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Perspectives

OUR VIEW ON INSURANCE CAPITAL MANAGEMENT TOPICS

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2015 U.S. Life Investment Highlights: Yield Search Continues

EXECUTIVE SUMMARY

In this issue of Perspectives, we review statutory operating and investment results for the U.S. life insurance industry over the last decade. Portfolio details focus on fixed income sector trends and market statistics (durations, yields and NRSRO ratings), which are maintained by NEAM in a proprietary database and are not publicly available.

In spite of declines in top-line revenue, pre-tax operating results for the industry improved slightly over 2014, due to favorable reserve reductions and lower surrenders. Consequently, the industry maintained the low double-digit return on equity, while increasing its capital and surplus.

U.S. life insurers continued to "search for yield" within this low rate environment. Mortgage loans have been favored by the industry since the 2009 financial crisis. Although the industry extended the duration of its fixed income portfolio in 2015, the duration movements varied by sectors, rating categories, and companies. The industry appeared to cautiously manage its credit, interest rate and liquidity risks while searching for yield in this challenging environment.

FINANCIAL STATEMENT SUMMARY RESULTS

Table 1 provides a 10-year history of select statutory metrics for the U.S. life insurance industry. Overall, premiums and deposits were slightly lower than in 2014. Although life and accident and health [A&H] businesses experienced meaningful growth, lower deposits from annuities resulted in a revenue decline for the industry.

The favorable reserve changes, together with lower surrenders, more than offset the higher benefits and expenses in 2015. Even with the positive transfer of \$36.9 billion to separate accounts, the overall industry's total reported net income in 2015 was slightly better than the

\$37.6 billion the prior year. As a result, the return on equity increased slightly to a low double-digit of 11.2% from 11.0% in 2014.

General account assets rose 2% while separate account assets were unchanged in 2015. Over the past decade (2006 to 2015), total assets for the industry were up approximately 33%.

Table 1. Life Industry Highlights (\$ Billions Except Return on Equity)

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Metrics (\$B)	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	
Operating Results											
Premiums, Consideration and Deposits	\$638.2	\$647.3	\$562.6	\$625.7	\$604.5	\$562.0	\$493.1	\$608.2	\$597.0	\$565.9	
Net Investment Income	170.8	171.7	167.1	166.5	167.3	164.1	156.6	162.2	168.0	161.5	
Separate Accounts Revenue	35.2	34.3	31.4	29.5	26.1	23.4	20.4	21.2	22.9	20.2	
Benefits	263.9	251.8	250.7	241.8	238.9	231.5	230.0	225.9	216.8	205.4	
Surrenders	273.0	281.5	248.7	245.7	237.3	216.8	228.7	291.5	305.1	272.0	
Increase in Reserves and Deposits	80.5	108.7	86.2	83.8	141.2	96.2	99.2	144.2	35.3	69.8	
Commissions & Expenses	115.6	111.0	111.5	109.8	107.8	103.5	100.5	102.9	100.7	97.3	
Net Transfers to Separate Accounts	36.9	[16.5]	[8.0]	61.6	32.4	29.3	11.1	22.7	66.1	61.0	
Policyholder Dividends	18.3	16.4	15.7	15.2	15.1	15.0	15.0	17.7	17.5	16.5	
Pre-tax Operating Income	54.4	49.0	62.9	59.6	28.0	53.1	61.0	[1.4]	44.6	41.4	
Net Income	40.3	37.6	42.3	40.3	14.4	28.0	21.5	[52.3]	31.6	37.0	
Return on Average Equity %	11.2	11.0	12.9	12.6	4.7	9.4	7.9	[20.4]	12.1	14.9	
Balance Sheet											
Total Cash and Investments	3,704	3,632	3,482	3,403	3,361	3,196	3,072	3,018	2,950	2,872	
Separate Account Assets	2,413	2,424	2,329	2,053	1,836	1,840	1,624	1,369	1,899	1,715	
Affiliated Investments (incl above)	156.4	155.3	144.3	128.6	118.0	108.5	107.1	96.1	99.7	98.4	
Total Liabilities without Separate Accounts	3,547	3,484	3,346	3,263	3,226	3,051	2,940	2,926	2,819	2,752	
Liab. from Separate Account Statements	2,413	2,424	2,329	2,053	1,836	1,840	1,624	1,369	1,899	1,715	
Capital and Surplus	367.3	354.0	332.0	326.6	310.4	306.4	290.7	251.8	266.9	253.1	
Net Capital Contributions	[15.7]	[33.1]	[33.1]	[25.9]	[28.2]	[18.3]	35.3	87.1	[13.2]	[28.9]	

Source: SNL Financial, Bloomberg, NEAM

Chart 1 shows the composition of statutory investment results by their key components: earned investment income, realized gains/losses and change in unrealized gains/losses. Earned investment income has remained steady year over year since the financial crisis, although the overall invested assets rose 30% over this period. The notable negative unrealized G/L in 2015 was driven primarily by derivatives and schedule BA assets; however, the unrealized G/L results varied significantly across companies.

