



Capital Markets Special Report

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U.S. Insurance Industry's Exposure to Bonds with NAIC 2 Designations

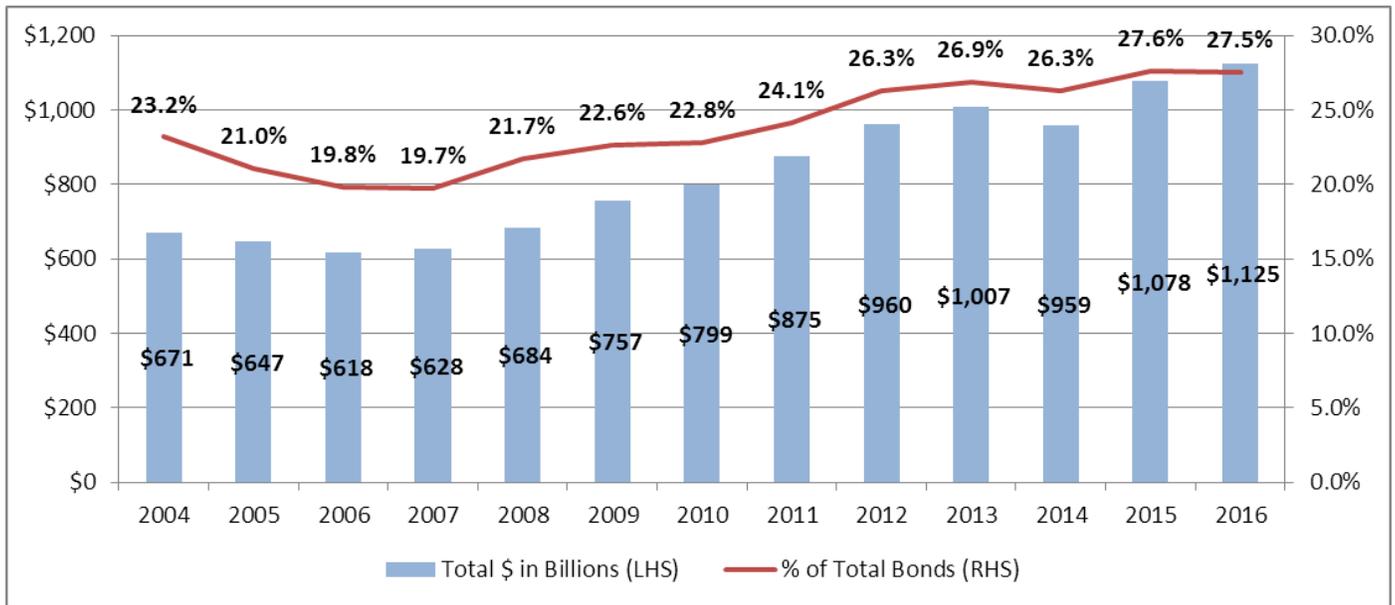
by Michele Wong

In December 2017, the Capital Markets Bureau (CMB) published a report titled, "U.S. Insurers' High-Yield Exposure on the Rise," which highlighted a gradual increase in the U.S. insurance industry's high-yield bond exposure over the 2004 to 2016 period. As a follow-up to that report, the CMB took a closer look at the industry's exposure to bonds with NAIC 2 designations—or the BBB-rating category as assigned by nationally recognized statistical rating organizations (NRSROs)—to determine if similar trends were evident at the lower end of the investment grade credit quality spectrum. The industry has experienced a steady increase in NAIC 2-designated bonds in terms of book/adjusted carrying value (BACV) and as a percentage of total bond exposure over time. Bonds with NAIC 2 designations increased to 27.5% of total bonds as of year-end 2016 from under 20% before the financial crisis.

- The increase in the U.S. insurance industry's exposure to NAIC 2-designated bonds over the past decade can be attributed to insurers taking additional credit risk during the prolonged low interest rate environment, as well as a reflection of the supply of available bonds in the market.
- Over the past 10 years, NAIC 2 exposure (measured as a percentage of total bonds for each insurer type) more than doubled at property/casualty (P/C), health and title companies.
- The industry's NAIC 2 exposure is well-balanced within the credit quality category, with no concentrations evident at the lower end (or riskiest segment) of the category.

