NAIC National Association of Insurance Commissioners & The Center for Insurance Policy and Research

Capital Markets Special Report

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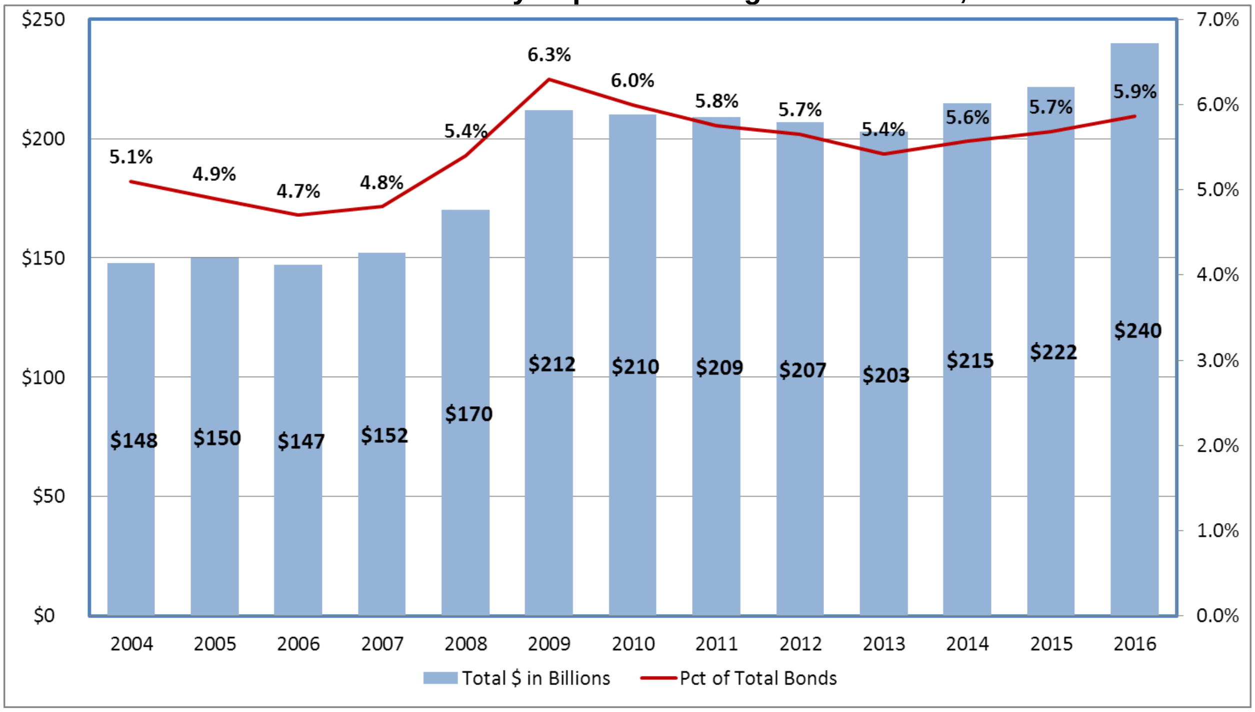
U.S. Insurers' High-Yield Bond Exposure on the Rise

In the prolonged low interest rate environment of recent years, the U.S. insurance industry has increased its investments in higher-yielding asset classes—including high-yield bonds, as well as alternative assets such as commercial real estate and Schedule BA assets. Although the incremental investments in higher-yielding assets have not resulted in significant changes to the industry's broad asset allocations, the industry has experienced a steady increase in high-yield exposure in terms of book/adjusted carrying value (BACV) and as a percentage of total bond exposure over time. In addition, the industry's exposure to bonds with NAIC 2 designations, or the lower end of the investment grade credit quality spectrum (BBB-ratings), has grown over time. Bonds with NAIC 2 designations increased to 27.5% of total bonds as year-end 2016 from under 20% before the financial crisis. This report will: 1) highlight recent trends in the U.S. insurance industry's high-yield bond exposure; 2) provide an analysis of the industry's current exposure to high-yield bonds; and 3) briefly discuss the high-yield market's performance in 2017.

