May 2, 2016

Comments on Goldstein, Jiang, and Ng, “Investor Flows and Fragility in Corporate Bond Funds”

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Atlanta Fed 2016 Annual Financial Markets Conference—*Getting a Grip on Liquidity: Markets, Institutions, and Central Banks*

Disclaimer

» The opinions expressed here are those of the discussant only and as such do not necessarily represent those of the Investment Company Institute (ICI), its staff, or its member firms

Paper's Hypotheses

1. Bond prices fall
2. Because of concave performance/flow relationship, fund investors redeem massively
3. To meet redemptions, funds sell bonds
4. Bond prices fall further, creating a downward spiral

These Are (Largely) Old Hypotheses

Time, 1959

"[I]n a falling market, millions of panicky, inexperienced shareholders would redeem their shares, forcing funds to liquidate huge blocks of stock and collapse the market"

FEDERAL RESERVE BANK OF KANSAS CITY

Economic Review

Second Quarter 1994

Structural Changes in the Financial Markets: Economic and Policy Significance

Should We Throw Sand in the Gears of Financial Markets?

Will the Shift to Stocks and Bonds by Households Be Destabilizing?

Causes of the Recent Increase in Bank Security Holdings

A New Agricultural Policy for a New World Market

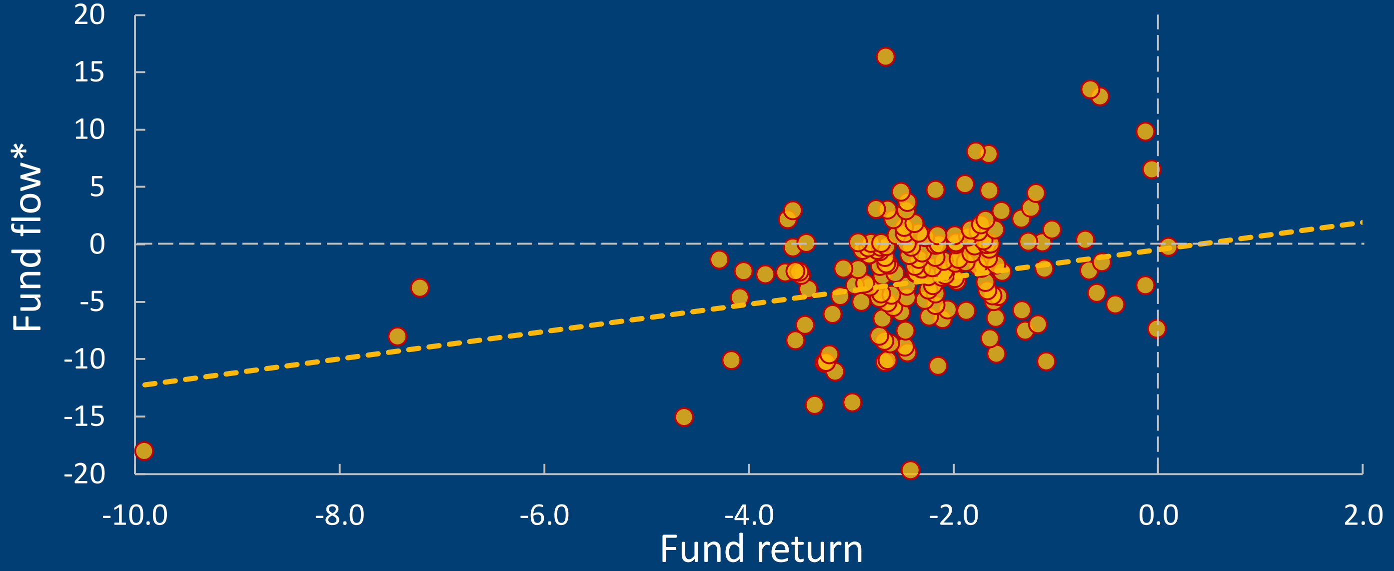
Kaufman, 1994

"The technology is in place for a cascade of selling by mutual fund investors … Excesses originating in the mutual funds area may be the source of an economic shock … We have [to] … consider the systemic implications"

Do Bond Fund Investors React Stronger to Negative Than Positive Returns?

