution does not exceed previously recorded accumulated undistributed earnings.

Investments in partnerships that generate LIHTCs are carried at amortized cost unless considered impaired. Under the amortized cost method, the excess of the carrying value of the investment over its estimated residual value is amortized into income during the period in which tax benefits are recognized.

The equity method is suspended if the carrying value of the investment is reduced to zero due to losses from the investment. Once the equity method is suspended, losses are not recorded until the investment returns to profitability and the equity method is resumed. However, if the Company has guaranteed obligations of the investment or is otherwise committed to provide further financial support for the investment, losses will continue to be reported up to the amount of those guaranteed obligations or commitments.

Refer to *Note 2bb. "Realized capital gains (losses) including other-than-temporary impairments and unrealized capital gains (losses)"* for information on the Company's policy for determining OTTI.

k. Derivatives

Interest rate swaps and credit default index swaps associated with replicated assets are valued at amortized cost and all other derivative types are carried at fair value, which is based primarily upon quotations obtained from counterparties and independent sources. The quotations from counterparties and independent sources are compared to internally derived prices and a price challenge is lodged with the counterparties and independent sources when a significant difference cannot be explained by appropriate adjustments to the internal model. When quotes from counterparties and independent sources are not available or are considered not reliable, the internally derived value is recorded. Changes in the fair value of these instruments other than interest rate swaps associated with replicated assets are recorded as unrealized capital gains (losses) in surplus. Gains and losses realized on settlement, termination, closing or assignment of contracts are recorded as realized capital gains (losses). Amounts receivable and payable are accrued as net investment income.

l. Cash, cash equivalents and short-term investments

The Company considers all highly liquid investments purchased with original maturities of three months or less to be cash and cash equivalents and carries them at amortized cost.

Short-term investments, which are carried at amortized cost, consist of all highly liquid investments purchased with maturities of greater than three months and less than or equal to 12 months. Investments in short-term bonds and money market mutual funds are classified as short-term investments.

The carrying value reported in the Statutory Statements of Financial Position for cash, cash equivalents and short-term investment instruments approximates the fair value.

m. Investment income due and accrued

Accrued investment income consists primarily of interest and dividends. Interest is recognized on an accrual basis and dividends are recorded as earned on the ex-dividend date. Due and accrued income is nonadmitted on: (a) bonds and mortgage loans delinquent more than 90 days or where collection of interest is improbable; (b) impaired bonds and mortgage loans more than 60 days past due; (c) bonds in default; (d) rent in arrears for more than 90 days; and (e) policy loan interest due and accrued more than 90 days past due and included in the unpaid balance of the policy loan in excess of the cash surrender value of the underlying contract.

n. Other than invested assets

Other than invested assets primarily includes deferred and uncollected premium, receivables from subsidiaries and affiliates, other receivables and fixed assets.

Fixed assets are carried at cost less accumulated depreciation and amortization. Depreciation and amortization are determined using the straight-line method over the estimated useful lives of the assets. Estimated lives range up to fifteen years for leasehold improvements and up to ten years for all other fixed assets. Within fixed assets, most unamortized software and office equipment are nonadmitted assets.

o. Nonadmitted assets

Assets designated as nonadmitted by the NAIC primarily include pension plan assets, certain electronic data processing (EDP) equipment, advances and prepayments, certain investments in partnerships and LLCs for which audits are not performed, certain other receivables, furniture and equipment, uncollected premiums and certain intangible assets. These assets are designated as nonadmitted and are excluded from the Statutory Statements of Financial Position through a charge against surplus.

p. Separate accounts

Separate accounts are segregated funds administered and invested by the Company. Selection of the separate account investments is directed by group and individual variable annuity, variable life and other insurance contract holders/policyholders. The returns produced by separate account assets increase or decrease separate account reserves. Separate account assets consist principally of marketable securities reported at fair value. Except for the Company's seed money and supplemental accounts, as noted below, and certain guaranteed separate accounts issued in Minnesota, separate account assets can only be used to satisfy separate account liabilities and are not available to satisfy the general obligations of the Company. The Company's revenue reflects fees charged to the separate accounts including administrative and investment advisory fees.

Assets may be transferred from the general investments of the Company to seed the separate accounts. When assets are transferred to separate accounts, they are transferred at fair market value on the date the transaction occurs. Gains related to the transfer are deferred to the extent that the Company maintains a proportionate interest in the separate account. The deferred gain is recognized as the Company's ownership decreases or when the separate account sells the underlying asset during the normal course of business. Losses associated with these transfers are recognized immediately.

Separate accounts reflect two categories of risk assumption: nonguaranteed separate accounts for which the contract holder/policyholder assumes the investment risk and guaranteed separate accounts for which the Company contractually guarantees either a minimum return or minimum account value to the contract holder/policyholder. For certain guaranteed separate account products such as interest rate guaranteed products and indexed separate account products, reserve adequacy is performed on a contract by contract basis using, as applicable, prescribed interest rates, mortality rates and asset risk deductions. If the outcome from this adequacy analysis produces a deficiency relative to the current account value, a liability is recorded in policyholders' reserves or liabilities for deposit-type contracts in the Statutory Statements of Financial Position with the corresponding change in the liability recorded as change in policyholders' reserves or policyholders' benefits in the Statutory Statements of Income (Loss).

Premium income, benefits and expenses of the separate accounts are included in the Statutory Statements of Income (Loss) with the offset recorded in policyholders' reserves. Investment income and realized capital gains (losses) on the assets of separate accounts, other than seed money, accrue to contract holders/policyholders and are not recorded in the Statutory Statements of Income (Loss). Unrealized capital gains (losses) on assets of separate accounts accrue to contract holders/policyholders and, accordingly, are reflected in the separate account liability to the contract holder/policyholder.

q. Policyholders' reserves

Policyholders' reserves provide for the present value of estimated future obligations in excess of estimated future premium on policies in force.

Reserves for individual life insurance contracts are developed using accepted actuarial methods computed principally on the net level premium or Commissioners' Reserve Valuation Method bases using the American Experience or the 1941, 1958, 1980 or the 2001 Commissioners' Standard Ordinary mortality tables with assumed interest rates. Reserves for disability riders associated with life contracts are calculated using morbidity rates from the 1952 Period 2 Intercompany Disability Table, modified to reflect the Company's experience.

The Company waives deduction of deferred fractional premium at death and returns any portion of the final premium beyond the date of death. Reserves are computed using continuous functions to reflect these practices.

The Company charges a higher premium on certain contracts that cover substandard mortality risk. For these policies, the reserve calculations are based on a substandard mortality rate, which is a multiple of the standard mortality tables.

In order to maintain a prudent level of reserve adequacy, the Company elected to hold additional life insurance reserves over and above the amounts calculated by the methods described above.

Certain variable universal life and universal life contracts include features such as guaranteed minimum death benefits (GMDB) or other guarantees that ensure continued death benefit coverage when the policy would otherwise lapse. The value of the guarantee is only available to the beneficiary in the form of a death benefit. The liability for variable and universal life GMDBs and other guarantees is included in policyholders' reserves and the related change in this liability is included in change in policyholders' reserves.

Reserves for individual and group payout annuities are developed using accepted actuarial methods computed principally under Commissioners' Annuity Reserve Valuation Method (CARVM) using applicable interest rates and mortality tables. Individual payout annuities primarily use the 1971 and 1983 Individual Annuity Mortality and Annuity 2000 tables. Group payout annuities primarily use the 1983 Group Annuity Mortality and 1994 Group Annuity Reserving tables.

Certain individual variable annuity products issued by the Company have offered a variety of additional guarantees such as GMDBs and variable annuity guaranteed living benefits (VAGLB). The primary types of VAGLBs offered by MassMutual are guaranteed minimum accumulation benefits (GMAB), guaranteed minimum income benefits (GMIB) including GMIB Basic and GMIB Plus and guaranteed minimum withdrawal benefits (GMWB). In general, these benefit guarantees require the contract or policyholder to adhere to a company-approved asset allocation strategy. The liabilities for individual variable annuity GMDBs and VAGLBs are included in policyholders' reserves and the related changes in these liabilities are included in change in policyholders' reserves.

Variable annuity GMDBs provide a death benefit in excess of the contract value if the contract value is less than the guaranteed minimum amount. Some contracts provide that guarantee upon the contract owner's death and others provide it upon the annuitant's death. This amount may be based on a return of premium (the premium paid generally adjusted for withdrawals), a roll-up (an accumulation of premium at a specified interest rate adjusted for withdrawals), a reset (the contract value on a specified anniversary date adjusted for subsequent withdrawals, which is allowed to decrease when reset) or a ratchet (the contract value on a specified anniversary date adjusted for subsequent withdrawals, which is never allowed to decrease when reset). For a variable annuity contract, a decline in the stock market causing the contract value to fall below the guaranteed specified amount will increase the net amount at risk, which is the GMDBs in excess of the contract value.

GMABs provide the annuity contract holder with a guaranteed minimum contract value at the end of the product's guarantee period. If the contract value is below that guarantee at the end of the period, the contract value is increased to the guaranteed minimum account benefit value and the contract continues from that point. Options for the guarantee period are ten, twenty and twenty-six years.

GMWBs provide the annuity contract holder with a guarantee that a minimum amount will be available for withdrawal annually for life regardless of the contract value.

GMIBs provide the annuity contract holder with a guaranteed minimum amount when the contract is annuitized. The GMIBs would be beneficial to the contract holder if the contract holder's contract value would otherwise not provide a higher annuitization value using currently offered rates at the time of annuitization. GMIBs generally anticipate payout between ages 60 and 90. The Company first issued GMIB Basic in 2002 and suspended issuing these contracts in August 2007. These GMIB Basic contracts cannot be annuitized within seven years of issuance and do not have access to the guarantee value other than through annuitization.

GMIB Plus replaced GMIB Basic and was available from September 2007 through March 2009. GMIB Plus includes a product version, which provides a minimum floor amount that can be applied to an annuity option. The GMIB Plus value is equal to the initial purchase amount increased by a compound annual interest rate. If a contract owner takes a withdrawal, the GMIB Plus value is recalculated by making an adjustment for withdrawals. There are two types of adjustments for withdrawals: (1) Dollar for dollar adjustment – during each contract year, the GMIB Plus value will be lower for each dollar that is withdrawn up to and equal to the current contract year interest credited on the GMIB Plus value; (2) Pro-rata adjustment – during each contract year, for any amount withdrawn that exceeds the current contract year interest credited on the GMIB Plus value, the GMIB Plus value will be further reduced by a pro-rata adjustment. Such a withdrawal will negatively impact the GMIB Plus value. GMIB Plus cannot be annuitized within ten years of contract issuance as the rider can only be exercised after a ten year waiting period has elapsed. This guarantee was only available upon contract issuance.

Reserves for individual and group fixed deferred annuities are developed using accepted actuarial methods computed principally under CARVM using applicable interest rates and mortality tables. Individual deferred annuities primarily use the 1971 and 1983 Individual Annuity Mortality and Annuity 2000 tables. Group deferred annuities primarily use the 1983 Group Annuity Mortality and 1994 Group Annuity Reserving tables.

Reserves for individual and group variable deferred annuities are developed using accepted actuarial methods computed principally under CARVM for variable annuities using applicable interest rates and mortality tables. Individual variable deferred annuities primarily use the 1994 Minimum Guaranteed Death Benefit or Annuity 2000 tables. The liability is evaluated under both a standard scenario and stochastic scenarios net of currently held applicable hedge asset cash flows. The Company holds the reserve liability valuation at the higher of the standard or stochastic scenario values. Based on the Company's currently held hedges, if market interest rates increase, the fair value of the Company hedges would decrease in value and reserves would decrease. Should market interest rates decrease, the fair value of the Company hedges would increase in value and reserves would increase. In addition, the Company elected to hold additional reserves above those indicated based on the stochastic or standard scenario in order to maintain a prudent level of reserve adequacy.

The standard scenario is a prescriptive reserve with minimal company discretion. The primary driver of the standard scenario result is the composition of the in force policies, with the key factor being the extent to which the product guarantees are "in the money." The value of the reserve guarantees under the standard scenario is driven primarily by equity markets.

For the stochastic scenarios, the Company uses the American Academy of Actuaries' scenarios. Prudent estimate assumptions used for policyholder behavior (lapses, partial withdrawals, annuitization and additional premium), mortality, expenses and commissions, investment management fees and taxes are consistent with those used for asset adequacy testing and are based on Company experience. The key drivers for the stochastic results are the degree that the variable annuity benefits are "in the money" given equity market levels, policyholder elections for GMIBs, currently held applicable hedge asset cash flows, expenses and discount interest rates.

Disability income policy reserves are generally calculated using the two-year preliminary term method and actuarially accepted morbidity tables using the 1964 Commissioners' Disability Table and the 1985 Commissioners' Individual Disability Table A with assumed interest and mortality rates in accordance with applicable statutes and regulations.

Disabled life claim reserves are generally calculated using actuarially accepted methodologies and actuarially accepted morbidity tables using the 1964 Commissioners' Disability Table and 1985 Commissioners' Individual Disability Tables A and C with assumed interest rates in accordance with applicable statutes and regulations.

Long-term care policy reserves are generally calculated using the one-year preliminary term method and actuarially accepted morbidity, mortality and lapse tables with assumed interest rates in accordance with applicable statutes and regulations.

Long-term care claim reserves are generally calculated using actuarially accepted methodologies and actuarially accepted morbidity tables with assumed interest rates in accordance with applicable statutes and regulations.

Unpaid claims and claim expense reserves are related to disability and long-term care claims. Unpaid disability claim liabilities are projected based on the average of the last three disability payments. Claim expense reserves are based on an analysis of the unit expenses related to the processing and examination of new and ongoing claims. Interest accrued on reserves is calculated by applying NAIC prescribed interest rates to the average reserves by incurral year.

Tabular interest, tabular reserves less actual reserves released, and tabular cost for all life and annuity contracts and supplementary contracts involving life contingencies are determined in accordance with NAIC Annual Statement instructions. For tabular interest, whole life and term products use a formula that applies a weighted average interest rate determined from a seriatim valuation file to the mean average reserves. Universal life, variable life, group life, annuity and supplemental contracts use a formula that applies a weighted average credited rate to the mean account value. For contracts without an account value (e.g., a Single Premium Immediate Annuity) a weighted average statutory valuation rate is applied to the mean statutory reserve or accepted actuarial methods using applicable interest rates are applied.

All policyholders' reserves and accruals are based on the various estimates discussed previously and are presented net of reinsurance. Management believes that these liabilities and accruals represent management's best estimate and will be sufficient, in conjunction with future revenues, to meet future anticipated obligations of policies and contracts in force.

r. Liabilities for deposit-type contracts

Liabilities for funding agreements, dividend accumulations, premium deposit funds, investment-type contracts such as supplementary contracts not involving life contingencies and certain structured settlement annuities are based on account value or accepted actuarial methods using applicable interest rates.

s. Participating contracts

Participating contracts are those that may be eligible to share in any dividends declared by the Company. Participating contracts issued by the Company represented 58% and 66% of the Company's policyholders' reserves and liabilities for deposit-type contracts as of December 31, 2013 and 2012, respectively.

t. Policyholders' dividends

Dividends expected to be paid to policyholders in the following year are approved annually by MassMutual's Board of Directors and are recorded as an expense in the current year. The allocation of these dividends to policyholders reflects the relative contribution of each group of participating policies to surplus and considers, among other factors, investment returns, mortality and morbidity experience, expenses and taxes. The liability for policyholders' dividends includes the estimated amount of annual dividends and settlement dividends. A settlement dividend is an extra dividend payable at termination of a policy upon maturity, death or surrender.

u. Asset valuation reserve

The Company maintains an AVR that is a contingency reserve to stabilize surplus against fluctuations in the statement value of common stocks, real estate investments, partnerships and LLCs as well as credit-related changes in the value of bonds, preferred stocks, mortgage loans, and certain derivatives to the extent that AVR is greater than zero for the appropriate asset category. The AVR is reported as a liability and the change in AVR, net of tax, is reported in surplus.

v. Interest maintenance reserve

The Company maintains an IMR that is used to stabilize net income against fluctuations in interest rates. After-tax realized capital gains (losses), which result from changes in the overall level of interest rates for all types of fixed-income investments and interest-related hedging activities, are deferred into the IMR and amortized into revenue using the grouped amortization method. The IMR is included in other liabilities or if negative, is nonadmitted.

w. Repurchase agreements

The Company has entered into repurchase agreements whereby the Company sells securities and simultaneously agrees to repurchase the same or substantially the same securities. These repurchase agreements are accounted for as collateralized borrowings with the proceeds from the sale of the securities recorded as a liability and the underlying securities recorded as an investment by the Company. Earnings on these investments are recorded as investment income and the difference between the proceeds and the amount at which the securities will be subsequently reacquired is amortized as interest expense. Repurchase agreements are used as a tool for overall portfolio management to help ensure the Company maintains adequate assets in order to provide yield, spread and duration to support liabilities and other corporate needs.

The Company provides collateral, as dictated by the repurchase agreements, to the counterparty in exchange for a loan. If the fair value of the securities sold becomes less than the loan, the counterparty may require additional collateral.

x. Commercial paper

The Company issues commercial paper in the form of unsecured notes (Notes). Interest on the Notes is calculated using a 360-day year based on the actual number of days elapsed. Due to the short-term nature of the Notes, the carrying value approximates fair value.

y. Other liabilities

Other liabilities primarily consist of derivative payables, IMR, amounts held for agents, remittances and items not allocated, pending securities settlements and unearned income.

z. Reinsurance

The Company enters into reinsurance agreements with affiliated and unaffiliated insurers in the normal course of business to limit its insurance risk.

Premium income, benefits to policyholders and policyholders' reserves are stated net of reinsurance. Premium, benefits and reserves related to reinsured business are accounted for on bases consistent with those used in accounting for the original policies issued and the terms of the reinsurance contracts. The Company records a receivable for reinsured benefits paid, but not yet reimbursed by the reinsurer and reduces policyholders' reserves for the portion of insurance liabilities that are reinsured. Commissions and expense allowances on reinsurance ceded and modified coinsurance reserve adjustments on reinsurance ceded are recorded as revenue.

aa. Premium and related expense recognition

Life insurance premium revenue is generally recognized annually on the anniversary date of the policy. However, premium for flexible products, primarily universal life and variable universal life contracts, is recognized as revenue when received. Annuity premium is recognized as revenue when received. Disability income and long-term care premium is recognized as revenue when due.

Premium revenue is adjusted by the related deferred premium adjustment. Deferred premium adjusts for the overstatement created in the calculation of reserves as the reserve computation assumes the entire year's net premium is collected annually at the beginning of the policy year and does not take into account installment or modal payments. Commissions and other costs related to issuance of new policies and policy maintenance and settlement costs are charged to current operations when incurred. Surrender fee charges on certain life and annuity products are recorded as a reduction of benefits and expenses.

bb. Realized capital gains (losses) including other-than-temporary impairments and unrealized capital gains (losses)

Realized capital gains (losses), net of taxes, exclude gains (losses) deferred into the IMR and gains (losses) of the separate accounts. Realized capital gains (losses) are recognized in net income and include OTTI, and are determined using the specific identification method.

Bonds - general

The Company employs a systematic methodology to evaluate OTTI by conducting a quarterly analysis of all bonds. The Company considers the following factors, where applicable depending on the type of securities, in the evaluation of whether a decline in value is other than temporary: (a) the likelihood that the Company will be able to collect all amounts due according to the contractual terms of the debt security; (b) the present value of the expected future cash flows of the security; (c) the characteristics, quality and value of the underlying collateral or issuer securing the position; (d) collateral structure; (e) the length of time and extent to which the fair value has been below amortized cost; (f) the financial condition and near-term prospects of the issuer; (g) adverse conditions related to the security or industry; (h) the rating of the security; and (i) the Company's ability and intent to hold the investment for a period of time sufficient to allow for an anticipated recovery to amortized cost.

The Company also considers other qualitative and quantitative factors in determining the existence of OTTI including, but not limited to, unrealized loss trend analysis and significant short-term changes in value.

For corporate securities, if it is determined that a decline in the fair value of a bond is other than temporary, an OTTI is recognized in earnings as a realized loss equal to the difference between the investment's amortized cost basis and, generally, its fair value at the balance sheet date. For loan-backed and structured securities, if the present value of cash flows expected to be collected is less than the amortized cost basis of the security, an OTTI is recognized in earnings as a realized loss equal to the difference between the investment's amortized cost basis and the present value of cash flows expected to be collected. The expected cash flows are discounted at the security's effective interest rate. Internal inputs used in determining the amount of the OTTI on structured securities include collateral performance, prepayment speeds, default rates, and loss severity based on borrower and loan characteristics, as well as deal structure including subordination, over-collateralization and cash flow priority. In addition, if the Company has the intent to sell, or the inability, or lack of intent to retain the investment for a period sufficient to recover the amortized cost basis, an OTTI is recognized in earnings as a realized loss equal to the entire difference between the investment's amortized cost basis and its fair value at the balance sheet date.

When a bond is other-than-temporarily impaired, a new cost basis is established. For loan-backed and structured securities, any difference between the new amortized cost basis and any increased present value of future cash flows expected to be collected is accreted into net investment income over the expected life of the bond.

The impairment review process provides a framework for deriving OTTI in a manner consistent with market participant assumptions. In these analyses, collateral type, investment structure and credit quality are critical elements in determining OTTI.

Bonds - structured and loan-backed securities

ABS and MBS are evaluated for OTTI on a quarterly basis using scenarios customized by collateral type. Cash flow estimates are based on various assumptions and inputs obtained from external industry sources along with internal analysis and actual experience. Assumptions are based on the specifics of each security including collateral type, loan type, vintage and subordination level in the structure. Where applicable, assumptions include prepayment speeds, default rates and loss severity, weighted average maturity and changes in the collateral values.

The Company has a review process for determining if CDOs are at risk for OTTI. For the senior, mezzanine and junior debt tranches, cash flows are modeled using five scenarios based on the current ratings and values of the underlying corporate credit risks and incorporating prepayment and default assumptions that vary according to collateral attributes of each deal. The prepayment and default assumptions are varied within each model based upon rating (base case), historical expectations (default), rating change improvement (optimistic), rating change downgrade (pessimistic) and fair value (market). The default rates produced by these five scenarios are assigned an expectation weight according to current market and economic conditions and fed into a sixth scenario. OTTI is recorded if this sixth scenario results in the loss of any principal or interest payments due.

For the most subordinated junior CDO tranches, the present value of the projected cash flows in the sixth scenario is measured using an effective yield. If the current book value of the security is greater than the present value measured using an effective yield, an OTTI is taken in an amount sufficient to produce its effective yield. Certain CDOs cannot be modeled using all six scenarios because of limitations on the data needed for all scenarios. The cash flows for these CDOs, including foreign denominated CDOs, are projected using a customized scenario management believes is reasonable for the applicable collateral pool.

Common and preferred stock

The cost basis of common and preferred stocks is adjusted for impairments deemed to be other than temporary. The Company considers the following factors in the evaluation of whether a decline in value is other than temporary: (a) the financial condition and near-term prospects of the issuer; (b) the Company's ability and intent to retain the investment for a period sufficient to allow for a near-term recovery in value; and (c) the period and degree to which the value has been below cost. The Company conducts a quarterly analysis of issuers whose common or preferred stock is not-in-good standing or valued below 80% of cost. The Company also considers other qualitative and quantitative factors in determining the existence of OTTI including, but not limited to, unrealized loss trend analysis and significant short-term changes.

Mortgage loans

The Company performs internal reviews at least annually to determine if individual mortgage loans are performing or nonperforming. The fair values of performing mortgage loans are estimated by discounting expected future cash flows using current interest rates for similar loans with similar credit risk. For nonperforming loans, the fair value is the estimated collateral value of the underlying real estate. If foreclosure is probable, the Company will obtain an external appraisal.

When, based upon current information and events, it is probable that the Company will be unable to collect all amounts of principal and interest due according to the contractual terms of the mortgage loan agreement, a valuation allowance is established, and recorded in net unrealized capital losses for the excess of the carrying value of the mortgage loan over the fair value of its underlying collateral. Such information or events could include property performance, capital budgets, future lease roll, a property inspection as well as payment trends. Collectability and estimated decreases in collateral values are assessed on a loan-by-loan basis considering all events and conditions relevant to the loan. This evaluation, which is done on an individual loan basis, is inherently subjective as it requires estimates that are susceptible to significant revisions as more information becomes available, as changes occur in the market or as negotiations with the borrowing entity evolve. If there is a change in the fair value of the underlying collateral or the expected loss on the loan, the valuation allowance will be adjusted. An OTTI occurs upon the realization of a credit loss, typically through foreclosure or after a decision is made to accept a discounted payoff, and is recognized in realized capital losses. The previously recorded valuation allowance is reversed from unrealized capital losses. When an OTTI is recorded, a new cost basis is established reflecting management's estimate of the fair value of the collateral.

Real estate

For real estate held for the production of income, depreciated cost is adjusted for impairments whenever events or changes in circumstances indicate the carrying amount of the asset may not be recoverable, with the impairment being included in realized capital losses. An impairment will be required if the property's estimated future net cash flows over ten years, undiscounted and without interest charges, is less than book value.

Adjustments to the carrying value of real estate held for sale are recorded in a valuation reserve as realized capital losses when the fair value less estimated selling costs is less than the carrying value. A new cost basis is recorded with an adjustment to realized capital losses.

Partnerships and LLCs

When it is probable that the Company will be unable to recover the outstanding carrying value of an investment based on undiscounted cash flows, or there is evidence indicating an inability of the investee to sustain earnings to justify the carrying value of the investment, OTTI is recognized in realized capital losses reflecting the excess of the carrying value over the estimated fair value of the investment. The estimated fair value is determined by assessing the value of the partnership's or LLC's underlying assets, cash flow, current financial condition and other market factors.

For determining impairments in partnerships that generate LIHTCs, the Company uses the present value of all future benefits, the majority of which are tax credits, discounted at a risk-free rate ranging from 0.3% for future benefits of two years to 2.8% for future benefits of ten or more years and compares the results to its current book values. Impairments are recognized as realized capital losses.

Unrealized capital gains (losses)

Unrealized capital gains (losses) include changes in the fair value of derivatives, excluding interest rate swaps and credit default index swaps associated with replicated assets; currency translation adjustments on foreign-denominated bonds; changes in the fair value of unaffiliated common stocks; and changes in the fair value of bonds and preferred stocks that are carried at fair value. Changes in the Company's equity investments in partnerships, LLCs and certain subsidiaries and affiliates are also reported as changes in unrealized capital gains (losses). Unrealized capital gains (losses) are recorded as a change in surplus net of tax.

cc. Employee compensation plans

The Company has a long-term incentive compensation plan, under which certain employees of the Company and its subsidiaries may be issued phantom share-based compensation awards. These awards include Phantom Stock Appreciation Rights (PSARs) and Phantom Restricted Stock (PRS). These awards do not grant an equity or ownership interest in the Company.

