NAIC National Association of Insurance Commissioners & The Center for Insurance Policy and Research
Capital Markets Special Report

The **NAIC's Capital Markets Bureau** monitors developments in the capital markets globally and analyzes their potential impact on the investment portfolios of US insurance companies. A list of archived Capital Markets Bureau Special Reports is available via the **index**.

Update on the U.S. Insurance Industry's Exposure to the Financial Sector

Although insurance companies are not as integral to the global financial system as the large money center banks, they are interconnected with other entities in the financial sector in many ways: as investors in their debt and equity securities; as short-term depositors; and as counterparties in financial transactions. The risk that the failure of one financial institution could cause other interconnected institutions to fail—thus harming the national or global economy—has been a heightened concern for insurers and regulatory authorities ever since the 2008 financial crisis. With that concern in mind, the NAIC Capital Markets Bureau has continued to monitor the U.S. insurance industry's exposure to financial institutions, especially corporate debt holdings. This special report provides an update on the U.S. insurance industry's long-term corporate bond investments in the financial sector as of year-end 2014 and 2015, discusses recent fundamental trends in the financial sector, and takes a closer look at U.S. insurers' exposure to foreign financial institutions, especially European banks. Exposure to derivatives counterparties, which historically has been modest, will be discussed in the Capital Markets Bureau's next update on the insurance industry's use of derivatives, to be published later this year.

Financial Services Exposure Still Growing Modestly

Corporate Bonds

According to the NAIC Capital Markets Bureau's special report titled, "U.S. Insurance Industry Cash and Invested Assets at Year-End 2015," published in June 2016, bonds remained the largest portion of total cash and invested assets for U.S. insurers in 2015, with total book/adjusted carrying value (BACV) of $3.9 trillion, or 67% of the total, and corporate bonds constituted the largest portion of insurers' bond investments in 2015, with BACV of $2.1 trillion (54% of total bonds). Similarly, the lion's share of the U.S. insurance industry's unaffiliated exposure to the financial sector was in corporate bonds. Table 1 shows the U.S. insurance industry's total unaffiliated exposure to the long-term debt of financial sector companies as of Dec. 31, 2015, and Table 2 illustrates the exposure as of Dec. 31, 2014. Based on the data, in 2015, the insurance industry increased its total unaffiliated exposure to the financial sector in terms of BACV by 1.9%, to approximately $327.5 billion. The increase in insurers' financial sector corporate bond exposure trailed the 2.7% increase in total corporate bond exposure in 2015, so their corporate bond allocation to the financial sector edged down by 0.1 percentage point, to 15.5%. Among the insurance industry segments, life insurers increased their financial sector holdings by 2.4%, while P/C insurance companies' exposure increased 0.4%. Health and fraternal insurers grew their financial institution exposure by 3.0% and 0.5%, respectively. Title insurers' exposure to the sector fell a sharp 14.8%.

Table 1: U.S. Insurance Industry Unaffiliated Financial Sector Corporate Bonds Exposure as of Dec.31, 2015

BACV ($mil.) as of Dec. 31, 2015	Life	P/C	Health	Fraternal	Title	Total	% of total industry exposure to financial corporates	% of total corporate bond exposure	% of total cash and invested assets
Banks	132,679.1	53,603.3	8,826.1	3,853.5	381.4	199,343.5	60.9%	9.4%	3.4%
Financial	38,071.0	10,390.0	1,654.0	1,830.1	101.8	52,046.9	15.9%	2.5%	0.9%
Insurance	61,269.2	10,359.8	1,755.3	2,556.1	132.4	76,072.8	23.2%	3.6%	1.3%
Total Financial Sector	232,019.3	74,353.2	12,235.4	8,239.8	615.6	327,463.2	100.0%	15.5%	5.6%
% of total insurance industry exposure to financial corporates	70.9%	22.7%	3.7%	2.5%	0.2%	100.0%			
% of corp bond exposure (by statement type)	13.8%	22.4%	35.2%	12.4%	21.7%	15.5%			
% of cash and invested assets (by statement type)	6.1%	4.3%	7.5%	6.7%	7.1%	5.6%			

Table 2: U.S. Insurance Industry Unaffiliated Financial Sector Corporate Bonds Exposure as of Dec. 31, 2014