Investors in Individual High-Yield Bond Funds Responded to Returns in Those Funds in Dec 2015

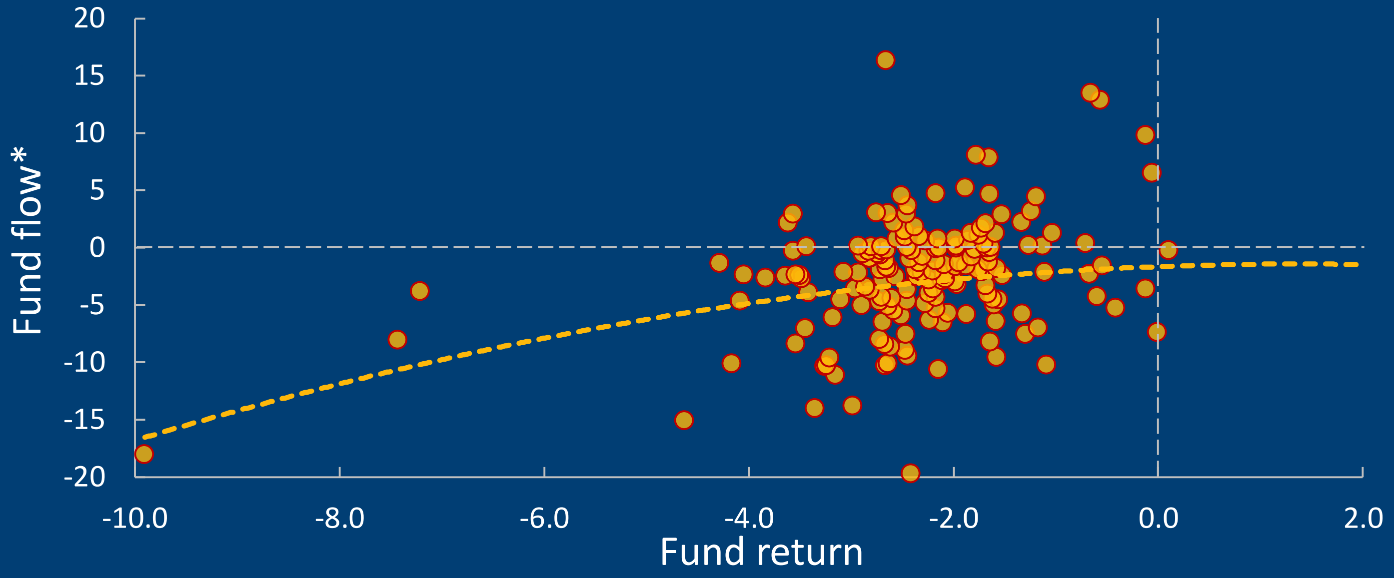
Each dot represents the December 2015 flows and returns to a given fund



*Percentage flows are estimated flows as a percentage of their previous month-end assets.
Note: Data exclude mutual funds that invest in other mutual funds, variable annuities, any fund with less than $10 million in total net assets, and funds specifically designed for frequent trading.
Source: Investment Company Institute tabulations of Morningstar data

Investors in Poorest Performing High-Yield Funds May Have Responded Somewhat More Strongly

Each dot represents the December 2015 flows and returns to a given fund



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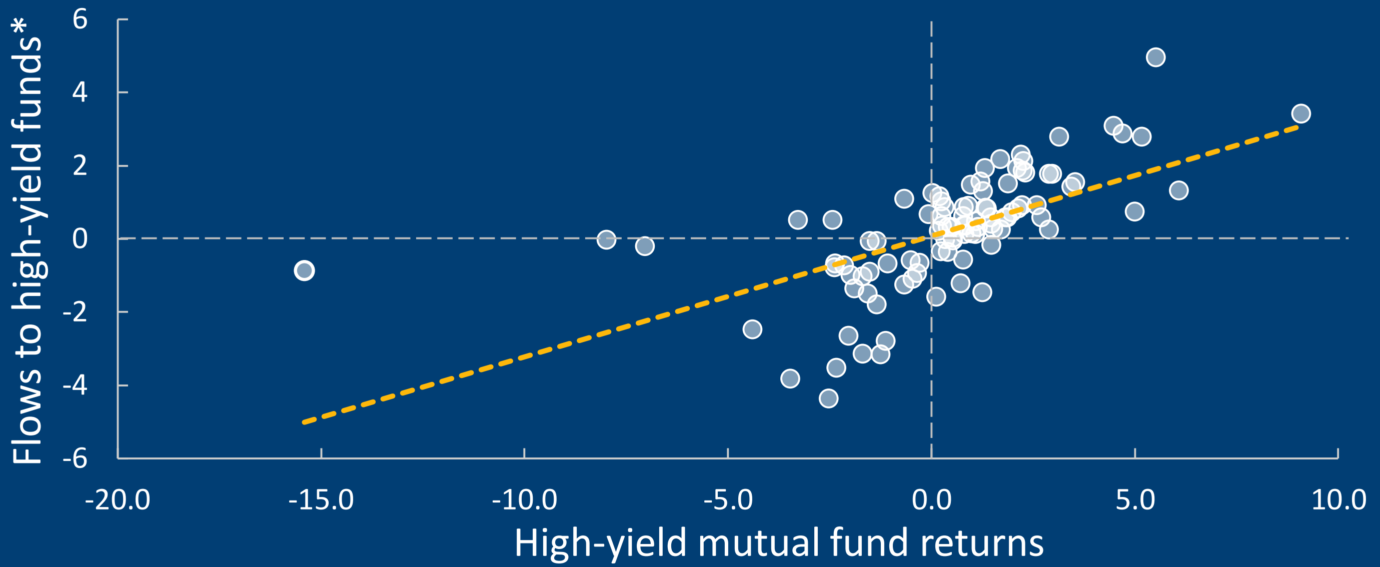
Source: Investment Company Institute tabulations of Morningstar data