PSARs provide the participant with the opportunity to share in the value created in the total enterprise. The PSAR value is the appreciation in the phantom stock price between the grant price and the share price at the time of exercise. Awards can only be settled in cash. PSARs cliff vest at the end of three years and expire five years after the date of grant. Vested PSARs may be exercised during quarterly two-week exercise periods prior to expiration. The compensation expense for an individual award is recognized over the service period.

PRS provide the participant with the opportunity to share in the value created in the total enterprise. Participants receive the full phantom share value (grant price plus/minus any change in share price) over the award period. Awards can only be settled in cash. PRS vests on a graded basis over five years, one third per year after years three, four and five. On each vesting date, a lump sum cash settlement is paid to the participant based on the number of shares vested multiplied by the most recent phantom stock price. Compensation expense is recognized on the accelerated attribution method. The accelerated attribution method recognizes compensation expense over the vesting period by which each separate payout year is treated as if it were, in substance, a separate award.

All awards granted under the Company's plans are compensatory classified awards. Compensation costs are based on the most recent quarterly calculated intrinsic value of the PSARs (current share price less grant price per share not less than zero) and PRS (current share price per share), considering vesting provisions, net of forfeiture assumptions and are included in the Statutory Statements of Financial Position as a liability in general expenses due or accrued. The compensation expense for an individual award is recognized over the service period. The cumulative compensation expense for all outstanding awards in any period is equal to the change in calculated liability period over period. The requisite service period for the awards is the vesting period. Awards contain vesting conditions, whereby employees' unvested awards immediately vest on a pro-rata basis at the time of retirement, death or disability with immediate settlement. A formula serves as the basis for the phantom share price, based on the management basis core operating earnings of the Company and its subsidiaries. This phantom share price is calculated and communicated to all participants quarterly and is used in calculating the liability of the Company based on intrinsic value.

dd. Federal income taxes

Total federal income taxes are based upon the Company's best estimate of its current and deferred tax assets or liabilities. Current tax expense is reported in the Statutory Statements of Income (Loss) as federal income tax expense if resulting from operations and within net realized capital gains (losses) if resulting from capital transactions. Changes in the balances of deferred taxes, which provide for book versus tax temporary differences, are subject to limitations and are reported within various lines within surplus. Accordingly, the reporting of statutory to tax temporary differences, such as reserves and policy acquisition costs, and of statutory to tax permanent differences, such as tax-exempt interest and tax credits, results in effective tax rates in the Statutory Statements of Income (Loss) that differ from the federal statutory tax rate.

3. New accounting standards

a. Adoption of new accounting standards

In March 2011, the NAIC issued revisions to Statement of Statutory Accounting Principles (SSAP) No. 100, "Fair Value Measurements," which requires additional fair value disclosures. These additional disclosures include a disclosure of the fair value hierarchy of items that are disclosed with a fair value measurement but are not valued at fair value in the balance sheet. Also, for financial instruments carried at fair value, companies are required to disclose purchases, sales, issuances and settlements on a gross basis for fair value measurements categorized in Level 3 of the fair value hierarchy. These new requirements were effective January 1, 2012.

In November 2011, the NAIC issued SSAP No. 101, "Income Taxes, A Replacement of SSAP No. 10R and SSAP No. 10." This statement establishes statutory accounting principles for current and deferred federal and foreign income taxes and current state income taxes. This statement supersedes SSAP No. 10, "Income Taxes" and SSAP No. 10R, "Income Taxes, A Temporary Replacement of SSAP No. 10," which expired on December 31, 2011. SSAP No. 101, which was effective on January 1, 2012, has: 1) restricted the ability to use the 3 years/15 percent of surplus admission rule to those reporting entities that meet the modified Risk Based Capital (RBC) ratio (Ex-DTA RBC ratio) threshold, 2) changed the recognition threshold for recording tax contingency reserves from a probable liability standard to a more-likely-than-not liability standard, 3) required the disclosure of tax planning strategies that relate to reinsurance and, 4) required consideration of reversal patterns of DTAs and Deferred Tax Liabilities (DTLs) in determining the extent to which DTLs could offset DTAs on the balance sheet. There was no cumulative effect of adopting this standard.

In March 2012, the NAIC issued SSAP No. 102 "Accounting for Pensions, Replacement of SSAP No. 89," which was effective on January 1, 2013. This SSAP primarily adopts U.S. GAAP accounting guidance for pensions by requiring entities to measure the pension liability at the projected benefit obligation and to recognize the funded status of the defined benefit pension plan on the statement of financial position. The projected benefit obligation includes amounts for both vested and non-vested participants and makes assumptions for future compensation increases. The adoption of this SSAP on January 1, 2013 created an additional pension liability of $43 million of which the Company immediately recorded $8 million as a decrease to surplus. The remaining $35 million transition liability has been deferred and will be amortized through 2021.

In March 2012, the NAIC issued SSAP No. 92, "Accounting for Postretirement Benefits Other Than Pensions, A Replacement of SSAP No. 14," which was effective January 1, 2013. Under this SSAP, participants not yet eligible to retire will also be included in the accumulated postretirement benefit obligation. The accumulated postretirement benefit obligation is already recorded on a U.S. GAAP basis on the books of MMHLLC, a subsidiary of the Company. The adjusted U.S. GAAP equity of this subsidiary is included in admitted assets of the Company for statutory purposes. Therefore, there was no impact from the adoption of this SSAP besides disclosure.

In March 2012, the NAIC issued SSAP No. 103, "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities," which superseded SSAP No. 91R, "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities." The change to SSAP No. 91R incorporates the U.S. GAAP guidance of the Financial Accounting Standards Board (FASB) Statement No. 166, "Accounting for Transfers and Servicing of Financial Assets, an amendment of FASB Statement No. 140," and Accounting Standards Update No. 2011-03, "Transfers and Servicing (Topic 860), Reconsideration of Effective Control for Repurchase Agreements," with modifications to conform the guidance to statutory accounting concepts. These modifications are primarily related to concepts that are not applicable or consistent with statutory accounting (e.g., rejection of U.S. GAAP consideration for consolidated affiliates, references to U.S. GAAP standards, methods, references and guidance not adopted for/applicable to statutory accounting). The Company adopted the guidance prospectively as of January 1, 2013. Adoption of this guidance did not have an impact on the Company's financial statements.

In August 2012, the NAIC issued new guidance pertaining to share-based payments. This new standard provides statutory accounting guidance on transactions in which an entity awards employees in share-based payments. It requires entities to measure share-based payments in the financial statements using a fair value-based measurement objective and recognize the compensation costs as employee services are consumed. It substantially adopts the stock compensation guidance in U.S. GAAP under Accounting Standards Codification Topic 718, Stock

Compensation, which the Company has applied to its accounting for the phantom stock appreciation rights and phantom restricted stock since 2008. This guidance was issued as SSAP No. 104, "Share-Based Payments – Revised," which supersedes SSAP No. 13, "Stock Options and Stock Purchase Plans," and is effective prospectively for years beginning on January 1, 2013, although early adoption was permitted for the December 31, 2012 financial statements. The Company early adopted this statement as of December 31, 2012, and it did not have an impact on the Company's financial statements.

In December 2013, the NAIC adopted modifications to SSAP No. 5R, "Liabilities, Contingencies and Impairment of Assets," to clarify the reporting of joint and several liabilities. This clarification requires the liability reported to be determined using a consistent approach among reporting entities, and reflect the amount the insurer 1) has agreed to pay under the arrangement and 2) any additional amount the insurer expects to pay on behalf of its co-obligors. The same methodology is used for initial and subsequent measurement; therefore any changes that may impact the amount an insurer expects to pay would be reflected in the financial statements. This guidance was effective on issuance and it did not have an impact on the Company's financial statements.

b. Future adoption of new accounting standards

In December 2013, the NAIC issued SSAP No. 105, "Working Capital Finance Investments," which establishes statutory accounting principles for working capital finance investments held by reporting entities. This statement also amends SSAP No. 20, "Nonadmitted Assets," to allow working capital finance investments as admitted assets to the extent they conform to the requirements of SSAP No. 105. This new guidance is effective January 1, 2014, and will not have a significant impact on the Company's financial statements.

In December 2013, the NAIC adopted modifications to SSAP No. 26, "Bonds, Excluding Loan-Backed and Structured Securities," to clarify the amortization requirements for bonds with make-whole call provisions and bonds that are continuously callable. These revisions do not allow insurers to consider make-whole call provisions in determining the timeframe for amortizing bond premium or discount unless information is known by the reporting entity indicating that the issuer is expected to invoke the provision. These clarifying changes are effective January 1, 2014. The Company is currently in the process of assessing the potential impact of this guidance.

4. *Investments*

The Company maintains a diversified investment portfolio. Investment policies limit concentration in any asset class, geographic region, industry group, economic characteristic, investment quality or individual investment.

a. Bonds

The carrying value and fair value of bonds were as follows:

	December 31, 2013			
	Carrying Value	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
	(In Millions)			
U.S. government and agencies	$ 6,553	$ 461	$ 53	$ 6,961
All other governments	211	24	8	227
States, territories and possessions	1,894	64	57	1,901
Special revenue	4,461	440	26	4,875
Industrial and miscellaneous	48,652	2,313	897	50,068
Parent, subsidiaries and affiliates	5,425	317	19	5,723
Total	$ 67,196	$ 3,619	$ 1,060	$ 69,755

Note: The unrealized losses exclude $37 million of losses embedded in the carrying value, which include $36 million from NAIC Category 6 bonds and $1 million from RMBS and CMBS whose ratings were obtained from outside modelers.

	December 31, 2012			
	Carrying Value	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
	(In Millions)			
U.S. government and agencies	$ 7,654	$ 1,148	$ 6	$ 8,796
All other governments	126	38	-	164
States, territories and possessions	1,449	192	-	1,641
Special revenue	3,983	964	2	4,945
Industrial and miscellaneous	38,419	4,003	223	42,199
Parent, subsidiaries and affiliates	5,260	325	112	5,473
Total	$ 56,891	$ 6,670	$ 343	$ 63,218

Note: The unrealized losses exclude $16 million of losses embedded in the carrying value, which include $11 million from NAIC Category 6 bonds and $5 million from RMBS and CMBS whose ratings were obtained from outside modelers.

The quality of the bond portfolio is determined by the use of SVO ratings and the equivalent rating agency designations, except for RMBS and CMBS that use outside modelers. The following sets forth the NAIC class ratings for the bond portfolio including RMBS and CMBS as of December 31, 2013 and 2012.

		December 31,			
		2013		2012	
NAIC Class	Equivalent Rating Agency Designation	Carrying Value	% of Total	Carrying Value	% of Total
		($ In Millions)			
1	Aaa/ Aa/ A	$ 38,974	58 %	$ 34,375	61 %
2	Baa	23,752	35	18,918	33
3	Ba	1,847	3	1,685	3
4	B	1,708	2	1,110	2
5	Caa and lower	525	1	679	1
6	In or near default	390	1	124	-
	Total	$ 67,196	100 %	$ 56,891	100 %

The following summarizes NAIC designations for RMBS and CMBS subject to modeling as of December 31, 2013 and 2012:

	December 31,							
	2013				2012			
	RMBS		CMBS		RMBS		CMBS	
NAIC Class	Carrying Value	% of Total	Carrying Value	% of Total	Carrying Value	% of Total	Carrying Value	% of Total
	($ In Millions)							
1	$ 1,493	100 %	$ 2,935	100 %	$ 1,856	97 %	$ 2,775	100 %
2	-	-	-	-	22	1	-	-
3	3	-	8	-	21	1	8	-
4	-	-	7	-	15	1	8	-
5	2	-	-	-	6	-	-	-
6	-	-	2	-	-	-	-	-
	$ 1,498	100 %	$ 2,952	100 %	$ 1,920	100 %	$ 2,791	100 %

The following is a summary of the carrying value and fair value of bonds as of December 31, 2013 by contractual maturity. Expected maturities may differ from contractual maturities because issuers may have the right to call or prepay obligations with or without prepayment penalties. Securities not due on a single maturity date are included as of the final maturity date.

	Carrying Value	Fair Value
	(In Millions)	
Due in one year or less	$ 2,300	$ 2,348
Due after one year through five years	15,547	16,343
Due after five years through ten years	23,907	24,886
Due after ten years	25,442	26,178
Total	$ 67,196	$ 69,755

Sales proceeds and related gross realized capital gains (losses) from bonds were as follows:

	Years Ended December 31,		
	2013	2012	2011
	(In Millions)		
Proceeds from sales	$ 7,837	$ 5,104	$ 8,981
Gross realized capital gains from sales	245	292	436
Gross realized capital losses from sales	(195)	(38)	(152)

The following is a summary of the fair values and gross unrealized losses aggregated by bond category and length of time that the securities were in a continuous unrealized loss position:

	December 31, 2013					
	Less Than 12 Months			12 Months or Longer		
	Fair Value	Unrealized Losses	Number of Issuers	Fair Value	Unrealized Losses	Number of Issuers
	($ In Millions)					
U.S. government and agencies	$ 1,820	$ 51	7	$ 52	$ 3	3
All other governments	46	5	27	29	4	18
States, territories and possessions	693	52	49	32	6	3
Special revenue	584	20	167	72	5	142
Industrial and miscellaneous	16,056	697	1,299	2,412	202	402
Parent, subsidiaries and affiliates	169	3	8	642	49	10
Total	$ 19,368	$ 828	1,557	$ 3,239	$ 269	578

Note: The unrealized losses include $37 million of losses embedded in the carrying value, which include $36 million from NAIC Category 6 bonds and $1 million from RMBS and CMBS whose ratings were obtained from outside modelers.

	December 31, 2012					
	Less Than 12 Months			12 Months or Longer		
	Fair Value	Unrealized Losses	Number of Issuers	Fair Value	Unrealized Losses	Number of Issuers
	($ In Millions)					
U.S. government and agencies	$ 1,287	$ 6	2	$ -	$ -	-
States, territories and possessions	56	1	6	-	-	-
Special revenue	52	1	63	9	2	68
Industrial and miscellaneous	2,243	56	248	2,695	174	522
Parent, subsidiaries and affiliates	14	5	4	769	114	17
Total	$ 3,652	$ 69	323	$ 3,473	$ 290	607

Note: The unrealized losses include $16 million of losses embedded in the carrying value, which include $11 million from NAIC Category 6 bonds and $5 million from RMBS and CMBS whose ratings were obtained from outside modelers.

Based on the Company's policies, as of December 31, 2013 and 2012, the Company has not deemed these unrealized losses to be other than temporary because the investment's carrying value is expected to be realized based on the Company's analysis of fair value or, for loan-backed and structured securities, based on the present value of cash flows, and the Company has the ability and intent not to sell these investments until recovery, which may be at maturity.

As of December 31, 2013, investments in structured and loan-backed securities that had unrealized losses, which were not recognized in earnings, had a fair value of $4,642 million. Securities in an unrealized loss position for less than 12 months had a fair value of $3,446 million and unrealized losses of $70 million. Securities in an unrealized loss position for greater than 12 months had a fair value of $1,196 million and unrealized losses of $67 million. These securities were primarily categorized as industrial and miscellaneous or parent, subsidiaries and affiliates.

As of December 31, 2012, investments in structured and loan-backed securities that had unrealized losses, which were not recognized in earnings, had a fair value of $2,270 million. Securities in an unrealized loss position for less than 12 months had a fair value of $237 million and unrealized losses of $5 million. Securities in an unrealized loss position for greater than 12 months had a fair value of $2,033 million and unrealized losses of $166 million. These securities were primarily categorized as industrial and miscellaneous or parent, subsidiaries and affiliates.

In the course of the Company's investment management activities, securities may be sold and reacquired within 30 days of the sale date to enhance the Company's yield on its investment portfolio. The Company did not sell any securities with the NAIC Designation 3 or below for the years ended December 31, 2013 or 2012 that were reacquired within 30 days of the sale date.

The Company had assets, which were on deposit with government authorities or trustees as required by law in the amount of $9 million as of December 31, 2013 and $70 million as of December 31, 2012.

Residential mortgage-backed exposure

RMBS are included in the U.S. government, special revenue, and industrial and miscellaneous bond categories. The Alt-A category includes option adjustable rate mortgages and the subprime category includes 'scratch and dent' or reperforming pools, high loan-to-value pools, and pools where the borrowers have very impaired credit but the average loan-to-value is low, typically 70% or below. In identifying Alt-A and subprime exposure, management used a combination of qualitative and quantitative factors, including FICO scores and loan-to-value ratios.

As of December 31, 2013 and 2012, RMBS had a total carrying value of $2,792 million and $2,981 million and a fair value of $3,110 million and $3,217 million, of which approximately 25% and 38%, based on carrying value, was classified as Alt-A, respectively. As of December 31, 2013 and 2012, Alt-A and subprime RMBS had a total carrying value of $1,298 million and $1,669 million and a fair value of $1,494 million and $1,718 million, respectively.

During the year ended December 31, 2013, there were no significant credit downgrades for the securities held by the Company that were backed by residential mortgage pools.

Leveraged loan exposure

Leveraged loans are loans extended to companies that already have considerable amounts of debt. The Company reports leveraged loans as bonds. These leveraged loans have interest rates higher than typical loans, reflecting the additional risk of default from issuers with high debt-to-equity ratios.

As of December 31, 2013 and 2012, total leveraged loans and leveraged loan CDOs had a carrying value of $7,324 million and $5,504 million and a fair value of $7,558 million and $5,633 million, of which approximately 83% and 84%, based on carrying value, were domestic leveraged loans and CDOs, respectively.

Commercial mortgage-backed exposure

The Company holds bonds backed by pools of commercial mortgages. The mortgages in these pools have varying risk characteristics related to underlying collateral type, borrower's risk profile and ability to refinance, and the return provided to the borrower from the underlying collateral. These investments had a carrying value of $3,059 million and fair value of $3,164 million as of December 31, 2013 and a carrying value of $2,882 million and fair value of $3,150 million as of December 31, 2012.

b. Preferred stocks

The carrying value and fair value of preferred stocks were as follows:

	December 31,	
	2013	2012
	(In Millions)	
Carrying value	$ 494	$ 336
Gross unrealized gains	16	28
Gross unrealized losses	-	(6)
Fair value	$ 510	$ 358

As of December 31, 2013, investments in preferred stocks in an unrealized loss position included holdings with a fair value of $14 million in 7 issuers, none of which were in an unrealized loss position more than 12 months. As of December 31, 2012, investments in preferred stocks in an unrealized loss position included holdings with a fair value of $117 million in 4 issuers, all of which were in an unrealized loss position more than 12 months. Based upon the Company's impairment review process discussed in *Note 2bb. "Realized capital gains (losses) including other-than-temporary impairments and unrealized capital gains (losses)"* the decline in value of these securities was not considered to be other than temporary as of December 31, 2013 or 2012.

The Company held preferred stocks for which the transfer of ownership was restricted by contractual requirements with carrying values of $412 million as of December 31, 2013 and $266 million as of December 31, 2012.

c. Common stocks - unaffiliated

The adjusted cost basis and carrying value of unaffiliated common stocks were as follows:

	December 31,	
	2013	2012
	(In Millions)	
Adjusted cost basis	$ 886	$ 769
Gross unrealized gains	124	104
Gross unrealized losses	(82)	(39)
Carrying value	$ 928	$ 834

As of December 31, 2013, investments in unaffiliated common stocks in an unrealized loss position included holdings with a fair value of $490 million in 102 issuers, $69 million of which were in an unrealized loss position more than 12 months. As of December 31, 2012, investments in unaffiliated common stocks in an unrealized loss position included holdings with a fair value of $443 million in 237 issuers, $31 million of which were in an unrealized loss position more than 12 months. Based upon the Company's impairment review process discussed in *Note 2bb. "Realized capital gains (losses) including other-than-temporary impairments and unrealized capital gains (losses)"* the decline in value of these securities was not considered to be other than temporary as of December 31, 2013 or 2012.

The Company held common stocks for which the transfer of ownership was restricted by contractual requirements with carrying values of $262 million as of December 31, 2013 and $235 million as of December 31, 2012.

d. Common stocks - subsidiaries and affiliates

The Company has two primary domestic life insurance subsidiaries, C.M. Life, which primarily provides fixed and variable annuities and universal life insurance business, and MML Bay State, a subsidiary of C.M. Life, which primarily issues variable life and bank-owned life insurance policies.

Summarized below is combined statutory financial information for the unconsolidated domestic life insurance subsidiaries:

	As of and for Years Ended December 31,		
	2013	2012	2011
	(In Billions)		
Total revenue	$ 0.9	$ 0.9	$ 0.9
Net income	0.2	0.1	0.1
Assets	13.4	12.9	12.6
Liabilities	12.3	11.9	11.7
Shareholder's equity	1.1	1.0	0.9

MMHLLC is the parent of subsidiaries that include OppenheimerFunds, Inc. (OFI), Babson Capital Management LLC (Babson Capital), Baring Asset Management Limited (Baring) and its investment in international life insurance operations in Japan and Hong Kong; these subsidiaries deal in markets that include retail and institutional asset management entities, registered broker dealers, and international life and annuity operations.

Summarized below is U.S. GAAP financial information for MMHLLC:

	As of and for Years Ended December 31,		
	2013	2012	2011
	(In Billions)		
Total revenue	$ 6.5	$ 6.2	$ 4.9
Net income	0.3	0.2	0.3
Assets	50.0	53.5	50.7
Liabilities	40.2	43.6	42.4
Member's equity	9.8	9.9	8.3

The U.S. GAAP equity values in the preceding table consist of MMHLLC statutory carrying values of $4,491 million and $4,271 million as of December 31, 2013 and 2012, respectively, plus the carrying value of MMHLLC that is nonadmitted under statutory accounting principles. The current fair value of MMHLLC remains significantly greater than its statutory carrying amount.

On April 16, 2010, a lawsuit was filed in New York state court against OFI, its subsidiary HarbourView Asset Management Corporation (HVAMC) and AAArdvark IV Funding Limited (AAArdvark IV) in connection with the investment made by TSL (USA) Inc., an affiliate of National Australia Bank Limited, in AAArdvark IV. The complaint alleges breach of contract, breach of the covenant of good faith and fair dealing, gross negligence, unjust enrichment and conversion. The complaint seeks compensatory and punitive damages, along with attorney fees. The court has dismissed certain equitable claims against OFI and HVAMC, leaving only the claims for breach of contract. Plaintiffs filed an amended complaint with additional contractual claims. In October 2011, defendants moved to dismiss the complaint to the extent it seeks damages in the form of a return of the plaintiffs' full principal investment. In December 2011, plaintiffs filed a motion for partial summary judgment. In January 2012, the court granted in part defendants' motion to dismiss and denied plaintiffs' motion for partial summary judgment. In April 2012, plaintiffs filed a motion for leave to file a third amended complaint, which added a fraud claim and additional allegations in support of plaintiffs' contract claims. In August 2012, plaintiffs and defendants separately filed motions for partial summary judgment. In April 2013, the court (i) denied plaintiffs' motion for summary judgment; (ii) granted defendants' motion of summary judgment, dismissing plaintiffs' fraud claim with prejudice and dismissing their contract claim without prejudice and (iii) granted plaintiffs leave to replead to assert a cause of action for specific performance within 30 days. In May 2013, the plaintiffs filed a notice of appeal of the court's April 2013 order of dismissal. In January 2014, the appellate court affirmed the lower court's dismissal order. OFI believes it has substantial defenses to the remaining claims and will continue to vigorously defend itself in these actions. No reasonable estimate can be made at this time regarding the potential liability, if any, or the amount or range of any loss that may result from these claims.

On July 15, 2011, a lawsuit was filed in New York State Supreme Court against OFI, HVAMC and AAArdvark I Funding Limited (AAArdvark I), in connection with investments made by TSL (USA) Inc. and other investors in AAArdvark I. The complaint alleges breach of contract against each of the defendants and seeks compensatory damages and costs and disbursements, including attorney fees. In October 2011, defendants moved to dismiss the complaint to the extent it seeks damages in the form of a return of the plaintiffs' full principal investment. In January 2012, the court granted in part defendants' motion to dismiss. In July 2012, the parties participated in a mediation of their dispute, which did not result in a settlement. In March 2013, plaintiffs filed an amended complaint, which added a fraud claim and alleged additional facts in support of plaintiffs' contract claim. The parties have agreed to stay proceedings pending the appeal of the AAArdvark IV dismissal order. OFI believes it has substantial defenses to the remaining claims and will continue to vigorously defend itself in these actions. No reasonable estimate can be made at this time regarding the potential liability, if any, or the amount or range of any loss that may result from these claims.

On November 9, 2011, a lawsuit was filed in New York State Supreme Court against OFI, HVAMC and AAArdvark XS Funding Limited (AAArdvark XS) in connection with the investment made by Scaldis Capital Limited, predecessor in interest to plaintiff Royal Park Investments SA/NV, in AAArdvark XS. The complaint alleged breach of contract against the defendants and sought compensatory damages and an award of attorney fees and litigation expenses. On November 8, 2013, the parties filed a stipulation of discontinuance dismissing the lawsuit with prejudice.

Beyond these matters, MMHLLC's subsidiaries are involved in litigation and investigations arising in the ordinary course of the subsidiaries' businesses. Although the Company is not aware of any actions or allegations that reasonably should give rise to a material adverse impact to the Company's financial position or liquidity, because of the uncertainties involved with some of these matters, future revisions to the estimates of the potential liability could materially affect the Company's financial position.

The Company received $175 million, $25 million and $250 million of cash dividends, recorded in net investment income, from MMHLLC in 2013, 2012 and 2011, respectively.

The Company held debt issued by MMHLLC that amounted to $1,993 million as of December 31, 2013 and 2012. The Company recorded interest income on MMHLLC debt of $117 million in 2013 and 2012 and $118 million in 2011.

The Company held common stocks for which the transfer of ownership was restricted by contractual requirements with carrying values of $461 million as of December 31, 2013 and $23 million as of December 31, 2012.

The Company does not rely on dividends from its subsidiaries to meet its operating cash flow requirements. For the domestic life insurance subsidiaries, substantially all of their statutory shareholder's equity of approximately $1.1 billion as of December 31, 2013 was subject to dividend restrictions imposed by various state regulations.

e. Mortgage loans

Mortgage loans are comprised of commercial mortgage loans and residential mortgage loans. The Company's commercial mortgage loans primarily finance various types of real estate properties throughout the U.S., the United Kingdom and Canada. The Company holds commercial mortgage loans for which it is the primary lender and mezzanine loans that are subordinate to senior secured first liens. The Company has negotiated provisions, with the senior lender, within the loan documents to maximize influence with the objective of mitigating the Company's risks as the secondary lender for mezzanine loans. Commercial mortgage loans have varying risk characteristics including, among others, the borrower's liquidity, the underlying percentage of completion of a project, the returns generated by the collateral, the refinance risk associated with maturity of the loan and deteriorating collateral value.

Residential mortgage loans are seasoned pools of homogeneous residential mortgage loans substantially backed by Federal Housing Administration (FHA) and Veterans Administration (VA) guarantees. As of December 31, 2013 and 2012, the Company did not have any direct subprime exposure through the purchases of unsecuritized whole-loan pools.

