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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**

Addendum – Municipal Bond Exposure in the U.S. Insurance Industry: City of Detroit Bankruptcy

On Thursday, July 18, after the market closed, the city of Detroit filed for protection under Chapter 9 of the Federal Bankruptcy Code. This was the largest municipal bankruptcy ever based on the amount of debt involved, totaling approximately $18 billion, including general obligation and revenue bonds, and approximately $3.5 billion in unfunded pension obligations plus $6.4 billion in other unfunded employee benefits. In addition, as of July 2013, defaults among municipal bond issuers have consisted largely of small local borrowers, representing approximately $573.2 million in debt. For perspective, the total municipal bond market is approximately $3.7 trillion.

Table 1: Largest Municipal Bankruptcies

	Approximate Debt	*Population*	*Year*
Detroit, Michigan	$18.0 billion	701,000	2013
Jefferson County, Alabama	$4.2 billion	659,000	2011
Orange County, California	$2.0 billion	2,400,000	1994
Stockton, California	$1.0 billion	292,000	2012
San Bernardino, California	$492 million	213,000	2012
Vallejo, California	$175 million	116,000	2008

No doubt it will be months, if not years, before the implications of this bankruptcy filing are fully felt. There will be direct impact on the city of Detroit, as well as possibly on the state of Michigan and other municipalities within the state. There may also be reverberations across the entire municipal bond market, depending on how the bankruptcy is resolved and how investors of Detroit's municipal bonds fare.

U.S. Insurer Exposure

U.S. insurers, as of year-end 2012, held approximately $1.4 billion in book/adjusted carrying value (BACV) of Detroit municipal bonds. This included both general obligation and revenue bonds. The $1.4 billion represents 0.29% of the industry's exposure in state and local bonds overall. A more thorough update of the U.S. insurance industry's exposure to the municipal bond market was published July 1, 2013 ("**Update on Municipal Bonds Held by the U.S. Insurance Industry**").

Transactions in Detroit municipal bonds during the first quarter of 2013 were relatively modest. There were acquisitions totaling $56.9 million and sales totaling $52.7 million, generating a modest gain (versus carrying value) resulting in profits. Because second quarter financial statement filings have not yet been reported as of the date of this report, our analysis focuses on year-end 2012 data.

Table 2: U.S. Insurers' Detroit Exposure as of YE 2012

($ in millions)	*Property*	*Life*	*Health*	*Fraternal*	*Title*	*Total*
General Obligation	$51.0	$49.0	-	-	-	$100.0
Water & Sewer	752.5	47.8	$30.9	$0.3	-	831.4
School District	245.5	189.5	11.4	0.8	-	447.2
Total	$1,048.9	$286.3	$42.3	$1.1	-	$1,378.6
Total Municipal Bond Exposure	$329,192.7	$125,022.3	$16,207.1	$6,266.8	$1,520.9	$478,209.7
Detroit Exposure as a Percentage	0.32%	0.23%	0.26%	0.02%	-	0.29%

The exposure among U.S. insurers was fairly widely distributed among companies domiciled in 48 different jurisdictions. Six of the jurisdictions had more than $100 million in BACV. The largest exposures based on state of domicile of the insurer were as shown in Table 3 below.

Table 3: YE 2012 Top Six Detroit Exposures by State of Domicile

	Property	*Life*	*Other*	*Total*	*Percentage of Total*
Delaware	$129,506,008	$25,710,187	$242,394	$155,458,589	11.28%
Illinois	$118,212,411	$32,169,727	-	$150,382,138	10.91%
New York	$118,560,142	$19,676,026	$11,428,887	$149,665,055	10.86%
Connecticut	$122,570,003	$22,109,621	-	$144,679,624	10.49%
Iowa	$13,765,453	$113,425,734	-	$127,191,187	9.23%
Ohio	$83,584,916	$23,234,963	$267,967	$107,087,846	7.77%

Note that, in the state-by-state breakdown, insurers domiciled in Michigan only held $3.5 million. The U.S. insurance industry's exposure was distributed across 242 different insurers and 182 different insurer groups. The largest individual company exposure was $94.9 million and the largest group exposure was $239.9 million. Besides the dollar exposure, other metrics for viewing the impact of the bankruptcy on the insurer is the exposure as a percentage of total assets and as a percentage of surplus and capital.

