SWEDISH HOUSE OF FINANCE | STOCKHOLM SCHOOL OF ECONOMICS

AFFECT
Academic Female Finance Committee
of the American Finance Association

Women in Finance Conference 2018

"The Dark Side of Liquid Bonds in Fire Sales"

3:00 pm -3:45 am

Presenter: Maria Chaderina, Assistant Professor of Finance, Vienna University of Economics and Business

Discussant: Vidhi Chhaochharia, Associated Professor, University of Miami School of Business

The Dark Side of Liquid Bonds in Fire Sales: Discussion

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Showcasing Women in Finance, December 2018

University of Miami

Fire sales and its risks

A very important question in the fire sale literature has been which assets should institutions liquidate and what are the risks associated with the liquidation.

The setting in this paper is almost the perfect empirical setting to study this question.

- The focus is on insurance companies and corporate bonds.
- There are only a few liquid bonds, which implies that firesales should have a large impact.
- The events are natural disasters (hurricanes) where the shocks are faced by all insurance companies.

Commonality versus liquidity versus network centrality

The paper establishes bonds that are commonly owned and have more liquidity will be more likely to be sold.

The paper also very carefully distinguishes between common ownership versus liquidity.

I would like to understand better how all these concepts are related in the context of the current literature.

- Common ownership
- Common liquidity
- Network centrality

Network Effect

More on the network centrality and its effect...

- It would be interesting to understand the ownership structure more extensively of these corporate bonds. (Database: eMAXX).
- In relation to that where does the price pressure originate and how does it propagate?
- In general there is a lot of common ownership as well as concentrated ownership among corporate bonds (more so for insurance companies given regulatory requirements).
- Possible effect of insurance companies on other institutions/mutual funds? (WP: Nanda, Wu and Zhou (2018))

The Portfolio

What else is in the portfolio ? [Cash (6%), Common Stock(25%), Preferred Stock (%), Bonds (60%)]

What other assets could be fire sold? Do we see any patterns ?

Would the corporate bonds be be the ones offloaded in a fire sale?

Within the different bond holdings would we expect corporate bonds to be fire sold as compared to stocks or treasuries?

The Portfolio

Breakdown Across Insurer Types.pdf

Table 5: Bond Breakdown Across Insurer Types ($mil. BACV), Year-End 2016

Bond Type	Life	P/C	Health	Fraternal	Title	Bond Total	Bond Total/ Total (%)
Corporate Bonds	1,761,174	347,900	39,822	69,949	2,909	2,221,754	54%
Municipal Bonds	183,490	344,315	24,677	8,268	1,389	562,138	14%
Agency-backed RMBS	183,667	81,367	13,498	9,683	272	288,486	7%
ABS and Other Structured Securities	236,207	54,932	5,305	3,307	35	299,786	7%
US Government	160,337	87,616	15,876	2,912	302	267,043	7%
Private-label CMBS	126,344	32,641	3,237	3,771		165,994	4%
Private-label RMBS	85,638	18,655	780	1,192		106,264	3%
Foreign Government	87,242	17,550	424	1,017	271	106,504	3%
Agency-backed CMBS	31,182	11,434	484	2,592	1	45,693	1%
Hybrid Securities	17,069	3,154	312	331	36	20,901	1%
ETF-SVO Identified Funds *	2,131	856	516			3,503	0%
Bond Mutual Funds-SVO Identified Funds *	52	82	190			325	0%
Industry Total	**2,874,532**	**1,000,503**	**105,119**	**103,022**	**5,215**	**4,088,391**	**100%**
Industry Total/Total (%)	**70%**	**24%**	**3%**	**3%**	**0%**	**100%**	

RMBS - residential mortgage-backed securities; CMBS - commercial mortgage-backed securities; ABS - asset-backed securities.
** New bond categories added at the beginning of the 2016 reporting year*

Table 7: Changes in Bond Holdings Year-End 2015 – Year-End 2016 ($mil. BACV)

Bond Type	Year-end 2016	Year-end 2015	2015 -2016 Change ($)	2015-2016 Change (%)
Corporate Bonds	2,221,754	2,117,293	104,462	5%
ABS and Other Structured Securities	299,786	274,508	25,278	9%
US Government	267,043	251,699	15,343	6%
Municipal Bonds	562,138	549,357	12,781	2%
Foreign Government	106,504	95,776	10,728	11%
Agency-backed RMBS	288,486	280,866	7,621	3%
Agency-backed CMBS	45,693	38,157	7,536	20%
Private-label CMBS	165,994	166,131	-137	0%
Private-label RMBS	106,264	107,718	-1,454	-1%
Hybrid Securities	20,901	22,764	-1,863	-8%
ETF-SVO Identified Funds	3,503		3,503	
Bond Mutual Funds-SVO Identified Funds	325		325	
Totals:	**4,088,391**	**3,904,269**	**184,122**	**5%**

The Portfolio

The bond portfolio on average has municipal bonds (24%) and treasury (7%).

Are there regulatory requirements as to why corporate bonds would have to be liquidated?

Insurance companies have capital requirements when investing in bonds in higher risk category. Insurance companies are required to invest 20% of their assets in bonds below NAIC risk category 2.

In summary it would be interesting to have a more complete picture of what are the constraints and why insurance companies would choose to liquidate corporate bonds.

Can more be done with the ratings?

- Given that insurance companies face regulatory requirements, downgrades can increase regulatory burden especially around the financial crisis.
- Focus on more constrained versus less constrained insurance companies.
- Look around the boundaries of NAIC risk categories of bond ratings.

Conclusion

Really enjoyed reading the paper and learnt a lot!

Would like to understand better how to view commonality and its implications especially from the regulatory point of view.

What are the reasons as to why corporate bonds are liquidated.

What are the implications for the market as a whole.