Geographical concentration is considered prior to the purchase of mortgage loans and residential mortgage loan pools. The mortgage loan portfolio is diverse with no significant concentrations in any particular geographic region as of December 31, 2013 and 2012.

The carrying value and fair value of the Company's mortgage loans were as follows:

	December 31,			
	2013		2012	
	Carrying Value	Fair Value	Carrying Value	Fair Value
	(In Millions)			
Commercial mortgage loans:				
Primary lender	$ 14,604	$ 14,749	$ 11,777	$ 12,112
Mezzanine loans	43	45	35	35
Total commercial mortgage loans	14,647	14,794	11,812	12,147
Residential mortgage loans:				
FHA insured and VA guaranteed	1,806	1,751	2,130	2,147
Other residential loans	12	12	15	15
Total residential mortgage loans	1,818	1,763	2,145	2,162
Total mortgage loans	$ 16,465	$ 16,557	$ 13,957	$ 14,309

As of December 31, 2013, scheduled mortgage loan maturities, net of valuation allowances, for commercial and residential loans were as follows (in millions):

2014	$ 723
2015	975
2016	2,336
2017	1,738
2018	914
Thereafter	7,961
Commercial mortgage loans	14,647
Residential mortgage loans	1,818
Total	$ 16,465

The Company uses an internal rating system as its primary method of monitoring credit quality. The following illustrates the Company's mortgage loan portfolio categorized by what it believes is the equivalent rating agency designation:

	December 31, 2013					
	AAA/AA/A	BBB	BB	B	CCC and Lower	Total
	(In Millions)					
Commercial mortgage loans:						
Primary lender	$ 6,982	$ 5,948	$ 1,026	$ 522	$ 126	$ 14,604
Mezzanine loans	-	34	5	-	4	43
Total commercial mortgage loans	6,982	5,982	1,031	522	130	14,647
Residential mortgage loans:						
FHA insured and VA guaranteed	1,806	-	-	-	-	1,806
Other residential loans	12	-	-	-	-	12
Total residential mortgage loans	1,818	-	-	-	-	1,818
Total mortgage loans	$ 8,800	$ 5,982	$ 1,031	$ 522	$ 130	$ 16,465

	December 31, 2012					
	AAA/AA/A	BBB	BB	B	CCC and Lower	Total
	(In Millions)					
Commercial mortgage loans:						
Primary lender	$ 4,637	$ 4,987	$ 1,076	$ 820	$ 257	$ 11,777
Mezzanine loans	-	-	22	-	13	35
Total commercial mortgage loans	4,637	4,987	1,098	820	270	11,812
Residential mortgage loans:						
FHA insured and VA guaranteed	2,130	-	-	-	-	2,130
Other residential loans	15	-	-	-	-	15
Total residential mortgage loans	2,145	-	-	-	-	2,145
Total mortgage loans	$ 6,782	$ 4,987	$ 1,098	$ 820	$ 270	$ 13,957

The loan-to-value ratios by property type of the Company's commercial mortgage loans were as follows:

	December 31, 2013				
	Less than 80%	81% to 95%	Above 95%	Total	% of Total
	($ In Millions)				
Office	$ 5,246	$ 151	$ 138	$ 5,535	38 %
Apartments	3,169	12	80	3,261	22
Industrial and other	2,737	161	4	2,902	20
Retail	1,380	-	248	1,628	11
Hotels	1,293	-	28	1,321	9
Total	$ 13,825	$ 324	$ 498	$ 14,647	100 %

	December 31, 2012				
	Less than 80%	81% to 95%	Above 95%	Total	% of Total
	($ In Millions)				
Office	$ 4,189	$ 230	$ 122	$ 4,541	39 %
Apartments	2,419	82	105	2,606	22
Industrial and other	1,719	695	5	2,419	20
Retail	1,123	29	248	1,400	12
Hotels	816	11	19	846	7
Total	$ 10,266	$ 1,047	$ 499	$ 11,812	100 %

The maximum percentage of any one commercial mortgage loan to the estimated value of secured collateral at the time the loan was originated, exclusive of mezzanine, insured, guaranteed or purchase money mortgages, was 93.0% as of December 31, 2013 and 2012. The maximum percentage of any one mezzanine loan to the estimated value of secured collateral at the time the loan was originated was 90.0% as of December 31, 2013 and 93.0% as of December 31, 2012.

The geographic distribution of commercial mortgage loans was as follows:

	December 31, 2013	
	Carrying Value	Average Loan-to-Value Ratio
	($ In Millions)	
California	$ 3,963	59 %
New York	1,559	52 %
Illinois	1,218	58 %
Texas	1,192	58 %
Massachusetts	983	63 %
District of Columbia	725	49 %
All other states	4,214	58 %
United Kingdom	420	56 %
Canada	373	59 %
Total commercial mortgage loans	$ 14,647	58 %

Note: All other states consists of 35 states, with no individual state exposure exceeding $632 million.

	December 31, 2012	
	Carrying Value	Average Loan-to-Value Ratio
	($ In Millions)	
California	$ 2,766	63 %
Texas	1,401	64 %
Illinois	960	68 %
Massachusetts	951	60 %
New York	908	54 %
District of Columbia	698	49 %
All other states	3,664	61 %
Canada	340	58 %
United Kingdom	124	48 %
Total commercial mortgage loans	$ 11,812	61 %

Note: All other states consists of 34 states, with no individual state exposure exceeding $450 million.

Mortgage loan interest rates, including fixed and variable, on the Company's portfolio of mortgage loans were:

	December 31,					
	2013			2012		
	Low	High	Weighted Average	Low	High	Weighted Average
Commercial mortgage loans	1.1 %	12.3 %	4.9 %	1.2 %	10.5 %	5.0 %
Residential mortgage loans	2.5 %	12.5 %	5.7 %	2.6 %	12.8 %	5.8 %
Mezzanine mortgage loans	5.9 %	17.0 %	7.1 %	8.5 %	17.0 %	10.1 %

Mortgage loan interest rates, including fixed and variable, on new issues were:

	Years Ended December 31,					
	2013			2012		
	Low	High	Weighted Average	Low	High	Weighted Average
Commercial mortgage loans	3.3 %	10.0 %	4.5 %	3.3 %	7.2 %	4.2 %
Residential mortgage loans	4.8 %	5.1 %	4.9 %	5.1 %	5.7 %	5.1 %
Mezzanine mortgage loans	5.9 %	7.2 %	6.0 %	- %	- %	- %

The following presents a summary of the Company's impaired mortgage loans:

	December 31, 2013				
	Carrying Value	Average Carrying Value	Unpaid Principal Balance	Valuation Allowance	Interest Income
	(In Millions)				
With allowance recorded:					
Commercial mortgage loans:					
Primary lender	$ 49	$ 51	$ 68	$ (9)	$ 4

	December 31, 2012				
	Carrying Value	Average Carrying Value	Unpaid Principal Balance	Valuation Allowance	Interest Income
	(In Millions)				
With allowance recorded:					
Commercial mortgage loans:					
Primary lender	$ 53	$ 53	$ 68	$ (5)	$ 5
Mezzanine loans	2	1	11	(9)	-
Total	55	54	79	(14)	5
With no allowance recorded:					
Commercial mortgage loans:					
Mezzanine loans	-	-	13	-	-
Total impaired commercial mortgage loans	$ 55	$ 54	$ 92	$ (14)	$ 5

	December 31, 2011				
	Carrying Value	Average Carrying Value	Unpaid Principal Balance	Valuation Allowance	Interest Income
	(In Millions)				
With allowance recorded:					
Commercial mortgage loans:					
Primary lender	$ 84	$ 93	$ 103	$ (19)	$ 7
Mezzanine loans	1	3	29	(27)	-
Total	85	96	132	(46)	7
With no allowance recorded:					
Commercial mortgage loans:					
Mezzanine loans	5	12	39	-	-
Total impaired commercial mortgage loans	$ 90	$ 108	$ 171	$ (46)	$ 7

The following presents changes in the valuation allowance recorded for the Company's mortgage loans:

	Years Ended December 31,								
	2013			2012			2011		
	Commercial								
	Primary Lender	Mezzanine	Total	Primary Lender	Mezzanine	Total	Primary Lender	Mezzanine	Total
	(In Millions)								
Beginning balance	$ (5)	$ (9)	$ (14)	$ (19)	$ (27)	$ (46)	$ (71)	$ (59)	$ (130)
Additions	(19)	(7)	(26)	-	-	-	(19)	(10)	(29)
Decreases	-	9	9	3	5	8	50	1	51
Write-downs	15	7	22	11	13	24	21	41	62
Ending balance	$ (9)	$ -	$ (9)	$ (5)	$ (9)	$ (14)	$ (19)	$ (27)	$ (46)

As of December 31, 2013, the Company did not hold any past due mortgage loans and it did not hold any mortgage loans with interest past due as of December 31, 2013, 2012 or 2011. The carrying value of commercial mezzanine loans for which the Company has suspended interest accruals was $4 million as of December 31, 2013 and $13 million as of December 31, 2012. The Company had no restructured commercial mortgage loans as of December 31, 2013 and one restructured commercial mortgage loan with a total carrying value of less than $1 million as of December 31, 2012. There were no restructured residential mortgage loans as of December 31, 2013 or 2012.

f. Real estate

The carrying value of real estate was as follows:

	December 31, 2013	December 31, 2012
	(In Millions)	
Held for the production of income	$ 2,169	$ 2,214
Accumulated depreciation	(1,015)	(968)
Encumbrances	(420)	(213)
Held for the production of income, net	734	1,033
Held for sale	1	-
Occupied by the Company	256	233
Accumulated depreciation	(142)	(133)
Occupied by the Company, net	114	100
Total real estate	$ 849	$ 1,133

Properties are acquired and managed for net income growth and increasing value. Upon management's approval for the sale of a property it is classified as held for sale.

The carrying value of non-income producing real estate was $10 million as of December 31, 2013 and less than $1 million as of December 31, 2012.

Depreciation expense on real estate was $96 million for the year ended December 31, 2013, $98 million for the year ended December 31, 2012 and $97 million for the year ended December 31, 2011.

g. Partnerships and limited liability companies

Partnership and LLC holdings, at carrying value, by annual statement category are:

	December 31, 2013	December 31, 2012
	(In Millions)	
Joint venture interests:		
Common stocks	$ 3,322	$ 2,906
Real estate	1,801	1,600
Fixed maturities/preferred stock	1,349	1,482
Other	61	54
LIHTCs	270	219
Mortgage loans	205	277
Surplus notes	181	-
Total	$ 7,189	$ 6,538

There were no write-downs or reclassifications of LIHTC partnerships made during the years ended December 31, 2013 or 2012, due to forfeiture or ineligibility of tax credits or similar issues. In addition, there are no LIHTC properties currently subject to regulatory review.

h. Net investment income

Net investment income was derived from the following sources:

	Years Ended December 31, 2013	2012	2011
	(In Millions)		
Bonds	$ 3,149	$ 2,854	$ 2,763
Preferred stocks	19	14	11
Common stocks - subsidiaries and affiliates	180	29	254
Common stocks - unaffiliated	37	33	14
Mortgage loans	779	720	668
Policy loans	674	670	655
Real estate	195	190	179
Partnerships and LLCs	602	550	412
Derivatives	152	207	138
Cash, cash equivalents and short-term investments	12	12	9
Other	11	3	4
Subtotal investment income	5,810	5,282	5,107
Amortization of the IMR	189	130	113
Investment expenses	(528)	(484)	(437)
Net investment income	$ 5,471	$ 4,928	$ 4,783

i. Net realized capital gains (losses)

Net realized capital gains (losses) including OTTI were comprised of the following:

	Years Ended December 31,		
	2013	2012	2011
	(In Millions)		
Bonds	$ 18	$ 106	$ 123
Preferred stocks	14	11	-
Common stocks - subsidiaries and affiliates	33	63	18
Common stocks - unaffiliated	49	13	21
Mortgage loans	(20)	22	(61)
Real estate	54	21	30
Partnerships and LLCs	(46)	(40)	(27)
Derivatives	(735)	(67)	458
Other	(39)	(5)	2
Net realized capital (losses) gains before federal and state taxes and deferral to the IMR	(672)	124	564
Net federal and state tax (expense) benefit	(147)	293	(174)
Net realized capital (losses) gains before deferral to the IMR	(819)	417	390
Net after tax losses (gains) deferred to the IMR	342	(308)	(589)
Net realized capital (losses) gains	$ (477)	$ 109	$ (199)

The IMR liability balance was $498 million as of December 31, 2013 and $690 million as of December 31, 2012 and was included in other liabilities on the Statutory Statements of Financial Position.

Refer to *Note 2v. "Interest maintenance reserve"* for information on the Company's policy for IMR.

OTTI, included in the net realized capital gains (losses) above, consisted of the following:

	Years Ended December 31,		
	2013	2012	2011
	(In Millions)		
Bonds	$ (32)	$ (148)	$ (161)
Common stocks	(16)	(4)	(3)
Mortgage loans	(22)	(23)	(64)
Partnerships and LLCs	(45)	(97)	(54)
Total OTTI	$ (115)	$ (272)	$ (282)

For the years ended December 31, 2013, 2012 and 2011, the Company recognized $18 million, $98 million and $138 million, respectively, of OTTI on structured and loan-backed securities primarily due to the present value of expected cash flows being less than the amortized cost.

For the year ended December 31, 2013, 25% of the $32 million of bond OTTI were determined using internally developed models. For the year ended December 31, 2012, 64% of the $148 million of bond OTTI were determined using internally developed models. For the year ended December 31, 2011, 86% of the $161 million of bond OTTI were determined using internally developed models.

The remaining OTTI amounts were determined using external inputs such as publicly observable fair values and credit ratings. Refer *to Note 2bb. "Realized capital gains (losses) including other-than-temporary impairments and unrealized capital gains (losses)"* for more information on assumptions and inputs used in the Company's OTTI models.

Refer to *Note 22. "Impairment listing for loan-backed and structured securities"* for a CUSIP level list of impaired structured securities where the present value of cash flows expected to be collected is less than the amortized cost basis.

j. Repurchase agreements

The Company had repurchase agreements with carrying values of $3,487 million as of December 31, 2013 and $3,822 million as of December 31, 2012. As of December 31, 2013, the maturities of these agreements ranged from January 2, 2014 through January 15, 2014 and the interest rates ranged from 0.1% to 0.2%. The outstanding amounts were collateralized by cash and bonds with a value of $3,496 million as of December 31, 2013 and $3,868 million as of December 31, 2012.

k. Derivatives

The Company uses derivative financial instruments in the normal course of business to manage risks, primarily to reduce currency, interest rate and duration imbalances determined in asset/liability analyses. The Company also uses a combination of derivatives and fixed income investments to create synthetic investment positions. These combined investments are created opportunistically when they are economically more attractive than the actual instrument or when the simulated instruments are unavailable. Synthetic assets can be created either to hedge and reduce the Company's credit exposure or to create an investment in a particular asset. The Company held synthetic assets with a net notional amount of $4,152 million as of December 31, 2013 and $2,745 million as of December 31, 2012. Of this amount, $3,055 million as of December 31, 2013 and $1,469 million as of December 31, 2012, were considered replicated asset transactions as defined under statutory accounting principles as the pairing of a long derivative contract with a cash instrument held. The Company's derivative strategy employs a variety of derivative financial instruments, including interest rate swaps, currency swaps, equity and credit default swaps, options, interest rate caps and floors, forward contracts and financial futures. Investment risk is assessed on a portfolio basis and individual derivative financial instruments are not generally designated in hedging relationships; therefore, as allowed by accounting rules, the Company intentionally has not applied hedge accounting.

Under interest rate swaps, the Company agrees, at specified intervals, to an exchange of variable rate and fixed rate interest payments calculated by reference to an agreed upon notional principal amount. Typically, no cash is exchanged at the outset of the contract and no principal payments are made by either party. Cash is paid or received based on the terms of the swap. These transactions are entered pursuant to master agreements that provide for a single net payment to be made by one counterparty at each due date. Interest rate swaps are primarily used to more closely match the cash flows of assets and liabilities. Interest rate swaps are also used to mitigate changes in the value of assets anticipated to be purchased and other anticipated transactions and commitments.

Under currency swaps, the Company agrees to an exchange of principal denominated in two different currencies at current rates, under an agreement to repay the principal at a specified future date and rate. The Company uses currency swaps for the purpose of managing currency exchange risks in its assets and liabilities.

Credit default swaps involve a transfer of the credit risk of fixed income instruments from one party to another in exchange for periodic premium payments. The buyer of the credit default swap receives credit protection, whereas the seller of the swap provides protection for the credit worthiness of the underlying security. A credit default swap transfers the risk of default from the buyer of the swap to the seller. If a specified credit event occurs, as defined by the agreement, the seller is obligated to pay the counterparty the contractually agreed upon amount and receives in return the underlying security in an amount equal to the notional value of the credit default swap. A credit event is generally defined as default on contractually obligated interest or principal payments or bankruptcy.

The Company does not sell credit default swaps as a participant in the credit insurance market. The Company does, however, use credit default swaps as part of its investment management process. The Company buys credit default swaps as an efficient means to reduce credit exposure to particular issuers or sectors in the Company's investment portfolio. The Company sells credit default swaps in order to create synthetic investment positions that enhance the return on its investment portfolio by providing comparable exposure to fixed income securities that might not be available in the primary market.

Options grant the purchaser the right to buy or sell a security or enter a derivative transaction at a stated price within a stated period. The Company's option contracts have terms of up to 15 years. A swaption is an option to enter an interest rate swap to either receive or pay a fixed rate at a future date. The Company purchases these options to protect against undesirable financial effects resulting from interest rate exposures that exist in its assets and/or liabilities.

Interest rate cap agreements are option contracts in which the seller agrees to limit the purchaser's risk associated with an increase in a reference rate or index in return for a premium. When interest rates increase, caps and payer swaptions increase in value, helping to support the asset portfolio in an environment where policyholders may surrender policies to take advantage of higher yields available on alternative products. Interest rate floor agreements are option contracts in which the seller agrees to limit the purchaser's risk associated with a decline in a reference rate or index in return for a premium. When interest rates decrease, floors and receiver swaptions increase in value helping to support the portfolio yield in an environment where new investments offer less yield, but policyholders continue to receive competitive credited rates due to contractual minimums. The Company is exposed to policyholder surrenders during a rising interest rate environment. Interest rate cap and swaption contracts are used to mitigate the Company's loss as interest rates rise. These derivative instruments are used to reduce the duration risk of fixed maturity investments to match certain life insurance products in accordance with the Company's asset and liability management policy.

The Company adopted a clearly defined hedging strategy (CDHS) to enable the Company to incorporate currently held hedges in RBC calculations. The CDHS is used to significantly mitigate the impact that movements in capital markets have on the liabilities associated with annuity guarantees. The hedge portfolio is comprised mainly of interest rate swaps, equity swaps, interest rate swaptions and equity futures, and provides protection in the stress scenarios under which RBC is calculated. The hedge portfolio has offsetting impacts relative to the total asset requirement for RBC and surplus for GMDBs and VAGLBs.

The Company utilizes certain other agreements including forward contracts and financial futures to reduce exposures to various risks. Forward contracts and financial futures are used by the Company to manage market risks relating to interest rates. Currency forwards are contracts in which the Company agrees with other parties to exchange specified amounts of identified currencies at a specified future date. Typically, the exchange is agreed upon at the time of the contract. In addition, the Company also uses "to be announced" forward contracts (TBAs) to hedge interest rate risk and participate in the mortgage-backed securities market in an efficient and cost effective way. Typically, the price is agreed upon at contract inception and payment is made at a specified future date. The Company usually does not purchase TBAs with settlement by the first possible delivery date and thus accounts for these TBAs as derivatives. TBAs that settle on the first possible delivery date are accounted for as bonds. The Company's futures contracts are exchange traded and have credit risk. Margin requirements are met with the deposit of securities. Futures contracts are generally settled with offsetting transactions.

The Company's principal derivative market risk exposures are interest rate risk, which includes the impact of inflation, and credit risk. Interest rate risk pertains to the change in fair value of the derivative instruments as market interest rates move. The Company is exposed to credit-related losses in the event of nonperformance by counterparties to derivative financial instruments. To minimize credit risk, the Company and its derivative counterparties generally enter into master agreements that require collateral to be posted in the amount owed under each transaction, subject to minimum transfer amounts. These same master agreements allow for contracts in a positive position, in which the Company is due amounts, to be offset by contracts in a negative position. This right of offset, combined with collateral obtained from counterparties, reduces the Company's exposure. Net collateral pledged by the counterparties was $752 million as of December 31, 2013 and $2,257 million as of December 31, 2012. In the event of default the full market value exposure at risk in a net gain position, net of offsets and collateral, was $53 million as of December 31, 2013 and $30 million as of December 31, 2012. The statutory

reporting rules define net amount at risk as net collateral pledged and statement values excluding accrued interest. The net amount at risk was $338 million as of December 31, 2013 and $110 million as of December 31, 2012. The Company regularly monitors counterparty credit ratings and exposures, derivative positions and valuations and the value of collateral posted to ensure counterparties are credit-worthy and the concentration of exposure is minimized. The Company monitors this exposure as part of its management of the Company's overall credit exposures.

The following summarizes the carrying values and notional amounts of the Company's derivative financial instruments:

	December 31, 2013			
	Assets		Liabilities	
	Carrying Value	Notional Amount	Carrying Value	Notional Amount
	(In Millions)			
Interest rate swaps	$ 5,804	$ 54,851	$ 4,235	$ 48,950
Options	200	8,604	1	83
Currency swaps	87	379	130	2,120
Forward contracts	13	470	40	3,332
Credit default swaps	13	1,132	12	752
Financial futures - long positions	-	1,710	-	-
Financial futures - short positions	-	479	-	-
Total	$ 6,117	$ 67,625	$ 4,418	$ 55,237

	December 31, 2012			
	Assets		Liabilities	
	Carrying Value	Notional Amount	Carrying Value	Notional Amount
	(In Millions)			
Interest rate swaps	$ 2,403	$ 104,023	$ 156	$ 8,993
Options	305	9,583	(4)	43
Currency swaps	121	1,327	50	575
Forward contracts	16	3,199	-	249
Credit default swaps	13	1,164	-	35
Financial futures - long positions	-	2,270	-	-
Financial futures - short positions	-	352	-	-
Total	$ 2,858	$ 121,918	$ 202	$ 9,895

Derivative assets and derivative liabilities in the current year are presented on a gross basis per amendments to SSAP No. 86, "Accounting for Derivative Instruments and Hedging Activities". Prior year amounts that were presented on a net basis have not been restated as the amendments were effective on a prospective basis. For 2012, the balance of derivative assets on a gross basis was $8,931 million and the balance of derivative liabilities on a gross basis was $6,275 million. In addition, Derivative due and accrued (which reside in other than invested assets) and interest expense (which reside in other liabilities) were not restated to conform to current year presentation. For the prior year, the balance of derivative income due and accrued was $569 million and the balance of derivative interest expense was $999 million.

In most cases, the notional amounts are not a measure of the Company's credit exposure. The exceptions to this rule are credit default swaps that are in the form of a replicated asset and mortgage-backed forwards. In the event of default, the Company is fully exposed to the notional amounts of $2,321 million as of December 31, 2013 and

$2,745 million as of December 31, 2012. Collateral is exchanged for all derivative types except mortgage-backed forwards. For all other contracts, the collateral amounts exchanged are calculated on the basis of the notional amounts and the other terms of the instruments, which relate to interest rates, exchange rates, security prices or financial or other indices.

The weighted average fair value of outstanding derivative financial instrument assets was $6,008 million for the year ended December 31, 2013 and was $3,035 million for the year ended December 31, 2012. The weighted average fair value of outstanding derivative financial instrument liabilities was $3,752 million for the year ended December 31, 2013 and was $183 million for the year ended December 31, 2012.

The following represents the Company's gross notional interest rate swap positions:

	December 31, 2013	December 31, 2012
	(In Millions)	
Open interest rate swaps in a fixed pay position	$ 50,735	$ 60,608
Open interest rate swaps in a fixed receive position	52,118	50,408
Other interest related swaps	948	2,000
Total interest rate swaps	$ 103,801	$ 113,016

The following summarizes the Company's net realized gains (losses) on closed contracts and change in net unrealized gains (losses) related to market fluctuations on open contracts by derivative type:

	Year ended December 31, 2013	
	Net Realized Gains (Losses) on Closed Contracts	Change In Net Unrealized Gains (Losses) on Open Contracts
	(In Millions)	
Interest rate swaps	$ (137)	$ (679)
Currency swaps	35	(113)
Options	(49)	(120)
Credit default swaps	(18)	7
Forward contracts	(38)	(44)
Financial futures - long positions	(387)	-
Financial futures - short positions	(141)	-
Total	$ (735)	$ (949)

	Year Ended December 31, 2012	
	Net Realized Gains (Losses) on Closed Contracts	Change In Net Unrealized Gains (Losses) on Open Contracts
	(In Millions)	
Interest rate swaps	$ (58)	$ (212)
Currency swaps	(41)	13
Options	17	(309)
Credit default swaps	4	(28)
Forward contracts	131	(32)
Financial futures - long positions	106	-
Financial futures - short positions	(226)	-
Total	$ (67)	$ (568)

	Year Ended December 31, 2011	
	Net Realized Gains (Losses) on Closed Contracts	Change In Net Unrealized Gains on Open Contracts
	(In Millions)	
Interest rate swaps	$ 1	$ 549
Currency swaps	(3)	35
Options	(85)	320
Credit default swaps	4	11
Forward contracts	117	28
Financial futures - long positions	709	-
Financial futures - short positions	(285)	-
Total	$ 458	$ 943

The following summarizes gross and net information of derivative assets and liabilities, along with collateral posted in connection with master netting agreements:

	December 31, 2013					
	Gross	Due & Accrued	Gross Amounts Offset	Net	Collateral Posted	Net Amount
	(In Millions)					
Derivative assets	$ 6,117	$ 603	$ (4,061)	$ 2,659	$ (1,498)	$ 1,161
Derivative liabilities	4,418	1,178	(4,061)	1,535	(746)	789
Net	$ 1,699	$ (575)	$ -	$ 1,124	$ (752)	$ 372

	December 31, 2012					
	Gross	Due & Accrued	Gross Amounts Offset	Net	Collateral Posted	Net Amount
	(In Millions)					
Derivative assets	$ 8,931	$ 569	$ (6,619)	$ 2,881	$ (2,910)	$ (29)
Derivative liabilities	6,275	1,000	(6,619)	656	(653)	3
Net	$ 2,656	$ (431)	$ -	$ 2,225	$ (2,257)	$ (32)

5. Fair value of financial instruments

The following presents a summary of the carrying values and fair values of the Company's financial instruments:

	December 31, 2013				
	Carrying Value	Fair Value	Level 1	Level 2	Level 3
	(In Millions)				
Financial assets:					
Bonds:					
U. S. government and agencies	$ 6,553	$ 6,961	$ -	$ 6,952	$ 9
All other governments	211	227	-	197	30
States, territories and possessions	1,894	1,901	-	1,891	10
Special revenue	4,461	4,875	-	4,875	-
Industrial and miscellaneous	48,652	50,068	-	33,183	16,885
Parent, subsidiaries and affiliates	5,425	5,723	-	1,519	4,204
Preferred stocks	494	510	1	86	423
Common stocks - unaffiliated	928	928	320	423	185
Common stocks - subsidiaries and affiliates[(1)]	880	880	303	210	367
Mortgage loans - commercial	14,647	14,794	-	-	14,794
Mortgage loans - residential	1,818	1,763	-	-	1,763
Cash, cash equivalents and short-term investments	4,198	4,198	524	3,674	-
Separate account assets	58,392	58,392	38,867	19,035	490
Derivatives:					
Interest rate swaps	5,804	5,804	-	5,804	-
Options	200	200	-	200	-
Currency swaps	87	87	-	87	-
Forward contracts	13	13	-	13	-
Credit default swaps	13	22	-	22	-
Financial liabilities:					
Commercial paper	250	250	-	250	-
Repurchase agreements	3,487	3,487	-	3,487	-
Guaranteed investment contracts	4,028	4,067	-	-	4,067
Group annuity contracts and other deposits	17,267	18,603	-	-	18,603
Individual annuity contracts	6,109	6,911	-	-	6,911
Supplementary contracts	1,028	1,028	-	-	1,028
Derivatives:					
Interest rate swaps	4,235	4,632	-	4,632	-
Options	1	1	-	1	-
Currency swaps	130	130	-	130	-
Forward contracts	40	40	-	40	-
Credit default swaps	12	12	-	12	-

[(1)]Common stocks - subsidiaries and affiliates do not include MMHLLC, which had a statutory carrying value of $4,491 million, and C.M. Life Insurance Company, which had a statutory carrying value of $1,079 million.