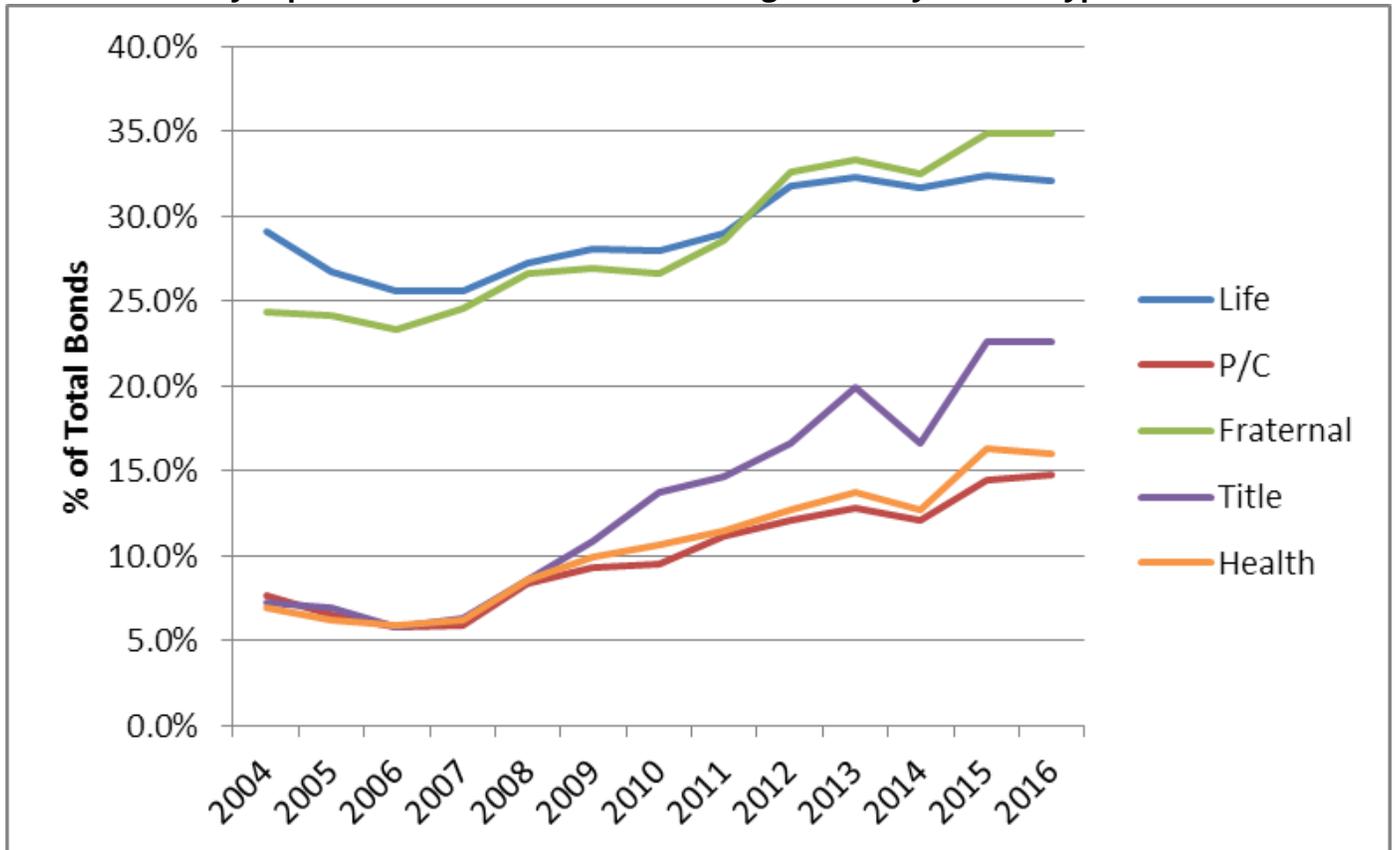
As of year-end 2016, the industry held \$1,125 billion of bonds with NAIC 2 designations, almost double the \$628 billion owned at year-end 2007 (see Chart 1). Over this 10-year time period, NAIC 2 exposure grew at an average annual growth rate of 6.8%, while total bond exposure grew at 2.8%. The faster growth rate for NAIC 2 exposure can be partially attributed to insurers taking additional credit risk as they allocated greater dollars to NAIC 2 bonds at the expense of NAIC 1 bonds during the prolonged low interest rate environment. Bonds with NAIC 1 designations represented 66.6% of the industry's total bonds as of year-end 2016, a decline from 75.5% as of year-end 2007.