BACV ($mil.) as of Dec. 31, 2014	Life	P/C	Health	Fraternal	Title	Total	% of total Industry exposure to financial corporates	% of total corporate bond exposure	% of total cash and Invested assets
Banks	132,323.1	52,742.1	8,330.5	3,888.1	434.6	197,718.4	61.5%	9.6%	3.4%
Financial	35,409.4	11,073.4	1,859.1	1,801.8	169.9	50,313.7	15.7%	2.4%	0.9%
Insurance	58,899.6	10,212.6	1,683.8	2,509.1	118.2	73,423.3	22.8%	3.6%	1.3%
Total Financial Sector	226,632.1	74,028.1	11,873.4	8,199.0	722.8	321,455.3	100.0%	15.6%	5.6%
% of total insurance industry exposure to financial corporates	70.5%	23.0%	3.7%	2.6%	0.2%	100.0%			
% of corp bond exposure (by insurer type)	13.9%	22.8%	31.7%	13.1%	25.1%	15.6%			
% of cash and invested assets (by insurer type)	6.1%	4.3%	6.7%	6.9%	8.6%	5.6%			

For simplicity, the financial sector has been divided into three major categories: banks; insurance companies; and other non-bank financial companies (such as broker-dealers, consumer lenders and asset managers). Banks made up a majority of financial sector exposure for the insurance industry, but exposure to banks grew more slowly than exposure to insurers or other financials; therefore, banks accounted for 60.9% as of year-end 2015, compared to 61.5% a year earlier, while insurance companies and other non-bank financial companies accounted for 15.9% and 23.2%, respectively, compared to 15.7% and 22.8% a year earlier.

Credit Quality Distribution

Overall, the credit quality of insurers' exposure to the financial sector is strong, and marginally stronger than the overall distribution for the industry's total bond holdings. As Table 3 shows, 95.9% of total financial sector corporate bond BACV was deemed investment grade (NAIC 1 or NAIC 2 designation) as of Dec. 31, 2015, the same percentage as a year earlier. In aggregate, between 95.6% and 97.5% of insurance industry financial sector corporate bond exposure for each type of insurer was investment grade at the end of 2015, virtually unchanged from Dec. 31, 2014. Note, however, that life and fraternal insurers were more heavily weighted in financial sector corporates with an NAIC 2 designation—which corresponds to the Baa/BBB rating category of the major nationally recognized statistical rating organizations (NRSROs), at approximately 39%, compared to 25% to 28% for P/C, health and title insurers. Insurance companies increased the weighting of NAIC 2 designated credits within their investment-grade exposure, from only about 34% at the end of 2014. That shift represents the most material change in credit quality distribution for financial sector corporate bond exposure. At the other

end of the credit spectrum, the insurance industry’s holdings of the lowest-rated bonds (NAIC 5 and NAIC 6 designation) remained minimal and about in line with the prior year’s exposure.

Table 3: U.S. Insurance Industry Financial Sector Corporate Bonds Credit Distribution as of Dec. 31, 2015