The U.S. insurance industry's exposure to high-yield investments has been steadily increasing in recent years, although as a percentage of total bonds, exposure is slightly below the peak reached in 2009. (See Chart 1.) Since year-end 2013, high-yield exposure in BACV dollar terms has increased 18% to $240 billion, or 5.9% of total bonds, as of year-end 2016. In 2016 alone, exposure jumped 8%—the largest annual increase for some time—following only 3% increases in 2015 and 2014. For comparison purposes, the insurance industry's total bond exposure grew 4.7% in 2016; therefore, high-yield exposure grew at a faster rate than total bond exposure, indicating that insurers were taking on incremental risk through high-yield debt. In contrast, the significant increases in high-yield exposure in 2008 and 2009 were primarily related to the financial crisis when liquidity dried up and credit rating downgrades were numerous. So, the increases in exposure then were a function of the market and credit environment. According to Standard and Poor's Rating Services (S&P), approximately 18% of the issuers it rated were downgraded in 2009 (the highest rate in 29 years), and the average number of notches for the downgrades rose to 1.76 (a pace unmatched since 2002). From 2010 through 2013, high-yield exposure in dollar terms remained relatively stable but declined as a percentage of total bonds as the U.S. insurance industry's total bond investments increased.

Chart 1: Total U.S. Insurance Industry Exposure to High-Yield Bonds, 2004–2016



A Closer Look at Year-End 2016 High-Yield Exposure

As of year-end 2016, the U.S. insurance industry owned $240 billion of high-yield bonds, an 8.1% increase compared to year-end 2015. (See Table 1 and Table 2.) Although the industry's high-yield bond exposure is only 5.9% of total bond exposure, it has been steadily increasing in recent years as insurers have been adding more high-yield bonds to their investment portfolios in the prolonged low interest rate environment. Corporate bonds represented the majority of the exposure at 83%, and structured securities accounted for 8%. Note that the corporate bond category includes publicly traded corporate bonds, leveraged loans and private debt placements. Sovereign and other government bonds, municipal bonds, hybrid bonds, exchange-traded funds (ETFs), bond mutual funds and affiliated bonds accounted for the remaining exposure. The industry's high-yield exposure by bond type has remained relatively consistent over the years.

All insurer types increased exposure to high-yield bonds in 2016 in terms of dollars and as a percentage of total bonds, except for health companies. Although health companies increased dollar exposure to high-yield bonds by 13%, their exposure as a percentage of total bonds declined to 5.5% from 5.7% because total bond exposure increased by a greater amount, or almost 18%. Property/casualty (P/C) and life companies increased dollar exposure by 11.5% and 6.7%, respectively, while title and fraternal companies increased exposure in terms of dollars by 28.3% and 21.4%, respectively, although the large percentage increases are off of small bases. Life companies own approximately 75% of the industry's high-yield bonds, and P/C companies hold about 20%.

Table 1: U.S. Insurance Industry Exposure to High-Yield Bonds as of Dec. 31, 2016 (BACV $ millions)

Bond Type	Life	P/C	Health	Fraternal	Title	Total	% Total Below-IG Exposure	% Total Bond Exposure
Corporate	149,930	38,606	5,483	4,921	335	**199,275**	83.1%	4.9%
Structured Securities	17,465	2,058	108	106	0	**19,736**	8.2%	0.5%
Sovereign/Other Government	5,454	752	79	-	0	**6,285**	2.6%	0.2%
Municipal	1,119	1,570	71	27	0	**2,787**	1.2%	0.1%
Other	4,080	7,492	61	24	89	**11,745**	4.9%	0.3%
Total	**178,048**	**50,477**	**5,802**	**5,078**	**424**	**239,828**	100.0%	5.9%
% Total Below-IG Exposure	74.2%	21.0%	2.4%	2.1%	0.2%	100.0%		
% Total Segment Bond Exposure	**6.2%**	**5.0%**	**5.5%**	**4.9%**	**8.1%**	**5.9%**		

