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ICI VIEWPOINTS

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Matching Models to Reality: Bond Market Investors Don't Follow the "First-Mover" Script

By Brian Reid

Fourth in a series of ICI Viewpoints *testing the hypotheses of academics and regulators about mutual fund and investor behavior during times of market stress.*

Regulators and researchers have put forward a common narrative that fund investors can destabilize markets during a period of market stress. They have advanced several hypotheses—including the concept of a first-mover advantage—to support their narrative. These hypotheses produce testable predictions about how fund investors behave in troubled markets: not only will investors redeem their fund shares but they also will stop purchasing new fund shares, thus creating large destabilizing net outflows from funds.

The common narrative and the hypotheses also produce testable predictions about how fund managers and other market participants behave. As the Financial Stability Oversight Council (FSOC) discussed in its recent *Update on Review of Asset Management Products and Activities,* these hypotheses predict that funds would try to sell large volumes of portfolio assets to meet shareholder redemptions. These sales would then cause a negative feedback loop, pushing the prices of those assets lower, sparking further redemptions by fund investors, and prompting further sales of portfolio assets by fund managers. Other investors fail to step in to buy securities—even when asset prices have fallen well below the assets' fundamental values and assets have high risk-adjusted returns.

The problem with these hypotheses, as I explained in my previous *ICI Viewpoints* post, is that data about fund investors don't support the hypotheses' predictions about fund investor behavior. Now, I'll turn to the predictions about fund managers and other investors, again using data from the high-yield bond market during a period of significant stress in that market. Once again, I'll show that these hypotheses and their predictions fail to match actual experience.

Funds as Buyers of Corporate Bonds

By the beginning of December 2015, the high-yield bond market was under considerable stress. Falling oil and gas prices and mounting concerns about slowing economic growth had caused yields on high-yield bonds to reach nearly 8.5 percent by December 9.

Then late that day came the announcement that Third Avenue Focused Credit Fund, a high-yield bond fund, had suspended redemptions and would liquidate. Though funds routinely liquidate, suspending redemptions is a very rare event. Websites for both the *New York Times* and the *Wall Street Journal* carried the story on December 10, and it made the front page of the *Journal* on December 11. Some market commentators anticipated significant fallout from the fund's closure during a period of heightened pressure in the high-yield bond market.

So how did high-yield bond fund managers behave during this period of significant market stress? Many funds did have modest net outflows, so funds did sell some corporate bonds to meet redemptions. But contrary to the prediction, funds were also *buying* corporate bonds during December 2015, contradicting the prediction that funds would be on one side of the market (Figure 1).

Figure 1

U.S. High-Yield Bond Fund Managers Continued to Buy Corporate Bonds Even During the 2015 Sell-Off

Billions of U.S. dollars; monthly, January 2014–March 2016

Note: The shaded region represents November 2015 through February 2016.

Source: Investment Company Institute

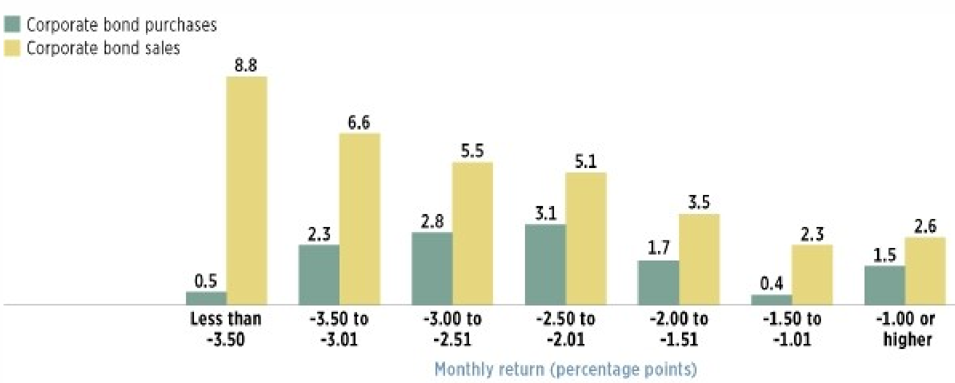
Why were these funds buying corporate bonds? Some funds had new cash to invest. For example, about one-quarter of high-yield bond funds had net *inflows* in December—meaning that investors were buying more shares of these funds than they were selling. Even funds with modest net outflows would have had interest income and proceeds from maturing bonds to put to work in the market. Other funds saw bonds being offered at attractive prices and used cash or sold other portfolio assets to purchases these bonds.

Taken together, 85 percent of high-yield bond funds were buying corporate bonds, including funds that had some of the weakest performance in December 2015 (Figure 2).

Figure 2

U.S. High-Yield Bond Funds Both Purchased and Sold Corporate Bonds in December 2015 Regardless of Performance

Purchases and sales of corporate bonds as a percentage of fund assets, by fund return, December 2015



	Less than -3.50	-3.50 to -3.01	-3.00 to -2.51	-2.50 to -2.01	-2.00 to -1.51	-1.50 to -1.01	-1.00 or higher
Number of funds:	12	15	42	40	39	30	35
Assets* (Billions of dollars):	$17.4	$10.2	$91.6	$40.8	$69.1	$71.8	$34.3

*Assets are as of November 30, 2015.