Aggregating Flows to High-Yield Funds In Given Months Makes Things Look Different (Jan 2008 – Feb 2016)

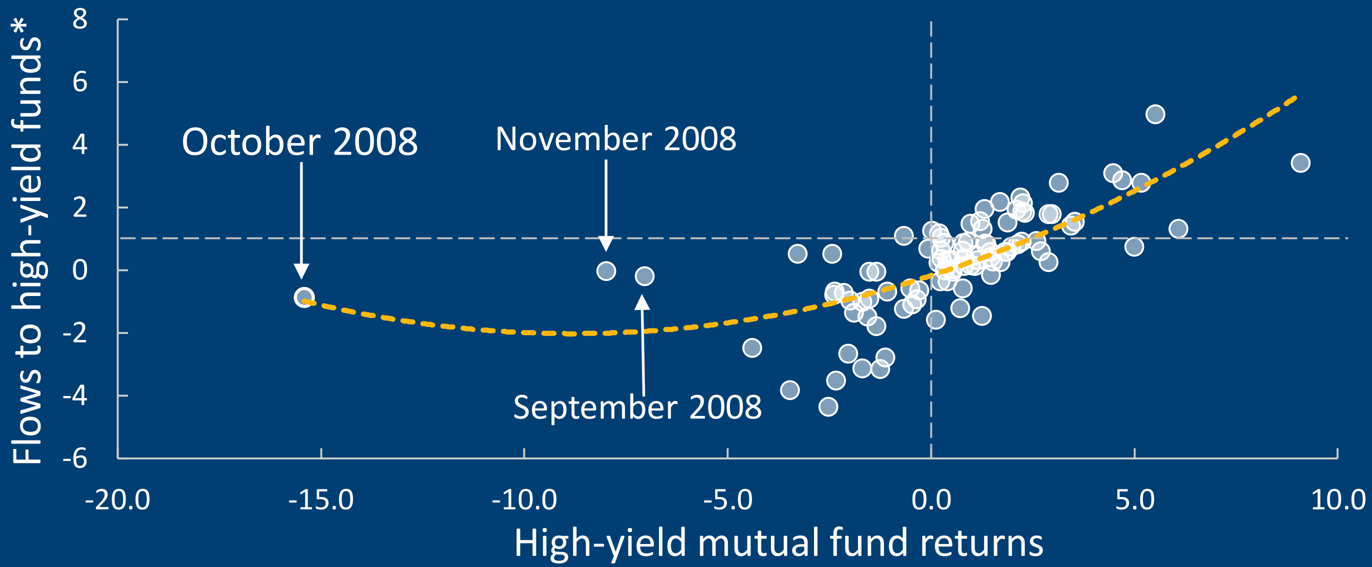
Each dot represents aggregate flows and category returns for all high-yield funds for a given month



*Percentage flows are estimated flows as a percentage of their previous month-end assets.
Note: Data exclude mutual funds that invest in other mutual funds, variable annuities, any fund with less than $10 million in total net assets, and funds specifically designed for frequent trading.
Sources: Investment Company Institute and Morningstar

With Aggregate Flows to High-Yield Funds, Relationship Is Convex, Jan 2008 – Feb 2016

Each dot represents aggregate flows and category returns for all high-yield funds for a given month

