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Matching Models to Reality: In a Falling Market, the Real "Movers" May Be...the Buyers

By Brian Reid

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

In a recent *ICI Viewpoints* post, my colleague Sean Collins raised three challenges to the hypothesis that fund investors pursue a "first-mover advantage"—a hypothesis promoted by, among others, the Financial Stability Oversight Council (FSOC) in its recent *Update on Review of Asset Management Products and Activities* The hypothesis predicts that mutual fund investors can create a destabilizing spiral of outflows from funds and falling securities prices. Data from bond markets—even the high-yield bond market, where trading is deemed to be less liquid—contradict this prediction.

But *why* does the first-mover hypothesis fail in real-world tests? After all, the idea of a self-perpetuating selling panic matches the popular notion that investors move in herds that either propel markets upward on waves of buying or send them downward with massive selling. It has the intuitive appeal of conventional wisdom.

Even a cursory examination of the data, however, shows one key reason why the first-mover hypothesis fails: markets are never one-way streets. For every seller, there must be a buyer—and when prices fall, more buyers emerge. It turns out that "buy low" isn't just a slogan—it's how investors actually behave.

A Case Study: High-Yield Bond Markets

The first-mover hypothesis is one of several that regulators and researchers have put forth to support their belief that fund investors destabilize markets. These propositions all follow a common narrative:

- A market or economic shock causes prices to fall. (Recently these scenarios have emphasized bond markets.)
- Mutual fund investors begin to redeem heavily because of actual or expected losses or costs (e.g., trading costs a fund incurs selling securities).
- To meet redemptions, funds sell bonds at distressed prices, causing prices to fall further and shareholder redemptions to rise, creating a negative "feedback loop."
- Other investors join the selling, and no one steps in to buy bonds—even when bond prices fall well below their fundamental value and bond yields rise to very attractive levels.

Academics and regulators have argued that fund investors face unique disincentives to be invested in bond funds when bond prices are falling. They suggest that leads investors to redeem their fund shares or suspend their purchases, thus forcing fund managers to sell bonds. Other investors fail to recognize the intrinsic value of the bonds and do not step in to buy them. Without buyers, the market cannot come back into equilibrium.

Let's test this scenario against events in the high-yield bond market over the past couple years. The high-yield market has been a particular concern among regulators, because companies that issue bonds in this market are more susceptible to economic shocks and experience higher rates of default than do their investment grade counterparts.

Beginning in the summer of 2014, interest rates on high-yield bonds began to climb from the lows set after the financial crisis. Effective yields on high-yield debt rose more than 2 percentage points during the second half of 2014, reaching 7.28 percent by mid-December. Bond yields declined in the first part of 2015, but then began to rise during the summer and early fall as investors became concerned that slower global economic growth could lead to higher default rates for this below investment grade debt.

Entering the fall of 2015, the high-yield market was troubled—and a source of concern for many regulators and market commentators. They feared that a shock in the high-yield market would lead to a downward price spiral, fueled by mutual fund investors selling fund shares—the first-mover hypothesis in action.

Then in November, oil prices tumbled on concerns that slower growth in China and other emerging markets would further compound the global oil glut. Oil and gas producers and distributors accounted for more than 10 percent of outstanding U.S. high-yield debt, and high-yield bond rates rose sharply on oil market concerns. By mid-December, yields on high-yield bonds reached 9 percent. Yields continued to rise during the first quarter of 2016, moving inversely with oil prices, and reached 10 percent at their peak in February. High-yield bond fund prices fell 10 to 12 percent from September through February, and funds suffered losses of as much as 9 percent, even after adding back dividend income.

Bargain Hunters Reap Rewards

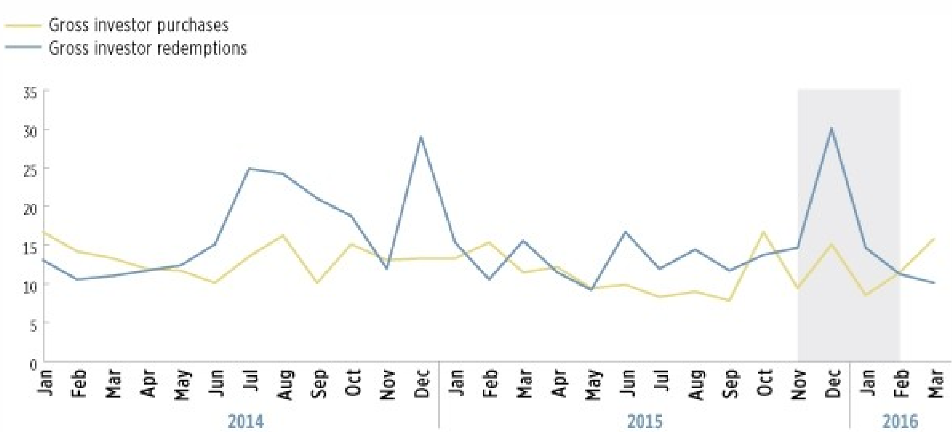
So how did investors in high-yield bond mutual funds behave? Overall, these funds did experience net outflows for the 18 months beginning in the summer of 2014. But falling bond prices did not cause investors to move in a single direction, let alone to create a destabilizing spiral of outflows—contrary to the common narrative of fund investor behavior.