Table 4: Ten Largest Insurance Company Exposures by $BACV

Rank	*State of Domicile*	*BACV*	*Percentage of Assets*	*Percentage of Surplus & Capital*
1	Connecticut	$94,931,257	1.3%	3.0%
2	Iowa	69,788,048	0.2%	2.9%
3	New York	59,909,722	0.5%	1.4%
4	Wisconsin	48,908,624	0.5%	0.9%
5	Illinois	46,853,921	0.1%	0.5%
6	Ohio	33,961,048	1.0%	3.0%
7	Wisconsin	29,934,694	0.6%	29.9%
8	Iowa	29,000,000	0.2%	2.7%
9	Missouri	27,765,562	0.8%	2.9%
10	Delaware	25,549,359	0.1%	0.3%

Table 5: Ten Largest Insurance Company Exposures by Percentage of Surplus & Capital

Rank	*State of Domicile*	*BACV*	*Percentage of Assets*	*Percentage of Surplus & Capital*
1	Wisconsin	$29,934,694	0.6%	29.9%
2	Delaware	242,394	0.4%	19.1%
3	Michigan	2,360,337	5.5%	9.7%
4	New York	13,969,781	6.4%	9.7%
5	Delaware	9,227,238	8.1%	8.3%
6	New York	5,011,749	3.0%	7.8%
7	Iowa	2,070,605	9.5%	7.7%
8	Texas	987,005	5.7%	7.3%
9	Minnesota	2,070,605	7.1%	6.8%
10	New York	276,181	1.4%	6.0%

In many cases, the insurers were part of larger groups of insurers, including other life companies or other property/casualty companies. The aggregate results, while showing larger overall dollar exposures, also rendered different results as a percent of assets or as a percent of surplus and capital.

Table 6: Ten Largest Dollar Exposures by Group

Rank	*BACV*	*Percentage of Assets*	*Percentage of Surplus & Capital*
1	$239,920,360	1.4%	3.2%
2	108,788,048	0.2%	2.1%
3	94,573,405	0.1%	0.4%
4	65,401,000	0.1%	0.5%
5	62,579,342	0.3%	1.0%
6	60,374,411	0.1%	0.1%
7	50,348,778	0.3%	0.6%
8	48,980,206	0.3%	0.8%
9	41,420,874	0.2%	0.8%
10	30,534,616	0.1%	0.4%

Pricing

In general, as of year-end 2012, U.S. insurers were carrying the various Detroit bonds at values around par and, in many cases, above par. This reflected a number of factors specific to the bonds, as well as general market conditions. As a result of the current low interest-rate environment, many of the coupons on the Detroit bonds were attractive in the municipal bond market. A large percentage of the bonds were also considered to be well-secured by either directed funds for revenue bonds or the additional protection of a bond guaranty, and, in many cases, both.

The city's water and sewer bonds are reasonably well-placed in the capital structure of the city. The city's water and sewer system also serves the surrounding suburbs, which are not faced with the same financial difficulties as the city. The system is generating more cash than is required for the bonds issued by the system. It is highly likely that the surrounding suburbs will continue paying according to schedule.

While it is still early, prices of water and sewer bonds have remained relatively unchanged. School district bonds have declined modestly. The general obligation bonds have suffered to varying degrees, depending on whether the bonds are insured by a financial guarantor. For the most part, prices of insured general obligation bonds have dropped into the low 80s, while uninsured general obligation bonds are in the 40s, dropping from the 70s before the filing. The market prices for different issues will undoubtedly be affected by differing proposals for how the bonds are restructured, if at all, as well as depending on the financial strength of the bond guarantor, if one is in place. In discussions just prior to the bankruptcy filing, Detroit's emergency manager proposed a restructuring that would have resulted in general obligation bondholders receiving 15 cents to 20 cents on the dollar. Since the filing, however, these terms will likely change.