	December 31, 2012				
	Carrying Value	Fair Value	Level 1	Level 2	Level 3
	(In Millions)				
Financial assets:					
Bonds:					
U. S. government and agencies	$ 7,654	$ 8,796	$ -	$ 8,783	$ 13
All other governments	126	164	-	133	31
States, territories and possessions	1,449	1,641	-	1,641	-
Special revenue	3,983	4,945	-	4,945	-
Industrial and miscellaneous	38,419	42,199	-	26,930	15,269
Parent, subsidiaries and affiliates	5,260	5,473	-	1,433	4,040
Preferred stocks	336	358	-	73	285
Common stocks - unaffiliated	834	834	620	59	155
Common stocks - subsidiaries and affiliates[(1)]	543	543	-	363	180
Mortgage loans - commercial	11,812	12,147	-	-	12,147
Mortgage loans - residential	2,145	2,162	-	-	2,162
Cash, cash equivalents and short-term investments	2,816	2,816	729	2,087	-
Separate account assets	52,340	52,340	35,306	16,524	510
Derivatives:					
Interest rate swaps	2,403	2,382	-	2,382	-
Options	305	305	-	305	-
Currency swaps	121	121	-	121	-
Forward contracts	16	16	-	16	-
Credit default swaps	13	13	-	13	-
Financial liabilities:					
Commercial paper	250	250	-	250	-
Repurchase agreements	3,822	3,822	-	3,822	-
Guaranteed investment contracts	4,054	4,154	-	-	4,154
Group annuity contracts and other deposits	7,606	8,783	-	-	8,783
Individual annuity contracts	5,154	6,129	-	-	6,129
Supplementary contracts	1,020	1,021	-	-	1,021
Derivatives:					
Interest rate swaps	156	157	-	157	-
Options	(4)	(4)	-	(4)	-
Currency swaps	50	50	-	50	-

[(1)]Common stocks - subsidiaries and affiliates do not include MMHLLC, which had a statutory carrying value of $4,271 million, and C.M. Life Insurance Company, which had a statutory carrying value of $961 million.

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The authoritative guidance around fair value establishes a measurement framework that includes a hierarchy used to classify the inputs used in measuring fair value. The hierarchy prioritizes the inputs to valuation techniques into three levels. Each level reflects a unique description of the inputs that are significant to the fair value measurements. The levels of the fair value hierarchy are as follows:

Level 1 – Observable inputs in the form of quoted prices for identical instruments in active markets.

Level 2 – Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active or other inputs that are observable or can be derived from observable market data for substantially the full term of the assets or liabilities.

Level 3 – One or more unobservable inputs that are supported by little or no market activity and are significant to the fair value of the assets or liabilities. Level 3 assets and liabilities include financial instruments whose value is determined using internal models, as well as instruments for which the determination of fair value requires significant management judgment or estimation.

When available, the Company generally uses unadjusted quoted market prices from independent sources to determine the fair value of investments, and classifies such items within Level 1 of the fair value hierarchy. If quoted prices are not available, prices are derived from observable market data for similar assets in an active market or obtained directly from brokers for identical assets traded in inactive markets. Investments that are priced using these inputs are classified within Level 2 of the fair value hierarchy. When some of the necessary observable inputs are unavailable, fair value is based upon internally developed models. These models use inputs not directly observable or correlated with observable market data. Typical inputs, which are integrated in the Company's internal discounted cash flow models and discounted earnings models include, but are not limited to, issuer spreads derived from internal credit ratings and benchmark yields such as London Inter-Bank Offered Rate (LIBOR), cash flow estimates and earnings before interest, taxes, depreciation and amortization estimates. Investments that are priced with such unobservable inputs are classified within Level 3 of the fair value hierarchy.

The Company has established and maintains policies and guidelines that govern its valuation methodologies and their consistent application. These policies and guidelines address the use of inputs, price source hierarchies and provide controls around the valuation processes. These controls include appropriate review and analysis of prices against market activity or indicators for reasonableness, approval of price source changes, price overrides, methodology changes and classification of fair value hierarchy levels. The valuation policies and guidelines are reviewed and updated as appropriate.

Annually, the Company reviews the primary pricing vendor to validate that the inputs used in that vendor's pricing process are deemed to be market observable as defined above. While the Company was not provided access to proprietary models of the vendor, the reviews have included on-site walk-throughs of the pricing process, methodologies and control procedures for each asset class and level for which prices are provided. The review also included an examination of the underlying inputs and assumptions for a sample of individual securities across asset classes. In addition, the Company and its pricing vendors have an established challenge process in place for all security valuations, which facilitates identification and resolution of prices that fall outside expected ranges. The Company believes that the prices received from the pricing vendors are representative of prices that would be received to sell the assets at the applicable measurement date (exit prices) and are classified appropriately in the hierarchy.

The Company reviews the fair value hierarchy classifications at each reporting period. Overall, reclassifications between levels occur when there are changes in the observability of inputs and market activity used in the valuation of a financial asset or liability. Such reclassifications are reported as transfers between levels at the beginning fair value for the reporting period in which the changes occur. Given the types of assets classified as Level 1 (primarily equity securities including mutual fund investments), transfers between Level 1 and Level 2 measurement categories are expected to be infrequent. Transfers into and out of Level 3 are summarized in the schedule of changes in Level 3 assets and liabilities.

The fair value for investment-type insurance contracts and guaranteed investment contracts is determined as follows:

The fair value of group annuity contracts and other deposits is determined by multiplying the book value of the contract by an average market value adjustment factor. The market value adjustment factor is directly related to the difference between the book value of client liabilities and the present value of installment payments discounted at current market value yields. The market value yield is measured by the Barclay's Aggregate Bond Index, subject to certain adjustments, and the installment period is equivalent to the duration of the Company's invested asset portfolio.

The fair value of individual annuity and supplementary contracts is determined using one of several methods based on the specific contract type. For short-term contracts, generally less than 30 days, the fair value is assumed to be the book value. For contracts with longer durations, guaranteed investment contracts and investment-type contracts, the fair value is determined by calculating the present value of future cash flows discounted at current market interest rates, the risk-free rate or a current pricing yield curve based on pricing assumptions using assets of a comparable corporate bond quality. Annuities receiving dividends are accumulated at the average minimum guaranteed rate and discounted at the risk-free rate. All others are valued using cash flow projections from the Company's asset-liability management analysis.

The following presents the Company's fair value hierarchy for assets and liabilities that are carried at fair value:

	December 31, 2013			
	Level 1	Level 2	Level 3	Total
	(In Millions)			
Financial assets:				
Bonds:				
All other governments	$ -	$ 1	$ -	$ 1
Industrial and miscellaneous	-	5	23	28
Parent, subsidiaries and affiliates	-	172	-	172
Preferred stocks	-	-	1	1
Common stocks - unaffiliated	320	423	185	928
Common stocks - subsidiaries and affiliates[(1)]	303	210	367	880
Separate account assets	38,867	19,035	490	58,392
Derivatives:				
Interest rate swaps	-	5,804	-	5,804
Options	-	200	-	200
Currency swaps	-	87	-	87
Forward contracts	-	13	-	13
Credit default swaps	-	2	-	2
Total financial assets carried at fair value	$ 39,490	$ 25,952	$ 1,066	$ 66,508
Financial liabilities:				
Repurchase agreements	$ -	$ 3,487	$ -	$ 3,487
Derivatives:				
Interest rate swaps	-	4,235	-	4,235
Options	-	1	-	1
Currency swaps	-	130	-	130
Forward contracts	-	40	-	40
Credit default swaps	-	7	-	7
Total financial liabilities carried at fair value	$ -	$ 7,900	$ -	$ 7,900

[(1)]*Common stocks – subsidiaries and affiliates do not include MMHLLC, which had a statutory carrying value of $4,491 million, and C.M. Life Insurance Company, which had a statutory carrying value of $1,079 million.*

For the year ended December 31, 2013, $173 million of equity securities were transferred from Level 1 to Level 2 and $232 million were transferred from Level 2 to Level 1. For the year ended December 31, 2012, there were no significant transfers between Level 1 and Level 2.

	December 31, 2012				
	Level 1	Level 2	Level 3	Netting[1]	Total
	(In Millions)				
Financial assets:					
Bonds:					
Industrial and miscellaneous	$ -	$ 14	$ 12	$ -	$ 26
Parent, subsidiaries and affiliates	-	3	-	-	3
Common stocks - unaffiliated	620	59	155	-	834
Common stocks - subsidiaries and affiliates[2]	-	363	180	-	543
Separate account assets	35,306	16,524	510	-	52,340
Derivatives:					
Interest rate swaps	-	8,360	-	(5,957)	2,403
Options	-	342	-	(37)	305
Currency swaps	-	163	-	(42)	121
Forward contracts	-	45	-	(29)	16
Credit default swaps	-	21	-	(8)	13
Total financial assets carried at fair value	$ 35,926	$ 25,894	$ 857	$ (6,073)	$ 56,604
Financial liabilities:					
Repurchase agreements	$ -	$ 3,822	$ -	$ -	$ 3,822
Derivatives:					
Interest rate swaps	-	6,113	-	(5,957)	156
Options	-	33	-	(37)	(4)
Currency swaps	-	92	-	(42)	50
Forward contracts	-	29	-	(29)	-
Credit default swaps	-	8	-	(8)	-
Total financial liabilities carried at fair value	$ -	$ 10,097	$ -	$ (6,073)	$ 4,024

[1]*Netting adjustments represent offsetting positions that may exist under a master netting agreement with a counterparty where amounts due from the counterparty are offset against amounts due to the counterparty.*

[2]*Common stocks – subsidiaries and affiliates do not include MMHLLC, which had a statutory carrying value of $4,271 million, and C.M. Life Insurance Company, which had a statutory carrying value of $961 million.*

Valuation Techniques and Inputs

The Company determines the fair value of its investments using primarily the market approach or the income approach. The use of quoted prices for identical assets and matrix pricing or other similar techniques are examples of market approaches, while the use of discounted cash flow methodologies is an example of the income approach. The Company attempts to maximize the use of observable inputs and minimize the use of unobservable inputs in selecting whether the market or the income approach is used.

A description of the significant valuation techniques and inputs to the determination of estimated fair value for the more significant asset and liability classes measured at fair value on a recurring basis and categorized within Level 2 and Level 3 of the fair value hierarchy is as follows:

Separate account assets - These assets primarily include bonds (industrial and miscellaneous; U.S. government and agencies), and derivatives. Their fair values are determined as follows:

> *Bonds (Industrial and miscellaneous)* - These securities are principally valued using the market or the income approaches. Level 2 valuations are based primarily on quoted prices in markets that are not active, broker quotes, matrix pricing or other similar techniques that use standard market observable inputs such as benchmark yields, spreads versus benchmark yields, new issuances, issuer ratings, duration, and trades of identical or comparable securities. Privately placed securities are valued using discounted cash flow models using standard market observable inputs, and inputs derived from, or corroborated by, market observable data including market yield curve, duration, call provisions, observable prices and spreads for similar publicly traded or privately traded issues that incorporate the credit quality and industry sector of the issuer. This level also includes securities priced by independent pricing services that use observable inputs. Valuations based on matrix pricing or other similar techniques that utilize significant unobservable inputs or inputs that cannot be derived principally from, or corroborated by, observable market data, including adjustments for illiquidity, delta spread adjustments or spreads to reflect industry trends or specific credit−related issues are classified as Level 3. In addition, inputs including quoted prices for identical or similar securities that are less liquid and based on lower levels of trading activity than securities classified in Level 2 are classified as Level 3.
>
> *Bonds (U.S. government and agencies)* - These securities are principally valued using the market approach. Level 2 valuations are based primarily on quoted prices in markets that are not active, or using matrix pricing or other similar techniques using standard market observable inputs such as the benchmark U.S. Treasury yield curve, the spreads versus the U.S. Treasury yield curve for the identical security and comparable securities that are actively traded.

Derivative assets and liabilities - These financial instruments are primarily valued using the market approach. The estimated fair value of derivatives is based primarily upon quotations obtained from counterparties and independent sources, such as quoted market values received from brokers. These quotations are compared to internally derived prices and a price challenge is lodged with the counterparties and an independent source when a significant difference cannot be explained by appropriate adjustments to the internal model. When quoted market values are not reliable or available, the value is based upon an internal valuation process using market observable inputs that other market participants would use. Significant inputs to the valuation of derivative financial instruments include overnight index swaps (OIS) and LIBOR basis curves, interest rate volatility, swap yield curve, currency spot rates, cross currency basis curves and dividend yields. Due to the observability of the significant inputs to these fair value measurements, they are classified as Level 2.

The use of different assumptions or valuation methodologies may have a material impact on the estimated fair value amounts. For the periods presented, there were no significant changes to the Company's valuation techniques.

The following presents changes in the Company's Level 3 assets carried at fair value:

	Year Ended December 31, 2013					
	Bonds Industrial and Miscellaneous	Preferred Stock	Common Stock Unaffiliated	Common Stock Affiliated	Separate Account Assets	Total Level 3 Financial Assets Carried at Fair Value
	(In Millions)					
Balance as of January 1, 2013	$ 12	$ -	$ 155	$ 180	$ 510	$ 857
Gains in net income	3	13	-	-	135	151
(Losses) gains in surplus	1	-	(14)	(2)	-	(15)
Purchases	9	-	52	15	103	179
Issuances	7	-	-	190	-	197
Sales	-	(14)	(7)	(1)	(461)	(483)
Settlements[1]	(38)	-	(1)	(15)	203	149
Other transfers	29	2	-	-	-	31
Balance as of December 31, 2013	$ 23	$ 1	$ 185	$ 367	$ 490	$ 1,066

[1]The fair value of real estate separate accounts is carried net of encumbrances on the Statutory Statements of Financial Position and the change in encumbrances are included in the settlements within separate account assets.

	Year Ended December 31, 2012				
	Bonds Industrial and Miscellaneous	Common Stock Unaffiliated	Common Stock Affiliated	Separate Account Assets	Total Level 3 Financial Assets Carried at Fair Value
	(In Millions)				
Balance as of January 1, 2012	$ 16	$ 166	$ 305	$ 396	$ 883
Gains (losses) in net income	(16)	8	26	37	55
Gains (losses) in surplus	5	(10)	10	-	5
Purchases	8	-	144	69	221
Issuances	16	-	-	-	16
Sales	(3)	(7)	(305)	(175)	(490)
Settlements[1]	(26)	(2)	-	92	64
Transfers in[2]	1	-	-	91	92
Other transfers	11	-	-	-	11
Balance as of December 31, 2012	$ 12	$ 155	$ 180	$ 510	$ 857

[1]The fair value of real estate separate accounts is carried net of encumbrances on the Statutory Statements of Financial Position and the change in encumbrances is included in the settlements within separate account assets.

[2]Transfers in include assets that are consistently carried at fair value but have had a level change. Generally transfers out of Level 3 occur when quoted prices are received in markets that have not been active, and therefore the assets are moved to Level 2. The separate account assets transferred into Level 3 were transferred from Level 2 due to a change in the pricing source.

6. *Fixed assets*

The Company's admitted fixed assets, comprised of EDP equipment, were $38 million and $25 million, net of accumulated depreciation of $195 million and $180 million, as of December 31, 2013 and 2012, respectively. The depreciation expense on all fixed assets was $53 million, $44 million and $30 million for the years ended December 31, 2013, 2012 and 2011, respectively.

7. *Deferred and uncollected life insurance premium*

Deferred and uncollected life insurance premium, net of loading and reinsurance, are included in other than invested assets in the Company's Statutory Statements of Financial Position. The following summarizes the deferred and uncollected life insurance premium on a gross basis, as well as, net of loading and reinsurance:

	December 31,			
	2013		2012	
	Gross	Net	Gross	Net
	(In Millions)			
Ordinary new business	$ 89	$ 30	$ 78	$ 26
Ordinary renewal	557	613	536	591
Group life	11	11	12	12
Total	$ 657	$ 654	$ 626	$ 629

Deferred premium is the portion of the annual premium not earned at the reporting date. Loading on deferred premium is an amount obtained by subtracting the valuation net deferred premium from the gross deferred premium and generally includes allowances for acquisition costs and other expenses. Refer to *Note 2q. "Policyholders' reserves"* for information on the Company's accounting policies regarding gross premium and net premium.

Uncollected premium is gross premium net of reinsurance that is due and unpaid as of the reporting date, net of loading. Net premium is the amount used in the calculation of reserves. The change in loading is included as an expense and is not shown as a reduction to premium income.

Ordinary new business and ordinary renewal business consist of the basic amount of premium required on the underlying life insurance policies.

8. *Surplus notes*

The following table summarizes the surplus notes issued and outstanding as of December 31, 2013:

Issue Date	Face Amount	Carrying Value	Interest Rate	Maturity Date
	($ In Millions)			
11/15/1993	$ 250	$ 250	7.625%	11/15/2023
03/01/1994	100	100	7.500%	03/01/2024
05/15/2003	250	249	5.625%	05/15/2033
06/01/2009	750	742	8.875%	06/01/2039
01/17/2012	400	399	5.375%	12/01/2041
Total	$ 1,750	$ 1,740		

These notes are unsecured and subordinate to all present and future indebtedness of the Company, all policy claims and all prior claims against the Company as provided by the Massachusetts General Laws. The surplus notes are all held by bank custodians for unaffiliated investors. All issuances were approved by the Division. Surplus notes are included in surplus on the Statutory Statements of Financial Position.

All payments of interest and principal are subject to the prior approval of the Division. Anticipated sinking fund payments are due for the notes issued in 1993 and 1994 as follows: $62 million in 2021, $88 million in 2022, $150 million in 2023 and $50 million in 2024. There are no sinking fund requirements for the notes issued in 2003, 2009 or 2012. Scheduled interest on the notes issued in 1993 and 2003 is payable on May 15 and November 15 of each year to holders of record on the preceding May 1 or November 1, respectively. Scheduled interest on the note issued in 1994 is payable on March 1 and September 1 of each year to holders of record on the preceding February 15 or August 15, respectively. Scheduled interest on the notes issued in 2009 and 2012 is payable on June 1 and December 1 of each year to holders of record on the preceding May 15 and November 15, respectively. Interest expense is not recorded until approval for payment is received from the Division. As of December 31, 2013, the unapproved interest was $14 million. Through December 31, 2013, the Company has paid cumulative interest of $1,015 million on surplus notes. Interest of $129 million, $126 million and $107 million was approved and paid during the years ended December 31, 2013, 2012 and 2011, respectively.

9. Related party transactions

The Company has management and service contracts and cost-sharing arrangements with various subsidiaries and affiliates where the Company, for a fee, will furnish a subsidiary or affiliate, as required, operating facilities, human resources, computer software development and managerial services. Fees from C.M. Life accounted for $51 million in 2013, $56 million in 2012 and $62 million in 2011.

The Company has agreements with its subsidiaries and affiliates, including OFI and Baring International Investment Limited, where the Company receives revenue for certain recordkeeping and other services that the Company provides to customers who select, as investment options, mutual funds managed by these affiliates.

The Company has agreements with its subsidiaries, Babson Capital Management LLC (Babson Capital) and Cornerstone Real Estate Advisers, LLC (CREA) and OFI, which provide investment advisory services to the Company.

The following table summarizes the transactions between the Company and the related parties:

	Years Ended December 31,		
	2013	2012	2011
	(In Millions)		
Fee income:			
Management and service contracts and cost-sharing arrangements	$ 214	$ 152	$ 169
Recordkeeping and other services	50	50	53
Investment advisory income	27	25	25
Fee expense:			
Investment advisory services	239	198	177

The Company reported $63 million and $34 million as amounts due from subsidiaries and affiliates as of December 31, 2013 and 2012, respectively. The Company reported $46 million and $30 million as amounts due to subsidiaries and affiliates as of December 31, 2013 and 2012, respectively. Terms generally require settlement of these amounts within 30 to 90 days.

The Company's subsidiaries, Babson Capital and CREA, invest a portion of their nonqualified compensation plan in interest guarantee contracts with the Company. Interest credited on deposits to the Babson Capital and CREA contracts was $5 million for the years ended December 31, 2013 and 2012 and $4 million for the year ended December 31, 2011.

The Company had two modified coinsurance (Modco) agreements with the Japanese subsidiary of MMHLLC, MassMutual Life Insurance Company, on certain life insurance products. Under these Modco agreements, the Company was the reinsurer and the Japanese subsidiary retained the reserve and associated assets on individual life insurance policies. The predominant contract types were whole life, endowments and term insurance. The Modco agreements allowed the Japanese subsidiary to keep control of the investment and management of the assets supporting the reserves. The Modco adjustment was the mechanism by which the Company funded the reserve on the reinsured portion of the risk. It was needed to adjust for the financial effect of the Japanese subsidiary holding the reserves on the ceded coverage rather than the Company. These two Modco agreements were recaptured, effective May 31, 2013, resulting in a $7 million increase to income due to the recapture fee paid to the Company from the Japanese subsidiary.

The following summarizes the related party reinsurance transactions between the Company and the Japanese subsidiary:

	Years Ended December 31,		
	2013	2012	2011
	(In Millions)		
Premium assumed	$ 8	$ 20	$ 23
Modified coinsurance adjustments, included in fees and other income	7	18	15
Expense allowances on reinsurance assumed, included in other expense	(1)	(2)	(2)
Policyholders' benefits	(11)	(25)	(32)
Recapture fee	7	-	-

The Company has reinsurance agreements with its subsidiary, C.M. Life, and its indirect subsidiary, MML Bay State, including stop-loss, coinsurance, Modco and yearly renewable term agreements on life insurance products. The Company also has coinsurance agreements with C.M. Life where the Company assumes substantially all of the premium on certain universal life policies. As of December 31, 2013 and 2012, the net amounts due to C.M. Life and MML Bay State were $32 million and $38 million, respectively. These outstanding balances are due and payable with terms ranging from monthly to annually, depending on the agreement in effect.

The following table summarizes the reinsurance transactions for these agreements:

	Years Ended December 31,		
	2013	2012	2011
	(In Millions)		
Premium assumed	$ 68	$ 73	$ 78
Modified coinsurance adjustments, included in fees and other income	32	34	33
Expense allowance on reinsurance assumed, included in fees and other expense	(24)	(24)	(24)
Policyholders' benefits	(107)	(134)	(116)
Experience refunds (paid) received	(1)	1	(2)

For further information on common stocks - subsidiaries and affiliates, refer to *Note 4d. "Common stocks - subsidiaries and affiliates."*

The Company participates in variable annuity exchange programs with C.M. Life (including MML Bay State) where certain variable annuity contract holders of the Company, C.M. Life or MML Bay State can make nontaxable exchanges of their contracts for enhanced variable annuity contracts of the Company or C.M. Life. The Company recorded premium income of $2 million, $3 million and $5 million in 2013, 2012 and 2011, respectively. The Company recorded surrender benefits of $1 million as of December 31, 2013, 2012 and 2011 related to these exchange programs. C.M. Life recorded premium income of $1 million for the years ended December 31, 2013, 2012 and 2011. C.M. Life recorded surrender benefits of $2 million in 2013 and 2012 and $5 million in 2011, respectively, related to these exchange programs. The Company has an agreement with C.M. Life to compensate them or to be compensated for the lost revenue associated with the exchange of contracts that are within the surrender charge period. As a result of these exchanges, the Company did not pay any net commissions to C.M. Life for the years ended December 31, 2013, 2012 or 2011.

In the normal course of business, the Company provides specified guarantees and funding to MMHLLC and certain of its subsidiaries. Refer to *Note 17f. "Commitments"* for information on the Company's accounting policies regarding these related party commitments and *Note 17g. "Guarantees"* for information on the guarantees.

10. Reinsurance

The Company cedes insurance to unaffiliated insurers in order to limit its insurance risk. Such transfers do not relieve the Company of its primary liability and, as such, failure of reinsurers to honor their obligations could result in losses. The Company reduces this risk by evaluating the financial condition of reinsurers and monitoring for possible concentrations of credit risk. The Company reinsures a portion of its life business under either a first dollar quota-share arrangement or an in excess of the retention limit arrangement. The Company also reinsures a portion of its disability and long-term care business. The amounts reinsured are on a yearly renewable term (YRT), coinsurance or modified coinsurance basis. The Company's retention limit per individual life insured is generally $15 million.

Refer to *Note 9. "Related party transactions"* for information about the Company's affiliated assumed reinsurance transactions.

The Company did not reinsure any policies with a company chartered in a country other than the U.S., excluding U.S. branches of these companies, which was owned in excess of 10% or controlled directly or indirectly by an insured, a beneficiary, a creditor or any other person not primarily engaged in the insurance business. There are no reinsurance agreements in effect under which the reinsurer may unilaterally cancel any reinsurance for reasons other than for nonpayment of premium or other similar credits. The Company has no reinsurance agreements in effect such that the amount of losses paid or accrued through the statement date may result in a payment to the reinsurer of amounts, which in aggregate and allowing for offset of mutual credits from other reinsurance agreements with the same reinsurer, exceed the total direct premium collected under the reinsured policies.

If all reinsurance agreements were terminated by either party as of December 31, 2013, the resulting reduction in surplus due to loss of reinsurance reserve credits, net of unearned premium, would be approximately $2,735 million assuming no return of the assets backing these reserves from the reinsurer to the Company.