Chart 1. Statutory Investment Results Before Taxes and Expenses (\$ Billions) \$200 \$180 \$160 \$140 \$120 \$100 \$80 \$60 \$40 \$20 \$0 \$-20 \$-40 \$-60 2014 2013 2012 2015 2011 2010 2009 2008 2007 2006 Earned Income Realized G/L Change in Unrealized G/L

Source: SNL Financial, Bloomberg, NEAM

Table 2 shows earned investment income by broad asset classes. Total net earned investment income (net of expenses) declined by \$1 billion, compared to 2014. Bonds and derivatives exhibited a combined \$3.6 billion reduction in investment income, while equities and Schedule BA sectors experienced the most increase. The investment income from Schedule BA continued to rise, though this sector's allocation as a percent of overall invested assets declined (see Table 3) from 4.9% to 4.7% in 2015. The reported Schedule BA statutory values went from \$166 billion in 2014 to \$159 billion in 2015. Average gross book yields have continued to decline approximately 10 to 20 bps annually since the 2009 financial crisis.

Table 2. Earned Investment Income by Broad Asset Class (\$ Billions) and Fixed Income **Gross Book Yield**

Asset Class	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Bonds	\$127.7	\$129.2	\$128.6	\$131.9	\$134.1	\$132.7	\$128.8	\$127.0	\$128.6	\$126.0
Mortgage Loans	19.9	19.6	19.4	19.6	18.8	18.8	19.3	20.1	20.1	19.6
Cash/Short Terms	0.5	0.5	0.5	0.4	0.3	0.3	0.7	2.7	4.2	3.5
Equities	5.5	4.2	3.6	3.9	3.9	3.9	3.6	6.1	8.3	5.8
Real Estate	3.5	3.2	3.2	3.1	3.0	2.9	3.1	3.3	3.3	3.4
Contract Loans	7.5	7.8	7.7	7.7	7.8	7.8	7.9	7.6	7.3	7.0
Derivatives	3.9	6.0	4.8	1.6	1.5	0.7	[2.8]	[2.0]	0.5	1.4
Other (Sch. BA)	13.4	12.1	9.9	8.8	7.8	6.3	5.1	8.4	9.6	7.9
Total Gross Earned	181.9	182.5	177.7	176.9	177.3	173.6	165.8	173.1	182.0	174.6
Investment Expenses	11.2	10.8	10.6	10.3	10.1	9.7	9.4	11.1	14.1	13.2
Total Net Earned	\$170.8	\$171.7	\$167.1	\$166.5	\$167.2	\$164.0	\$156.5	\$162.0	\$167.8	\$161.4
Average Bond Gross Book Yield	4.71%	4.89%	5.00%	5.20%	5.42%	5.64%	5.81%	5.90%	6.00%	5.90%

Source: SNL Financial, Bloomberg, NEAM

Table 3 shows that statutory allocations across broad asset classes remained mostly unchanged. Mortgage loans were the only sector to increase in 2015, as the life insurance industry has continued to favor this sector since the 2009 financial crisis. Allocations to schedule BA assets showed the first decline since 2010, due to the unrealized valuation decreases seen in both affiliated and unaffiliated holdings. These schedule BA assets remain highly concentrated among large companies.

Table 3. Life Broad Sector Asset Allocation

Holdings	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Bonds	73.8%	73.9%	74.7%	74.7%	75.3%	75.8%	74.5%	71.1%	73.2%	74.1%
Mortgage Loans	10.9%	10.3%	10.1%	9.9%	9.6%	9.6%	10.3%	10.9%	10.7%	10.2%
Cash/Short Terms	2.8%	2.8%	2.7%	3.1%	2.9%	3.0%	4.0%	4.8%	2.6%	2.7%
Equities	2.3%	2.4%	2.3%	2.3%	2.3%	2.4%	2.4%	3.8%	4.8%	4.9%
Real Estate	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.7%	0.7%	0.7%
Contract Loans	3.4%	3.6%	3.7%	3.7%	3.7%	3.9%	3.9%	4.0%	3.8%	3.8%
Derivatives	1.5%	1.6%	1.1%	1.2%	N/A	N/A	N/A	N/A	N/A	N/A
Other (Sch.BA)	4.7%	4.9%	4.7%	4.4%	4.2%	4.0%	4.3%	4.8%	4.2%	3.5%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: SNL Financial, Bloomberg, NEAM

PORTFOLIO DETAILS

Table 4 displays fixed income sector allocations. The corporate sector showed the most increase in 2015 and its increased representation has outpaced all other sectors for the last 10 years.