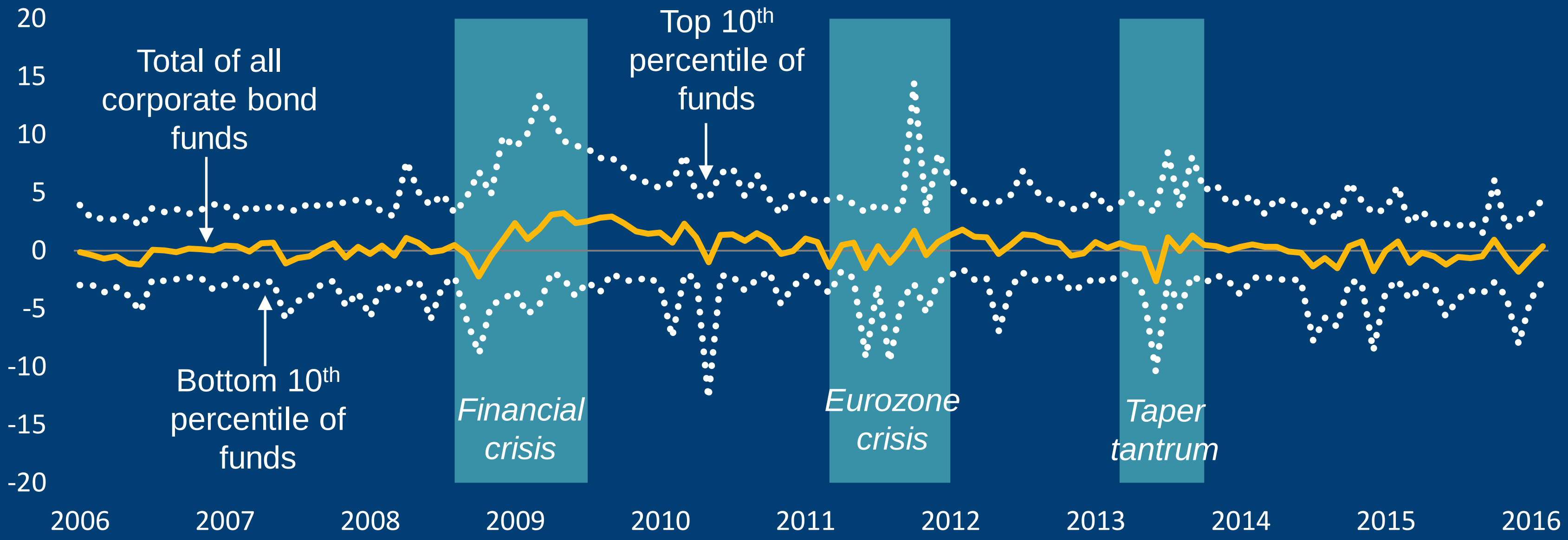


*Percentage flows are estimated flows as a percentage of their previous month-end assets.
Note: Data exclude mutual funds that invest in other mutual funds, variable annuities, any fund with less than $10 million in total net assets, and funds specifically designed for frequent trading.
Sources: Investment Company Institute and Morningstar

Do Bond Fund Investors Redeem Massively When Faced With Shocks?

Bond Mutual Fund Investors Redeem Only Moderately Evidence from Aggregate Corporate Bond Fund Flows

Net new cash flow as a percentage of assets; monthly, January 2006–February 2016



Note: Data exclude high-yield funds designated as floating rate funds. Data also exclude funds with less than $10 million in average total net assets, mutual funds that invest primarily in other mutual funds, and data for funds in any fund-month where a merger or liquidation takes place.
Source: Investment Company Institute

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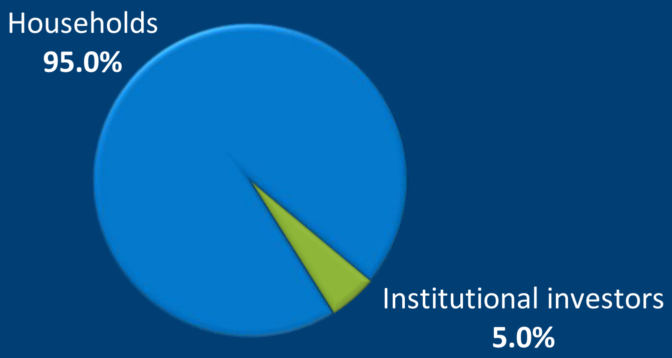
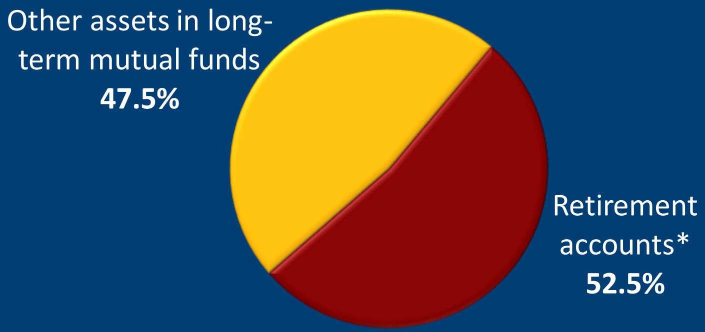
Why Are Bond Fund Flows So Modest Despite Shocks?