On January 1, 2013, the Company entered into an indemnity reinsurance agreement with The Hartford Financial Services Group, Inc. (The Hartford) to assume 100% of its Retirement Plans Group (RPG) business. The reinsurance agreement contains coinsurance and modified coinsurance features. Under the agreement, the Company indemnifies The Hartford for $9.2 billion of policyholders' reserves and liabilities for deposit-type contracts, using coinsurance, and $26.3 billion of separate account liabilities using modified coinsurance. In addition, the Company reinsured contracts written on The Hartford's policy forms by the Company's Retirement Services Division during the post close period, which is expected to be 18 months. On execution of the coinsurance feature, the Company received invested assets with a fair value of $9.4 billion and $383 million of other assets, net of a ceding commission of $355 million, and assumed $5.3 billion of group annuities within policyholders' reserves, $3.9 billion of liabilities for deposit-type contracts and $879 million of other liabilities. Under the modified coinsurance feature, the separate account assets and related reserves were not transferred to or held by the Company. This transaction enables the Company to build its retirement business, add complementary markets and distribution capabilities, and nearly double the number of retirement plan participants it serves to approximately three million. For the year ended December 31, 2013, the change in reserves due to the RPG reinsurance agreement was $2.1 billion. The reduction of the expense on the Statutory Statements of Income (Loss) essentially offsets the impact of contract redemptions included in policyholders' benefits and contributions into reinsured accounts recorded as premium.

Reinsurance amounts included in the Statutory Statements of Income (Loss) were as follows:

	Years Ended December 31,		
	2013	2012	2011
	(In Millions)		
Direct premium	$ 19,260	$ 20,944	$ 14,101
Premium assumed	1,921	94	102
Premium ceded	(744)	(711)	(712)
Total net premium	$ 20,437	$ 20,327	$ 13,491
Reinsurance recoveries			
Assumed	$ (76)	$ (116)	$ (91)
Ceded	381	426	443

Reinsurance amounts included in the Statutory Statements of Financial Position were as follows:

	December 31,	
	2013	2012
	(In Millions)	
Reinsurance reserves:		
Assumed	$ 10,294	$ 782
Ceded	(3,023)	(2,722)
Amounts recoverable from reinsurers		
Assumed	(24)	(23)
Ceded	92	114

Reinsurance reserves ceded as of December 31, 2013 include $1,988 million associated with life insurance policies, $966 million for long-term care, $53 million for disability and $16 million for group life and health. Reinsurance reserves ceded as of December 31, 2012 include $1,803 million associated with life insurance policies, $842 million for long-term care, $59 million for disability and $18 million for group life and health.

As of December 31, 2013, one reinsurer accounted for 25% of the outstanding reinsurance recoverable and the next largest reinsurer had 15% of the balance. The reinsurance reserve ceded to unaffiliated reinsurers for long-term care is primarily with one reinsurer. The Company believes that exposures to a single reinsurer do not create an undue concentration of risk and the Company's business is not substantially dependent upon any single reinsurer.

In 2012, the Company recaptured YRT life reinsurance treaties from several different reinsurers, and one new agreement was executed, which includes policies or contracts that were in force and had existing reserves established by the Company. The recaptures and new agreement reduced premiums paid to reinsurers by $10 million and reinsurance reserves ceded by $44 million.

11. Policyholders' liabilities

a. Policyholders' reserves

The Company had total life insurance in force of $445,537 million and $420,525 million as of December 31, 2013 and 2012, respectively. Of this total, the Company had $27,979 million and $21,141 million of life insurance in force as of December 31, 2013 and 2012, respectively, for which the gross premium was less than the net premium according to the standard valuation set by the Division. The gross premium is less than the net premium needed to establish the reserves because the statutory reserves must use standard conservative valuation mortality tables, while the gross premium calculated in pricing uses mortality tables that reflect both the Company's experience and the transfer of mortality risk to reinsurers.

The following summarizes policyholders' reserves, net of reinsurance, and the range of interest rates by type of product:

	December 31,			
	2013		2012	
	Amount	Interest Rates	Amount	Interest Rates
	($ In Millions)			
Individual life	$ 39,463	2.5% - 6.0%	$ 37,303	2.5% - 6.0%
Group life	12,755	2.5% - 4.5%	11,253	2.5% - 4.5%
Group annuities	16,538	2.3% - 11.3%	10,170	2.3% - 11.3%
Individual annuities	10,023	2.3% - 11.3%	8,149	2.3% - 11.3%
Individual universal and variable life	4,551	3.5% - 6.0%	4,157	4.0% - 6.0%
Disabled life claim reserves	1,876	3.5% - 6.0%	1,868	3.5% - 6.0%
Disability active life reserves	673	3.5% - 6.0%	623	3.5% - 6.0%
Other	275	2.5% - 6.0%	211	2.5% - 6.0%
Total	$ 86,154		$ 73,734	

Individual life includes whole life and term insurance. Group life includes corporate-owned life insurance, bank-owned life insurance, group universal life, group variable universal life and private client group products. Group annuities include deferred annuities and single premium annuity contracts. Individual annuities include individual annuity contracts and structured settlements. Individual universal and variable life products include universal life and variable life products. Disabled life claim reserves include disability income and long-term care claims that have been incurred but not reported. Disability active life reserves include disability income and long-term care contracts issued. Other is comprised of disability life and accidental death insurance.

b. Liabilities for deposit-type contracts

The following summarizes liabilities for deposit-type contracts and the range of interest rates by type of product:

	December 31,			
	2013		2012	
	Amount	Interest Rates	Amount	Interest Rates
	($ In Millions)			
Guaranteed interest contracts:				
Note programs	$ 3,425	0.6% - 6.2%	$ 3,447	0.7% - 6.2%
Federal Home Loan Bank of Boston	601	1.1% - 3.0%	601	1.1% - 3.0%
Other	2	4.1% - 9.7%	6	4.1% - 10.2%
Supplementary contracts	669	0.3% - 8.0%	653	0.3% - 8.0%
Dividend accumulations	557	3.4% - 3.9%	566	3.4% - 3.7%
Other deposits	4,155	3.5% - 9.5%	50	4.0% - 8.0%
Total	$ 9,409		$ 5,323	

Guaranteed interest contracts (GICs) include funding agreements. Funding agreements are investment contracts sold to domestic and international institutional investors. The terms of the funding agreements do not give the holder the right to terminate the contract prior to the contractually stated maturity date. No funding agreements have been issued with put provisions or ratings-sensitive triggers. Currency swaps are employed to eliminate foreign exchange risk from all funding agreements issued to back non-U.S. dollar denominated notes. Assets received for funding agreements may be invested in the general account of the Company.

Under most of the Company's funding agreement programs, the Company creates an investment vehicle or trust for the purpose of issuing medium-term notes to investors. Proceeds from the sale of the medium-term notes issued by these unconsolidated affiliates are used to purchase funding agreements from the Company. The payment terms of any particular series of notes are matched by the payment terms of the funding agreement securing the series. Notes were issued from the Company's $2 billion European Medium-Term Note Program with approximately $135 million remaining in run-off. Notes are currently issued from its $12 billion Global Medium-Term Note Program.

The Company uses funding agreements with Federal Home Loan Bank of Boston (FHLB Boston) in an investment spread strategy, consistent with its other investment spread operations. These funding agreements are collateralized by securities with estimated fair values of $650 million as of December 31, 2013. The Company's borrowing capacity with the FHLB Boston is subject to the lower of the limitation on the pledge of collateral for a loan set forth in New York Insurance Law Section 1411(C) and by the Company's internal limit. The Company's unused capacity was $2.1 billion as of December 31, 2013. As a member of the FHLB Boston, the Company holds common stock of the FHLB Boston at a statement value of $52 million as of December 31, 2013 and 2012. All FHLB Boston funding agreement assets and liabilities are classified in the Company's general account. The Company accounts for these funds consistent with its other deposit-type contracts.

Other deposits primarily consists of investment contracts assumed as part of the indemnity reinsurance agreement discussed in *Note 10. "Reinsurance"*. These contracts are used to fund retirement plans. Contract payments are not contingent upon the life of the retirement plan participant.

As of December 31, 2013, the Company's GICs by maturity year were as follows (in millions):

2014	$	753
2015		402
2016		653
2017		552
2018		960
Thereafter		708
Total	$	4,028

c. Unpaid claims and claim expense reserves

The Company establishes unpaid claims and claim expense reserves to provide for the estimated costs of paying claims made under individual disability and long-term care policies written by the Company. These reserves include estimates for both claims that have been reported and those that have been incurred but not reported, and include estimates of all future expenses associated with the processing and settling of these claims. This estimation process is primarily based on the assumption that experience is an appropriate indicator of future events and involves a variety of actuarial techniques that analyze experience, trends and other relevant factors. The amounts recorded for unpaid claims and claim expense reserves represent the Company's best estimate based upon currently known facts and actuarial guidelines. Accordingly, actual claim payouts may vary from these estimates.

The following summarizes the disabled life and long-term care unpaid claims and claim expense reserves:

	December 31, 2013	December 31, 2012
	(In Millions)	
Claim reserves, beginning of year	$ 2,017	$ 1,993
Less: Reinsurance recoverables	128	115
Net claim reserves, beginning of year	1,889	1,878
Claims paid related to:		
Current year	(14)	(14)
Prior years	(327)	(312)
Total claims paid	(341)	(326)
Incurred related to:		
Current year's incurred	234	230
Current year's interest	5	5
Prior year's incurred	30	21
Prior year's interest	80	81
Total incurred	349	337
Net claim reserves, end of year	1,897	1,889
Reinsurance recoverables	134	128
Claim reserves, end of year	$ 2,031	$ 2,017

The changes in reserves for incurred claims related to prior years are generally the result of recent loss development trends. The $30 million increase in the prior years' incurred claims for 2013 and the $21 million increase in the prior years' incurred claims for 2012 were generally the result of differences between actual termination experience and statutory termination tables.

The following reconciles disabled life claim reserves to the net claim reserves at the end of the years presented in the previous table. Disabled life claim reserves are recorded in policyholders' reserves. Accrued claim liabilities are recorded in other liabilities.

	December 31, 2013	December 31, 2012
	(In Millions)	
Disabled life claim reserves	$ 1,876	$ 1,868
Accrued claim liabilities	21	21
Net claim reserves, end of year	$ 1,897	$ 1,889

d. Additional liability for annuity contracts

Certain variable annuity contracts include additional death or other insurance benefit features, such as GMDBs, GMIBs, GMABs and GMWBs. In general, these benefit guarantees require the contract or policyholder to adhere to a company-approved asset allocation strategy. Election of these benefits on certain annuity contracts is generally only available at contract issue.

The following shows the liabilities for GMDBs, GMIBs, GMABs and GMWBs (in millions):

Liability as of January 1, 2012	$ 805
Incurred guarantee benefits	(243)
Paid guarantee benefits	(5)
Liability as of December 31, 2012	557
Incurred guarantee benefits	(281)
Paid guarantee benefits	(2)
Liability as of December 31, 2013	$ 274

The Company held reserves in accordance with the stochastic scenarios as of December 31, 2013 and 2012. As of December 31, 2013 and 2012, the Company held additional reserves above those indicated based on the stochastic scenarios in order to maintain a prudent level of reserve adequacy.

The following summarizes the account values, net amount at risk and weighted average attained age for variable annuity contracts with GMDBs, GMIBs, GMABs and GMWBs classified as policyholders' reserves and separate account liabilities. The net amount at risk is defined as the minimum guarantee less the account value calculated on a policy-by-policy basis, but not less than zero.

	December 31,					
	2013			2012		
	Account Value	Net Amount at Risk	Weighted Average Attained Age	Account Value	Net Amount at Risk	Weighted Average Attained Age
	($ In Millions)					
GMDB	$ 19,931	$ 42	62	$ 9,976	$ 64	62
GMIB	4,678	294	64	4,260	609	63
GMAB	2,493	2	57	1,925	10	57
GMWB	234	3	67	211	10	66

The GMDB account value above consists of $4,085 million within the general account and $15,846 million within separate accounts that includes $5,506 million of modified coinsurance.

Account balances of variable annuity contracts with GMDBs, GMIBs, GMABs and GMWBs are summarized below:

	December 31,							
	2013				2012			
	GMDB	GMIB	GMAB	GMWB	GMDB	GMIB	GMAB	GMWB
	(In Millions)							
Separate account	$ 15,846	$ 4,663	$ 2,427	$ 234	$ 8,909	$ 4,244	$ 1,859	$ 211
General account	4,085	15	66	-	1,067	16	66	-
Total	$ 19,931	$ 4,678	$ 2,493	$ 234	$ 9,976	$ 4,260	$ 1,925	$ 211

e. Additional liability for individual life contracts

Certain universal life and variable universal life contracts include features such as GMDBs or other guarantees that ensure continued death benefit coverage when the policy would otherwise lapse. The value of the guarantee is only available to the beneficiary in the form of a death benefit.

The liability, net of reinsurance, for guarantees on universal life and variable universal life type contracts was as follows:

	December 31,	
	2013	2012
	(In Millions)	
Beginning balance	$ 1,879	$ 1,580
Net liability increase	378	299
Ending balance	$ 2,257	$ 1,879

12. Debt

The Company issues commercial paper in the form of Notes in minimum denominations of $250 thousand up to a total aggregation of $1 billion. These Notes have maturities up to a maximum of 270 days from the date of issue and are sold at par less a discount representing an interest factor or, if interest bearing, at par. The Notes are not redeemable or subject to voluntary prepayments by the Company. Commercial paper had a carrying value and face amount of $250 million as of December 31, 2013 and 2012. The commercial paper issued in 2013 had interest rates ranging from 0.17% to 0.25% with maturity dates ranging from 9 to 48 days. Interest expense for the commercial paper was less than $1 million for the years ended December 31, 2013, 2012 and 2011.

On September 27, 2012, the Company signed a $1 billion, five year credit facility, with a syndicate of lenders that can be used for general corporate purposes and to support commercial paper borrowings. The credit facility replaces an existing $1 billion credit facility, which was due to expire April 2013. The new facility has an upsize option for an additional $500 million. The terms of the credit facility provide for, among other provisions, covenants pertaining to liens, fundamental changes, transactions with affiliates and adjusted statutory surplus. As of and for the years ended December 31, 2013, 2012 and 2011, the Company was in compliance with all covenants under the credit facilities. For the years ended December 31, 2013, 2012 and 2011, there were no draws on the credit facilities. Credit facility fees were less than $1 million, $3 million and $1 million for the years ended December 31, 2013, 2012 and 2011, respectively.

13. Employee benefit plans

The Company provides multiple benefit plans including retirement plans and life and health benefits to employees, certain employees of unconsolidated subsidiaries, agents and retirees.

a. Pension plans

The Company has funded and unfunded noncontributory defined benefit pension plans that cover substantially all employees, agents and retirees. Effective June 1, 1999, the qualified defined benefit plan was amended to include a cash balance formula. Participants earn benefits under the plan based on the prior defined benefit formula, the cash balance formula, or a combination of both formulas as determined by their date of hire or rehire. Under the prior defined benefit formula, benefits are calculated based on final average earnings and length of service. Benefits under the cash balance formula are determined based on age, service and salary during the participants' careers.

The Company's policy is to fund qualified pension costs in accordance with the Employee Retirement Income Security Act of 1974. In 2013 and 2012, the Company contributed $61 million and $113 million, respectively, to its qualified defined benefit plan.

b. Defined contribution plans

The Company sponsors funded (qualified 401(k) thrift savings) and unfunded (nonqualified deferred compensation thrift savings) defined contribution plans for its employees, agents and retirees. The qualified 401(k) thrift savings plan's net assets available for benefits were $1,974 million and $1,608 million as of December 31, 2013 and 2012, respectively. The Company match for the qualified 401(k) thrift savings plan is limited to 5% of eligible W-2 compensation. The Company's total matching thrift savings contributions, included in general insurance expenses, was $36 million for the year ended December 31, 2013 and $28 million for the years ended December 31, 2012 and 2011.

The Company also maintains a defined contribution plan for agents, which was frozen in 2001. The net assets available for these benefits were $189 million and $182 million as of December 31, 2013 and 2012, respectively.

c. Other postretirement and postemployment benefits

The Company provides certain life insurance and health care benefits (other postretirement benefits) for its retired employees and agents, their beneficiaries and covered dependents. MMHLLC has the obligation to pay the Company's other postretirement benefits. The transfer of this obligation to MMHLLC does not relieve the Company of its primary liability. MMHLLC is allocated other postretirement expenses related to interest cost, amortization of actuarial gains (losses) and expected return on plan assets, whereas service cost and amortization of the transition obligation are recorded by the Company.

The health care plan is contributory. A portion of the basic life insurance plan is noncontributory. Substantially all of the Company's U.S. employees and agents may become eligible to receive other postretirement benefits. These benefits are funded as the benefits are provided to the participants. The postretirement health care plans include a limit on the Company's share of costs for recent and future retirees.

The Company provides retiree life insurance coverage for home office employees who, as of January 1, 2010, were age 50 with at least 10 years of service or had attained 75 points, generally age plus service, with a minimum 10 years of service.

Accrued Postemployment Benefits

The Company provides severance-related postemployment benefits for home office employees. The net accumulated liability for these benefits was $32 million and $29 million as of December 31, 2013 and 2012, respectively.

The Company accrues postemployment benefits for agents' health benefits for those agents who qualify for long-term disability and are not retired. The net accumulated liability for these benefits was $8 million and $11 million as of December 31, 2013 and 2012, respectively.

d. Benefit obligations

The initial transition obligation for other postretirement benefits of $138 million was amortized over 20 years and fully amortized by the end of 2012. The initial transition obligation represents the phased recognition on the Statutory Statements of Income (Loss) of the differences between the plan's funded status and the accrued cost on the Company's Statutory Statements of Financial Position when the Company first transitioned to statutory guidance regarding postretirement benefits other than pensions. See Section f. of this Note, *"Amounts recognized in the Statutory Statements of Financial Position,"* for details on the Plan's funded status.

Accumulated benefit obligations represent the present value of pension benefits earned as of a December 31 measurement date based on service and compensation and do not take into consideration future salary levels.

Projected benefit obligations for pension benefits represent the present value of pension benefits earned as of a December 31 measurement date projected for estimated salary increases to an assumed date with respect to retirement, termination, disability or death.

As of December 31, 2013, the unamortized additional liability due to the adoption of SSAP No. 102 was $29 million. This will be amortized over a period of years from adoption through 2021. The additional liability of $43 million consists of $27 million for adding non-vested participants and $16 million for the difference between the accumulated benefit obligation and the projected benefit obligation for vested participants.

Accumulated and projected postretirement benefit obligations for other postretirement benefits represent the present value of postretirement medical and life insurance benefits earned as of a December 31 measurement date projected for estimated salary and medical claim rate increases to an assumed date with respect to retirement, disability or death.

Actuarial (gains) losses represent the difference between the expected results and the actual results used to determine the projected benefit obligation, accumulated benefit obligation and current year expense. A few of the major assumptions used in this calculation include: expected future compensation levels, healthcare cost trends, mortality and expected retirement age.

The following presents the total pension and other postretirement accumulated benefit obligation:

	December 31,			
	2013	2012	2013	2012
	Pension Benefits		Other Postretirement Benefits	
	(In Millions)			
Vested	$ 2,228	$ 2,340	$ 357	$ 363
Non-vested	8	8	44	53
	$ 2,236	$ 2,348	$ 401	$ 416

The following sets forth the change in projected benefit obligation of the defined benefit pension and other postretirement plans:

	December 31,			
	2013	2012	2013	2012
	Pension Benefits		Other Postretirement Benefits	
	(In Millions)			
Projected benefit obligation, beginning of year vested only	$ 2,355	$ 2,163	$ 363	$ 365
Non-vested	27	-	50	-
Service cost	73	59	8	4
Interest cost	94	92	15	14
Contributions by plan participants	-	-	9	11
Actuarial (gains) losses	7	26	(19)	(23)
Medicare prescription drug direct subsidy	-	-	1	2
Benefits paid	(103)	(93)	(27)	(29)
Change in discount rate	(184)	108	(43)	19
Projected benefit obligation, end of year	$ 2,269	$ 2,355	$ 357	$ 363

The determination of the discount rate is based upon rates commensurate with current yields on high quality corporate bonds as of a measurement date of December 31, 2013. A spot yield curve is developed from this data, which is used to determine the present value for the obligation. The projected plan cash flows are discounted to the measurement date based on the spot yield curve. A single discount rate is utilized to ensure the present value of the benefits cash flow equals the present value computed using the spot yield curve. A 25 basis point change in the discount rate results in approximately a $54 million change in the projected pension benefit obligation. The methodology includes producing a cash flow of annual accrued benefits. For active participants, service was projected to the end of 2013 and pensionable earnings are projected to the date of probable termination. See Section *h*. of this Note, *"Assumptions"* for details on the discount rate.

e. Plan assets

All investments of the qualified pension plan are invested through the Company's group annuity contract. This contract invests in the General Investment Account (GIA) of the Company, pooled separate accounts and nonpooled separate accounts. Pooled separate account assets support more than one group annuity contract and are managed by the Company. These assets are assigned for the purposes of allocating investment returns and asset gains and losses. Nonpooled separate accounts are managed by the Company and unaffiliated asset managers.

The Company's qualified pension plan assets managed by the Company are as follows:

	December 31, 2013	December 31, 2012
	(In Millions)	
General Investment Account	$ 242	$ 222
Alternative Investment Separate Account	174	147
Babson Long Term Duration Bond Fund	160	155
Oppenheimer Small Capitalization Core Fund	132	110
MM Premier Core Bond Fund	118	98
Oppenheimer International Growth Fund	112	96
Oppenheimer Large Core Fund	86	71
Babson Enhanced Index Value Fund	85	76
MM Premier Capital Appreciation Fund	66	55
MM Select Growth Opportunities Fund	58	46
MM Select Blue Chip Growth Fund	57	44
MM Select Small Cap Growth Fund	47	37
MM Select Small Cap Value Fund	45	39
MM Premier Strategic Emerging Markets Fund	45	49
MM Select Large Cap Value Fund	44	36
Oppenheimer Large Capitalization Value Fund	44	36
Oppenheimer Real Estate Fund	25	24
	$ 1,540	$ 1,341

The approximate amount of annual benefits to plan participants covered by a group annuity contract issued by the employer or related parties is estimated at $67 million in 2014.

The Company employs a total return investment approach whereby a mix of equities and fixed-income investments are used to maximize the long-term return of plan assets with a prudent level of risk. Risk tolerance is established through consideration of plan liabilities, plan funded status and corporate financial condition. The investment portfolio contains a diversified blend of equity and fixed-income investments. Alternative assets such as a private equity fund, an equity index exchange traded fund and a bond index exchange traded fund are used to improve portfolio diversification. Investment risk is measured and monitored on an ongoing basis through quarterly investment portfolio reviews, annual liability measurements, and periodic asset and liability studies.

The target range allocations for the qualified pension plan assets are 25% to 35% domestic equity securities, 20% to 30% long duration bond securities, 15% to 25% GIA, 13% to 18% international equity securities and 5% to 15% alternative investments. Domestic equities primarily include investments in large capitalization (large-cap) companies and small capitalization (small-cap) companies. Long duration bond securities invest in several long duration bond exchange traded funds. International equities include investments in American Depository Receipts and limited partnerships that trade primarily in foreign markets in Europe, Latin America and Asia. The pension plan asset's GIA earns fixed interest, primarily comprised of an investment in an unallocated insurance contract, held by the Company. Approximately 12% and 13% of the assets of the Company's pension plan were invested in the Company's GIA through the unallocated group annuity insurance contract as of December 31, 2013 and 2012, respectively.

The change in plan assets represents a reconciliation of beginning and ending balances of the fair value of the plan assets used to fund future benefit payments. The following presents the change in plan assets:

	December 31,			
	2013	2012	2013	2012
	Pension Benefits		Other Postretirement Benefits	
	(In Millions)			
Fair value of plan assets, beginning of year	$ 1,801	$ 1,567	$ 5	$ 5
Actual return on plan assets	241	197	-	-
Employer contributions	81	130	17	18
Contributions by plan participants	-	-	10	11
Benefits paid	(103)	(93)	(27)	(29)
Fair value of plan assets, end of year	$ 2,020	$ 1,801	$ 5	$ 5

The *General Investment Account* is designed to provide stable, long-term investment growth. The account value is maintained at a stable value (generally referred to as "book value") regardless of financial market fluctuations, however, if the plan sponsor initiates a full or partial termination, the amount liquidated is subject to an adjustment that could result in an increase or decrease in the book value of the plan's investment. The stable value characteristic is supported by MassMutual's surplus and capital, and overall financial strength.

The following presents the GIA allocation by type of investment:

	December 31,	
	2013	2012
Bonds	60 %	64 %
Mortgage loans	16	15
Partnerships and LLCs	7	7
Other investments	6	5
Common stocks - subsidiaries and affiliates	6	5
Cash and cash equivalents	4	3
Real estate	1	1
	100 %	100 %

The qualified pension plan invests in the following pooled and nonpooled separate account options:

Alternative Investment Separate Account is a nonpooled separate account advised by Babson Capital. Babson Capital's strategy includes investing in holdings of private equity funds, hedge funds, a private real estate fund, limited partnership funds and an equity index exchange traded fund.

Babson Long Term Duration Bond Fund is a nonpooled separate account advised by Babson Capital with a long duration bond strategy that invests in a diversified portfolio of fixed-income, short-term bonds, government securities and cash. The specific performance objective is to outperform the total return of the Barclays Capital U.S. Long Government/Credit Bond index.

Oppenheimer Small Capitalization Core Fund is a pooled separate account investing in a mutual fund advised by OFI Institutional Asset Management (OFI Institutional) that invests in domestic small-cap, mid-cap, other fixed-income securities and international small/mid-cap securities. The fund aims to maintain a broadly diversified portfolio across all major economic sectors by applying risk controls for both sector and position size. The fund's strategy uses separate fundamental research and quantitative models to select securities.

MM Premier Core Bond Fund is a pooled separate account investing in a mutual fund subadvised by Babson Capital. The mutual fund primarily invests in high-quality, investment grade bonds with selective and prudent investments in high yield bonds, which are deemed to provide an attractive risk/reward trade off. Security selection is an in-depth, bottom-up credit research process seeking securities with attractive yields among the corporate, U.S. government (treasury and agency) and mortgage and asset backed sectors.

Oppenheimer International Growth Fund is a pooled separate account advised by OFI Institutional that invests in international large-cap securities. This international equity strategy focuses on well-positioned, well-managed businesses that have strong revenue growth, sustainable profit margins, capital efficiency and/or business integrity.

Oppenheimer Large Core Fund is a nonpooled separate account advised by OFI Institutional that invests in a diversified mix of larger company stocks for capital appreciation potential. The strategy is a large-cap core equity strategy, where the portfolio managers combine fundamental research and quantitative models to identify investment opportunities among large, competitively advantaged companies whose earnings are growing faster than average, or whose shares appear to be mispriced by the market.

Babson Enhanced Index Value Fund is a nonpooled separate account advised by Babson Capital that invests in domestic small-cap, mid-cap, large-cap and other fixed-income securities. The strategy is a large-cap value equity strategy that uses a systematic strategy that exploits market inefficiencies designed to outperform the fund's benchmark index while maintaining risk characteristics similar to the benchmark.