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

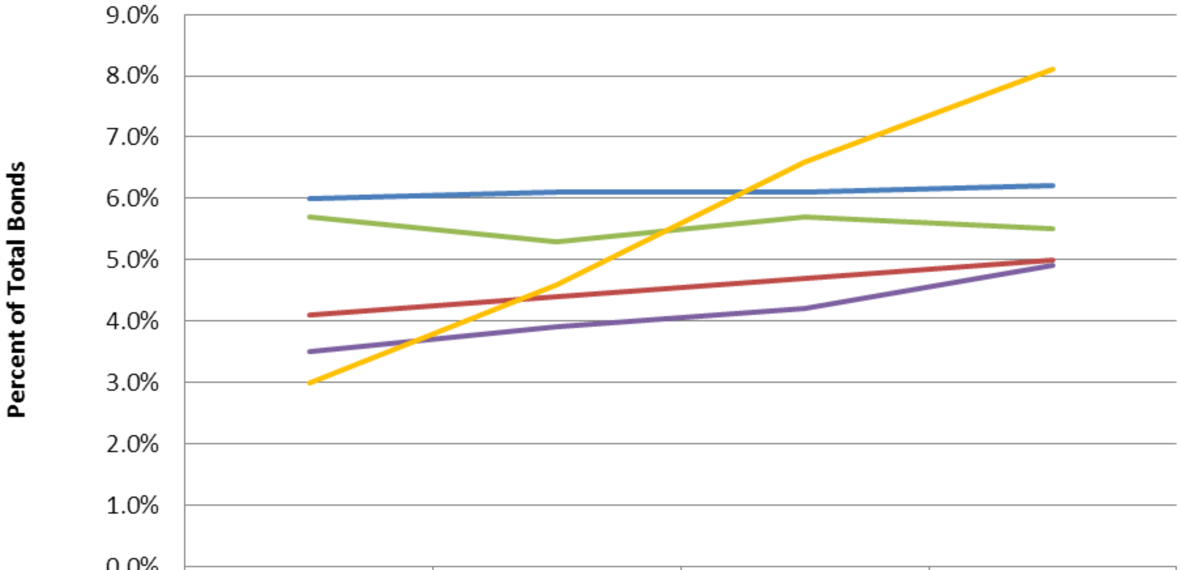
Table 2: U.S. Insurance Industry Exposure to High-Yield Bonds as of Dec. 31, 2015 (BACV $ millions)

Bond Type	Life	P/C	Health	Fraternal	Title	Total	% Total Below-IG Exposure	% Total Bond Exposure
Corporate	138,364	33,334	4,837	3,997	255	**180,787**	81.5%	4.6%
Structured Securities	18,732	2,478	131	102	50	**21,494**	9.7%	0.6%
Sovereign/Other Government	4,504	729	72	40	0	**5,346**	2.4%	0.1%
Municipal	1,041	1,336	79	14	1	**2,472**	1.1%	0.1%
Other	4,172	7,405	14	31	24	**11,646**	5.3%	0.3%
Total	**166,813**	**45,282**	**5,133**	**4,184**	**331**	**221,744**	100.0%	5.7%
% Total Below-IG Exposure	75.2%	20.4%	2.3%	1.9%	0.1%	100.0%		
% Total Segment Bond Exposure	**6.1%**	**4.7%**	**5.7%**	**4.2%**	**6.6%**	**5.7%**		

Note: The “Other” category includes hybrid bonds and affiliated bonds.

Looking over a longer time horizon, some insurer types appear to be adding more risk than others. Chart 2 shows high-yield exposure as a percent of total bonds by insurer type for the last four years. Title companies more than doubled their high-yield exposure to 8.1% of total bonds at year-end 2016, from 3% at year-end 2013 (although this is off a small base in terms of BACV dollars). P/C and fraternal companies have experienced steady growth in high-yield investments, and each had approximately 5% of total bonds in high-yield exposure at year-end 2016. P/C companies, in particular, increased high-yield exposure from 2.1% pre-financial crisis to 4.7% as of year-end 2016. On the other hand, life and health companies have maintained their exposure relatively stable, at 6.2% and 5.5% of total bonds, respectively, as of year-end 2016.