BACV ($mil.) as of Dec. 31, 2015	NAIC 1	NAIC 2	NAIC 3	NAIC 4	NAIC 5	NAIC 6	Total	%
Life								
Banks	83,020.0	43,840.9	5,541.9	252.8	16.4	7.1	132,679.1	57.2%
Financial	23,327.9	11,609.1	2,247.8	646.0	232.3	7.9	38,071.0	16.4%
Insurance	25,929.0	34,080.8	693.3	439.6	120.7	5.8	61,269.2	26.4%
Total Financial Sector - Life	**132,276.8**	**89,530.8**	**8,483.1**	**1,338.5**	**369.4**	**20.7**	**232,019.3**	100.0%
% of Financial Sector - Life	57.0%	38.6%	3.7%	0.6%	0.2%	0.0%	100.0%	
Change in weight vs prior year	-4.8%	4.9%	0.0%	-0.1%	0.1%	0.0%		
P/C								
Banks	38,629.0	13,189.2	1,705.2	61.7	6.3	12.0	53,603.3	72.1%
Financial	7,370.6	2,517.6	266.5	210.5	22.0	2.8	10,390.0	14.0%
Insurance	5,352.7	4,630.9	121.6	165.1	38.9	50.6	10,359.8	13.9%
Total Financial Sector - P/C	**51,352.3**	**20,337.6**	**2,093.3**	**437.3**	**67.2**	**65.5**	**74,353.2**	100.0%
% of Financial Sector - P/C	69.1%	27.4%	2.8%	0.6%	0.1%	0.1%	100.0%	
Change in weight vs prior year	-8.7%	8.7%	0.1%	-0.1%	0.0%	0.0%		
Health								
Banks	6,337.2	2,352.5	130.0	5.0	-	1.5	8,826.1	72.1%
Financial	1,137.8	420.8	65.7	28.3	1.5	0.0	1,654.0	13.5%
Insurance	992.9	691.2	38.1	26.2	2.6	4.3	1,755.3	14.3%
Total Financial Sector - Health	**8,467.9**	**3,464.4**	**233.8**	**59.4**	**4.1**	**5.8**	**12,235.4**	100.0%
% of Financial Sector - Health	69.2%	28.3%	1.9%	0.5%	0.0%	0.0%	100.0%	
Change in weight vs prior year	-7.9%	7.7%	0.3%	-0.1%	0.0%	0.0%		
Fraternal								
Banks	2,583.9	1,199.4	69.8	-	-	0.4	3,853.5	46.8%
Financial	1,139.0	583.6	107.4	0.1	-	0.1	1,830.1	22.2%
Insurance	1,049.0	1,435.9	31.3	39.9	-	-	2,556.1	31.0%
Total Financial Sector - Fraternal	**4,771.8**	**3,218.9**	**208.5**	**40.1**	-	**0.5**	**8,239.8**	100.0%
% of Financial Sector - Fraternal	57.9%	39.1%	2.5%	0.5%	0.0%	0.0%	100.0%	
Change in weight vs prior year	-6.3%	5.5%	1.0%	-0.1%	0.0%	0.0%		
Title								
Banks	281.6	89.8	10.0	-	-	-	381.4	62.0%
Financial	83.9	14.0	2.1	1.8	-	-	101.8	16.5%
Insurance	81.8	48.3	0.5	1.8	-	-	132.4	21.5%
Total Financial Sector - Title	**447.2**	**152.2**	**12.6**	**3.6**	-	-	**615.6**	100.0%
% of Financial Sector - Title	72.7%	24.7%	2.0%	0.6%	0.0%	0.0%	100.0%	
Change in weight vs prior year	-8.4%	7.4%	1.2%	-0.2%	0.0%	0.0%		
Total								
Banks	130,851.6	60,671.9	7,456.9	319.5	22.7	21.0	199,343.5	60.9%
Financial	33,059.1	15,145.0	2,689.5	886.7	255.8	10.8	52,046.9	15.9%
Insurance	33,405.4	40,887.0	884.9	672.6	162.2	60.7	76,072.8	23.2%
Total Financial Sector - Insurance Industry	**197,316.1**	**116,703.9**	**11,031.3**	**1,878.8**	**440.7**	**92.5**	**327,463.2**	100.0%
% of Financial Sector - Insurance Industry	60.3%	35.6%	3.4%	0.6%	0.1%	0.0%	100.0%	
Change in weight vs prior year	-5.9%	5.9%	0.1%	-0.1%	0.0%	0.0%		

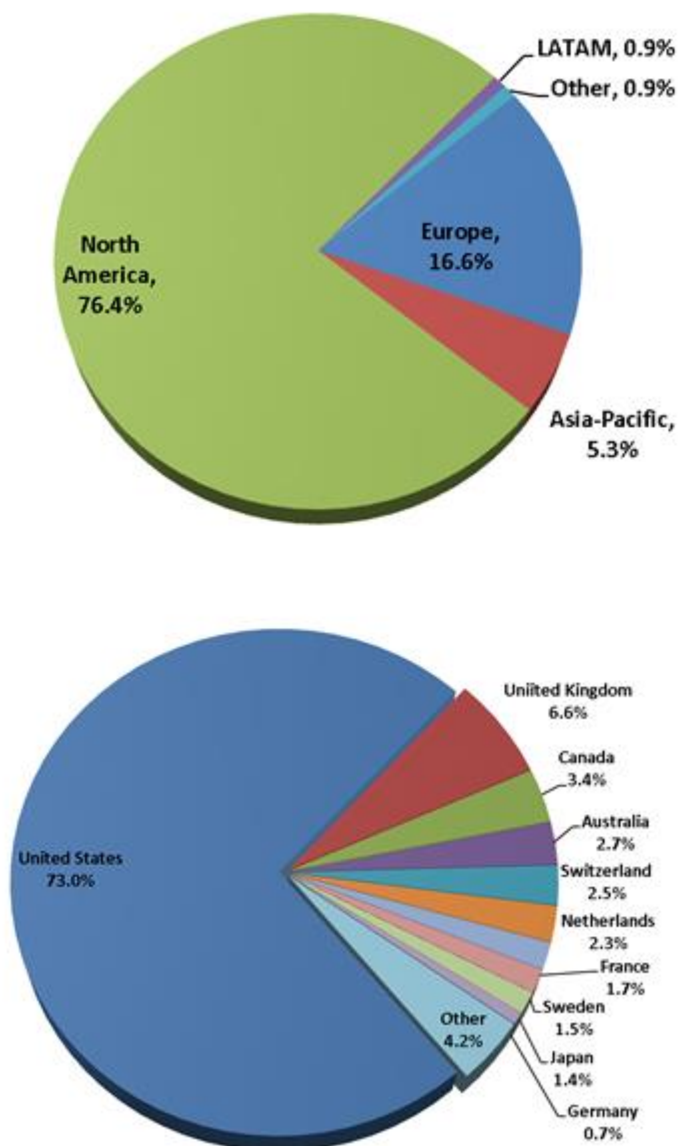
The slight deterioration of the credit quality distribution in 2015 suggests that some insurance companies took on a modest amount of additional credit risk within the confines of their investment grade financial sector corporate bond holdings, shifting about 6% of aggregate financial services corporate bond BACV exposure from bonds with NAIC 1 designations to bonds with NAIC 2 designations through either portfolio transactions or credit rating downgrades. There was virtually no increase in allocation to below-investment grade exposure, however.