MM Premier Capital Appreciation Fund is a pooled separate account investing in a mutual fund subadvised by OFI Institutional that invests primarily in domestic large-cap common stocks of growth companies. The strategy is a large-cap growth equity strategy that seeks companies in rapidly expanding industries that they believe may appreciate in value over the long-term.

MM Select Growth Opportunities Fund is a pooled separate account investing in a mutual fund subadvised by Sands Capital Management, LLC (Sands Capital) and Delaware Management Company (DMC) with a large-cap growth equity strategy. Sands Capital uses bottom-up, fundamental research and focuses on six key investment criteria: sustainable, above average earnings growth, a leadership position, competitive advantages, a value-added focus with a clear mission, financial strength and rational valuation. DMC seeks to select large-cap equities that it believes are undervalued in relation to their intrinsic value, as indicated by multiple factors, including a return on capital above its cost of capital.

MM Select Blue Chip Growth Fund is a pooled separate account investing in a mutual fund subadvised by T. Rowe Price that seeks growth of capital over the long-term. The strategy is a large cap growth equity strategy that seeks well-established companies with the potential for above-average earnings growth. In selecting securities, T. Rowe Price generally seeks to identify companies with a leading market position, seasoned management and strong financial fundamentals.

MM Select Small Cap Growth Fund is a pooled separate account investing in a mutual fund subadvised by Wadell & Reed, Wellington Management (Wellington) and Timberline Asset Management that invests in domestic small-cap equity securities and seeks long-term capital appreciation. Each subadviser employs a growth-based investment approach and may perform a number of analyses in considering whether to buy or sell a security for the fund. Each of the subadvisers uses a combination of fundamental and quantitative analyses to identify small-cap companies that it believes are experiencing or will experience rapid earnings or revenue growth.

MM Select Small Cap Value Fund is a pooled separate account investing in a mutual fund subadvised by Wellington and Barrow Hanley that seeks to maximize total return through investing primarily in small-cap equity securities. Wellington employs a bottom-up stock selection process that utilizes proprietary, fundamental research to identify companies it considers to be undervalued and to have the potential for significant longer-term returns. Barrow Hanley typically seeks to exploit market inefficiencies by using proprietary research to identify small-cap companies that it considers to be undervalued and to have the potential to generate superior returns while subjecting the fund to below average levels of risk.

MM Premier Strategic Emerging Markets Fund is a pooled separate account investing in a mutual fund subadvised by Baring with an emerging markets equity strategy that invests in international emerging markets and seeks long-term capital growth. Baring determines the universe of emerging market countries in which to invest, and this list may change from time to time based on Baring's assessment of a country's suitability for investment.

MM Select Large Cap Value Fund is a pooled separate account investing in a mutual fund subadvised by Columbia Management (Columbia) and Huber Capital (Huber). Columbia manages a dividend-focused strategy seeking a combination of high dividend payers, steadily growing dividend payers and emerging dividend payers. Huber employs a more concentrated, deeper value strategy using a dividend discount model (DDM) as the basis for determining intrinsic value opportunities.

Oppenheimer Large Capitalization Value Fund is a nonpooled separate account advised by OFI Institutional that invests in domestic small-cap, mid-cap and large-cap common stocks. The fund can also buy other investments, including preferred stocks, rights and warrants and convertible debt securities. The strategy is a large-cap value equity strategy that uses fundamental analyses to select securities for the fund that it believes are undervalued.

Oppenheimer Real Estate Fund is a pooled separate account that invests in an Oppenheimer mutual fund subadvised by CREA. This real estate strategy seeks out exposure to the commercial real estate market and uses a fundamental research driven approach to search for what are believed to be high quality companies in the Real Estate Investment Trust (REIT) market among other investments. REIT's are publicly traded securities that sell like a stock on the major exchanges and which invest in real estate.

Goldman Sachs Asset Management Long Duration Bond Fund is a nonpooled separate account advised by Goldman Sachs Asset Management with a long duration bond strategy that invests in a diversified portfolio of fixed- income, short term bonds, government securities and cash. The specific performance objective is to outperform the total return of the Barclays Capital U.S. Long Government/Credit Bond index.

Pacific Investment Management Company Long Duration Bond Fund is a nonpooled separate account advised by Pacific Investment Management Company with a long duration bond strategy that invests in a diversified portfolio of fixed-income, short-term bonds, government securities and cash. The specific performance objective is to outperform the total return of the Barclays Capital U.S. Long Government/Credit Bond index.

Harris Associates International Value Limited Partnership is a nonpooled separate account advised by Harris Associates that invests in international large-cap value securities and equity securities, which may include common stocks, preferred stocks, securities that are convertible into common stocks, depositary receipts, and rights and warrants to buy common stocks. This international equity strategy seeks out companies that it believes to be trading in the market at significant discounts to their underlying values.

T. Rowe Price Emerging Markets Stock Fund is a pooled separate account advised by T. Rowe Price Associates, Inc. (T. Rowe Price) with an emerging markets equity strategy that seeks long-term growth of capital through investments primarily in the common stocks of companies located (or with primary operations) in Latin America, Asia, Europe, Africa and the Middle East.

Fair Value Measurements

The Company's fair value hierarchy is defined in *Note 5 "Fair value of financial instruments."*

The following is a description of the valuation methodologies used to measure fair value for the investments in the qualified pension plan.

Pooled separate accounts: Valued using the unit value calculated based on the net asset value of the underlying pool of securities that are mutual funds. Mutual funds trade on one or more U.S. or foreign exchanges and the fair value is derived based on the closing prices for the underlying securities.

Nonpooled separate accounts: Valued primarily using the closing price reported on the active market on which the individual securities are traded.

Cash: Is stated at cost, which is equal to fair value and held by an unaffiliated bank.

General investment account: Liquidation value based on an actuarial formula as defined under the terms of the contract.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future values. Furthermore, while the Company believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following presents the fair value hierarchy of the Company's pension plan assets by asset class:

	December 31, 2013			
	Level 1	Level 2	Level 3	Total
	(In Millions)			
Investments in the qualified pension plan:				
Pooled separate accounts:				
Common stocks:				
U.S. large capitalization	$ -	$ 225	$ -	$ 225
International large capitalization	-	112	-	112
U.S. small capitalization value	-	92	-	92
International emerging markets	-	45	-	45
Real estate	-	25	-	25
Bonds:				
Diversified fixed-income	-	118	-	118
Registered investment companies:				
Emerging markets	45	-	-	45
Total pooled separate accounts	45	617	-	662
Nonpooled separate accounts:				
Common stocks:				
U.S. large capitalization	150	-	-	150
U.S. mid capitalization	81	-	-	81
U.S. small capitalization	80	-	-	80
International large capitalization value	18	-	-	18
International small/mid capitalization	10	-	-	10
Corporate and other bonds	-	193	-	193
Long duration bonds	99	-	-	99
Short-term bonds	2	-	-	2
Government securities	-	146	-	146
Mortgage backed securities	-	6	-	6
Registered investment companies:				
U.S. large capitalization	66	-	-	66
Multi-strategy hedge funds	-	-	35	35
Limited partnerships:				
International large capitalization value	-	-	111	111
Multi-strategy hedge funds	-	-	22	22
Private equity/venture capital	-	-	13	13
Asset backed securities	-	10	-	10
Real estate	-	-	36	36
Cash and short-term cash equivalents	9	29	-	38
Total nonpooled separate accounts	515	384	217	1,116
Total general investment account	-	-	242	242
Total	$ 560	$ 1,001	$ 459	$ 2,020

	December 31, 2012			
	Level 1	Level 2	Level 3	Total
	(In Millions)			
Investments in the qualified pension plan:				
Pooled separate accounts:				
Common stocks:				
U.S. large capitalization	$ -	$ 181	$ -	$ 181
International large capitalization value	-	96	-	96
U.S. small capitalization value	-	76	-	76
International emerging markets	-	49	-	49
Real estate	-	24	-	24
Bonds:				
Diversified fixed income	-	98	-	98
Total pooled separate accounts	-	524	-	524
Nonpooled separate accounts:				
Common stocks:				
U.S. large capitalization	134	-	-	134
U.S. mid capitalization	85	-	-	85
U.S. small capitalization	61	-	-	61
International large capitalization value	6	-	-	6
International small/mid capitalization	2	-	-	2
Corporate and other bonds	-	183	-	183
Long duration bonds	89	-	-	89
Short term bonds	2	-	-	2
Government securities	-	174	-	174
Mortgage backed securities	-	5	-	5
Registered investment companies:				
U.S. large capitalization	52	-	-	52
Emerging markets	49	-	-	49
Multi-strategy hedge funds	-	-	31	31
Limited partnerships:				
International large capitalization value	-	-	96	96
Multi-strategy hedge funds	-	-	21	21
Private equity/venture capital	-	-	11	11
Asset backed securities	-	8	-	8
Real estate	-	-	32	32
Cash and short-term cash equivalents	4	10	-	14
Total nonpooled separate accounts	484	380	191	1,055
Total general investment account	-	-	222	222
Total	$ 484	$ 904	$ 413	$ 1,801

The following sets forth a summary of changes in the fair value of the Plan's Level 3 invested assets:

	Limited Partnerships						
	International Large-Cap Value	Multi-Strategy Hedge Fund	Private Equity/ Venture Capital	Multi-Strategy Hedge Fund	Real Estate	General Investment Account	Total
	(In Millions)						
Balance, January 1, 2013	$ 96	$ 21	$ 11	$ 31	$ 32	$ 222	$ 413
Actual return on plan assets	33	1	1	4	3	10	52
Purchases	-	-	3	-	1	94	98
Sales	(18)	-	(2)	-	-	(84)	(104)
Balance, December 31, 2013	$ 111	$ 22	$ 13	$ 35	$ 36	$ 242	$ 459

	Limited Partnerships						
	International Large-Cap Value	Multi-Strategy Hedge Fund	Private Equity/ Venture Capital	Multi-Strategy Hedge Fund	Real Estate	General Investment Account	Total
	(In Millions)						
Balance, January 1, 2012	$ 68	$ -	$ -	$ -	$ -	$ 253	$ 321
Actual return on plan assets	15	1	-	1	2	7	26
Purchases	13	-	7	-	-	38	58
Sales	-	-	-	-	-	(76)	(76)
Transfers to level 3	-	20	4	30	30	-	84
Balance, December 31, 2012	$ 96	$ 21	$ 11	$ 31	$ 32	$ 222	$ 413

The Company evaluated the significance of transfers between levels based upon the nature of the financial instrument and size of the transfer relative to total net assets available for benefits. Based on this criteria, there were no significant transfers in or out of Level 1, 2 or 3 for the year ended December 31, 2013.

Postretirement Investments

The fair value of the postretirement benefits investments of $5 million as of December 31, 2013 and 2012 is categorized as Level 1 type investments and is invested in the domestic fixed-income fund. The fund is a money market mutual fund that seeks the maximum current income consistent with stability of principal. The fund seeks to achieve this objective by investing in money market securities meeting specific credit quality standards.

The Company invests in cash, cash equivalents and liquid fixed-income securities to the extent necessary to satisfy reasonably anticipated routine current benefit liability amounts, with additional funds sufficient to satisfy reasonably unanticipated spikes in such liability activity.

f. Amounts recognized in the Statutory Statements of Financial Position

Unrecognized prior service cost is the adjustment to the projected benefit obligation as a result of plan amendments. It represents the increase or decrease in benefits for service performed in prior periods. For pension benefits, this cost is amortized into net periodic benefit cost over the average remaining service-years of active employees at the time of the amendment. For other postretirement benefits, this cost is amortized into net periodic benefit cost over the average remaining lifetime of eligible employees and retirees at the time of the amendment.

Unrecognized net actuarial gains (losses) are variances between assumptions used and actual experience. These assumptions include return on assets, demographics and mortality. The unrecognized net actuarial gains (losses) are amortized if they exceed 10% of the projected benefit obligation and are amortized starting in the period after they occur. These are amortized into net periodic benefit cost over the remaining service-years of active employees and over the average remaining lifetime of eligible employees and retirees for other postretirement benefits.

The unrecognized net transition obligation represents the difference between the plan's funded status and the accrued cost on the Company's Statutory Statements of Financial Position when the Company first transitioned to current statutory guidance. This is amortized into net periodic benefit cost over a period of years from adoption through 2013 for pension benefits and through 2012 for other postretirement benefits.

The prepaid pension asset is a cumulative balance of employer contributions made to the plan netted against the plan's accumulated net periodic benefit costs. The prepaid pension asset is a nonadmitted asset.

The accrued benefit cost recognized is the funded status of the plan adjusted for the remaining balance of unrecognized prior service cost, unrecognized net actuarial loss, unrecognized net transition obligation and the nonadmitted prepaid pension asset.

The following sets forth the amounts in unassigned funds (surplus) recognized as components of net periodic benefit cost in 2013 and 2012 and expected to be recognized in 2014:

	December 31,					
	2014	2013	2012	2014	2013	2012
	Pension Benefits			Other Postretirement Benefits		
	(In Millions)					
Net transition asset or obligation	$ -	$ -	$ 1	$ -	$ -	$ 4
Net prior service cost	8	8	-	4	4	1
Net recognized (gains) losses	61	93	93	-	5	2

The following sets forth the amounts in unassigned funds (surplus) that have not yet been recognized as components of net periodic benefit cost:

	December 31,			
	2013	2012	2013	2012
	Pension Benefits		Other Postretirement Benefits	
	(In Millions)			
Net prior service cost	$ 21	$ -	$ 47	$ 2
Net transition asset or obligation	-	2	-	-
Net losses	713	1,118	11	78
Unrecognized pension liability	29	-	-	-

The following sets forth the projected benefit obligation funded status of the plans:

	December 31,			
	2013	2012	2013	2012
	Pension Benefits		Other Postretirement Benefits	
	(In Millions)			
Projected benefit obligation	$ 2,269	$ 2,355	$ 357	$ 363
Less: Assets	2,020	1,801	5	5
Projected benefit obligation funded status	$ (249)	$ (554)	$ (352)	$ (358)

The qualified pension plan was overfunded by $30 million as of December 31, 2013 and underfunded by $262 million as of December 31, 2012. The nonqualified pension plans are not funded and have total projected benefit obligations of $279 million and $292 million as of December 31, 2013 and 2012, respectively.

The Company intends to fund $79 million to meet its expected obligations under its qualified and nonqualified pension plans and other postretirement benefit plans in 2014.

g. Net periodic cost

The net periodic cost represents the annual accounting income or expense recognized by the Company and included in general insurance expenses. The net periodic cost in the Statutory Statements of Income (Loss) is as follows:

	Years Ended December 31,					
	2013	2012	2011	2013	2012	2011
	Pension Benefits			Other Postretirement/ Postemployment Benefits		
	(In Millions)					
Service cost	$ 73	$ 59	$ 42	$ 12	$ 7	$ 9
Interest cost	94	92	95	15	14	18
Expected return on plan assets	(136)	(122)	(105)	-	-	-
Amortization of unrecognized transition obligation	-	1	1	-	4	5
Amortization of unrecognized net actuarial and other losses	93	93	64	(3)	-	4
Amortization of unrecognized prior service cost	8	-	-	8	-	-
Total net periodic cost	$ 132	$ 123	$ 97	$ 32	$ 25	$ 36

The expected future pension and other postretirement benefit payments and Medicare prescription drug government subsidy receipts, which reflect expected future service, are as follows:

	Pension Benefits	Other Postretirement Benefits	Medicare Prescription Drug Government Subsidy
	(In Millions)		
2014	$ 85	$ 21	$ (3)
2015	90	22	(3)
2016	95	23	(3)
2017	100	23	(3)
2018	106	24	(4)
2019-2023	615	130	(22)

The net expense charged to operations for all employee and agent benefit plans are as follows:

	Years Ended December 31,		
	2013	2012	2011
	(In Millions)		
Pension	$ 132	$ 123	$ 97
Health	76	61	59
Thrift	36	28	28
Postretirement	32	24	27
Life	4	3	3
Disability	3	3	2
Postemployment	-	1	1
Other benefits	8	7	7
Total	$ 291	$ 250	$ 224

h. Assumptions

The assumptions the Company used to calculate the benefit obligations and to determine the benefit costs are as follows:

	December 31,					
	2013	2012	2011	2013	2012	2011
	Pension Benefits			Other Postretirement Benefits		
Weighted-average assumptions used to determine:						
Benefit obligations:						
Discount rate	4.85 %	4.00 %	4.35 %	4.70 %	3.80 %	4.25 %
Expected rate of compensation increase	4.00 %	4.00 %	4.00 %	4.00 %	4.00 %	4.00 %
Net periodic benefit cost:						
Discount rate	4.00 %	4.35 %	5.50 %	3.80 %	4.25 %	5.30 %
Expected long-term rate of return on plan assets	7.50 %	7.75 %	7.75 %	3.00 %	3.00 %	3.00 %
Expected rate of compensation increase	4.00 %	4.00 %	4.00 %	4.00 %	4.00 %	4.00 %
Assumed health care cost trend rates:						
Health care cost trend rate	-	-	-	7.00 %	7.00 %	7.00 %
Ultimate health care cost trend rate after gradual decrease until 2021 for 2013; 2020 for 2012; 2018 for 2011.	-	-	-	5.00 %	5.00 %	5.00 %

The discount rate used to determine the benefit obligations as of year-end is used to determine the expense in the next fiscal year.

The Company determines its assumptions for the expected rate of return on plan assets for its plans using a "building block" approach, which focuses on ranges of anticipated rates of return for each asset class. A weighted range of nominal rates is determined based on target allocations for each asset class.

Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. A one percentage point change in the assumed health care cost trend rate would have had the following effects in 2013:

	One Percentage Point Increase	One Percentage Point Decrease
	(In Millions)	
Effect on total service and interest cost	$ 2	$ (2)
Effect on other postretirement benefit obligations	33	(27)

14. Employee compensation plans

The Company has a long-term incentive compensation plan under which certain employees of the Company and its subsidiaries may be issued phantom share-based compensation awards. These awards include PSARs and PRS. These awards do not grant an equity or ownership interest in the Company.

A summary of share-based payment details representing the weighted average grant price of PSARs and PRS shares granted, the intrinsic value of PSARs shares exercised, the PRS liabilities paid and the fair value of shares vested during the year is as follows:

	Years Ended December 31,		
	2013	2012	2011
Weighted average grant date fair value (whole $):			
PSAR granted during the year	$ 78.55	$ 64.27	$ 62.77
PRS granted during the year	78.58	64.34	62.83
Intrinsic value (in thousands):			
PSAR options exercised	21,919	55,146	27,831
PRS liabilities paid	27,927	15,461	3,181
Fair value of shares vested during the year	28,260	76,536	51,620

A summary of PSARs and PRS vested and nonvested shares is as follows:

	PSARs			PRS		
		Weighted Average			Weighted Average	
	Number of Share Units	Price	Remaining Contract Terms	Number of Share Units	Price	Remaining Contract Terms
	(In Thousands)	(Whole $)	(In Years)	(In Thousands)	(Whole $)	(In Years)
Outstanding as of January 1, 2012	3,355	$ 46.82	1.1	1,323	$ 46.32	3.3
Granted	887	64.27		312	64.34	
Exercised	(1,562)	36.70		(241)	38.25	
Forfeited	(28)	62.03		(34)	55.19	
Outstanding as of December 31, 2012	2,652	58.56	1.6	1,360	51.67	3.2
Granted	806	78.55		263	78.58	
Exercised	(788)	48.63		(357)	42.66	
Forfeited	(50)	69.18		(33)	61.64	
Outstanding as of December 31, 2013	2,620	68.38	1.1	1,233	59.71	3.2
Exercisable as of December 31, 2013	192	$ 48.54	-	-	$ -	-

The PSARs compensation expense was $6 million, $44 million and $29 million for the years ended December 31, 2013, 2012 and 2011, respectively. The PSARs accrued compensation liability was $23 million and $38 million as of December 31, 2013 and 2012, respectively. Unrecognized compensation expense related to nonvested PSARs awards was $3 million, $15 million and $8 million for years ended December 31, 2013, 2012 and 2011, respectively. The PSARs unrecognized compensation expense represents the total intrinsic value of all shares issued if 100% vested at current share price, minus current compensation liability. The nonadmitted deferred tax benefit for the years ended December 31, 2013 and 2012 was $1 million. There was no nonadmitted deferred tax benefit for the year ended December 31, 2011.

The PRS compensation expense was $22 million, $33 million and $23 million for the years ended December 31, 2013, 2012 and 2011, respectively. The PRS accrued compensation liability was $57 million and $63 million as of December 31, 2013 and 2012, respectively. Unrecognized compensation expense related to nonvested PRS awards for years ended December 31, 2013, 2012 and 2011 was $38 million, $44 million and $39 million, respectively. The PRS unrecognized compensation expense represents the total value of all shares issued if 100% vested at the current share price, minus current compensation liability. The related nonadmitted deferred tax benefit for the years ended December 31, 2013, 2012 and 2011 was $2 million, $4 million and $3 million, respectively.

15. Federal income taxes

The Company provides for deferred income taxes in accordance with the NAIC issued guidance and has met the required threshold to utilize the 3 year reversal period and 15% of surplus limitation.

The net DTA or net DTL recognized in the Company's assets, liabilities and surplus is as follows:

	December 31, 2013		
	Ordinary	Capital	Total
	(In Millions)		
Gross DTAs	$ 2,701	$ 120	$ 2,821
Statutory valuation allowance adjustment	-	-	-
Adjusted gross DTAs	2,701	120	2,821
DTAs nonadmitted	-	-	-
Subtotal net admitted DTA	2,701	120	2,821
Total gross DTLs	(1,291)	(364)	(1,655)
Net admitted DTA(L)	$ 1,410	$ (244)	$ 1,166

	December 31, 2012		
	Ordinary	Capital	Total
	(In Millions)		
Gross DTAs	$ 2,647	$ 25	$ 2,672
Statutory valuation allowance adjustment	-	-	-
Adjusted gross DTAs	2,647	25	2,672
DTAs nonadmitted	-	-	-
Subtotal net admitted DTA	2,647	25	2,672
Total gross DTLs	(1,519)	(546)	(2,065)
Net admitted DTA(L)	$ 1,128	$ (521)	$ 607

	Change		
	Ordinary	Capital	Total
	(In Millions)		
Gross DTAs	$ 54	$ 95	$ 149
Statutory valuation allowance adjustment	-	-	-
Adjusted gross DTAs	54	95	149
DTAs nonadmitted	-	-	-
Subtotal net admitted DTA	54	95	149
Total gross DTLs	228	182	410
Net admitted DTA(L)	$ 282	$ 277	$ 559

The amount of adjusted gross DTA admitted under each component of the guidance and the resulting change by tax character are as follows:

	December 31, 2013		
	Ordinary	Capital	Total
	(In Millions)		
Admitted DTA 3 years:			
Federal income taxes that can be recovered	$ 53	$ 26	$ 79
Remaining adjusted gross DTAs expected to be realized within 3 years (lesser of 1 or 2):			
1. Adjusted gross DTA to be realized	1,063	94	1,157
2. Adjusted gross DTA allowed per limitation threshold	1,588	120	1,708
Lesser of lines 1 or 2	1,063	94	1,157
Adjusted gross DTAs offset by existing DTLs	1,585	-	1,585
Total admitted DTA realized within 3 years	$ 2,701	$ 120	$ 2,821

	December 31, 2012		
	Ordinary	Capital	Total
	(In Millions)		
Admitted DTA 3 years:			
Federal income taxes that can be recovered	$ 24	$ -	$ 24
Remaining adjusted gross DTAs expected to be realized within 3 years			
1. Adjusted gross DTA to be realized	1,003	25	1,028
2. Adjusted gross DTA allowed per limitation threshold	1,763	25	1,788
Lesser of lines 1 or 2	1,003	25	1,028
Adjusted gross DTAs offset by existing DTLs	1,620	-	1,620
Total admitted DTA realized within 3 years	$ 2,647	$ 25	$ 2,672

	Change		
	Ordinary	Capital	Total
	(In Millions)		
Admitted DTA 3 years:			
Federal income taxes that can be recovered	$ 29	$ 26	$ 55
Remaining adjusted gross DTAs expected to be realized within 3 years			
1. Adjusted gross DTA to be realized	60	69	129
2. Adjusted gross DTA allowed per limitation threshold	(175)	95	(80)
Lesser of lines 1 or 2	60	69	129
Adjusted gross DTAs offset by existing DTLs	(35)	-	(35)
Total admitted DTA realized within 3 years	$ 54	$ 95	$ 149

The Company's total realization threshold limitations are as follows:

	December 31, 2013	December 31, 2012
	($ In Millions)	
Ratio percentage used to determine recovery period and threshold limitation	836%	968%
Amount of adjusted capital and surplus used to determine recovery period and threshold limitation above	$ 11,320	$ 11,921

The ultimate realization of DTAs depends on the generation of future taxable income during the periods in which the temporary differences are deductible. Management considers the scheduled reversal of DTLs (including the impact of available carryback and carryforward periods), projected taxable income and tax-planning strategies in making this assessment. The impact of tax-planning strategies is as follows:

	December 31, 2013		
	Ordinary	Capital	Total
	(Percent)		
Impact of tax planning strategies:			
Adjusted gross DTAs (% of total adjusted gross DTAs)	13 %	- %	13 %
Net admitted adjusted gross DTAs (% of total net admitted adjusted gross DTAs)	31 %	- %	31 %

	December 31, 2012		
	Ordinary	Capital	Total
	(Percent)		
Impact of tax planning strategies:			
Adjusted gross DTAs (% of total adjusted gross DTAs)	- %	- %	- %
Net admitted adjusted gross DTAs (% of total net admitted adjusted gross DTAs)	- %	- %	- %

	Change		
	Ordinary	Capital	Total
	(Percent)		
Impact of tax planning strategies:			
Adjusted gross DTAs (% of total adjusted gross DTAs)	13 %	- %	13 %
Net admitted adjusted gross DTAs (% of total net admitted adjusted gross DTAs)	31 %	- %	31 %

There are no reinsurance strategies included in the Company's tax-planning.