Chart 2: High-Yield Exposure as a Percent of Total Bonds by Insurer Type (2013–2016)



	2013	2014	2015	2016
Life	6.0%	6.1%	6.1%	6.2%
P/C	4.1%	4.4%	4.7%	5.0%
Health	5.7%	5.3%	5.7%	5.5%
Fraternal	3.5%	3.9%	4.2%	4.9%
Title	3.0%	4.6%	6.6%	8.1%

The fact that the credit distribution of the industry's high-yield exposure is skewed to the higher quality end of below investment grade credits provides some comfort to the added risk being taken by insurers overall. (See Table 3.) Approximately 60% of the industry's exposure is to bonds with NAIC 3 designations, the highest quality in the high-yield credit quality spectrum. This industry metric has been relatively consistent over the years. However, the metric varies greatly by insurer type, whereby at year-end 2016, NAIC 3 exposure for fraternal companies was 70% of total high yield, while P/C's was 46%. P/C companies' NAIC 3 exposure declined from 55% as of year-end 2014, while NAIC 5 (CCC-rated) exposure increased to 18% from 6% in the two-year time period—resulting in an overall riskier high-yield bond portfolio. However, the increase can be attributed to one large insurer that made a $6 billion high-yield investment in an affiliate in 2016. Excluding this transaction, the P/C industry's NAIC 5 exposure would have been 6%, which was the same level as 2014. The remaining three insurer types have maintained a relatively consistent mix of exposure by NAIC designations, with roughly 60% and 30% of high-yield exposure invested in bonds with NAIC 3 designations and NAIC 4 designations, respectively.

Table 3: Credit Distribution of U.S. Insurance Industry High-Yield Bond Exposure by Insurer Type as of Dec. 31, 2016 (BACV $ millions)

NAIC Designation	Life	P/C	Health	Fraternal	Title	Grand Total	% Total
NAIC 3	112,762	23,389	3,590	3,558	236	143,535	59.8%
NAIC 4	47,636	16,596	1,963	1,225	121	67,540	28.2%
NAIC 5	14,068	8,840	198	254	58	23,419	9.8%
NAIC 6 and Other	3,582	1,651	51	41	9	5,335	2.2%
Total	**178,048**	**50,477**	**5,802**	**5,078**	**424**	**239,828**	100.0%

Industry-wide, high-yield bond exposure was held primarily (86%) by the larger insurers, or those with greater than $5 billion in assets. (See Table 4.) Smaller insurers, or those with less than $1 billion in assets, owned 3% of the industry's exposure, with mid-size insurers holding the remaining 11% of exposure. With respect to exposure by insurer type, large life insurance companies held 92% of the sector's high-yield bond exposure, with small (insurers with less than $1 billion in assets) and mid-size (insurers with greater than $1 billion in assets but less than $5 billion) life companies having minimal exposure. However, for P/C companies, mid-size insurers are more active in the high-yield market and held 19% of their respective exposure.

Table 4: U.S. Insurance Industry High-Yield Bond Exposure by Insurer Asset Size as of Dec. 31, 2016 (BACV $ millions)

Cash and Invested Assets	Life	P/C	Health	Fraternal	Title	Total	% Total
< 250mm	515	839	260	156	19	**1,789**	0.7%
Between $250mm and $500mm	659	1,218	586	117	-	**2,579**	1.1%
Between $500mm and $1B	1,158	896	699	113	21	**2,888**	1.2%
Between $1B and $2.5B	4,018	4,991	2,403	478	384	**12,274**	5.1%
Between $2.5B and $5B	7,273	4,663	1,044	26	-	**13,006**	5.4%
Between $5B and $10B	10,955	7,295	811	-	-	**19,061**	7.9%
Greater than $10B	153,469	30,574	-	4,188	-	**188,231**	78.5%
Total	**178,048**	**50,477**	**5,802**	**5,078**	**424**	**239,828**	100.0%

A Deeper Dive into High-Yield Corporate Debt

Corporate debt represents the majority, or 83%, of the U.S. insurance industry's high-yield exposure at almost $200 billion as of year-end 2016. For the purposes of this report, high-yield corporate debt includes publicly traded corporate bonds, private debt placements and leveraged loans. Bonds, including those both publicly traded and privately placed, totaled $176.8 billion. Private placement bonds were estimated at $29 billion as of year-end 2016, accounting for 14.5% of high-yield corporate debt. To the extent that they can be readily identified as such from available data, leveraged loans totaled $22.4 billion and accounted for 11.3% of year-end 2016 high-yield corporate debt exposure. Note that this total does not include leveraged loan exposure that insurers may have indirectly through collateralized loan obligations (CLOs).