Geographic Distribution

Chart 1 shows that the insurance industry’s financial sector corporate bond exposure remains highly concentrated in North America, with the U.S. accounting for 73.0% of total financial sector BACV ($238.9 billion) as of Dec. 31, 2015, and Canada comprising another 3.4% ($11.2 billion).

Europe accounted for 16.6% ($54.3 billion), while Asia and Latin America accounted for only 5.3% and 0.9%, respectively ($17.4 billion and $2.9 billion). As Chart 2 shows, the largest non-U.S. single-country exposures within the financial sector were the United Kingdom (UK) ($21.5 billion, or 6.6%), Canada ($11.2 billion, 3.4%), Australia ($8.9 billion, 2.7%), Switzerland ($8.2 billion, 2.5%) and Netherlands ($7.5 billion, 2.3%). Note that the analysis of country exposure is complicated by data reporting limitations and the complexities of international securities markets. Therefore, while every effort has been made to accurately identify the relevant country exposure for each security's issuer or parent, some exposures may be included that are through U.S. subsidiaries of those foreign entities.

Chart 1 and Chart 2: U.S. Insurance Industry Financial Sector Corporate Bonds Exposure, Geographic Distribution as of Dec. 31, 2015



At 6.6% of total insurance industry financial sector corporate bond exposure, UK institutions comprised the largest country exposure outside of the U.S. The recent UK referendum vote to leave the European Union (EU) has caused significant uncertainty about the potential impact of the so-called "Brexit" on the UK economy and on other EU nations. The impact could be even

more significant for Britain's huge financial sector, because of the uncertainty over its ability to continue doing business in the EU. If UK-based financial institutions lose these so-called "passporting" privileges after Brexit, banks might be forced to shift some operations to Frankfurt, Paris or Dublin in order to serve EU customers, thereby threatening London's status as a premier world financial hub that employs some 2.2 million people. It is too soon to accurately gauge the likely effects of Brexit, which will be many, let alone quantify them, as the exit process likely will take years to work out. Still, Moody's Investors Service changed its outlook for the UK's Aa1 sovereign rating to negative from stable, saying that a downgrade is possible if the country's economic growth weakens over the medium term. Moody's believes that an exit would be "credit negative" for insurers operating in the UK, although the effect on insurers' credit fundamentals would be "relatively modest." Standard & Poor's (S&P), which had maintained a rating of AAA for the UK since 1978, lowered its sovereign rating by two notches, to AA, on worries that an exit would add significant risk to the UK's economy, its financial services sector and its exports. S&P is maintaining a negative outlook on the UK, indicating it could lower the rating further: "The negative outlook reflects the risk to economic prospects, fiscal and external performance, and the role of sterling as a reserve currency, as well as risks to the constitutional and economic integrity of the UK if there is another referendum on Scottish independence," S&P said. Fitch Ratings expects an exit vote will have a moderate credit negative impact on its UK rating, which was lowered to AA/negative from AA+/stable because of increased risks to "medium-term growth and investment prospects, its external position, and the future of Scotland within it."

Table 4 shows the credit quality distribution of the U.S. insurance industry's corporate bond exposure to UK and EU financial institutions. For both the U.K. and EU overall, 92% of the total exposure was in investment grade bonds with an NAIC 1 or NAIC 2 designation.

Table 4: U.K. and EU Financial Sector Corporate Bond Exposure, $ mil.

