

"The Volcker Rule And Market Making In Times Of Stress"

In recent months a Federal Reserve discussion paper, "The Volcker Rule And Market Making In Times of Stress" (Bao, O'Hara, and Zhou, 2016, or the BHZ paper) has received wide attention and has been used to critique the Volcker Rule.¹ The BHZ paper does not represent the official view of the Federal Reserve, and is not a Federal Reserve report. It is an academic paper issued through a Federal Reserve discussion paper series.

It is simply false to present this paper as demonstrating that the Volcker Rule has created market costs that exceed its risk reduction benefits. The paper provides evidence that a small and non-representative sample of downgraded "junk" bonds may have become slightly more expensive to sell around the time the Volcker Rule was being implemented. That is all it does. It is clear that the paper's finding does not hold for the corporate bond market as a whole. The policy implications of this paper are being grossly exaggerated by industry advocates lobbying to weaken or overturn the Volcker Rule.

The BHZ paper examines a limited number of cases in which certain types of corporate bonds are downgraded to the point where they are considered "junk" or speculative grade bonds. Regulated insurance companies are required to sell off such bonds as they are too risky to hold. The paper finds that since regulators began asking banks to track Volcker Rule compliance in April 2014, transaction costs to sell these bonds have increased by approximately \$6 to \$10 per one thousand dollars of sales, or less than 1%, as compared to other post financial crisis periods.

It is important to place these findings in context. The research examines only a tiny fraction of all corporate bonds. The paper's findings are clearly not representative of broader conditions in the corporate bond market over the time period examined. An examination of overall market conditions shows no trend toward increased costs after Volcker Rule implementation. It is also significant that the types of bonds represented in the study are precisely the kinds of risky bonds that are most dangerous for regulated institutions to hold. Weakening the Volcker Rule to allow banks to speculate on such bonds would have a negative impact on financial stability.

The Paper Examines Only A Tiny And Non-Representative Fraction Of the Bond Market

The paper examines 687 different corporate bonds sold over an eleven year period (2006 to 2016, inclusive). This is only a tiny fraction of the total corporate bond market. To give a sense, about eight thousand different corporate bonds would be sold on a typical *day* in the U.S.

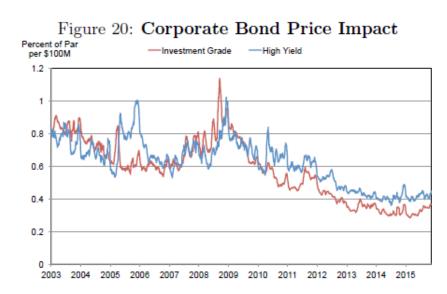
¹ Bao, Jack, Maureen O'Hara and Alex Zhou (2016), "The Volcker Rule and Market Making in Times of Stress", Finance and Economics Discussion Series 2016-102. Washington: Board of Governors of the Federal Reserve System, https://doi.org/10.17016/FEDS.2016.102.

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corporate bond market.² The eleven year sample period for this paper includes tens of thousands of trading days. While many bonds would be sold on multiple days, it is likely that hundreds of thousands of different bonds were sold over this period. The bonds in the BHZ sample are a miniscule and highly non-representative fraction of the overall market.

The Findings Are Clearly Not Representative Of The Broader Corporate Bond Market

The New York Federal Reserve has carefully examined historical trends in exactly the same kind of "price impact" measures of bond market liquidity that are used in the Bao, O'Hara, and Zhou paper, and has done so for the entire corporate bond market as opposed to the small and highly selected sample used in the BHZ paper.³ Their findings are completely different than those found in the BHZ paper.



New York Federal Reserve Findings On Corporate Bond Market Liquidity

The pattern found by the New York Federal Reserve researchers for the entire bond market is almost completely opposite to that found in the BHZ paper. Bao, O'Hara and Zhou find that the costs of bond sales for their small and unrepresentative sample were extremely low prior to the

² Daily bond trading data is available at http://finra-

markets.morningstar.com/BondCenter/TRACEMarketAggregateStats.jsp

³ Reproduced chart is Figure 20 in Adrian, Tobias, Michael Fleming, Or Shachar, and Erik Vogt (2016),

[&]quot;Market Liquidity After the Financial Crisis", Federal Reserve Bank of New York Staff Reports No. 796, October, 2016. <u>https://www.newyorkfed.org/medialibrary/media/research/staff reports/sr796.pdf?la=en</u> See also Adrian, Tobias, Michael Fleming, Or Shachar, and Erik Vogt (2015), "Has U.S. Corporate Bond Market Liquidity Deteriorated?", Liberty Street Economics Blog, October 5, 2015. <u>http://libertystreeteconomics.newyorkfed.org/2015/10/has-us-corporate-bond-market-liquiditydeteriorated.html</u>.