Table 5 shows that the life, health and fraternal segments hold approximately 90% of their high-yield corporate debt exposure in public corporate bonds and private placements, with the remaining 10% in leveraged loans. The P/C and title segments have 83% and 63%, respectively, of their high-yield corporate debt exposure in public and private bonds, and the remaining 17% and 37%, respectively, are in leveraged loans. Since 2014, the industry's loan exposure has grown 24%, while bond exposure grew 17%. However, P/C and fraternal companies' loan exposure has grown at a much faster rate, at 37% and 66%, respectively. Health and title companies did not have any investment in leveraged loans as of year-end 2014, but by year-end 2016, they had loan exposure of $568 million and $125 million, respectively. Leveraged loans were relatively rarely seen in insurance company portfolios until recent years, and although growing at a fast pace, they currently only account for only a fraction of total bond holdings. The leveraged loan market has grown rapidly as well. According to Thomson Reuters, year-to-date (YTD) leveraged loan issuance as of Oct. 31, 2017, totaled $1.1 trillion, an increase of 53% compared to the previous year.

Table 5: U.S. Insurance Industry High-Yield Corporate Debt by Credit Quality as of Dec. 31, 2016 (BACV $ millions)

NAIC Designation	Life	P/C	Health	Fraternal	Title	Total	% Total
Bonds							
NAIC 3	90,372	18,283	3,163	3,237	120	115,176	57.8%
NAIC 4	34,407	11,652	1,587	943	57	48,646	24.4%
NAIC 5	9,068	1,843	150	237	24	11,322	5.7%
NAIC 6 and Other	1,309	347	15	24	9	1,704	0.9%
Total Bonds	**135,155**	**32,126**	**4,916**	**4,441**	**210**	**176,848**	88.7%
% Total HY	90.1%	83.2%	89.6%	90.3%	62.7%	88.7%	
Loans							
NAIC 3	4,911	2,196	247	241	60	7,656	3.8%
NAIC 4	7,315	3,650	294	234	63	11,556	5.8%
NAIC 5	2,386	503	20	4	1	2,914	1.5%
NAIC 6 and Other	163	131	7	0	0	301	0.2%
Total Loans	**14,775**	**6,480**	**568**	**479**	**125**	**22,427**	11.3%
% Total HY	9.9%	16.8%	10.4%	9.7%	37.3%	11.3%	
Total HY Corporate	**149,930**	**38,606**	**5,483**	**4,921**	**335**	**199,275**	100.0%

In addition, Table 5 shows the credit quality distribution of the insurance industry's high-yield corporate debt holdings (for both bonds and loans), which has, for the most part, remained consistent since at least 2013. Approximately 65% and 28% of the high-yield corporate bond exposure is designated NAIC 3 and NAIC 4, respectively. However, the credit quality distribution varies by industry segment. The life, health and fraternal segments tend to be heavily weighted to the higher end of the high-yield quality spectrum, with approximately 64% to 73% in NAIC 3 holdings, about 21% to 32% in NAIC 4 positions, and the remaining 3% to 8% in NAIC 5, NAIC 6 and other. The P/C and title segments are somewhat less skewed to the higher end of the quality spectrum with NAIC 3 holdings at 57%; NAIC 4 positions at 27% to 36%; and NAIC 5, NAIC 6 and other rounding out the total with 7% to 15%.

The industry's loan exposure has a different credit quality distribution than that of bonds, however. Loan quality is skewed to NAIC 4 designations rather than NAIC 3. As of year-end 2016, loans with NAIC 3 and NAIC 4 designations represented 34% and 51%, respectively, of the total loan exposure. Furthermore, the majority, or approximately 63%, of the industry's loan exposure is rated by a nationally recognized statistical rating organization (NRSRO) and, therefore, are filing exempt (or FE), with the remaining assigned by the Securities Valuation Office (SVO) (16%), in process (17%) or 5*/6* (4%).