	NAIC Designation						
BACV as of Dec. 31, 2015	**1**	**2**	**3**	**4**	**5**	**6**	**Total**
United Kingdom	**10,736.4**	**9,073.9**	**1,526.0**	**168.8**	**-**	**-**	**21,505.1**
%	**49.9%**	**42.2%**	**7.1%**	**0.8%**	**0.0%**	**0.0%**	**100.0%**
Netherlands	6,087.4	1,013.7	333.1	47.8	-	-	7,481.9
France	3,342.5	2,144.9	159.4	-	-	-	5,646.8
Sweden	4,300.5	562.6	-	-	-	-	4,863.0
Germany	1,626.9	109.6	689.9	10.3	-	0.2	2,436.9
Ireland	22.3	1,392.6	1.8	38.8	-	20.6	1,476.1
Italy	4.0	377.8	76.4	0.4	2.3	-	460.9
Spain	51.8	251.6	83.4	-	0.8	-	387.6
Denmark	268.7	-	-	-	-	-	268.7
Belgium	25.0	1.3	136.5	-	38.6	-	201.5
Austria	3.4	-	75.9	-	15.9	-	95.2
Finland	23.4	56.9	-	-	-	-	80.3
Luxembourg	-	41.5	-	-	-	-	41.5
Hungary	-	-	0.7	-	-	-	0.7
Total EU	**15,755.9**	**5,952.5**	**1,557.2**	**97.3**	**57.6**	**20.8**	**23,441.2**
%	**67.2%**	**25.4%**	**6.6%**	**0.4%**	**0.2%**	**0.1%**	**100.0%**
Total EU and U.K.	**26,492.3**	**15,026.4**	**3,083.2**	**266.1**	**57.6**	**20.8**	**44,946.4**
%	**58.9%**	**33.4%**	**6.9%**	**0.6%**	**0.1%**	**0.0%**	**100.0%**

Key Sector Fundamental and Market Trends

Banks

The world's large global banking institutions continue to reengineer themselves in response to

post-financial crisis regulatory initiatives. Capital ratios generally have improved, and stress testing has heightened risk aversion and led banks to shrink their balance sheets. Liquidity ratios have remained solid; net stable funding ratios are relatively unchanged or have improved for most of the major global systemically important banks (G-SIBs). Asset quality also has held up relatively well, and while the credit cycle appears to have turned for the worse this year, credit pressures thus far are largely contained within the energy and commodity sectors, where exposures are modest and quite manageable for most institutions; in fact, some of the recent increase in U.S. banks' energy-related non-performing assets and loan loss reserves are a reflection of federal regulatory initiatives. As a result, the major rating agencies view the credit outlook as stable for most of the big global banks, although that could change, depending on the economic repercussions of the Brexit process, and on the ability of some European banks to resolve lingering problem loan exposures.

Revenue headwinds persist, however, especially in fixed income, currencies and commodities (FICC) operations, due to shrinking market making activities and heightened risk aversion. Earnings pressure is increasing as the current low interest rate environment persists, particularly in Europe, where a large portion of the government bond market now yields less than zero. Therefore, despite the relatively benign view of the rating agencies, credit spreads on bank bonds have grown more volatile in 2016, and some have widened significantly, especially in Europe. Indeed, credit spreads (as measured by five-year credit default swaps (CDS)) for the stronger U.S. and EU institutions have held fairly steady over the past 12 months, ranging between about 50 basis points (bps) and 100 bps, but the weaker investment grade credits have been much more volatile and widened significantly. For example, the five-year senior CDS spread for Deutsche Bank more than doubled in the past year, to 222 bps, Italy's UniCredit and Mediobanca have widened 40 to 50 bps, to 194 bps and 176 bps, respectively, and the UK's Standard Chartered Bank and Lloyds Bank have each widened about 50 bps, to a respective 148 bps and 99 bps. Reflecting the same concerns, Chart 3 shows that U.S. bank stocks have lagged the broad global equity market by a relatively small margin in the past 12 months, but European bank stocks fared much worse.

Chart 3: EU and U.S. Bank Sector Index Relative Performance vs. MSCI World Index, 12 months ending July 28, 2016

The “lower-for-longer”/negative interest rate environment continues to affect banks across the European continent, and the added macroeconomic uncertainty brought on by the Brexit vote has driven rates to new lows. Low—and, in some cases, negative—rates may also tempt yield-hungry banks to increase risk-taking, and central bank bond-buying programs could lead to asset price bubbles.

The U.S. banking industry is beginning to navigate the new regulatory landscape, as more and more regulations are put in place in response the federal Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act). The regulatory environment in Europe is moving forward, albeit more slowly. From a fundamental credit perspective, the most significant regulatory reform initiatives involve capital planning and stress testing; most U.S., UK and EU banks have significantly improved their capital positions in recent years. Other reforms, such as resolution planning and structural reforms such as the ring-fencing of certain trading operations and the establishment of holding companies, also are progressing.

Some country-specific risks exist. Moody’s and S&P both lowered their rating outlook for the U.K. banking system to negative following the Brexit vote, expecting lower economic growth and heightened uncertainty over the UK's future trade relationship with the EU to reduce demand for credit, increase credit losses and disrupt wholesale funding conditions for UK financial institutions. A sizable overhang of problem loans—more than 10% of total loans, according to Moody’s—is impeding banks’ recovery in Ireland, Italy and Portugal (only $1.9 billion BACV in aggregate exposure for U.S. insurers). Of those three, Ireland’s bad loan exposure is declining but is the largest at more than 15% of total loans, while Italy and Portugal are above 10%. Note that Spain’s problem loan exposure has fallen to between 6% and 7% of total loans, from a peak of around 10%.