December 2015

Household and institutional ownership of U.S. long-term mutual funds



Percent of U.S. long-term mutual fund assets in retirement accounts*



US long-term mutual fund assets: $12.9 trillion

*Retirement accounts include defined contribution plans, e.g., 401(k) plans, as well as IRAs.
Source: Investment Company Institute

Another Reason Fund Investors Don’t React Strongly: We Tell Them To Stay The Course

SmartBenefits
Live smart, plan smart.

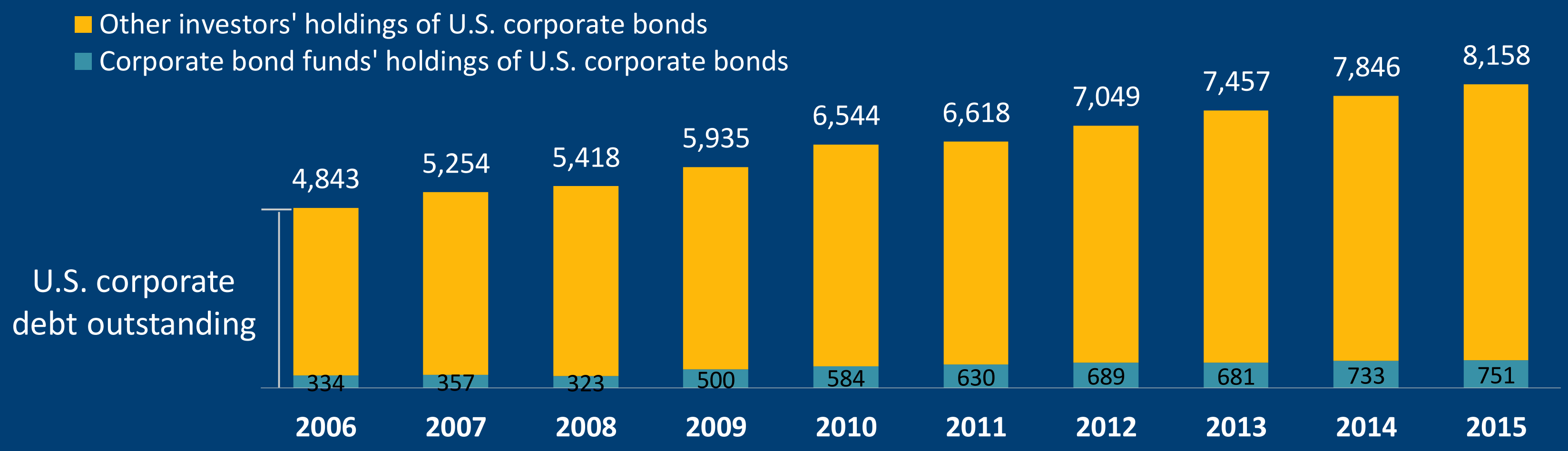
Keep a Long-Term Investment Focus

It's hard to ignore the blaring headlines about stock market volatility, which tempt investors to quickly buy what's hot or dump what's not. Chasing trendy fund performances isn't the answer to investing for your retirement. Instead, it generally requires an unwavering, long-term perspective.

Do Fund Flows Have Big Effects on Bond Prices?

U.S. Corporate Bond Mutual Funds Hold Small Share of Total U.S. Corporate Bonds Outstanding

Billions of dollars; year-end, 2006–2015



Percent of total:	6.9	6.8	6.0	8.4	8.9	9.5	9.8	9.1	9.2	9.3

Note: Corporate bond holdings by bond mutual funds are estimated from data collected in an ICI survey. Data exclude assets in ETFs and money market funds, and mutual funds that invest primarily in other mutual funds.
Sources: Investment Company Institute and SIFMA

Do Corporate Bond Fund Flows Have Big Spillover Effects on Corporate Bond Prices?