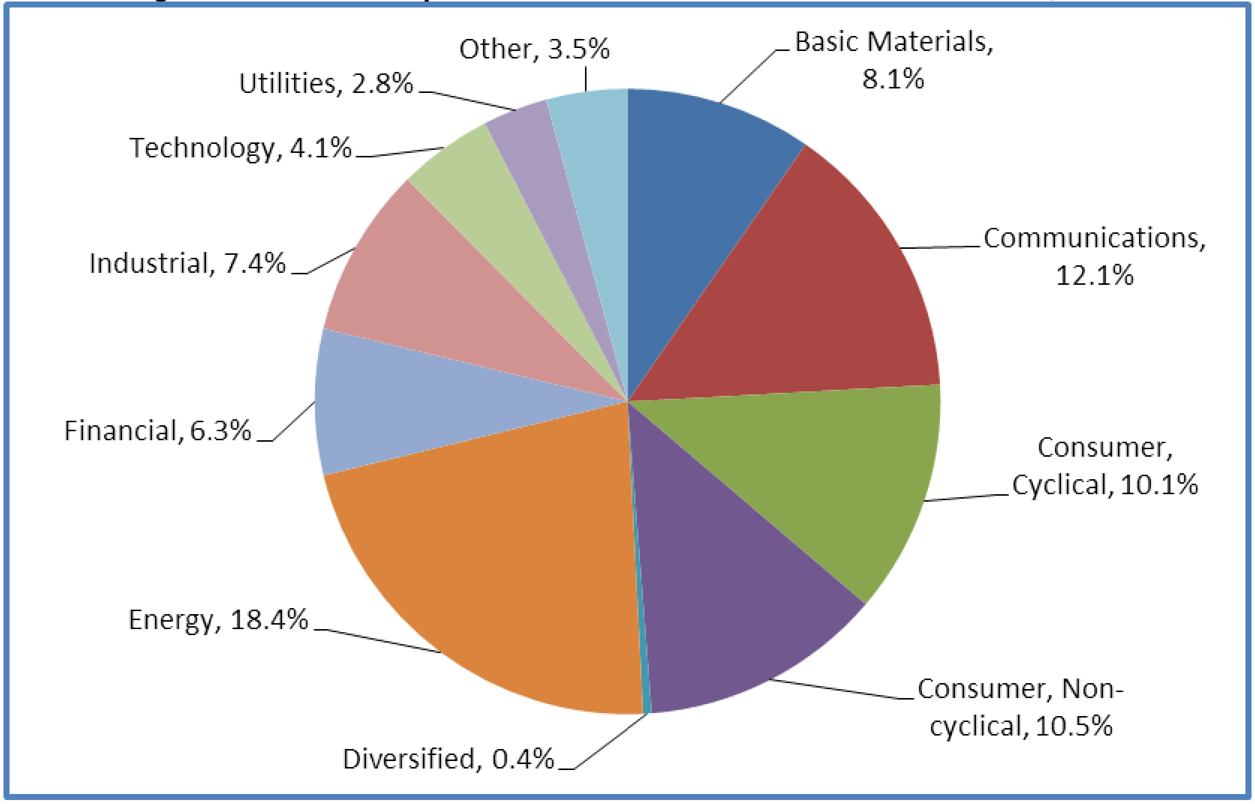
The maturity distribution of the insurance industry's high-yield corporate debt exposure by credit quality is detailed in Table 6. In general, the maturity distribution skews shorter as credit quality declines, for both bonds and loans. However, the leveraged loan exposure tends to have shorter maturities than the high-yield bond exposure given the shorter-term nature of term loans and revolving credit loans—almost 100% of the loan exposure matures in 10 years or less, while 82% of the bond exposure matures in the same time frame.

Table 6: Maturity Distribution of U.S. Insurance Industry High-Yield Corporate Debt by Credit Quality as of Dec. 31, 2016 (BACV $ millions)

NAIC Designation	<1 Year	1-<5 Years	5-<10 Years	10-<20 Years	20 Years or More	Total	% Total
Bonds							
NAIC 3	1,808	31,649	57,714	16,738	7,267	115,176	65.1%
NAIC 4	201	12,995	30,072	3,399	1,979	48,646	27.5%
NAIC 5	130	4,892	4,954	723	623	11,322	6.4%
NAIC 6 and Other	49	879	466	257	53	1,704	1.0%
Total Bonds	**2,188**	**50,415**	**93,206**	**21,117**	**9,922**	**176,848**	100.0%
% Bonds	1.2%	28.5%	52.7%	11.9%	5.6%	100.0%	
Loans							
NAIC 3	80	2,622	4,840	94	20	7,656	34.1%
NAIC 4	15	4,061	7,439	38	3	11,556	51.5%
NAIC 5	30	1,385	1,478	6	15	2,914	13.0%
NAIC 6 and Other	16	236	43	4	2	301	1.3%
Total Loans	**141**	**8,304**	**13,800**	**142**	**40**	**22,427**	100.0%
% Loans	0.6%	37.0%	61.5%	0.6%	0.2%	100.0%	
Total HY Corporate	**2,328**	**58,719**	**107,006**	**21,259**	**9,962**	**199,275**	
% Total HY Corporate	1.2%	29.5%	53.7%	10.7%	5.0%	100.0%	