Chart 1: Total U.S. Insurance Industry Exposure to Bonds with NAIC 2 Designations, 2004–2016



By insurer type, exposure to bonds with NAIC 2 designations also grew—some more than others (see Chart 2). Life and fraternal companies had the largest exposures to NAIC 2 bonds, with 32% and 35% of total bonds as of year-end 2016, respectively. Life companies maintained their NAIC 2 exposure at a relatively stable rate, increasing only three percentage points over the 2004 to 2016 time frame, while fraternal companies increased their exposure by 10 percentage points. As of year-end 2016, bonds with NAIC 2 designations represented a relatively smaller portion of P/C, title and health companies' investment portfolios, at 15%, 23% and 16% of total bonds, respectively. However, as a percentage of total bonds, exposure doubled at P/C and health companies and tripled at title companies.

Chart 2: Industry Exposure to Bonds with NAIC 2 Designations by Insurer Type, 2004–2016



The increase in NAIC 2 exposure over time in part suggests a subtle reach for yield by insurers given the prolonged interest rate environment. However, the increase is also a function of the bond market structure and the supply of available bonds. According to Standard and Poor's (S&P) Global Ratings data published in the report titled, "Analyzing the Size and Structure of the U.S. Rated Corporate Debt Market in the Second Half of 2017," BBB-rated corporate debt represented 40% of total U.S. corporate debt rated by S&P as of June 30, 2017—an increase from 27.5% as of Dec. 31, 2013.

A Closer Look at Year-End 2016 NAIC 2 Bond Exposure

The U.S. insurance industry had exposure to bonds with NAIC 2 designations totaling \$1,125 billion as of Dec. 31, 2016 (see Table 1). The majority, or 91%, were corporate bonds traded both in the public and private markets. Life companies owned the majority of the NAIC 2 exposure, or 82%, while P/C companies owned 13% of the industry's exposure. This is consistent with the overall profile of the U.S. insurance industry's total cash and invested assets, whereby bonds represent the majority of the industry's assets and life companies account for the largest bond exposure by insurer type.

Table 1: U.S. Insurance Industry Exposure to NAIC 2 Bonds as of Dec. 31, 2016 (BACV \$ millions)

Bond Type	Life	P/C	Fraternal	Health	Title	Total	% Total NAIC 2 Exposure
Corporate	840,904	130,399	34,659	15,047	1,081	1,022,090	90.9%
Structured Securities	46,449	5,073	859	266	0	52,646	4.7%
Sovereign/Other Government	11,670	2,863	18	113	17	14,680	1.3%
Municipal	6,033	6,311	206	1,021	50	13,621	1.2%
Other	18,446	2,850	179	306	33	21,815	1.9%
Total	923,502	147,495	35,921	16,753	1,181	1,124,852	100.0%
% Total NAIC 2 Exposure	82.1%	13.1%	3.2%	1.5%	0.1%	100.0%	

Note: The "Other" category includes hybrid bonds, exchange-traded funds, bond mutual funds and affiliated bonds.

Table 2 shows the distribution of the industry's NAIC 2 bond exposure is relatively consistent with that of the industry's total assets, whereby the large insurers (those with greater than \$5 billion in cash and invested assets) and the small insurers (those with less than \$1 billion in cash and invested assets) hold approximately 80% and 5%, respectively, of the total NAIC 2 bond exposure.