Italy has been the focus of investor concern because of scale; it is Europe’s fourth-largest economy and one of the weakest. Italy’s banks have bad loans totaling approximately €360 billion ($400 billion), about a fifth of the country’s gross domestic product (GDP), but have provisioned for only 45% of that amount, raising the specter that some may fail. With private capital fleeing and a bank-backed rescue fund depleted, Italy’s prime minister is seeking EU approval to use public funds to preemptively shore up the banks; EU law, however, makes this all but impossible unless bondholders “bail-in” and take losses first, something that is unpalatable in Italy because retail investors are significant holders of Italian bank debt. At worst, failure to resolve this issue could erode confidence and lead to a banking crisis.

Insurance

According to the major rating agencies, credit trends appear stable for U.S. life insurers, although low interest rates continue to be a concern. Credit trends appear stable for P/C insurers, as well, as low interest rates continue to weigh on investment income, but insurers appear to be maintaining underwriting discipline. The credit outlook seems less sanguine for reinsurers; Moody’s has assigned a negative rating outlook to the global reinsurance sector, which is saddled with overcapacity.

Non-Bank Financials

The non-bank financial segment includes all non-bank and non-insurance financial services companies—i.e., broker-dealers, non-bank lenders, securities exchanges and investment companies—so broad credit trends for the segment are difficult to isolate. Credit profiles within this segment may vary considerably. Of note, however, is some deterioration in credit metrics for consumer-lending companies. Auto loan delinquency rates have been rising in spite of the strong employment situation in the U.S., average loan maturities continue to lengthen, and loan growth is slowing with decelerating vehicle sales. Credit card issuers, however, have benefited from low interest rates that have allowed them to maintain healthy excess spreads, and charge-offs have remained low.

Maturity Distribution

Large financial institutions—especially banks—typically are among the most prolific issuers of

investment-grade corporate debt, and they tend to issue bonds across the maturity spectrum, thus providing fixed-income investors with an array of choices to meet their duration needs.

Table 5 details the maturity distribution of the financial sector corporate bond holdings of the insurance industry, by company type and industry segment. As one might expect, the maturity distribution for life companies is fairly spread out, but with 56% concentrated between the >1- to 5-year and >5- to 10-year buckets (25% and 31%, respectively). This is consistent with the somewhat longer duration profile for their liabilities. In 2015, life companies slightly extended their financial sector maturities, reducing their holdings in the shortest maturity bucket (0-1 years) by two percentage points, and increasing exposure by 1.5 percentage points in the longest-dated bucket (more than 20 years).

P/C companies, conversely, have a shorter duration liability profile and, therefore, have 59% of their holdings maturing in five years or less, with 49% in the >1- to 5-year bucket. In 2015, P/C insurers appeared to slightly extend their maturity profile within their financial sector corporate bond holdings, reducing their exposure in the 0-1 year and >1- to 5-year buckets by a respective two and three percentage points, but that could simply represent the roll-down of certain bonds into the shorter bucket. Health insurers—which also tend to have a shorter-duration liability stream—extended maturities as well, reducing their short and intermediate financial bond holdings (>1- to 5-year and >5- to 10 year buckets) by two percentage points each and increasing their >20-year bucket by four percentage points. Fraternal companies' maturity distribution of financial sector corporate bond holdings was little changed except for what appears to be some roll-down between maturity buckets, while title companies—whose financial institution corporate holdings declined by $108 million—decreased the portion of these holdings maturing in less than one year and >1- to 5 years by a respective five and four percentage points, and added seven percentage points to the >20 years bucket.

Table 5: U.S. Insurance Industry Financial Sector Corporate Bonds Maturity Distribution at Dec. 31, 2015