The insurance industry’s high-yield public corporate bond exposure is well-diversified across sectors. Chart 3 provides a breakdown of the exposure by sector as of year-end 2016. The energy, communications, consumer noncyclical, consumer cyclical and basic materials sectors represent the top five sectors, and together represent almost 60% of the industry’s high-yield public corporate bond holdings. The top sectors have largely remained the same in recent years, with no major shifts in high-yield sector allocations.

Chart 3: High-Yield Public Corporate Bond Sector Breakdown as of Dec. 31, 2016



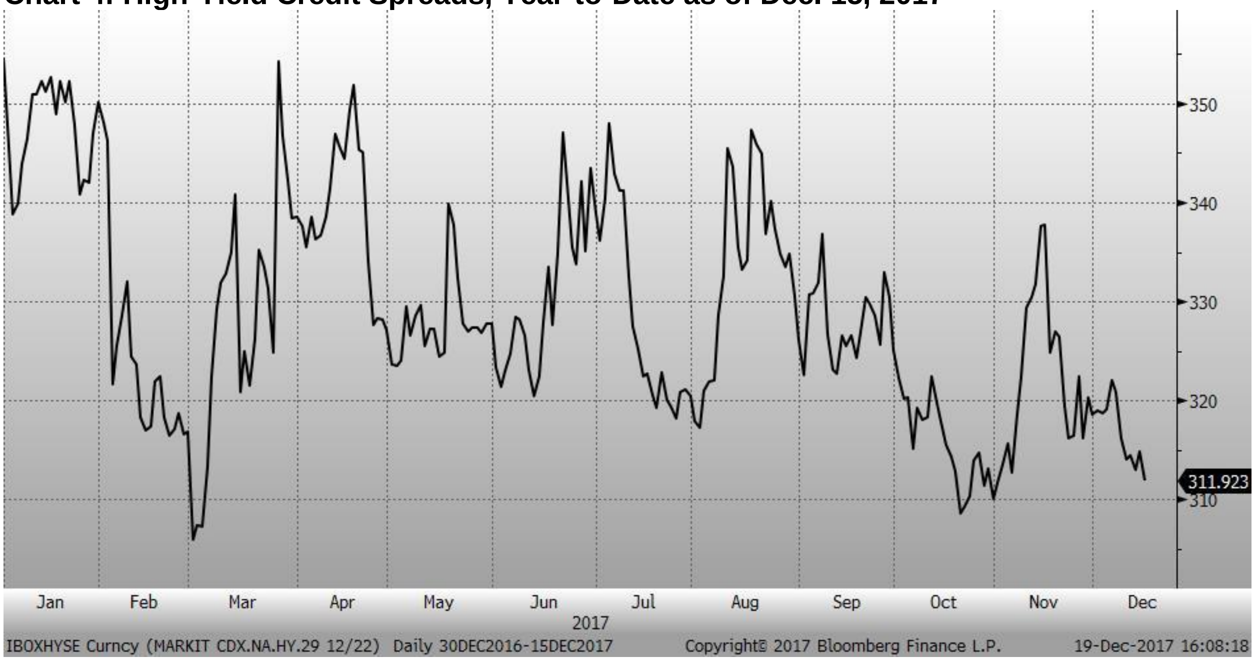
Overall, high-yield corporate credit has fared relatively well in 2017 from a default perspective. According to S&P Global Fixed Income Research, global corporate defaults have slowed this year with defaults as of Oct. 31, 2017, at 77—versus 142 for the same period last year. The energy sector accounts for approximately 25% of the default count this year—but lower than the 40% in 2016 given stabilizing and improving commodity prices globally. Defaults in the retail and restaurants sector, however, have increased with several large retailers such as Toys “R” Us Inc., Payless Inc. and Limited Stores Inc. filing for Chapter 11 bankruptcy protection. The apparel and retail sectors especially are facing challenges such as online retail competition and shifting consumer tastes. Many traditional brick-and-mortar retailers have announced store closings throughout the U.S. as a result. The U.S. insurance industry owns approximately $6 billion in high-yield retail bonds, or 3.4% of total high-yield bond exposure. Note, however, that the industry has additional exposure to retail through real estate and commercial mortgage loans as large retailers typically anchor the malls and shopping centers underlying many of those loans.