The provision for current tax expense on earnings is as follows:

	Years Ended December 31,		
	2013	2012	2011
	(In Millions)		
Federal income tax benefit on operating earnings	$ (157)	$ (124)	$ (309)
Foreign income tax expense on operating earnings	15	16	16
Total federal and foreign income tax benefit on operating earnings	(142)	(108)	(293)
Federal income tax expense (benefit) on net realized capital gains (losses)	147	(293)	174
Total federal and foreign income tax expense (benefit)	$ 5	$ (401)	$ (119)

The tax effects of temporary differences that give rise to significant portions of the DTAs and DTLs are as follows:

	December 31,		
	2013	2012	Change
	(In Millions)		
DTAs:			
Ordinary			
Reserve items	$ 746	$ 786	$ (40)
Policy acquisition costs	547	514	33
Nonadmitted assets	417	447	(30)
Pension and compensation related items	245	332	(87)
Policyholders' dividends	326	312	14
Investment items	267	81	186
Expense items	45	55	(10)
Tax credits	61	96	(35)
Unrealized investment losses	13	24	(11)
Other	34	-	34
Total ordinary DTAs	2,701	2,647	54
Nonadmitted DTAs	-	-	-
Admitted ordinary DTAs	2,701	2,647	54
Capital			
Unrealized investment losses	50	5	45
Investment items	70	20	50
Total capital DTAs	120	25	95
Nonadmitted DTAs	-	-	-
Admitted capital DTAs	120	25	95
Admitted DTAs	2,821	2,672	149
DTLs:			
Ordinary			
Unrealized investment gains	549	787	(238)
Pension items	259	258	1
Deferred and uncollected premium	256	241	15
Reserve for audits and settlements	95	92	3
Other	132	141	(9)
Total ordinary DTLs	1,291	1,519	(228)
Capital			
Unrealized investment gains	220	239	(19)
Investment items	144	307	(163)
Total capital DTLs	364	546	(182)
Total DTLs	1,655	2,065	(410)
Net admitted DTA	$ 1,166	$ 607	$ 559

The change in net deferred income taxes is comprised of the following:

	Years Ended December 31,		
	2013	2012	2011
	(In Millions)		
Net DTA(L)	$ 559	$ (451)	$ (369)
Less: Items not recorded in the change in net deferred income taxes:			
Tax-effect of unrealized gains/(losses)	(291)	(100)	358
Tax-effect of change in accounting method for pensions	(4)	-	-
Change in net deferred income taxes	$ 264	$ (551)	$ (11)

As of December 31, 2013, the Company had no net operating or capital loss carryforwards to include in deferred income taxes. The Company has total tax credit carryforwards of $61 million in deferred taxes.

The components of federal and foreign income tax on operating items is recorded on the Statutory Statements of Income (Loss) and Statutory Statements of Changes in Surplus and is different from that which would be obtained by applying the prevailing federal income tax rate to operating income before taxes. The significant items causing this difference are as follows:

	Years Ended December 31,		
	2013	2012	2011
	(In Millions)		
Provision computed at statutory rate	$ (218)	$ 232	$ 286
Investment items	(154)	(91)	(330)
Tax credits	(46)	(40)	(38)
Change in reserve valuation basis	(20)	(9)	(4)
Expense items	136	3	10
Nonadmitted assets	30	55	(42)
Foreign governmental income taxes	11	11	11
Other	3	(11)	(1)
Total statutory income tax (benefit) expense	$ (258)	$ 150	$ (108)
Federal and foreign income tax expense (benefit)	$ 6	$ (401)	$ (119)
Change in net deferred income taxes	(264)	551	11
Total statutory income tax (benefit) expense	$ (258)	$ 150	$ (108)

During the years ended December 31, 2013, 2012, and 2011, the Company received refunds of federal income taxes in the amounts of $112 million, $26 million and $88 million, respectively.

The Company and its eligible U.S. subsidiaries are included in a consolidated U.S. federal income tax return. The Company and its subsidiaries and affiliates also file income tax returns in various states and foreign jurisdictions. The Company and its eligible subsidiaries and certain affiliates (the Parties) have executed and are subject to a written tax allocation agreement (the Agreement). The Agreement sets forth the manner in which the total combined federal income tax is allocated among the Parties. The Agreement provides the Company with the enforceable right to recoup federal income taxes paid in prior years in the event of future net losses, which it may incur. Further, the Agreement provides the Company with the enforceable right to utilize its net losses carried forward as an offset to future net income subject to federal income taxes.

Companies are required to disclose unrecognized tax benefits, which are the tax effect of positions taken on their tax returns, which may be challenged by the various taxing authorities, in order to provide users of financial statements more information regarding potential liabilities. The Company recognizes tax benefits and related reserves in accordance with existing statutory accounting guidance for liabilities, contingencies and impairments of assets.

The following is a reconciliation of the beginning and ending liability for unrecognized tax benefits (in millions):

Balance, January 1, 2013	$	227
Gross change related to positions taken in prior years		27
Gross change related to positions taken in current year		(9)
Gross change related to settlements		3
Gross change related to lapse of statutes of limitations		-
Balance, December 31, 2013	$	248

Included in the liability for unrecognized tax benefits as of December 31, 2013, are $231 million of tax positions for which the ultimate deductibility is highly certain but for which there is uncertainty about the timing of such deductibility. The liability for the unrecognized tax benefit balance as of December 31, 2013, includes $13 million of unrecognized tax benefits net of indirect tax benefits of $4 million that, if recognized, would impact the Company's effective tax rate.

The Company recognizes accrued interest and penalties related to the liability for unrecognized tax benefits as a component of the provision for income taxes. The amount of net interest recognized in the Company's financial statements as of December 31, 2013 and 2012 was $28 million and $19 million, respectively. The Company has accrued no penalties related to the liability for unrecognized tax benefits. The Company does not anticipate the total amount of uncertain tax positions to significantly increase or decrease within the next twelve months.

The Internal Revenue Service (IRS) has completed its examination of the years 2007 and prior. The IRS is currently auditing the years 2008 through 2010. The Company does not expect a material change in its financial position or liquidity as a result of these audits.

The Company is currently in litigation with the federal government regarding the timing of the deduction for certain policyholder dividends for tax years 1995 through 1997. In January 2012, the Company prevailed in the U.S. Court of Federal Claims, subject to the government's right to appeal. In November 2013, the government filed a Notice of Appeal in the U.S. Court of Federal Claims. The favorable effect of the decision in the U.S. Court of Federal Claims was reflected in the Company's financial statements in prior years. With respect to tax years ended after 1997, the Company recorded a net federal income tax benefit of $97 million in the Statutory Statements of Income (Loss), with a net increase of $16 million to Surplus as of December 31, 2012. As of December 31, 2013 and 2012, the Company had no protective deposits recognized as admitted assets.

In July 2012, the IRS issued an industry directive that addressed the proper timing of partial worthlessness tax deductions claimed by insurance companies for certain securities, including regular interests in mortgage backed securities. As a result of the industry directive, the Company recorded a net federal income tax benefit of $397 million in net realized capital gains, with a net decrease of $392 million in DTAs recorded through Surplus in the fourth quarter of 2012.

During 2012, the Company refined its method of allocating taxes to the AVR to better match its DTAs. The impact of this refinement is included in the change in AVR, decreasing Surplus by $57 million.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 became law on December 17, 2010. This Act allowed the extension of 50% bonus depreciation through 2012. The American Taxpayer Relief Act of 2012, signed into law on January 2, 2013, extended the 50% first year bonus depreciation to qualified property acquired and placed in service before January 1, 2014. These new tax provisions will not have a material effect on the Company's financial position or liquidity.

16. Transferable state tax credits

The Company entered into a transfer credit contract in which Connecticut state tax credits were purchased in December 2013. The total unused transferable state credits, gross of any related state tax liabilities, had a carrying value of less than $1 million as of December 31, 2013, and are recorded in other than invested assets. The Company will be using the credits in 2014. There are no impairments with respect to these credits as of December 31, 2013.

17. Business risks, commitments and contingencies

a. Risks and uncertainties

The Company operates in a business environment subject to various risks and uncertainties. Such risks and uncertainties include, but are not limited to, currency exchange risk, interest rate risk and credit risk. Interest rate risk is the potential for interest rates to change, which can cause fluctuations in the value of investments and amounts due to policyholders. To the extent that fluctuations in interest rates cause the duration of assets and liabilities to differ, the Company controls its exposure to this risk by, among other things, asset/liability management techniques that account for the cash flow characteristics of the assets and liabilities.

Currency exchange risk

The Company has currency risk due to its non-U.S. dollar investments and medium-term notes along with its international operations. The Company mitigates currency risk through the use of cross-currency swaps and forward contracts. Cross-currency swaps are used to minimize currency risk for certain non-U.S. dollar assets and liabilities through a pre-specified exchange of interest and principal. Forward contracts are used to hedge movements in exchange rates.

Investment and interest rate risks

Investment earnings can be influenced by a number of factors including changes in interest rates, credit spreads, equity markets, portfolio asset allocation and general economic conditions. The Company employs a rigorous asset/liability management process to help mitigate the economic impacts of various investment risks, in particular interest rate risk.

As interest rates increase, certain debt securities may experience slower amortization or prepayment speeds than assumed at purchase, impacting the expected maturity of these securities and the ability to reinvest the proceeds at the higher yields. Rising interest rates may also result in a decrease in the fair value of the investment portfolio. As interest rates decline, certain debt securities may experience accelerated amortization and prepayment speeds than what was assumed at purchase. During such periods, the Company is at risk of lower net investment income as it may not be able to reinvest the proceeds at comparable yields. Declining interest rates may also increase the fair value of the investment portfolio.

Interest rates also have an impact on the Company's products with guaranteed minimum payouts and on interest credited to account holders. As interest rates decrease, investment spreads may contract as interest rates approach minimum guarantees, potentially resulting in an increased liability of the Company.

In periods of increasing interest rates, life insurance policy loans, surrenders and withdrawals may increase as policyholders seek investments with higher perceived returns. This could result in cash outflows requiring the Company to sell invested assets at a time when the prices of those assets are adversely affected by the increase in market interest rates, which could cause the Company to realize investment losses.

Asset-based fees calculated as a percentage of the separate account assets are a source of revenue to the Company. Gains and losses in the equity markets may result in corresponding increases and decreases in the Company's separate account assets and related revenue.

Credit and other market risks

Credit risk is the risk that issuers of investments owned by the Company may default or that other parties may not be able to pay amounts due to the Company. The Company manages its investments to limit credit risk by diversifying its portfolio among various security types and industry sectors as well as purchasing credit default swaps to transfer some of the risk.

Housing market trends began to improve in May 2012. Real estate values are up approximately 13.7% nationally in 2013 according to the Case-Shiller index. Increased demand and slowing rates of foreclosures and delinquencies have improved the supply/demand fundamentals. There are regional differences in price performance that are likely to continue. The rate of foreclosure resolutions remains low but is improved from post-crisis bottoms.

Liquidity for securities issued in 2008 and earlier has been favorable. During the year, prices improved sharply due to limited supply and improved housing market expectations. Profit taking began in mid-May 2013 as loss adjusted yields began to widen from very tight levels. More recently, prices have been fairly stable and have recovered to their highs for the year.

U.S. economic growth continues to be fueled by the housing recovery, private sector resiliency and slow but continued, global recovery. Real estate fundamentals remain strong, particularly in the major markets, and continue to improve. These factors coupled with strong investor demand provided liquidity to the market. Weakness in the public sector, sluggish job growth and macro-economic issues are factors that are closely monitored to identify any impact on the commercial real estate markets.

Despite the passage of legislation funding the federal government and increasing the U.S. debt ceiling, uncertainty related to the U.S. fiscal situation and economic stability remains. These uncertainties continue to be risk factors for the Company’s investment portfolio.

The Company has a review process for determining the nature and timing of OTTI on securities containing these risk characteristics. Cash flows are modeled for all bonds deemed to be at risk for impairment using prepayment, default, and loan loss severity assumptions that vary according to collateral attributes and housing price trends since origination. These assumptions are reviewed quarterly and changes are made as market conditions warrant.

Internal models utilized in testing for impairment calculate the present value of cash flows expected to be received over the average life of the security, discounted at the purchase yield or discount margin. The RMBS sector is highly sensitive to evolving conditions that can impair the cash flows realized by investors and the ultimate emergence of losses is subject to uncertainty. If defaults were to increase above the stresses imposed in the Company’s analysis and/or default severities were to be worse than expected, management would need to reassess whether such credit events have changed the Company’s assessment of OTTI in light of changes in the expected performance of these assets.

Management’s judgment regarding OTTI and estimated fair value depends upon the evolving investment sector and economic conditions that can alter the anticipated cash flows realized by investors. It can also be affected by the market liquidity, a lack of which can make it difficult to obtain accurate market prices for RMBS and other investments, including CMBS and leveraged loans. Further deterioration in economic fundamentals could affect management’s judgment regarding OTTI. In addition, deterioration in market conditions may affect carrying values assigned by management. These factors could negatively impact the Company's results of operations, surplus and disclosed fair values.

The Company has investments in structured products exposed primarily to the credit risk of corporate bank loans, corporate bonds or credit default swap contracts referencing corporate credit risk. Most of these structured investments are backed by corporate loans and are commonly known as collateralized loan obligations that are classified as CDOs. The portfolios backing these investments are actively managed and diversified by industry and individual issuer concentrations. Due to the complex nature of CDOs and the reduced level of transparency to the underlying collateral pools for many market participants, the recovery in CDO valuations generally lags the overall recovery in the underlying assets. Management believes its scenario analysis approach, based primarily on actual collateral data and forward looking assumptions, does capture the credit and most other risks in each pool. However, in a rapidly changing economic environment, the credit and other risks in each collateral pool will be more volatile and actual credit performance of CDOs may differ from the Company's assumptions.

The Company has investments in European leveraged loans that have higher yields than investment grade debt instruments, reflecting additional risk of default. The average secondary price of leveraged loans in Europe was up 5.5% during 2013, driven by underlying corporate performance and a pick-up in prepayments and primary activity. Underlying concerns over the macroeconomic outlook and debt burden of certain parts of the Eurozone remain, but the Company's direct exposure on loans to companies in these countries is limited. While significant progress has been made on the refinancing required in the European loan market, a number of weaker borrowers continue to face maturities over the next three years and uncertainty over the sources of this refinancing may lead to an increase in reported default rates going forward.

Market risk arises within the Company's employee benefit plans to the extent that the obligations of the plans are not fully matched by assets with determinable cash flows. Pension and postretirement obligations are subject to change due to fluctuations in the discount rates used to measure the liabilities as well as factors such as changes in inflation, salary increases and participants living longer. The risks are that market fluctuations could result in assets that are insufficient over time to cover the level of projected benefit obligations. In addition, increases in inflation and members living longer could increase the pension and postretirement obligations. Management determines the level of this risk using reports prepared by independent actuaries and takes action, where appropriate, in terms of setting investment strategy and determining contribution levels. In the event that the pension obligations arising under the Company's employee benefit plans exceed the assets set aside to meet the obligations, the Company may be required to make additional contributions or increase its level of contributions to these plans.

b. Leases

The Company leases office space and equipment in the normal course of business under various noncancelable operating lease agreements. Additionally, the Company, as lessee, has entered various sublease agreements with affiliates for office space, such as OFI and Babson Capital. Total rental expense on net operating leases, recorded in general insurance expenses, was $89 million, $79 million and $81 million, which is net of $13 million, $17 million and $22 million of sublease receipts, for the years ended December 31, 2013, 2012 and 2011, respectively.

In September 2013, the Company entered into a sale-leaseback transaction with an unrelated party to sell and leaseback certain fixed assets with a book value of $120 million, which resulted in no gain or loss. This lease is classified as an operating lease with a five year term and annual lease payments of approximately $25 million. At the end of the lease, the Company has the option to purchase the underlying assets at fair value.

Future minimum commitments for all net operating lease contractual obligations as of December 31, 2013 were as follows:

	Gross Operating Leases	Affiliated Subleases	Net Operating Leases
	(In Millions)		
2014	$ 111	$ 6	$ 105
2015	68	7	61
2016	64	6	58
2017	55	5	50
2018	42	5	37
Thereafter	50	16	34
Total	$ 390	$ 45	$ 345

As of December 31, 2013, nonaffiliated subleases were $1 million.

c. Guaranty funds

The Company is subject to insurance guaranty fund laws in the states in which it does business. These laws assess insurance companies amounts to be used to pay benefits to policyholders and policy claimants of insolvent insurance companies. Many states allow these assessments to be credited against future premium taxes. The Company believes such assessments in excess of amounts accrued will not materially impact its financial position, results of operations or liquidity.

d. Litigation

The Company is involved in litigation arising in and out of the normal course of business, which seeks both compensatory and punitive damages and equitable remedies. Although the Company is not aware of any actions or allegations that reasonably should give rise to a material adverse impact to the Company's financial position or liquidity, the outcome of litigation cannot be foreseen with certainty. It is the opinion of management that the ultimate resolution of these matters will not materially impact the Company's financial position or liquidity. However, the outcome of a particular proceeding may be material to the Company's operating results for a particular period depending upon, among other factors, the size of the loss or liability and the level of the Company's income for the period.

Since December 2008, the Company and MMHLLC have been named as defendants in a number of putative class action and individual lawsuits filed by investors seeking to recover losses from the "Ponzi" scheme run by Bernard L. Madoff through his company, Bernard L. Madoff Investment Securities, LLC (BLMIS). The plaintiffs allege a variety of state law and federal securities claims against the Company and/or MMHLLC, and certain of its subsidiaries, seeking to recover losses arising from their investments in several funds managed by Tremont Group Holdings, Inc. (Tremont) or Tremont Partners, Inc., including Rye Select Broad Market Prime Fund, L.P., Rye Select Broad Market Fund, L.P., American Masters Broad Market Prime Fund, L.P., American Masters Market Neutral Fund, L.P. and/or Tremont Market Neutral Fund, L.P. Tremont and its subsidiary, Tremont Partners, Inc., are indirect subsidiaries of MMHLLC. Certain of the lawsuits have been consolidated into three groups of suits in the U.S. District Court for the Southern District of New York. In February 2011, the parties in the consolidated federal litigation submitted to the court a proposed settlement agreement. In August 2011, the court entered an order and final judgment approving the settlement. Appeals have been filed and remain pending. The settlement, if affirmed on appeal, will not have a significant financial impact on the Company.

Additionally, a number of other lawsuits were filed in state courts in California, Colorado, Florida, Massachusetts, New Mexico, New York and Washington by investors in Tremont funds against Tremont, and in certain cases against the Company, MMHLLC and other defendants, raising claims similar to those in the consolidated federal litigation. Those cases are in various stages of litigation. The Company believes it has substantial defenses and will continue to vigorously defend itself in these actions. No reasonable estimate can be made at this time regarding the potential liability, if any, or the amount or range of any loss that may result from these claims.

On October 19, 2011, Golden Star, Inc. (Golden Star), plan administrator of the Golden Star Administrative Associates 401(k) Plan and Golden Star Bargaining Associates 401(k) Plan, filed a putative class action lawsuit in the U.S. District Court for the District of Massachusetts against the Company. Golden Star alleges, among other things, that the Company breached its alleged fiduciary duties while performing services to 401(k) plans and that certain of its actions constituted "Prohibited Transactions" under the Employee Retirement Income Security Act of 1974. The Company believes that it has numerous substantial defenses to the claims and will vigorously defend itself. No reasonable estimate can be made at this time regarding the potential liability, if any, or the amount or range of any loss that may result from this action.

Christina Chavez (Chavez) filed a putative class action complaint against the Company in April 2010. Chavez alleges that the Company breached its obligations to its term life policyholders in California by not paying dividends on those policies. The parties are engaged in active discovery. The Company believes it has substantial defenses and will continue to vigorously defend itself in these actions. No reasonable estimate can be made at this time regarding the potential liability, if any, or the amount or range of any loss that may result from this claim.

In 2009, numerous lawsuits (the Rochester Suits) were filed as putative class actions in connection with the investment performance of certain municipal bond funds advised by OFI and distributed by its subsidiary, OppenheimerFunds Distributor, Inc. The Rochester Suits raise claims under federal securities laws alleging that, among other things, the disclosure documents of the funds contained misrepresentations and omissions, that the investment policies of the funds were not followed and that the funds and other defendants violated federal securities laws and regulations and certain state laws. The Rochester Suits have been consolidated into seven groups, one for each of the funds, in the U.S. district court in Colorado. Amended complaints and motions to dismiss were filed. In October 2011, the court issued an order granting and denying in part defendants' motion to dismiss the suits. In January 2012, the court granted a stipulated scheduling and discovery order in these actions. In September 2012, defendants opposed plaintiffs' July 2012 motion for class certification and filed motions for partial summary judgment in several of the Rochester Suits. In March 2013, the court denied one of the defendants' motions for partial summary judgment; defendants' second motion, which seeks dismissal of plaintiffs' "leverage ratio" claims, is still pending. In July 2013, the parties to six of the Rochester Suits reached an agreement in principle to settle those suits, and in August 2013, the parties executed a memorandum of understanding memorializing their agreement. The proposed settlement is subject to various contingencies, including execution of stipulations of settlement in each of the six actions and approval by the court. Approval of the proposed settlement also requires that a sufficient number of class members approve the settlement to induce defendants to proceed. In the opinion of management, the settlement did not have a significant financial impact on the Company. The settlement, if given effect, would not settle a seventh suit. The court has stayed depositions in that suit pending approval of the proposed settlement. No reasonable estimate can be made at this time regarding the potential liability, if any, or the amount or range of any loss that may result from this remaining suit.

In May 2009, the Company was named as a defendant in a private action related to certain losses in a bank owned life insurance (BOLI) policy issued by the Company. The plaintiff alleges, among other things, fraud, breach of contract and breach of fiduciary duty claims against the Company, and it seeks to recover losses arising from investments pursuant to the BOLI policy. The parties have completed discovery and are now preparing for trial, likely at some point in 2014. The Company believes it has substantial defenses and will continue to vigorously defend itself in this action. No reasonable estimate can be made at this time regarding the potential liability, if any, or the amount or range of any loss that may result from this claim.

In July 2012, Karen Bacchi filed a putative class action complaint against the Company in federal court alleging that the Company breached its contracts by allegedly failing to distribute surplus in excess of the statutorily prescribed limit. The matter is in the initial pleading stages. The Company believes that it has substantial defenses and will vigorously defend itself. No reasonable estimate can be made at this time regarding the potential liability, if any, or the amount or range of any loss that may result from this claim.

In November 2013, seven participants in the Company's Thrift Plan (the Plan) filed a putative class action complaint in the U.S. District Court for the District of Massachusetts. The complaint alleges, among other things, that the Company, the Investment Fiduciary Committee, the Plan Administrative Committee, and individually named "fiduciaries" breached their duties by allowing the Plan to pay excessive fees and by engaging in self-dealing by limiting investment options primarily to the Company proprietary products. No reasonable estimate can be made regarding the potential liability, if any, or the amount or range of any loss that may result from these claims. The Company believes that it has substantial defenses to the claims and intends to vigorously defend itself.

e. Regulatory matters

The Company is subject to governmental and administrative proceedings and regulatory inquiries, examinations and investigations in the ordinary course of its business. In connection with regulatory inquiries, examinations and investigations, the Company has been contacted by various regulatory agencies including, among others, the Securities and Exchange Commission, the U.S. Department of Labor and various state insurance departments and state attorneys general. The Company has cooperated fully with these regulatory agencies with regard to their inquiries, examinations and investigations and has responded to information requests and comments.

Market volatility in the financial services industry over the last several years has contributed to increased scrutiny of the entire financial services industry. Therefore, the Company believes that it is reasonable to expect that proceedings, regulatory inquiries, examinations and investigations into the insurance and financial services industries will continue for the foreseeable future. Additionally, new industry-wide legislation, rules and regulations could significantly affect the insurance and financial services industries as a whole. It is the opinion of management that the ultimate resolution of these regulatory inquiries, examinations, investigations, legislative and regulatory changes of which we are aware will not materially impact the Company's financial position or liquidity. However, the outcome of a particular matter may be material to the Company's operating results for a particular period depending upon, among other factors, the financial impact of the matter and the level of the Company's income for the period.

f. Commitments

In the normal course of business, the Company provides specified guarantees and funding to MMHLLC and certain of its subsidiaries. As of December 31, 2013 and 2012, the Company had approximately $125 million and $75 million, respectively, of these unsecured funding commitments to its subsidiaries. The unsecured commitments are included in private placements in the table below. As of December 31, 2013 and 2012, the Company had not funded, nor had an outstanding balance due on these commitments.

In the normal course of business, the Company enters into letter of credit arrangements. As of December 31, 2013 and 2012, the Company had approximately $80 million and $82 million, respectively, of outstanding letter of credit arrangements. As of December 31, 2013 and 2012, the Company did not have a funding request attributable to these letter of credit arrangements.

As of December 31, 2013 and 2012, the Company approved financing of $2,048 million for MassMutual Asset Finance LLC that can be used to finance ongoing asset purchases and refinance existing Company provided lines of credit. Borrowings under the facility with the Company as of December 31, 2013 and 2012, were $1,689 million and $1,499 million, respectively, with interest of $32 million, $31 million and $34 million for the years ended December 31, 2013, 2012 and 2011, respectively. The unfunded amount of the facility, totaling $359 million as of December 31, 2013, is included in private placements in the table below. The interest of this facility adjusts monthly based on the 30-day LIBOR.

In the normal course of business, the Company enters into commitments to purchase certain investments. The majority of these commitments have funding periods that extend between one and five years. The Company is not required to fund commitments once the commitment period expires.

As of December 31, 2013, the Company had the following commitments:

	2014	2015	2016	2017	There-after	Total
	(In Millions)					
Private placements	$ 1,057	$ 395	$ 1	$ 11	$ 120	$ 1,584
Mortgage loans	426	246	216	-	331	1,219
Partnerships and LLC	1,011	146	342	412	1,227	3,138
LIHTCs (including equity contributions)	9	72	6	-	57	144
Total	$ 2,503	$ 859	$ 565	$ 423	$ 1,735	$ 6,085

In the normal course of business the Company enters into commitments related to property lease arrangements, certain indemnities, investments and other business obligations. As of December 31, 2013 and 2012, the Company had no outstanding obligations attributable to these commitments.

Certain commitments and guarantees of the Company provide for the maintenance of subsidiary regulatory capital and surplus levels and liquidity sufficient to meet certain obligations. These commitments and guarantees are not limited. As of December 31, 2013 and 2012, the Company had no outstanding obligations attributable to these commitments and guarantees.

g. Guarantees

In the normal course of business the Company enters into guarantees related to employee and retirement benefits, the maintenance of subsidiary regulatory capital, surplus levels and liquidity sufficient to meet certain obligations, and other property lease arrangements. If the Company were to recognize a liability, the financial statement impact would be to recognize either an expense or an investment in a subsidiary, controlled, or affiliated entity. The Company has no expectations for recoveries from third parties should these guarantees be triggered. As of December 31, 2013 and 2012, the Company had no outstanding obligations to any obligor attributable to these guarantees.

The following details contingent guarantees that are made on behalf of the Company's subsidiaries and affiliates as of December 31, 2013.

Type of guarantee	Nature of guarantee (including term) and events and circumstances that would require the guarantor to perform under guarantee	Carrying amount of liability	Maximum potential amount of future payments (undiscounted) required under the guarantee
		($ In Millions)	
Employee and Retirement Benefits	The Company guarantees the payment of certain employee and retirement benefits for specific wholly-owned subsidiaries (CREA and Babson Capital), if the subsidiary is unable to pay.	-	The liabilities for these plans of $153 million have been recorded on the subsidiaries' books and represent the Company's maximum obligation.
Capital and Surplus Support of Subsidiaries	Certain guarantees of the Company provide for the maintenance of a subsidiary's regulatory capital, surplus levels and liquidity sufficient to meet certain obligations. These unlimited guarantees are made on behalf of certain wholly-owned subsidiaries. (C.M. Life Insurance Company, MML Bay State Life Insurance Company and MassMutual Japan).	-	These guarantees are not limited and cannot be estimated.
Other Property Lease Arrangements	The Company guarantees the payment of various lease obligations on behalf of its subsidiaries and affiliates originating in 2004, 2007 and 2012 and some are in effect until 2023.	-	The future maximum potential obligations are immaterial to the Company.