Sources: Investment Company Institute and Morningstar

The high-yield bond market remained under stress into 2016, with average yields on these bonds rising to 10 percent. Nevertheless, bond fund purchases of high-yield bonds actually picked up in January and February. In January, funds' purchases of corporate bonds nearly offset their sales in the aggregate, and in February their total purchases exceeded their sales. This activity contradicts the prediction of the common narrative, which holds that bond funds will sell large amounts of portfolio assets to accommodate net outflows and that their sales of these assets will swamp the market as other investors, particularly buyers, will stay out of the market.

Other Investors Also Remained in the Market

The prediction that other other buyers would not step into the market to buy bonds would suggest two things:

- overall trading volumes in the high-yield bond market should have declined, and
- bond funds' share of the overall trading in the high-yield bond market should have risen.

Neither occurred.

High-yield bond trading volumes held up well in December 2015 (until the normal seasonal decline over the year-end holidays), particularly during the most stressed period in the first half of December, when investors' expectations of higher default rates were changing quickly and bond yields were rising (Figure 3). Trading of high-yield bonds actually rose slightly during the second week of December.

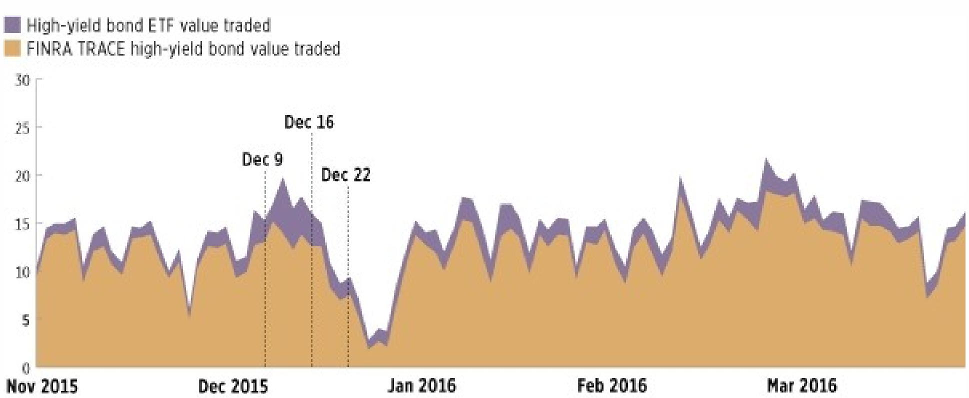
In addition, during the period of greatest market pressure, secondary market trading of shares in high-yield bond exchange-traded funds (ETFs) rose, providing an additional means for market participants to buy and sell exposure to the high-yield bond market.

And although bond prices continued to fall through late February, there is nothing to suggest that this was anything more than normal market dynamics, in which buyers and sellers were repricing the default risk of these securities. High-yield bond trading volumes were in line with their levels a year earlier.

Most of the trading occurred among investors other than mutual funds. The share of trading volume in the high-yield bond market attributable to high-yield bond funds did not spike—evidence that the fund managers' trades were not swamping the market. In December, high yield bond fund purchases and sales of corporate bonds accounted for 9.2 percent of the trading volume in the high-yield bond market, just below funds' 9.5 percent average share from July 2014 through March 2016. In January and February, funds' share of market trading was between 6 and 7 percent.

Figure 3

U.S. High-Yield Bond Trading Volume Rose in Mid-December 2015; ETFs Added Market Liquidity
Billions of U.S. dollars; daily, November 2, 2015–March 31, 2016



Note: Data exclude high-yield ETFs designated as floating-rate funds. Data also exclude Veteran's Day, the Friday after Thanksgiving, Christmas Eve, and New Year's Eve.
Sources: FINRA TRACE and Bloomberg

Time to Step Back and Reexamine

Economists seldom have the opportunity to test the predictions of their hypotheses repeatedly. The behavior of funds and their investors in troubled markets, however, has been tested over and over again in the past 75 years.

The common narrative of how mutual fund investors can destabilize markets, and the underlying hypotheses, such as the first-mover advantage, produce specific, testable predictions. In the past decade alone, those predictions have been tested during the 2007–2009 financial crisis; the European debt crisis of 2011; the so-called Taper Tantrum of 2013; the 2015–2016 sell-off in the U.S. high-yield bond market; and most recently the tumultuous markets after the United Kingdom's unexpected vote in June to leave the European Union (Brexit).

The empirical evidence presented in this series raises serious doubts about the validity of the current hypotheses underpinning academics' and regulators' perceptions of the behavior of mutual fund investors, mutual fund managers, and other investors.

The scientific method of formulating and testing hypotheses is a dynamic process. Researchers form hypotheses and test their predictions. If the data do not support the predictions, researchers then refine or reject the failed hypotheses.

The current hypotheses of investor behavior continue to fail to predict actual investor behavior. It is time for regulators and researchers to step back and reexamine these hypotheses and carefully test them against the data. Failure to do so could result in the development of regulatory policies that are misguided or even harmful to investors and the broader markets.

Other Posts in This Series

- Matching Models to Reality: Doomsayers Are Disappointed—Again—as Funds Weather Brexit Shock
- Matching Models to Reality: The Real-World Challenges to Regulators' "First-Mover" Hypothesis
- Matching Models to Reality: In a Falling Market, the Real "Movers" May Be...the Buyers
- Matching Models to Reality: Bond Market Investors Don't Follow the "First-Mover" Script

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