A Good Year for the High-Yield Bond Market

The high-yield corporate bond market has performed well in 2017, with strong issuance, low default rates and tightening credit spreads. According to S&P, U.S. high-yield bond issuance totaled $201.2 billion at the end of October 2017, an increase of 25% compared to the same period in 2016. Strong bond issuance has resulted in ample funding liquidity for many market participants. Another indicator of the stability in the high-yield market is default rates, which have declined in 2017. S&P expects the U.S. corporate default rate to decrease to 2.7% by September 2018 from 3.1% in September 2017 and 5% in September 2016. The expected decline in default rates is due, in part, to commodity prices stabilizing in 2017. However, going forward, default rates could be pressured by the following potential risks: 1) rising interest rates; 2) global uncertainties such as Brexit and tensions with North Korea; 3) the tax reform legislation in the U.S and the potential loss of interest deductibility; and 4) potential stress in the oil and retail sectors given recent volatility driven by sector-specific challenges.

High-yield credit spreads, using indexed credit default swaps as a proxy, have been muted in 2017—trading in a relatively narrow range of 306 basis points (bps) and 355 bps—given the relatively benign credit environment. As shown in Chart 4, credit spreads began the year at the high end of the range at 355 bps, trading as low as 306 bps in early March, but then fluctuated for the next several months. After reaching near lows again in late October, spreads widened in mid-November with equity market weakness. However, as of Dec. 15, 2017, credit spreads narrowed marginally again and closed at 312 bps, or 43bps tighter than where they began the year and 276 bps tighter than the 2016 high. The differential between high-yield and investment-grade bonds—an indicator of how well investors are compensated for taking on additional credit default risk—was 262 bps as of Dec. 15, 2017. To put that into context, the differential was 390 bps post-Brexit, as high as 465 bps in early 2016, and as tight as 250bps in 2014. Therefore, high-yield investors are being paid less today than last year for taking on added credit default risk.

Chart 4: High-Yield Credit Spreads, Year-to-Date as of Dec. 15, 2017



For several years now, high-yield issuers have benefited from the market's strength and have experienced favorable borrowing conditions with easy access to the credit markets. Strong investor demand—given the relative attractive yield opportunities offered by high-yield bonds—has provided funding liquidity that has allowed many companies to raise capital and/or refinance debt at low interest rates. However, with the Fed expected to raise interest rates in December and in 2018, financing rates will also rise, and the credit markets could potentially become less accommodating to issuers. As a result, high-yield issuers—particularly the smaller, less diversified, and more highly leveraged ones—may begin to face financing challenges.

Conclusion

The U.S. insurance industry has gradually increased its exposure to high-yield bonds over the past several years—with a year-over-year (YOY) increase of 8% at year-end 2016 in particular—given the search for yield in the prolonged interest rate environment. P/C and fraternal companies have experienced the steadiest growth in high-yield bond exposure over time, while life and health companies' exposure has been relatively stable. The fact that the credit distribution of the high-yield exposure is skewed to bonds with NAIC 3 designations lends some comfort to the added risk that insurers are taking. Even though the industry's high-yield exposure as a percent of total bonds is below the peak reached in 2009, given the increasing exposure trend in recent years, the Capital Markets Bureau will continue to monitor the U.S. insurance industry's exposure to high-yield investments, looking for material increases as well as signs of a potential turn in the credit cycle. In addition, the Capital Markets Bureau will be further analyzing the industry's growth in exposure to bonds with NAIC 2 designations in a future special report.

Questions and comments are always welcomed. Please contact the Capital Markets Bureau at **CapitalMarkets@naic.org**.