Table 4. Fixed Income Sector Allocation

Sector	2015	2014	2013	2012	2011	2010	2009	2008	2007
Gov't/Agcy	7.5%	7.4%	7.3%	7.7%	7.9%	8.2%	8.0%	6.8%	6.6%
Corp	48.2%	47.5%	47.8%	47.0%	45.7%	45.1%	44.0%	42.9%	38.6%
ABS	4.7%	4.6%	4.0%	3.4%	3.2%	3.2%	3.3%	3.5%	2.6%
RMBS - Agcy	6.5%	7.1%	7.3%	8.2%	8.8%	9.1%	9.9%	10.0%	0.6%
RMBS - Non Agcy	3.1%	3.4%	3.5%	3.8%	4.3%	4.7%	5.7%	7.4%	10.5%
CMBS - Agcy	1.2%	1.2%	1.1%	1.0%	0.8%	0.7%	0.6%	0.6%	8.1%
CMBS - Non Agcy	4.4%	4.8%	5.0%	5.1%	5.6%	6.3%	7.6%	8.4%	8.0%
Munis - Taxable	4.5%	4.2%	4.2%	4.0%	3.7%	3.6%	2.2%	1.0%	0.9%
Munis - Tax Exempt	1.1%	1.1%	1.0%	0.9%	0.9%	0.8%	0.8%	0.8%	0.7%
Privates	17.0%	17.1%	16.9%	16.6%	15.7%	15.5%	15.6%	16.8%	23.1%
Foreign	1.4%	1.6%	1.8%	2.3%	3.3%	2.6%	2.3%	1.8%	0.4%
Other	0.2%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: SNL Financial, Bloomberg, NEAM

With the exception of ABS and agency CMBS, allocations within structured securities have trended down since the financial crisis, with the biggest declines coming from agency RMBS and non-agency CMBS. Within the structured space, life insurers are focused on sectors which generate attractive yields relative to their rating categories. Within non-agency CMBS, life insurers' interest has moved up the capital structure in response to weaker underwriting trends.

The allocation to municipal bonds, particularly taxable municipal bonds, continued to increase from less than 1% a decade ago to close to 4.5% in 2015. This increased allocation began in 2009-2010. The passage of the "American Recovery and Reinvestment Act" led to the creation of "Build America Bonds," which allowed municipalities and municipal authorities to raise debt, with the federal government providing a direct subsidy for 35% (or more) of the interest cost.

The allocation to privates remained steady for the last three years at 17%. Based on 2015 yearend statutory filings, the industry invested more than 50% of private placement securities in the BBB (NAIC 2) rating category. This is much higher than the BBB allocation seen in public fixed income securities (see Chart 2). As noted in prior articles, unlike the statutory Schedule D Part 1A reporting, our privates' category excludes any 144A securities that are publicly traded.

The foreign category continued to be dominated by one group, which owned close to threequarters of the industry's total as of year-end 2015.

Table 5 displays the option-adjusted durations (OAD) by fixed income sector. After a minor shortening in 2014, the industry's aggregate OAD lengthened in 2015 and reached the longest [7.44] since 2008 [5.49]. However, the OAD movements continued to vary by sectors. In 2015, BofA ML broad Treasury and Agency Master, U.S. Corporate Master and MBS Master indices exhibited directionally-consistent duration movements.

Table 5. Fixed Income Sector Option Adjusted Duration (Years)

Sector	2015	2014	2013	2012	2011	2010	2009	2008	2007
Gov't/Agcy	10.94	10.77	11.20	10.83	10.45	10.00	9.87	9.38	8.20
Corp	7.50	7.52	7.41	7.46	7.10	6.91	6.62	6.08	6.45
ABS	4.14	2.15	3.15	3.16	2.71	2.49	2.24	2.73	2.48
RMBS - Agcy	5.26	5.19	6.31	2.53	1.73	3.85	3.58	2.03	4.31
RMBS - Non Agcy	2.71	3.24	2.69	4.37	4.41	6.32	6.14	2.68	4.01
CMBS - Agcy	6.84	7.03	6.93	6.77	4.76	5.24	5.04	3.07	6.44
CMBS - Non Agcy	4.81	3.98	3.62	3.28	3.22	3.49	3.78	3.86	4.64
Munis - Taxable	9.54	9.86	10.01	10.67	10.70	10.60	10.19	9.43	9.67
Munis - Tax Exempt	9.56	9.09	9.45	8.40	8.40	8.38	8.51	8.79	7.49
Foreign	14.27	14.31	14.41	14.67	11.94	9.48	8.12	7.69	7.31
Industry OAD	7.44	7.29	7.39	7.26	6.86	6.77	6.35	5.49	5.80