Funds' net flows are the difference between two components: investors' new purchases of fund shares, minus investors' redemptions. As Figure 1 shows, new purchases of high-yield bond fund shares (the yellow line) remained relatively steady across 2014 and 2015. In fact, during the months of greatest market stress, such as December 2015, investor purchases actually rose. These new purchases of fund shares offset a significant portion of the redemptions from high-yield bond mutual funds (the blue line).

Figure 1

Investor Purchases of U.S. High-Yield Bond Funds Were Steady—and Rose in Months with Higher Redemptions

Billions of dollars; monthly, January 2014–March 2016



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

Source: Investment Company Institute

And investors weren't just buying shares of a few high-performing funds. As Figure 2 shows, virtually all high-yield bond funds—even those with the most negative returns in December—sold new shares to investors (the green bars).

Figure 2

U.S. High-Yield Bond Funds Had Investor Purchases and Redemptions in December Regardless of Performance

Gross purchases and redemptions as a percentage of 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

*Total net assets are as of November 30, 2015.

Sources: Investment Company Institute and Morningstar

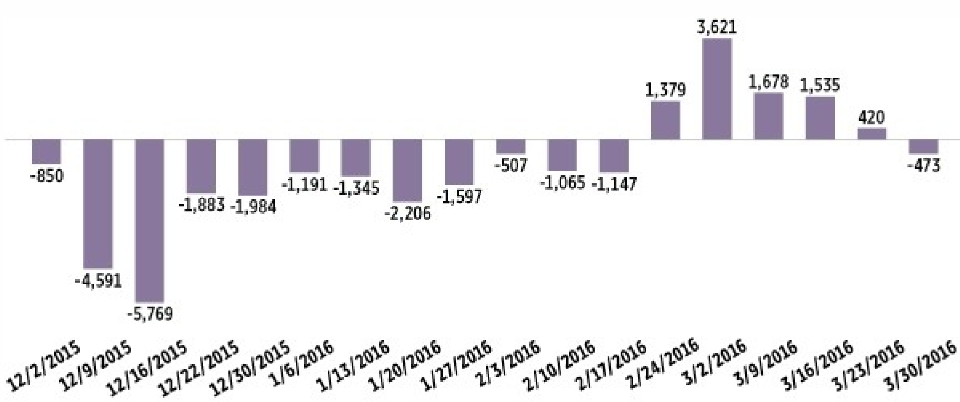
Why is it that, contrary to the common narrative, some investors were buying shares of high-yield bond funds even as prices were falling and other investors were selling? One reason is that when bond prices fall, yields rise—compensating investors for the possibility of higher bond default rates.

A related point is that if some investors sell into a down market—potentially driving bond prices below their fundamental value—buyers who step in then can reap the rewards when bond prices recover. Thus, when bond prices have been falling, investors may be attracted to the market either by high yields or the potential for future capital gains.

In addition to these bargain hunters, investors who make consistent ongoing purchases of bond fund shares account for a small portion of the purchases shown in Figures 1 and 2. Workers in 401(k) plans, for example, buy shares with contributions from each paycheck. About 15 percent of taxable bond fund assets are held through defined contribution plans. The share is even less for high-yield funds, so any 401(k) effect of ongoing purchases on high-yield bond funds is present but modest.

The net effect of increased investor purchases and a slowdown in redemptions caused the outflows from high-yield bond funds to slow sharply in the last half of December (Figure 3). During the first half of December, net outflows totaled about $10.8 billion, or about 3 percent of high-yield bond fund assets. In the second half of December, the outflows amounted to only $4.2 billion. Rather than all running in one direction, fund investors provided a two-way market—and created a self-correcting dynamic rather than a destabilizing spiral.

Figure 3
U.S. High-Yield Bond Fund Outflows Deepened, but Quickly Tapered Off
Millions of dollars; weekly, December 2, 2015–March 30, 2016



Source: Investment Company Institute

The Challenge for Economists—and Regulators

In repeating the common narrative described earlier, regulators and others are following the lead of academic economists who form hypotheses about how investors *might* react to market conditions. It seems to us, however, that the research challenge in economics is to explain what *actually* happens, as demonstrated by empirical data.

In this case, what actually happened is that some fund investors continued to purchase shares of high-yield bond funds even during a period of market stress. This activity is consistent with what we have seen among investors across all types of mutual funds, through numerous episodes of market turmoil. The fact that funds attract both buyers and sellers is an important element of investor behavior that the academics' and regulators' narrative misses completely. That in turn suggests that this narrative, and the underlying hypotheses driving it, deserve to be reexamined.

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

Brian Reid was Chief Economist of the Investment Company Institute.