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financial crisis, increased during the 2008-2009 financial crisis, declined after the financial crisis but remained very elevated as compared to pre-crisis levels, and then increased still further (almost back to financial crisis levels) at the beginning of 2014 when regulators began to ask banks to collect Volcker Rule tracking data.

In contrast, the New York Federal Reserve finds that the costs of bond sales increased sharply during the financial crisis, and then declined post-financial crisis to a level significantly below the costs observed prior to the financial crisis. Crucially, the data shows that overall sales costs, spreads, issuance, and other important liquidity measures did not increase at all during the period of Volcker Rule implementation (2014 and after). In fact it shows strong improvement in most metrics of corporate bond liquidity as post-crisis regulations were implemented and finds that price impact measures of liquidity conditions are better than they were before the crisis.

The evidence is clear that in the overall corporate bond market the average costs of bond sales dropped sharply after the financial crisis and this decline continued during the Volcker Rule implementation period. This raises significant doubts as to the policy relevance of the BHZ findings. While it may be true that the cost of selling a small subset of distressed speculative bonds increased over the 2014-16 period, the fact that similar measures of general corporate bond market liquidity actually improved over the period indicates that the any such effect was highly limited and unlikely to have affected the broader economy.

The Paper Examines Bonds That Are Too Risky for Regulated Institutions to Hold

The identification strategy in the BHZ paper relies on looking at a small subset of bonds that are downgraded to "junk bond" or speculative status by rating agencies. Due to the risky nature of these bonds, regulated insurance companies are required to divest them after they are downgraded, creating a period of lower liquidity for such bonds.

The Volcker Rule does permit banks to buy and sell such risky bonds, but restricts such involvement to temporary market making that does not involve significant proprietary inventories of bonds over a long period. The claim in the BHZ paper is that this restriction has slightly increased the costs of selling such bonds.

However, if the Volcker restrictions were loosened and banks were permitted to hold larger inventories of these "junk bonds" for possibly extended periods until buyers could be found, bank risks would significantly increase. The bonds examined in the BHZ paper are precisely the "junk bonds" that have been judged too risky for regulated insurance companies to hold. Encouraging regulated banks to hold more of them could increase bank risks considerably.

The Policy Implications of This Paper Are Being Grossly Exaggerated

The finding in this paper involves a claimed increase in the intermediation costs of selling certain corporate bonds of \$6 to \$10 per \$1000 of sales, which the authors attribute to the implementation of the Volcker Rule limiting bank proprietary trading. This finding is itself somewhat uncertain, as the Volcker Rule was gradually put into effect over a long period and many other factors, ranging from market conditions to other regulations, affected intermediation costs over this period. For example, the authors find that bond intermediation costs increased over the 2014-16 period of Volcker implementation, but also that costs dropped after the passage of the Dodd-Frank Act, which is the time when banks first became aware of the Volcker Rule.

However, even if we accept the paper's findings as accurate, their policy relevance is limited. As explained above, the findings apply only to a very small fraction of the corporate bond market and clearly do *not* apply to the broader corporate bond market. They apply only to a subset of riskier speculative bonds, which regulated insurance companies are forbidden to hold and would be quite risky for regulated banks to hold. Even in this small subset of the market, the increase in intermediation costs is quite small.

Permitting banks to take significant additional risks in order to achieve a small reduction in intermediation costs for this tiny subset of bonds would likely not pass a cost-benefit test. It is simply false to claim that the BHZ paper provides evidence that the Volcker Rule has created costs in excess of its risk reduction benefits.

Finally, the authors find that any additional costs for selling these bonds disappear when the bonds are intermediated by non-bank dealers which are not subject to the Volcker Rule. This suggests a simple answer to any issues in this small corner of the market: allow the trading of these kind of risky corporate bonds to migrate to non-bank dealers which are exempt from the Volcker Rule.

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