Table 2: U.S. Insurance Industry NAIC 2 Bond Exposure by Insurer Asset Size as of Dec. 31, 2016 (BACV % of Total)

Cash and Invested Assets	Life	P/C	Fraternal	Health	Title	% Total
< 250mm	0.5%	6.1%	3.2%	17.5%	8.1%	1.5%
Between \$250mm and \$500mm	0.6%	5.3%	3.4%	14.6%	0.0%	1.5%
Between \$500mm and \$1B	1.1%	5.2%	2.4%	20.5%	16.5%	2.0%
Between \$1B and \$2.5B	3.3%	15.0%	9.8%	26.1%	75.5%	5.4%
Between \$2.5B and \$5B	4.6%	14.0%	1.5%	8.3%	0.0%	5.8%
Between \$5B and \$10B	7.0%	9.9%	0.0%	12.9%	0.0%	7.2%
Greater than \$10B	83.1%	44.6%	79.7%	0.0%	0.0%	76.6%

Reported year-end 2016 data was also analyzed to determine if there was any evidence of U.S. insurers skewing the distribution within the NAIC 2 designation category; that is, whether there was a concentration of investments at the lower end of the credit quality category, or BBB- rated bonds, which typically carry higher relative risks in exchange for additional yield. Our analysis shows the NAIC 2 exposure is well-balanced across the NAIC 2 credit quality category for the industry, as well as for each insurer type (see Table 3).

Table 3: U.S. Insurance Industry NAIC 2 Bond Exposure as of Dec. 31, 2016 (BACV % of Total)

Credit Quality Category	Life	P/C	Fraternal	Health	Title	Total
BBB+	30.7%	33.2%	32.0%	34.9%	36.5%	31.2%
BBB	37.5%	35.1%	40.0%	33.3%	33.8%	37.2%
BBB-	31.7%	31.7%	28.0%	31.8%	29.8%	31.6%

The Capital Markets Bureau will continue to monitor trends in the U.S. insurance industry's exposure to NAIC 2-designated bonds, looking for indications of risk-taking, if any.

Major Insurer Share Prices		Close	Change %			Prior		
			Week	QTD	YTD	Week	Quarter	Year
March 9, 2018								
Life	Aflac	\$91.68	5.9	4.4	4.4	\$86.61	\$87.78	\$87.78
	Ameriprise	161.11	7.0	(4.9)	(4.9)	150.60	169.47	169.47
	Genworth	3.13	12.2	0.6	0.6	2.79	3.11	3.11
	Lincoln	78.71	7.0	2.4	2.4	73.53	76.87	76.87
	MetLife	47.84	5.4	(5.4)	(5.4)	45.38	50.56	50.56
	Principal	63.05	4.1	(10.6)	(10.6)	60.56	70.56	70.56
	Prudential	110.30	5.0	(4.1)	(4.1)	105.08	114.98	114.98
	UNUM	51.19	4.7	(6.7)	(6.7)	48.90	54.89	54.89
PC	Axis Capital	55.17	14.4	9.8	9.8	48.22	50.26	50.26
	Allstate	96.03	5.4	(8.3)	(8.3)	91.12	104.71	104.71
	Arch Capital	88.07	2.3	(3.0)	(3.0)	86.05	90.77	90.77
	Cincinnati	77.04	4.2	2.8	2.8	73.93	74.97	74.97
	Chubb	144.00	3.9	(1.5)	(1.5)	138.59	146.13	146.13
	Everest Re	262.62	10.3	18.7	18.7	238.05	221.26	221.26
	Progressive	60.37	4.8	7.2	7.2	57.63	56.32	56.32
	Travelers	142.30	3.1	4.9	4.9	137.99	135.64	135.64
	WR Berkley	71.99	5.7	0.5	0.5	68.11	71.65	71.65
	XL	55.67	28.3	58.3	58.3	43.39	35.16	35.16
Other	AON	\$148.03	7.6	10.5	10.5	\$137.52	\$134.00	\$134.00
	AIG	56.57	1.0	(5.1)	(5.1)	56.00	59.58	59.58
	Assurant	90.81	6.3	(9.9)	(9.9)	85.40	100.84	100.84
	Fidelity National	38.62	1.4	(1.6)	(1.6)	38.09	39.24	39.24
	Hartford	56.13	9.2	(0.3)	(0.3)	51.40	56.28	56.28
	Marsh	85.87	4.7	5.5	5.5	82.00	81.39	81.39
Health	Aetna	\$177.38	0.4	(1.7)	(1.7)	\$176.75	\$180.39	\$180.39
	Cigna	173.36	(9.8)	(14.6)	(14.6)	192.23	203.09	203.09
	Humana	272.50	1.6	9.8	9.8	268.24	248.07	248.07
	United	225.43	0.4	2.3	2.3	224.56	220.46	220.46
Monoline	Assured	\$35.50	2.2	4.8	4.8	\$34.72	\$33.87	\$33.87
	MBIA	8.56	6.2	16.9	16.9	8.06	7.32	7.32
	MGIC	14.74	6.3	4.5	4.5	13.87	14.11	14.11
	Radian	22.21	7.6	7.8	7.8	20.64	20.61	20.61
	XL Capital	55.67	28.3	58.3	58.3	43.39	35.16	35.16