With the bankruptcy filing, market prices for Detroit bonds will be relatively volatile in the near term. Talk of different possibilities for restructuring will likely cause significant swings in prices, especially for the general obligation bonds. Comparing the BACV of the insurance industry's holdings with market prices as of June 28, just prior to the announcement, there were no substantive differences between the two, and only a handful of pricing differentials worth noting. Of roughly 200 bonds, there were only seven bonds where the insurance company was carrying the bond at a value significantly higher than the market price as of June 28. On average, the industry's holdings were valued slightly below market price. This will undoubtedly change over time.

Other Michigan State and Local Government Exposures

In addition to the holdings of debt issued by the city of Detroit, insurers also hold other debt issued by the state of Michigan, agencies of the state of Michigan and other local governments and their agencies. To the extent Detroit's bankruptcy has an impact on the area's economic condition, the financial strength of the state of Michigan and other local governments within the state could weaken. However, it has been noted that Michigan's overall economy in general has improved in recent years, as the automobile industry has revived.

As of year-end 2012, the U.S. insurance industry's total exposure to debt issued by the state of Michigan, including Detroit bonds, was $10.2 billion. This included issues of the state and its agencies totaling $4.0 billion. The long-term debt of the state of Michigan is rated AA-/Aa2/AA (Standard &Poor's/Moody's Investor's Service/Fitch Ratings). Exposure to other local governments and agencies, not including Detroit, totaled $4.9 billion.

Exposure to Bond Guarantors

While the focus of this report is on direct investments in bonds issued by the city of Detroit, an additional factor within the insurance industry is the exposure of financial guarantors to Detroit's municipal bonds. If the city of Detroit fails to pay timely principal and interest due on these bonds, the bond guarantor is intended to make payment on behalf of the city. The bulk of the industry's Detroit bonds that are guaranteed were issued by the water and sewer system, which, as noted earlier, is generating sufficient cash to make both current and future debt service payments. More problematic will be the city's pension bonds and general obligation bonds, as they are expected to experience potentially large losses.

Table 7: Total Bond Guarantors Exposure to Detroit

	Sewer	*Water*	*Pension*	*General – Unlimited Tax*	*General – Limited Tax*	*Total*
AMBAC	-	-	-	85,675,000	110,295,000	195,970,000
Assured	1,250,665,000	-	-	187,475,000	17,770,000	1,455,910,000
Assured/FSA	289,430,000	748,340,000	-	-	-	1,037,770,000
FGIC	453,151,075	684,580,000	148,540,000	-	-	1,286,271,075
FGIC/Berkshire Hathaway	381,740,000	-	-	-	-	381,740,000
FGIC/Syncora	-	-	1,303,365,000	36,955,000	-	1,340,320,000
MBIA	488,870,000	622,800,000	-	100,725,000	-	1,212,395,000
Total	$2,863,856,075	$2,055,720,000	$1,451,905,000	$410,830,000	$128,065,000	$6,910,376,075

Notes:
(1) These exposures are subject to some fluctuations due to novations of exposures over time. They also do not include exposures due specific swap agreements.
(2) School district bonds are included within "General – Unlimited Tax" and "General- Limited Tax."

Conclusion

The city of Detroit's bankruptcy filing was a significant market event, involving $8.5 billion in various kinds of debt and more than $10 billion in other types of obligations. The U.S. insurance industry's exposure of $1.4 billion in holdings and $6.9 billion in bond guarantees, which, to some degree, overlap with the direct holdings, will most certainly be impacted by whatever restructuring takes place. The fact that the bond exposures are reasonably widely spread across the industry and that overall the exposure is concentrated in what appear to be better-placed water and sewer bonds is a positive indicator that suggests potential problems resulting from the bankruptcy filing should be manageable and reasonably contained within the industry's exposure. However, as previously noted, the real implications of the bankruptcy will take months, if not years, before they are fully understood. This extends to how the eventual restructuring could affect the municipal bond market overall, which historically has not experienced many defaults and, with each default, has experienced only modest losses given default.

The Capital Markets Bureau will continue to monitor and report on developments related to the city of Detroit's bankruptcy as deemed appropriate.

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