- *Evidence on spillovers from fund flows:* tenuous
  - “exploratory”
  - faces fundamental chicken-and-egg problem (see appendix slides)

- *Spillover effects*: if there, are small
  - 8.79% monthly outflow (3 times bigger than any month since January 2000)
  - $\Rightarrow$ 33 bps reduction in returns of corporate bond funds over 1 month
  - Easily lost in noise (corporate bond daily return variability: 28 bps, 2010–2015)

Reconsidering the Research Agenda: Explaining Why Long-term Mutual Fund Investors Redeem So Little

Reconsidering the Research Agenda

» Most enduring and salient stylized fact about long-term fund investors: they trade little, even in the face of significant shocks

» Research challenge: build models fitting stylized fact

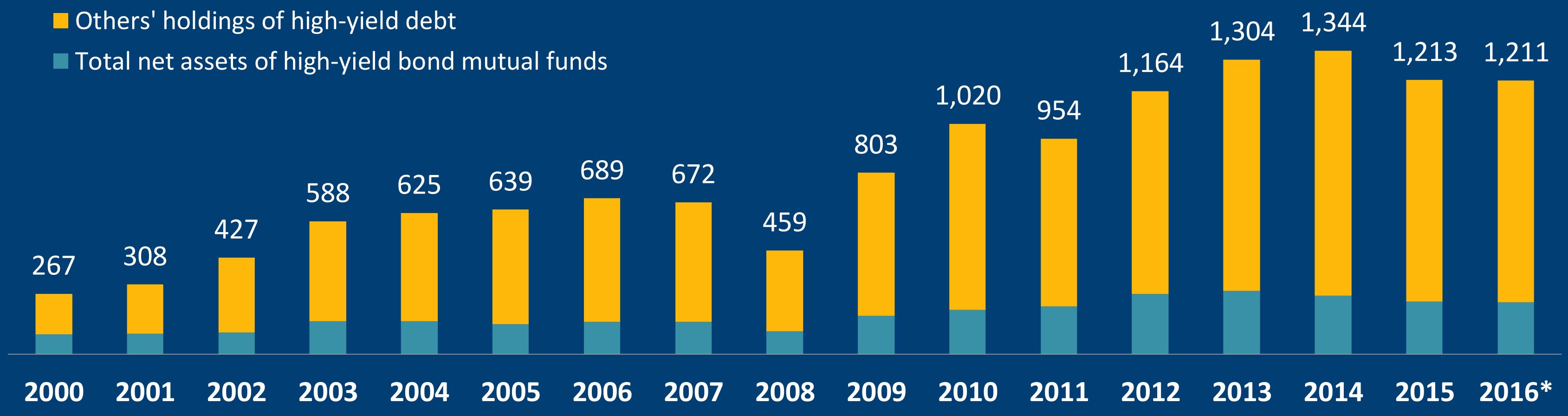
» Advantage of this approach: will help indicate when long-term funds might or might not pose risks

Thank You

Appendix

Funds Are Not Only Bond Market Participants: High-Yield Mutual Fund Share of High-Yield Bond Market