18. Withdrawal characteristics

a. Annuity actuarial reserves and liabilities for deposit-type contracts

The withdrawal characteristics of the Company's annuity actuarial reserves and deposit-type contracts as of December 31, 2013 are illustrated below:

	General Account	Separate Account w/ Guarantees	Separate Account Nonguaranteed	Amount	% of Total
	($ In Millions)				
Subject to discretionary withdrawal:					
With fair value adjustment	$ 12,855	$ -	$ -	$ 12,855	14 %
At book value less current surrender charge of 5% or more	2,692	-	-	2,692	3
At fair value	-	14,581	39,093	53,674	60
Subtotal	15,547	14,581	39,093	69,221	77
Subject to discretionary withdrawal:					
At book value without fair value adjustment	7,537	477	-	8,014	9
Not subject to discretionary withdrawal	12,606	250	-	12,856	14
Total	$ 35,690	$ 15,308	$ 39,093	$ 90,091	100 %

The following is a summary of total annuity actuarial reserves and liabilities for deposit-type contracts as of December 31, 2013 (in millions):

Statutory Statements of Financial Position:	
Policyholders' reserves - group annuities	$ 16,533
Policyholders' reserves - individual annuities	9,748
Liabilities for deposit-type contracts	9,409
Subtotal	35,690
Separate Account Annual Statement:	
Annuities	54,151
Other annuity contract deposit-funds and guaranteed interest contracts	250
Subtotal	54,401
Total	$ 90,091

b. Separate accounts

The Company has guaranteed separate accounts classified as the following: (1) indexed, which are invested to outperform an established index based on the guarantee and (2) nonindexed, which fund a long-term interest guarantee in excess of a year that does not exceed 4%. The Company has nonguaranteed separate accounts, which are variable accounts where the benefit is determined by the performance and/or market value of the investments held in the separate account with incidental risk, notional expense and minimum death benefit guarantees.

Information regarding the separate accounts of the Company as of and for the year ended December 31, 2013 is as follows:

	Guaranteed			
	Indexed	Nonindexed Less Than/ Equal to 4%	Non Guaranteed	Total
	(In Millions)			
Net premium, considerations or deposits for the year ended December 31, 2013	$ -	$ -	$ 7,942	$ 7,942
Reserves at December 31, 2013:				
For accounts with assets at:				
Fair value	$ 250	$ 15,058	$ 41,842	$ 57,150
Subtotal	250	15,058	41,842	57,150
Nonpolicy liabilities	-	-	1,232	1,232
Total	$ 250	$ 15,058	$ 43,074	$ 58,382
Reserves by withdrawal characteristics:				
Subject to discretionary withdrawal:				
At fair value	$ -	$ 14,581	$ 41,842	$ 56,423
At book value without market value adjustment and current surrender charge of less than 5%	-	477	-	477
Subtotal	-	15,058	41,842	56,900
Not subject to discretionary withdrawal	250	-	-	250
Nonpolicy liabilities	-	-	1,232	1,232
Total	$ 250	$ 15,058	$ 43,074	$ 58,382

The Company does not have any reserves in separate accounts for asset default risk in lieu of AVR.

The following is a summary of amounts reported as transfers (from) to separate accounts in the summary of operations of the Company's NAIC Separate Account Annual Statement with the amounts reported as net transfers (from) to separate accounts in change in policyholders' reserves in the accompanying Statutory Statements of Income (Loss):

	Years Ended December 31,		
	2013	2012	2011
	(In Millions)		
From the Separate Account Annual Statement:			
Transfers to separate accounts	$ 7,941	$ 11,750	$ 6,048
Transfers from separate accounts	(9,023)	(6,097)	(5,466)
Subtotal	(1,082)	5,653	582
Reconciling adjustments:			
Net withdrawals on deposit-type liabilities	1	1	377
Net transfers (from) to separate accounts	$ (1,081)	$ 5,654	$ 959

Net deposits on deposit-type liabilities are not considered premium and therefore are excluded from the Statutory Statements of Income (Loss).

19. Presentation of the Statutory Statements of Cash Flows

The Company has included the following non-cash inflows (outflows) in the Statutory Statements of Cash Flows:

	Years Ended on December 31,		
	2013	2012	2011
	(In Millions)		
Related to RPG reinsurance agreement:			
Deposits for policyholders' reserves related to reinsurance agreement	$ 5,298	$ -	$ -
Liabilities for deposit-type contracts related to reinsurance agreement	3,885	-	-
Other liabilities	879	-	-
Bonds	(8,602)	-	-
Mortgage loans	(736)	-	-
Other assets	(383)	-	-
Preferred stock	(13)	-	-
Bank loan rollovers[1]	1,924	2,347	1,716
Bond conversions and refinancing	658	538	734
Stock conversions	288	1	106
Bond conversions to other invested assets	181	-	-
Mortgages converted to other invested assets	34	55	180
Other	24	5	10
Other invested assets to stock distributions	5	25	4

[1]*Bank loan rollovers represent transactions processed as the result of rate resets on existing bank loans and are included in the proceeds from investments sold, matured or repaid on bonds.*

Refer to *Note 10. "Reinsurance"* for information about the Company's reinsurance agreement.

20. Subsequent events

The Company has evaluated subsequent events through February 21, 2014, the date the financial statements were available to be issued.

During February 2014, two affiliates of the Company entered into a Purchase and Sale agreement to sell certain real estate assets. The closing is expected to occur later in 2014. The transaction is expected to generate income for the Company.

No additional events have occurred subsequent to the balance sheet date and before the date of evaluation that would require disclosure.

21. Subsidiaries and affiliated companies

A summary of ownership and relationship of the Company and its subsidiaries and affiliated companies as of December 31, 2013 is illustrated below. Subsidiaries are wholly owned, except as noted.

Subsidiaries of Massachusetts Mutual Life Insurance Company
C.M. Life Insurance Company
MassMutual Holding LLC
The MassMutual Trust Company, FSB
MML Distributors LLC – 99% (remaining 1% owned by MassMutual Holding LLC)
MML Private Placement Investment Company I, LLC
MML Mezzanine Investor, LLC
MML Mezzanine Investor L, LLC
MML Mezzanine Investor II, LLC
MML Mezzanine Investor III, LLC
MML Private Equity Fund Investor LLC
MML Re Finance LLC
MMC Equipment Finance LLC
CB – Apts, LLC
CV Apts, LLC
MP – Apts, LLC
MSP – SC, LLC
MW – Apts, LLC
PL – Apts, LLC – 92% (remaining 8% owned by C.M. Life Insurance Company)
WP – SC, LLC – 81% (remaining 19% owned by C.M. Life Insurance Company)
WW – Apts, LLC
Country Club Office Plaza LLC – 88% (remaining 12% owned by C.M. Life Insurance Company)
MassMutual External Benefits Group LLC
MSC Holding Company, LLC
Berkshire Way LLC
MassMutual Retirement Services, LLC
Fern Street LLC
MML Investment Advisers, LLC
MML Strategic Distributors, LLC

Subsidiaries of C.M. Life Insurance Company
MML Bay State Life Insurance Company
CML Mezzanine Investor, LLC
CML Mezzanine Investor L, LLC
CML Mezzanine Investor III, LLC
CML Re Finance LLC

Subsidiary of MMC Equipment Finance LLC
MassMutual Asset Finance LLC

Subsidiaries of MassMutual Holding LLC
HYP Management LLC
MassMutual Assignment Company
MassMutual International LLC
MML Investors Services, LLC
MML Realty Management Corporation
MassMutual International Holding MSC, Inc.
MassMutual Capital Partners LLC
First Mercantile Trust Company
MM Asset Management Holding LLC
MM Rothesay Holdco US LLC

Subsidiaries of MM Asset Management Holding LLC
Babson Capital Management LLC
Oppenheimer Acquisition Corp. – 99%
MassMutual Baring Holding LLC
Babson Capital Finance LLC
Cornerstone Global Real Estate LP
Cornerstone Hotel Income & Equity Fund II LP

Subsidiary of MSC Holding Company, LLC
MassMutual Holding MSC, Inc.

Affiliates of Massachusetts Mutual Life Insurance Company
MML Series Investment Fund
MassMutual Select Funds
MassMutual Premier Funds
Jefferies Finance LLC – 45% (5% owned by Babson Capital Management LLC; remaining 50% owned by Jefferies Group, Inc.)
580 Walnut Cincinnati LLC – 50%
Invicta Advisors LLC

22. Impairment listing for loan-backed and structured securities

The following are the total cumulative adjustments and impairments for loan-backed and structured securities since July 1, 2009:

Period Ended	Amortized Cost before Cumulative Adjustment	Cumulative Adjustment	Amortized Cost before OTTI	Projected Cash Flow	Recognized OTTI	Amortized Cost after OTTI	Fair Value
December 31, 2013	$ 113,707,950.98	$ -	$ 113,707,950.98	$ 108,815,640.18	$ (4,892,310.80)	$ 108,815,640.18	$ 111,783,051.88
September 30, 2013	81,945,730.49	-	81,945,730.49	80,589,482.19	(1,356,248.30)	80,589,482.19	77,049,314.39
June 30, 2013	147,215,936.13	-	147,215,936.13	142,140,571.53	(5,075,364.60)	142,140,571.53	130,973,022.96
March 31, 2013	194,772,024.52	-	194,772,024.52	188,372,088.50	(6,399,936.02)	188,372,088.50	176,678,910.26
December 31, 2012	378,096,660.04	-	378,096,660.04	366,323,110.21	(11,773,549.83)	366,323,110.21	333,086,072.58
September 30, 2012	816,573,456.06	-	816,573,456.06	788,350,822.82	(28,222,633.24)	788,350,822.82	697,683,288.85
June 30, 2012	912,025,936.52	-	912,025,936.52	890,494,220.76	(21,531,715.76)	890,494,220.76	708,872,106.49
March 31, 2012	1,095,018,529.18	-	1,095,018,529.18	1,058,132,041.09	(36,886,488.09)	1,058,132,041.09	841,095,012.78
December 31, 2011	1,090,904,993.06	-	1,090,904,993.06	1,056,761,288.41	(34,143,704.65)	1,056,761,288.41	754,310,837.90
September 30, 2011	762,320,631.78	-	762,320,631.78	738,510,047.63	(23,810,584.15)	738,510,047.63	546,494,231.96
June 30, 2011	1,130,732,656.14	-	1,130,732,656.14	1,078,535,670.23	(52,196,985.91)	1,078,535,670.23	839,143,290.12
March 31, 2011	1,097,705,351.09	-	1,097,705,351.09	1,068,852,203.67	(28,853,147.42)	1,068,852,203.67	816,688,348.33
December 31, 2010	968,742,508.30	-	968,742,508.30	950,111,416.81	(18,631,091.49)	950,111,416.81	708,895,636.97
September 30, 2010	915,728,029.86	-	915,728,029.86	889,896,058.18	(25,831,971.68)	889,896,058.18	673,462,492.71
June 30, 2010	1,362,887,892.31	-	1,362,887,892.31	1,335,628,211.52	(27,259,680.79)	1,335,628,211.52	975,241,505.93
March 31, 2010	1,471,905,695.71	-	1,471,905,695.71	1,391,337,542.96	(80,568,152.75)	1,391,337,542.96	1,015,645,802.04
December 31, 2009	1,349,124,213.70	-	1,349,124,213.70	1,290,817,167.68	(58,307,046.02)	1,290,817,167.68	852,088,739.42
September 30, 2009	2,953,442,689.02	(106,853,708.32)	2,846,588,980.70	2,700,948,264.43	(145,640,716.27)	2,700,948,264.43	1,692,409,639.54
Totals		$ (106,853,708.32)			$ (611,381,327.77)		

The following is the impairment listing for loan-backed and structured securities for the three months ended December 31, 2013:

CUSIP	Amortized Cost before Cumulative Adjustment	Cumulative Adjustment	Amortized Cost before OTTI	Projected Cash Flow	Recognized OTTI	Amortized Cost after OTTI	Fair Value
07389UAA7	$ 46,336.65	$ -	$ 46,336.65	$ 45,693.55	$ (643.10)	$ 45,693.55	$ 45,006.13
07389VAA5	1,062,717.63	-	1,062,717.63	981,791.21	(80,926.42)	981,791.21	1,042,223.82
07820QBL8	1,977,670.55	-	1,977,670.55	1,965,794.89	(11,875.66)	1,965,794.89	1,750,561.92
125435AA5	7,342,895.43	-	7,342,895.43	7,264,219.18	(78,676.25)	7,264,219.18	6,540,359.68
12669UBB5	234,180.04	-	234,180.04	155,615.45	(78,564.59)	155,615.45	214,156.74
14453MAB0	4,222,121.81	-	4,222,121.81	4,058,617.19	(163,504.62)	4,058,617.19	4,113,320.75
22943HAD8	5,717,620.99	-	5,717,620.99	5,655,055.45	(62,565.54)	5,655,055.45	4,172,955.00
36298XAB8	16,029,062.93	-	16,029,062.93	14,145,863.23	(1,883,199.70)	14,145,863.23	15,680,831.67
525221AW7	3,124.68	-	3,124.68	224.20	(2,900.48)	224.20	21.81
61749BAB9	260,888.23	-	260,888.23	244,772.81	(16,115.42)	244,772.81	218,874.98
61750MAB1	21,939.77	-	21,939.77	19,205.60	(2,734.17)	19,205.60	17,289.58
65106FAG7	98,954.14	-	98,954.14	88,030.69	(10,923.45)	88,030.69	126,820.85
77277LAF4	36,675,600.76	-	36,675,600.76	35,319,833.51	(1,355,767.25)	35,319,833.51	38,161,057.50
77277LAH0	1,825,871.12	-	1,825,871.12	1,759,508.86	(66,362.26)	1,759,508.86	3,673,389.60
77277LAJ6	25,853,379.03	-	25,853,379.03	24,917,058.77	(936,320.26)	24,917,058.77	24,013,543.50
86359DMC8	12,335,587.22	-	12,335,587.22	12,194,355.59	(141,231.63)	12,194,355.59	11,967,632.22
Totals	$ 113,707,950.98	$ -	$ 113,707,950.98	$ 108,815,640.18	$ (4,892,310.80)	$ 108,815,640.18	$ 111,738,045.75

The following is the impairment listing for loan-backed and structured securities for the three months ended September 30, 2013:

CUSIP	Amortized Cost before Cumulative Adjustment	Cumulative Adjustment	Amortized Cost before OTTI	Projected Cash Flow	Recognized OTTI	Amortized Cost after OTTI	Fair Value
04544TAB7	$ 79,991.43	$ -	$ 79,991.43	$ 16,105.39	$ (63,886.04)	$ 16,105.39	$ 47,854.57
05948JAA0	323,644.40	-	323,644.40	322,161.12	(1,483.28)	322,161.12	319,083.89
12479DAC2	4,722,262.30	-	4,722,262.30	4,184,086.44	(538,175.86)	4,184,086.44	3,635,191.89
1248MPAC8	5,610,030.00	-	5,610,030.00	5,563,905.00	(46,125.00)	5,563,905.00	4,838,125.05
45667WAC2	851.16	-	851.16	657.73	(193.43)	657.73	380.05
525221AW7	20,032.95	-	20,032.95	298.02	(19,734.93)	298.02	98,298.62
61749BAB9	304,677.44	-	304,677.44	280,424.46	(24,252.98)	280,424.46	259,501.31
61755AAB2	5,467.78	-	5,467.78	5,213.41	(254.37)	5,213.41	5,219.39
65106FAB8	5,893,180.49	-	5,893,180.49	5,852,705.65	(40,474.84)	5,852,705.65	5,797,707.71
77277LAF4	37,029,684.32	-	37,029,684.32	36,675,600.78	(354,083.54)	36,675,600.78	35,949,160.80
77277LAH0	1,843,143.48	-	1,843,143.48	1,825,871.10	(17,272.38)	1,825,871.10	3,458,523.60
77277LAJ6	26,097,916.29	-	26,097,916.29	25,853,379.04	(244,537.25)	25,853,379.04	22,621,667.04
86359ACD3	14,848.45	-	14,848.45	9,074.05	(5,774.40)	9,074.05	18,600.47
Totals	$ 81,945,730.49	$ -	$ 81,945,730.49	$ 80,589,482.19	$ (1,356,248.30)	$ 80,589,482.19	$ 77,049,314.39

The following is the impairment listing for loan-backed and structured securities for the three months ended June 30, 2013:

CUSIP	Amortized Cost before Cumulative Adjustment	Cumulative Adjustment	Amortized Cost before OTTI	Projected Cash Flow	Recognized OTTI	Amortized Cost after OTTI	Fair Value
00442KAD3	$ 2,862,185.70	$ -	$ 2,862,185.70	$ 2,847,813.75	$ (14,371.95)	$ 2,847,813.75	$ 2,540,147.17
004448AC0	1,811,707.29	-	1,811,707.29	1,452,295.05	(359,412.24)	1,452,295.05	1,270,758.17
026929AD1	5,519,507.19	-	5,519,507.19	5,164,744.05	(354,763.14)	5,164,744.05	5,328,699.48
07325YAB4	3,112,030.19	-	3,112,030.19	3,067,596.18	(44,434.01)	3,067,596.18	2,217,726.96
07388UAB6	1,015,362.75	-	1,015,362.75	983,853.90	(31,508.85)	983,853.90	950,464.97
07401LAA1	8,647,880.67	-	8,647,880.67	8,603,423.71	(44,456.96)	8,603,423.71	8,224,619.72
1248MPAB0	6,979,297.79	-	6,979,297.79	6,686,930.00	(292,367.79)	6,686,930.00	6,237,074.20
1248MPAC8	9,279,020.00	-	9,279,020.00	8,927,580.00	(351,440.00)	8,927,580.00	8,138,041.61
1248MPAH7	7,823.54	-	7,823.54	10.06	(7,813.48)	10.06	291,248.16
125435AA5	8,007,199.62	-	8,007,199.62	7,945,131.04	(62,068.58)	7,945,131.04	7,065,883.43
12668AAY1	836.29	-	836.29	604.94	(231.35)	604.94	313.39
12669GKH3	8,266,418.71	-	8,266,418.71	7,126,611.64	(1,139,807.07)	7,126,611.64	8,943,620.22
22943HAD8	5,731,143.26	-	5,731,143.26	5,709,513.09	(21,630.17)	5,709,513.09	3,845,172.00
25151AAA9	3,149,913.44	-	3,149,913.44	2,987,164.65	(162,748.79)	2,987,164.65	3,071,275.38
26441EAC5	182,800.00	-	182,800.00	137,500.00	(45,300.00)	137,500.00	137,500.00
362341L49	3,925,128.57	-	3,925,128.57	3,874,010.93	(51,117.64)	3,874,010.93	3,195,980.78
39538WHF8	7,368,122.65	-	7,368,122.65	7,244,676.25	(123,446.40)	7,244,676.25	7,172,879.50
41161PSK0	3,150,010.83	-	3,150,010.83	3,058,778.87	(91,231.96)	3,058,778.87	2,922,577.50
46630KAA4	682,175.43	-	682,175.43	676,151.76	(6,023.67)	676,151.76	588,654.12
61749BAB9	324,674.18	-	324,674.18	302,702.90	(21,971.28)	302,702.90	272,486.13
61750MAB1	28,551.95	-	28,551.95	27,394.67	(1,157.28)	27,394.67	22,964.62
61755AAB2	6,702.75	-	6,702.75	5,999.04	(703.71)	5,999.04	5,208.50
77277LAF4	37,914,893.16	-	37,914,893.16	37,029,684.30	(885,208.86)	37,029,684.30	33,591,915.00
77277LAH0	1,886,324.40	-	1,886,324.40	1,843,143.48	(43,180.92)	1,843,143.48	3,230,442.00
77277LAJ6	26,706,041.82	-	26,706,041.82	26,097,916.30	(608,125.52)	26,097,916.30	21,138,327.00
78402TAD8	505,674.06	-	505,674.06	225,513.23	(280,160.83)	225,513.23	418,357.71
86359ACD3	144,509.89	-	144,509.89	113,827.74	(30,682.15)	113,827.74	150,685.24
Totals	$ 147,215,936.13	$ -	$ 147,215,936.13	$ 142,140,571.53	$ (5,075,364.60)	$ 142,140,571.53	$ 130,973,022.96

The following is the impairment listing for loan-backed and structured securities for the three months ended March 31, 2013:

CUSIP	Amortized Cost before Cumulative Adjustment	Cumulative Adjustment	Amortized Cost before OTTI	Projected Cash Flow	Recognized OTTI	Amortized Cost after OTTI	Fair Value
00442KAD3	$ 3,000,717.17	$ -	$ 3,000,717.17	$ 2,955,878.99	$ (44,838.18)	$ 2,955,878.99	$ 2,710,630.46
02147DAV3	20,019.38	-	20,019.38	13,898.83	(6,120.55)	13,898.83	7,668.37
02660TGS6	5,166,461.70	-	5,166,461.70	5,042,505.13	(123,956.57)	5,042,505.13	4,886,126.24
02660THL0	735,213.74	-	735,213.74	718,951.48	(16,262.26)	718,951.48	701,370.78
05946XYP2	661,851.06	-	661,851.06	648,858.17	(12,992.89)	648,858.17	616,878.67
05948JAA0	77,220.72	-	77,220.72	76,184.19	(1,036.53)	76,184.19	73,908.47
073879PA0	1,232,628.18	-	1,232,628.18	1,164,624.29	(68,003.89)	1,164,624.29	1,129,442.11
07401LAA1	9,319,361.00	-	9,319,361.00	9,281,564.74	(37,796.26)	9,281,564.74	8,970,214.86
1248MPAC8	10,010,615.65	-	10,010,615.65	9,279,020.00	(731,595.65)	9,279,020.00	8,192,007.20
1248MPAH7	113,333.17	-	113,333.17	7,944.13	(105,389.04)	7,944.13	214,889.58
126671UU8	43,909.99	-	43,909.99	42,665.95	(1,244.04)	42,665.95	39,467.94
12667GME0	11,348,520.47	-	11,348,520.47	11,227,660.79	(120,859.68)	11,227,660.79	11,112,922.09
12668A4B8	9,370,133.25	-	9,370,133.25	9,107,609.34	(262,523.91)	9,107,609.34	9,029,866.72
126694YM4	2,091,333.26	-	2,091,333.26	2,088,972.27	(2,360.99)	2,088,972.27	2,038,895.07
14453MAB0	5,079,283.51	-	5,079,283.51	5,016,823.57	(62,459.94)	5,016,823.57	4,802,099.09
18974BAA7	628,229.21	-	628,229.21	601,230.04	(26,999.17)	601,230.04	615,943.80
22546NAV6	3,726,890.39	-	3,726,890.39	649,149.30	(3,077,741.09)	649,149.30	649,037.62
22943HAD8	6,075,077.23	-	6,075,077.23	5,993,884.23	(81,193.00)	5,993,884.23	4,642,860.00
23244LAB7	1,751,307.03	-	1,751,307.03	1,543,667.45	(207,639.58)	1,543,667.45	1,134,940.80
23321P6A1	2,184,940.95	-	2,184,940.95	2,165,830.30	(19,110.65)	2,165,830.30	2,177,214.24
23332UDU5	12,588,142.21	-	12,588,142.21	12,385,338.92	(202,803.29)	12,385,338.92	12,418,814.69
362341L49	4,038,022.40	-	4,038,022.40	4,002,700.25	(35,322.15)	4,002,700.25	3,276,699.71
39539GAA0	2,856,147.82	-	2,856,147.82	2,782,480.81	(73,667.01)	2,782,480.81	2,826,038.50
40430HBH0	162.35	-	162.35	109.30	(53.05)	109.30	101.41
41164LAB5	7,711,915.86	-	7,711,915.86	7,655,426.24	(56,489.62)	7,655,426.24	7,462,954.25
43739EBJ5	6,504,187.80	-	6,504,187.80	6,435,384.82	(68,802.98)	6,435,384.82	6,032,458.24
45660LKW8	18,079,779.47	-	18,079,779.47	18,022,051.43	(57,728.04)	18,022,051.43	15,864,047.28
45660LYW3	2,372,769.82	-	2,372,769.82	2,291,590.55	(81,179.27)	2,291,590.55	2,062,698.67
456612AC4	10,876,730.02	-	10,876,730.02	10,787,010.05	(89,719.97)	10,787,010.05	10,545,750.71
466247XE8	3,976,148.48	-	3,976,148.48	3,935,773.09	(40,375.39)	3,935,773.09	3,718,198.53
46629BAR0	2,852,666.37	-	2,852,666.37	2,798,045.68	(54,620.69)	2,798,045.68	2,552,602.18
46630KAA4	770,022.33	-	770,022.33	768,628.53	(1,393.80)	768,628.53	680,676.85
525221GM3	2,221,910.15	-	2,221,910.15	2,177,468.51	(44,441.64)	2,177,468.51	2,109,164.67
525221HA8	15,523,309.02	-	15,523,309.02	15,400,250.25	(123,058.77)	15,400,250.25	13,711,703.44
576433G42	855,038.28	-	855,038.28	847,924.09	(7,114.19)	847,924.09	848,428.88
59024UAB7	929,407.25	-	929,407.25	918,437.15	(10,970.10)	918,437.15	926,705.06
61750MAB1	30,836.68	-	30,836.68	30,672.10	(164.58)	30,672.10	27,958.37
61755AAB2	9,419.34	-	9,419.34	8,121.27	(1,298.07)	8,121.27	6,759.62
65106FAB8	6,388,999.26	-	6,388,999.26	6,351,718.55	(37,280.71)	6,351,718.55	6,322,103.12
68400XAY6	103,043.01	-	103,043.01	102,041.69	(1,001.32)	102,041.69	96,273.00
76110W4J2	4,319.08	-	4,319.08	4,199.71	(119.37)	4,199.71	6,912.40
86358HHX0	684,331.03	-	684,331.03	676,606.52	(7,724.51)	676,606.52	676,555.32
86359ACE1	21,581.23	-	21,581.23	6,171.79	(15,409.44)	6,171.79	20,125.60
86359DUV7	903.27	-	903.27	854.15	(49.12)	854.15	934.22
86359LRW1	14,456,432.41	-	14,456,432.41	14,291,064.42	(165,367.99)	14,291,064.42	13,808,202.61
86363DAA9	6,907,687.46	-	6,907,687.46	6,856,223.37	(51,464.09)	6,856,223.37	6,686,938.82
92977YAY7	1,371,065.06	-	1,371,065.06	1,208,872.07	(162,192.99)	1,208,872.07	242,720.00
Totals	$ 194,772,024.52	$ -	$ 194,772,024.52	$ 188,372,088.50	$ (6,399,936.02)	$ 188,372,088.50	$ 176,678,910.26