BACV as of Dec. 31, 2015 ($ mil.)	0-1 Years	>1 - 5 Years	>5 - 10 Years	>10 - 20 Years	>20 Years	Total
Life						
Bank	9,014.9	39,464.0	45,912.0	11,461.5	26,826.7	132,679.1
Non-bank financial	1,625.1	8,826.9	9,873.2	4,077.8	13,668.0	38,071.0
Insurance	1,214.9	10,013.0	14,900.8	11,046.0	24,094.5	61,269.2
Financial sector - Life	**11,854.8**	**58,303.9**	**70,686.0**	**26,585.4**	**64,589.2**	**232,019.3**
% of financial sector - Life	5.1%	25.1%	30.5%	11.5%	27.8%	100.0%
P/C						
Bank	5,456.5	27,911.3	14,205.7	1,344.9	4,685.0	53,603.3
Non-bank financial	851.0	4,783.2	2,820.7	343.9	1,591.2	10,390.0
Insurance	509.7	4,012.7	3,477.8	487.7	1,872.0	10,359.8
Financial sector - P/C	**6,817.1**	**36,707.2**	**20,504.1**	**2,176.5**	**8,148.2**	**74,353.2**
% of financial sector - P/C	9.2%	49.4%	27.6%	2.9%	11.0%	100.0%
Health						
Bank	1,107.0	5,084.2	1,609.6	236.5	788.8	8,826.1
Non-bank financial	165.0	857.3	346.9	43.0	241.9	1,654.0
Insurance	115.5	758.6	503.0	44.1	334.1	1,755.3
Financial sector - Health	**1,387.5**	**6,700.0**	**2,459.4**	**323.7**	**1,364.8**	**12,235.4**
% of financial sector - Health	11.3%	54.8%	20.1%	2.6%	11.2%	100.0%
Fraternal						
Bank	251.1	1,318.6	1,440.6	426.3	416.9	3,853.5
Non-bank financial	105.0	716.9	523.0	192.6	292.7	1,830.1
Insurance	69.3	548.8	714.1	494.6	729.3	2,556.1
Financial sector - Fraternal	**425.3**	**2,584.3**	**2,677.7**	**1,113.5**	**1,439.0**	**8,239.8**
% of financial sector - Fraternal	5.2%	31.4%	32.5%	13.5%	17.5%	100.0%
Title						
Bank	29.1	222.9	93.2	1.0	35.2	381.4
Non-bank financial	6.1	41.9	36.0	3.9	13.9	101.8
Insurance	13.5	50.5	42.0	4.6	21.7	132.4
Financial sector - Title	**48.7**	**315.3**	**171.2**	**9.5**	**70.8**	**615.6**
% of financial sector - Title	7.9%	51.2%	27.8%	1.5%	11.5%	100.0%
Total						
Bank	15,858.5	74,001.0	63,261.1	13,470.2	32,752.7	199,343.5
Non-bank financial	2,752.1	15,226.2	13,599.7	4,661.2	15,807.7	52,046.9
Insurance	1,922.9	15,383.6	19,637.6	12,077.0	27,051.6	76,072.8
Financial sector - Total	**20,533.5**	**104,610.7**	**96,498.5**	**30,208.5**	**75,612.0**	**327,463.2**
% of financial sector - Total	6.3%	31.9%	29.5%	9.2%	23.1%	100.0%

Although the extension of duration can be a means for investors to reach for additional yield, it also closes the duration gap many insurers have versus their liabilities, thus reducing firm interest rate risk. In addition, corporate new issuance has trended toward longer average maturities in recent years, as corporations lock in low interest rates, so some duration extension likely resulted simply from new issue buying. When U.S. interest rates begin to rise, the behavior of corporate issuers and investors may change, both in terms of maturity preference and total supply and demand.

Equity Investments

In addition to corporate bonds, insurance companies also invest in the equity securities of financial institutions, although equities as a whole comprise a relatively small portion of total cash and invested assets. Table 6 and Table 7 illustrate the U.S. insurance industry's respective unaffiliated common and preferred equity holdings of financial institutions as of year-end 2015.

Table 6: U.S. Insurance Industry Financial Sector Exposure, Unaffiliated Common Equities, $ mil.

BACV as of Dec. 31, 2015	Life	P/C	Health	Fraternal	Title	Total	% of Total Financial Sector Common Equity Exposure	% of Total Common Equity Exposure
Banks	5,116.2	48,611.8	661.9	250.3	6.4	54,647	70.4%	8.1%
Financial	635.0	12,260.2	141.2	67.8	1.9	13,106	16.9%	1.9%
Insurance	918.2	8,218.9	614.4	98.3	14.3	9,864	12.7%	1.5%
Total Financial Sector	**6,669**	**69,091**	**1,417**	**416**	**23**	**77,617**	100.0%	11.5%
% of Total Financial Sector Common Equity Exposure	8.6%	89.0%	1.8%	0.5%	0.0%	100.0%		
% of Total Segment Common Equity Exposure	4.5%	14.1%	4.8%	11.4%	1.3%	11.5%		
% of Cash and Invested Assets	0.2%	4.0%	0.9%	0.3%	0.3%	1.3%		

Table 7: U.S. Insurance Industry Financial Sector Exposure, Unaffiliated Preferred Equities, $ mil.