*Billions of dollars; year-end, 2000–2016**



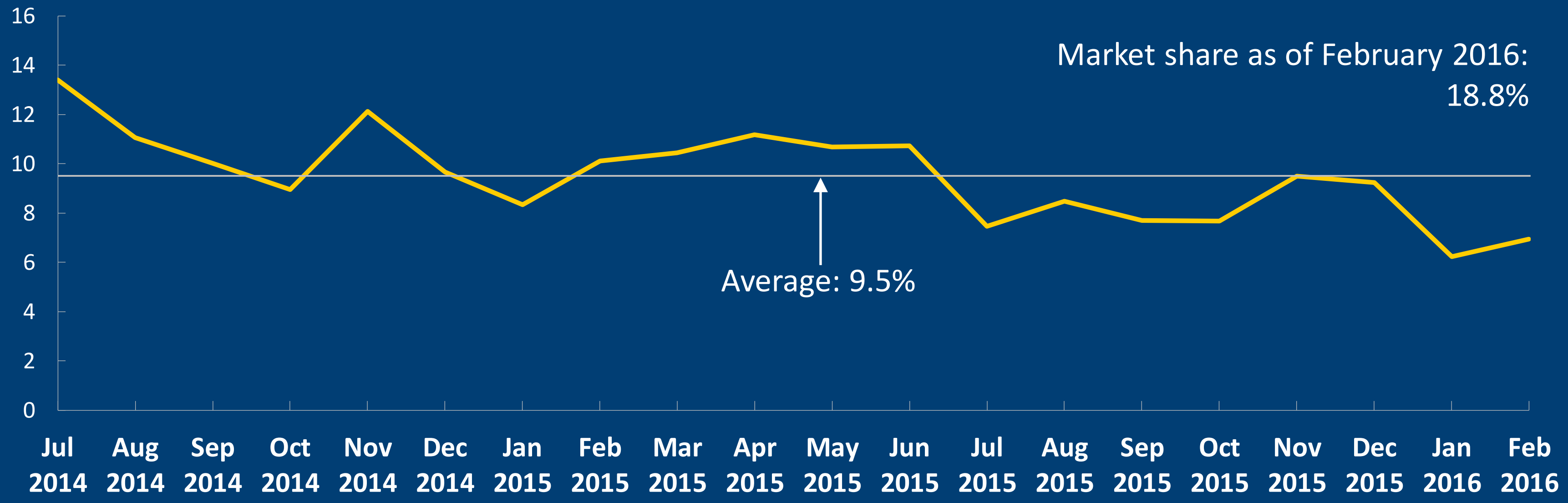
Percent of total

32.2	28.9	22.2	24.5	23.0	20.7	20.6	21.1	22.0	21.2	19.2	22.1	22.8	21.3	19.3	19.1	18.8

*Data are as of February 2016.
Note: Data exclude high-yield funds designated as floating rate funds. Outstanding high-yield bonds measured as the market value of the bonds in the BofA Merrill Lynch US High Yield Index. Data exclude funds that invest primarily in other funds.
Sources: Investment Company Institute and Bloomberg

Funds Are Even Smaller Share of Bond Market Trading: High-Yield Mutual Fund Share of High-Yield Trading Volume

Percentage; monthly, July 2014–February 2016



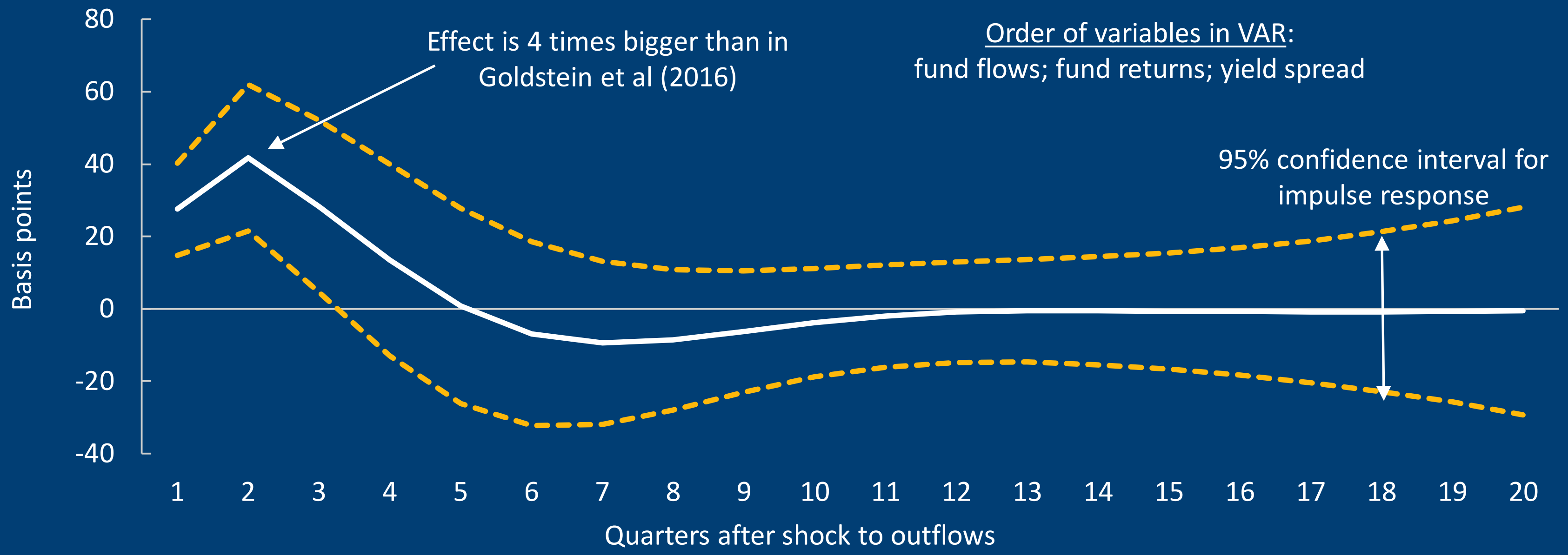
Note: Data exclude high-yield funds designated as floating rate funds. Aggregate data for high-yield 144A transactions are only publicly available starting July 2014.
Sources: Investment Company Institute and Bloomberg