Source: SNL Financial, Bloomberg, NEAM

The OADs for corporates, non-agency RMBS, agency CMBS and taxable municipal shortened, while the OADs for governments, ABS, agency RMBS, non-agency CMBS and tax-exempt municipal securities lengthened. The increase in ABS's OAD trends maybe attributable to life insurers' preference for longer duration and subordinate structure as they continue to search for yield-enhancing opportunities.

The OADs of municipal securities are on average higher than the combined OADs of the overall fixed income sector, as long-duration securities within this sector offer more attractive relative value than other sectors.

The foreign category's relatively high OAD (14.27) continues to be driven by one group that owned a large amount of long-duration foreign government bonds. The foreign category's OAD, excluding this dominating group, would be 9.44. The OAD statistics are based upon CUSIP level holdings extracted from Schedule D statutory filings and exclude any bonds held at the holding company level, derivatives and private placement securities.

Table 6 displays book yields by fixed income sector. The book yields continued to decline since 2007 when the industry reached the highest aggregate book yield of 5.92%. The book yields across all sectors, except for ABS, declined in 2015 and the aggregate book yield declined by 11 bps. The ABS market continues to introduce new asset types, many of which offer incremental book yield. Cumulative reductions in the book yields of agency and non-agency CMBS reflect the runoff of seasoned pre-crisis exposures at higher book yields. Despite the tendency of life insurers to purchase longer maturity components of the CMBS capital structure, it has not been sufficient to replace historical yields in the sector. "True" private placement securities were excluded from the overall book yield calculations.

Table 6. Fixed Income Sector Book Yield (%)-Exclude Non-Rated (primarily private placement securities)

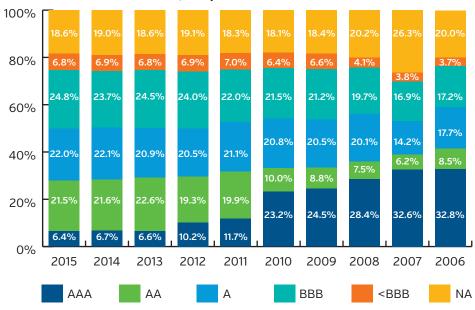
Sector	2015	2014	2013	2012	2011	2010	2009	2008	2007
Gov't/Agcy	3.55	3.65	3.72	3.61	3.85	4.07	4.39	5.09	5.70
Corp	4.90	5.02	5.13	5.34	5.65	5.87	6.15	6.23	6.08
ABS	3.68	3.50	3.54	3.40	3.54	3.74	4.33	4.76	5.57
RMBS - Agcy	4.01	4.14	4.28	4.47	4.88	5.05	5.29	5.69	5.72
RMBS - Non Agcy	5.81	5.83	6.05	6.00	5.91	5.70	5.70	5.42	5.74
CMBS - Agcy	3.85	3.96	4.01	4.27	4.79	5.15	5.45	5.55	5.52
CMBS - Non Agcy	4.46	4.67	4.95	5.30	5.53	5.61	5.73	6.07	5.55
Munis - Taxable	5.19	5.32	5.42	5.51	5.70	5.75	5.87	5.89	5.93
Munis - Tax Exempt	4.15	4.24	4.18	4.22	4.41	4.39	4.80	4.80	4.73
Foreign	2.59	2.70	2.76	2.76	2.97	3.23	3.54	3.93	5.55
Grand Total	4.61	4.72	4.86	5.03	5.26	5.45	5.68	5.86	5.92

Source: SNL Financial, Bloomberg, NEAM

Chart 2 displays trends in fixed income credit quality. The allocation to AAA, AA and A securities [NAIC 1 category] remained at 50% of the overall portfolio for the last four years. The most notable shift in 2015 was in the BBB category where the industry increased its allocation from 23.7% to 24.8%. The high yield (<BBB) allocation increased from under 4% in 2006 to 7% in 2011 and has remained largely unchanged for the last five years. The NA category consists of mostly "true" private placement securities, which accounted for 17% of total fixed income holdings in 2015 (see table 4).

As highlighted in General ReView Issue 63, the 2008 allocation to AAA securities reduction was due to downgrades in corporate and structured securities, whereas the reduction in 2011 mostly reflected Standards & Poor's downgrade of U.S. government securities. The changeover between the proportion of AAA and AA seen in 2013 was due to migration of AAA to lowerrated securities.