March 9, 2018								
Major Market Variables		Close	Change %			Prior		
			Week	QTD	YTD	Week	Quarter	Year
Dow Jones Ind		25,335.74	3.6	2.5	2.5	24,452.40	24,719.22	24,719.22
S&P 500		2,786.57	4.0	4.2	4.2	2,679.83	2,673.61	2,673.61
S&P Financial		492.13	5.0	6.1	6.1	468.72	463.94	463.94
S&P Insurance		406.86	5.6	1.2	1.2	385.30	402.08	402.08
US Dollar \$			Change %			Prior		
/ Euro			\$1.23	(0.2)	2.6	2.6	\$1.23	\$1.20
/ Crude Oil bbl		62.09	1.3	3.3	3.3	61.30	60.11	60.11
/ Gold oz		1,324.20	0.0	1.5	1.5	1,323.80	1,305.20	1,305.20
Treasury Ylds %		%	Change bp			%	%	%
1 Year		2.03	(0.02)	0.28	0.28	2.05	1.75	1.75
10 Year		2.90	0.05	0.49	0.49	2.85	2.41	2.41
30 Year		3.16	0.04	0.42	0.42	3.13	2.74	2.74
Corp Credit Spreads -bp			Change %			Prior		
CDX.IG			54.34	(4.3)	10.9	10.9	56.76	49.02

March 9, 2018										
Major Insurer Bond Yields					Weekly Change					YTD
					Price			Spread over UST		Spread
Company	Coupon	Maturity	Current	Change	Yield	B.P.	Change	Change		
Life	Ameriprise	AMP	3.700%	10/15/2024	\$101.47	(\$0.13)	3.45%	65	0	1
	Lincoln National	LNC	3.350%	3/9/2025	\$97.73	(\$0.05)	3.72%	87	(5)	4
	MassMutual	MASSMU	3.600%	4/9/2024	\$101.34	(\$0.27)	3.35%	59	1	3
	MetLife	MET	4.050%	3/1/2045	\$95.88	(\$0.15)	4.31%	118	(2)	14
	New York Life	NYL	2.350%	7/14/2026	\$91.73	(\$0.26)	3.50%	64	0	6
	Pacific Life	PACLIF	5.125%	1/30/2043	\$106.88	(\$0.67)	4.65%	152	2	(4)
	Principal	PFG	6.050%	10/15/2036	\$121.75	(\$0.37)	4.33%	130	1	7
	Prudential	PRU	4.600%	5/15/2044	\$105.23	(\$0.02)	4.27%	114	(4)	7
	Allstate	ALL	4.500%	6/15/2043	\$105.63	(\$0.68)	4.14%	102	1	3
	Berkshire Hathaway	BRK	4.300%	5/15/2043	\$104.25	(\$0.79)	4.03%	92	1	2
	Travelers	TRV	4.600%	8/1/2043	\$106.93	(\$0.28)	4.16%	103	(4)	6
	XL Group	XL	6.250%	5/15/2027	\$116.06	\$0.05	4.13%	122	(3)	(19)
Other	AON	AON	4.250%	12/12/2042	\$95.90	\$0.15	4.53%	141	(4)	2
	AIG	AIG	6.820%	11/15/2037	\$125.52	(\$0.36)	4.80%	173	0	14
	Hartford	HIG	4.300%	4/15/2043	\$99.33	\$0.02	4.34%	122	(5)	7
	Nationwide	NATMUT	5.300%	11/18/2044	\$108.98	(\$0.36)	4.70%	154	(2)	10
Health	Aetna	AET	6.750%	12/15/2037	\$125.63	(\$4.02)	4.74%	169	24	30
	CIGNA	CI	6.150%	11/15/2036	\$118.48	(\$1.68)	4.66%	161	9	24
	United Healthcare	UNH	4.750%	7/15/2045	\$108.57	(\$0.74)	4.22%	108	0	11

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