Do Fund Outflows Have Significant Macroeconomic Effects? Evidence from Vector Autoregressions (VARs)

- Paper uses VARs to argue that fund outflows lower corporate bond prices and consumption
- Analysis faces fundamental chicken-and-egg problem: VARs are unidentified
  - Do fund flows cause/lead bond prices or the reverse?
  - Similar to age-old problem in macro: which came first, monetary policy, inflation, or GDP?
  - Unclear how to avoid problem with quarterly, monthly or weekly data
- Econometric packages implicitly solve this problem for users
  - Packages make ad-hoc assumption that chickens come before eggs
  - Results typically quite different by forcing packages to assume eggs come before chickens
  - Cooley and Leroy, 1985; Stock and Watson, 2001; Collins and Plantier 2014

Do Corporate Bond Fund Outflows Affect Bond Returns? Evidence from 3-equation VARs (Impulse Response Functions)

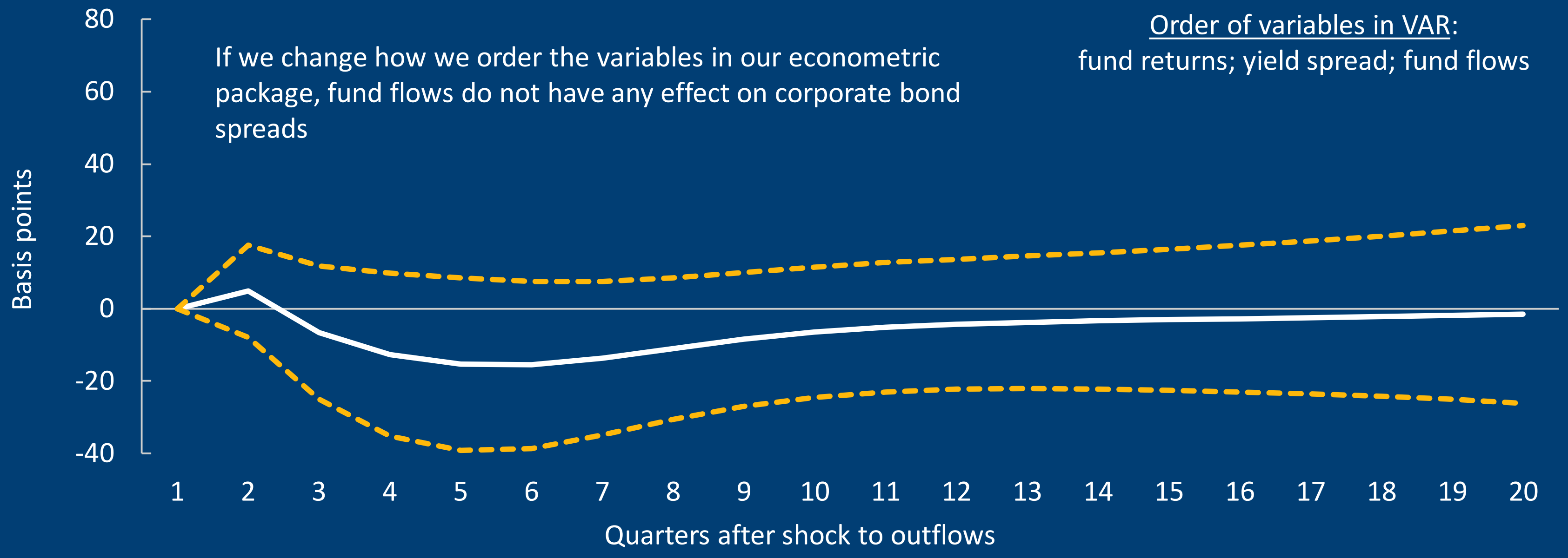
Response of corporate bond yield spread (BofA Merrill BBB OAS) to fund outflows



Note: Fund flows as a percent of previous quarter assets (ICI corporate bond funds, plus high-yield, plus strategic income), 1997:Q1–2015:Q4.
Sources: Investment Company Institute, Federal Reserve Board of St. Louis FRED, Morningstar

Do Corporate Bond Fund Outflows Affect Bond Returns? Evidence from 3-equation VARs

Response of corporate bond yield spread (BofA Merrill BBB OAS) to fund outflows



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