Chart 2. Fixed Income Credit Quality



Source: SNL Financial, Bloomberg, NEAM

Table 7 displays the book yields for fixed income securities by credit rating categories. Total bond book yields continued to decline across all rating categories, with an aggregated decline of 11bps. The life insurance industry's book yield reached the highest of 5.92 in 2007 and had declines of about 130 bps ever since. The higher rating categories, AAA and AA, experienced the most reduction of 172 bps over this period.

Table 7. Fixed Income Book Yields by Credit Rating Category

Rating	2015	2014	2013	2012	2011	2010	2009	2008	2007
AAA/AA	3.86	3.94	3.98	4.03	4.33	4.60	4.91	5.34	5.58
А	4.60	4.68	4.89	5.05	5.31	5.53	5.75	5.92	5.87
BBB	4.99	5.13	5.27	5.49	5.79	6.01	6.26	6.27	6.16
<bbb< td=""><td>6.14</td><td>6.20</td><td>6.46</td><td>6.62</td><td>6.78</td><td>6.79</td><td>6.96</td><td>7.61</td><td>7.39</td></bbb<>	6.14	6.20	6.46	6.62	6.78	6.79	6.96	7.61	7.39
Total (Exclude Non-Rated)	4.61	4.72	4.86	5.03	5.26	5.45	5.68	5.86	5.92

Source: SNL Financial, Bloomberg, NEAM

Table 8 displays the option-adjusted durations (OAD) for fixed income securities by credit rating categories. As shown earlier in Table 5, the industry's aggregate OAD lengthened in 2015 and reached the longest (7.44) since 2008. OAD movements continued to vary by rating categories. In 2015, the AAA/AA rating category, which represented 28% of the life industry's fixed income holdings, extended the duration by half a year, from 7.29 to 7.83. The high yield (<BBB) category (which the OAD shortened by 0.2 years) had limited impact on the industry's aggregate OAD as it only represented less than 7% of the overall fixed income holdings. Nonrated securities (primarily privates), which accounted for 17% (see Table 4) of total fixed income holdings in 2015, were not included in the aggregate OAD calculations.

Table 8. Fixed Income Duration by Credit Rating Category (Years)

Rating	2015	2014	2013	2012	2011	2010	2009	2008	2007
AAA/AA	7.83	7.29	8.08	7.25	6.65	6.63	5.92	4.91	5.22
А	8.49	8.48	8.01	8.11	7.55	7.21	6.96	6.50	6.80
BBB	7.03	7.09	7.01	7.06	6.79	6.70	6.42	5.78	6.38
<bbb< td=""><td>4.11</td><td>4.31</td><td>4.03</td><td>4.52</td><td>5.19</td><td>5.68</td><td>5.61</td><td>4.20</td><td>5.20</td></bbb<>	4.11	4.31	4.03	4.52	5.19	5.68	5.61	4.20	5.20
Total (Exclude Non-Rated)	7.44	7.29	7.39	7.26	6.86	6.77	6.35	5.49	5.80

Sources: SNL Financial, Bloomberg, NEAM

KEY TAKEAWAYS

Highlights of this *Perspective*'s review include:

- The U.S. life insurance industry had lower premiums and deposits in 2015, but statutory
 operating results ended marginally better due to favorable reserve reductions and lower
 surrenders.
- The industry's broad sector asset allocations remained largely unchanged. Only mortgage loans exhibited an increased allocation, while all other sectors showed reduced allocations.
- Allocations to schedule BA assets declined slightly, mainly driven by unrealized valuation decreases. The non-traditional assets remain highly concentrated among large companies.
- Structured securities' allocations continued to trend down except for ABS. The industry
 is particularly active in subordinate structures in ABS, novel asset types and esoteric
 structures.
- Municipal bond allocations more than tripled from 1.6% in 2007 to 5.6% in 2015, with taxable municipal bonds exhibiting most of the growth.
- The BBB securities allocation reached a new high in 2015 and high yield (<BBB) allocations remained level (7%) after advantageous purchases during the 2008 financial crisis.
- Book yields continued to decline from 2007's high of 5.92% to 4.61% in 2015. The higher
 rating categories, AAA and AA, experienced the most reduction of 172 bps in this period. In
 2015, the book yields across all sectors declined, except for ABS, which had a 17 bps increase.
- Although the overall bond portfolio duration extended in 2015, durations for BBB securities and high yield (<BBB) shortened, as the industry cautiously managed the interest rate risk on lower-rated securities.

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