BACV as of Dec. 31, 2015	Life	P/C	Health	Fraternal	Title	Total	% of Total Financial Sector Preferred Equity Exposure	% of Total Preferred Equity Exposure
Banks	2,613	5,663	130	128	214	8,748	72.9%	35.4%
Financial	1,301	400	19	15	14	1,749	14.6%	7.1%
Insurance	756	688	17	17	22	1,500	12.5%	6.1%
Total Finanical Sector	**4,669**	**6,750**	**167**	**160**	**250**	**11,997**	100.0%	48.5%
% of Total Financial Sector Preferred Equity Exposure	38.9%	56.3%	1.4%	1.3%	2.1%	100.0%		
% of Total Preferred Equity Exposure	48.1%	47.9%	52.3%	55.7%	82.0%	48.5%		
% of Cash and Invested Assets	0.1%	0.4%	0.1%	0.1%	2.9%	0.2%		

As of Dec. 31, 2015, the U.S. insurance industry's total unaffiliated financial institutions equity exposure was $89.6 billion, or 1.5% of total cash and invested assets. The industry's exposure was composed of $77.6 billion of common stocks and $12.0 billion of preferred shares. P/C companies held the bulk of the common equity positions, with $69.1 billion (89% of the total for the insurance industry), and also held a majority of the preferred investments, with $6.8 billion (56% of the industry total).

Because preferred securities typically are junior to debt securities in an issuer's capital structure, the overall credit quality of the U.S. insurance industry's preferred equity holdings is lower than that of its bond holdings. Therefore, only 53% of total financial sector preferred equity BACV is investment grade (NAIC 1 or NAIC 2) and the remaining 47% is below investment grade (NAIC 3 to NAIC 6).

Significant Single-Name Exposures

The U.S. insurance industry has significant investment exposure to certain large financial institutions, many of which have been deemed systemically important financial institutions (SIFIs) by the Financial Stability Board or national regulators. New regulations under the Dodd-Frank Act mandate that SIFIs will have to meet higher capital standards and develop contingency plans for potential future failures. The 15 largest exposures (corporate bonds and equities) are listed in Table 8. The list includes seven banks designated as G-SIBs and three banks determined to be domestic systemically important banks (D-SIBs).

Table 8: U.S. Insurance Industry's Largest Single-Name Financial Institution Exposures, $ mil.

BACV at Dec. 31, 2015	Bonds	Preferred	Common	Total
Wells Fargo (G-SIB)	11,808	619	29,667	42,095
Bank of America (G-SIB)	10,122	3,430	5,625	19,177
American Express Co. (D-SIB)	4,958	55	10,619	15,632
JP Morgan Chase (G-SIB)	12,993	300	1,406	14,699
Goldman Sachs (G-SIB)	10,094	223	2,356	12,673
Morgan Stanley (G-SIB)	9,162	251	177	9,590
US Bancorp (D-SIB)	3,865	591	5,006	9,461
GE Capital	9,007	41	-	9,047
Citigroup (G-SIB)	8,240	173	500	8,913
HSBC (G-SIB)	6,657	286	74	7,017
PNC (D-SIB)	5,972	357	349	6,678
MetLife	5,949	40	199	6,188
Bank of New York Mellon (G-SIB)	4,513	178	782	5,473

Summary

The financial sector exposure of the U.S. insurance industry—which accounted for 15.9% of the industry's corporate bond holdings, 11.5% of common equity investments and 48.5% of preferred stock holdings as of Dec. 31, 2015—has remained relatively stable in recent years. Within financial corporate bond holdings, banks continued to be the largest subsector at about 61% of total BACV, followed by insurers (23%) and other non-bank entities (16%). The credit quality distribution of the industry's financial sector corporate bonds was 97% investment grade as of the first half of 2014, with 60% and 36%, respectively, concentrated among holdings with NAIC 1 and NAIC 2 designations. Only a small extension of maturities among corporate bonds in the financial sector was apparent. Equity investments in financials comprised a small portion of total cash and invested assets (1.5% as of Dec. 31, 2015).

There is some modest concern among investors and rating agencies with respect to EU and UK financial institutions due to the uncertain macroeconomic and regulatory outlook in the aftermath of the Brexit vote, but the U.S. insurance industry's aggregate exposure to these institutions is manageable at about $45 billion, of which 92.4% is investment grade. Aggregate exposure to Irish, Italian and Portuguese financial institutions—all of which are a lingering source of concern because of comparatively large problem loan books—is minimal, at less than $2 billion in total. The NAIC Capital Markets Bureau will continue to monitor financial sector exposure and publish additional research as deemed appropriate.

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

The views expressed in this publication do not necessarily represent the views of NAIC, its officers or members. NO WARRANTY IS MADE, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY OPINION OR INFORMATION GIVEN OR MADE IN THIS PUBLICATION.

© 1990 – 2018 National Association of Insurance Commissioners. All rights reserved.