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August 17, 2015

Mr. Brent J. Fields
Secretary
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-1090

Re: Request for Comment on Exchange-Traded Products (File No. S7-11-15)

Dear Mr. Fields:

The Investment Company Institute (“ICI”)¹ welcomes the opportunity to respond to the Securities and Exchange Commission’s request for comment relating to the listing and trading of exchange-traded products (“ETPs”) on national securities exchanges.² The SEC states that, among other reasons, it is requesting information about ETPs to help inform: (1) its analysis of the trading of new, novel, or complex ETPs; and (2) its review of requests by ETPs for relief under the Securities Exchange Act of 1934 (“Exchange Act”) and of filings by exchanges seeking approval of listing standards for new ETPs. This request for information reflects a constructive effort by the SEC to seek factual information and data about the continued evolution of the growing, and increasingly popular, ETP industry.

The Release classifies ETPs into three broad categories: exchange-traded funds (“ETFs”), which are open-end vehicles or unit investment trusts that are registered as investment companies under the Investment Company Act of 1940 (“Investment Company Act”); exchange-traded pooled investment vehicles that are not registered under the Investment Company Act because they do not invest primarily in securities; and exchange-traded notes, which are not pooled vehicles but rather senior debt instruments issued by financial institutions that pay a return based on the performance of a

¹ The Investment Company Institute (ICI) is a leading, global association of regulated funds, including mutual funds, exchange-traded funds, closed-end funds, and unit investment trusts (UITs) in the United States, and similar funds offered to investors in jurisdictions worldwide. ICI seeks to encourage adherence to high ethical standards, promote public understanding, and otherwise advance the interests of funds, their shareholders, directors, and advisers. ICI’s U.S. fund members manage total assets of \$18.0 trillion and serve more than 90 million U.S. shareholders.

² See Request for Comment on Exchange-Traded Products, SEC Release No. 34-75165 (June 12, 2015) (“Release”), available at <http://www.sec.gov/rules/other/2015/34-75165.pdf>.

“reference asset.” We estimate that ETFs account for about 82 percent of the total number of ETPs and account for about 96 percent of ETP total net assets.

Our comments below generally relate only to ETFs, which, unlike other ETPs, are subject to the stringent protections of the Investment Company Act designed to protect investors from various risks and conflicts of interest.³ These protections include strict standards on valuation, liquidity, redemptions, leverage, transactions with affiliates, custody of fund assets, transparency, compliance programs, and oversight by boards (for ETFs organized as open-end management investment companies), among others.⁴ We urge the SEC, as it considers its regulatory program relating to the listing and trading of ETPs, to be mindful that ETFs are subject to the considerable additional level of substantive regulation under the Investment Company Act.

ICI devotes substantial resources to examining the ETF marketplace and we are pleased to provide information in response to the SEC’s request for information. We note that the Release poses many technical and complex questions, which require substantial amounts of time to investigate properly and for which data are not readily available. Accordingly, our letter focuses on areas where ICI has available data and particular insights. These include the following topics:

- ETFs arbitrage and market pricing;
- The activities of authorized participants (“APs”);
- The need for enhancements to the SEC’s process for approving exchange listing standards; and
- ETF closures and liquidations.

Arbitrage and Market Pricing

The SEC requests comment on three general topics related to arbitrage and market pricing: (1) information about the impact of trading activity in ETF shares on price discovery or volatility in the ETF’s underlying portfolio securities;⁵ (2) the impact of ETF arbitrage on the market for underlying securities held in ETF portfolios; and (3) whether trading activity in ETFs affects price discovery of

³ In addition to the Investment Company Act, ETFs are regulated under the Securities Act of 1933 and the Exchange Act. ETF investment advisers are regulated under the Investment Advisers Act of 1940.

⁴ For a comprehensive overview of the regulatory regime for U.S. registered funds, *see* www.ici.org/pdf/14_ici_usfunds_regulation.pdf.

⁵ For ICI information and analysis of secondary market trading of ETFs, *see* “Understanding Exchange-Traded Funds: How ETFs Work,” ICI Research Perspective 20, no. 5 (September 2014), available at www.ici.org/pdf/per20-05.pdf.

illiquid securities. The SEC specifically requests comment on these issues in relation to ETFs that have less liquid underlying securities. We address these topics below.

1. The arbitrage mechanism for ETF shares.

The SEC seeks information about the arbitrage mechanism for ETFs, including whether trading activity in ETF shares affects price discovery or volatility in ETFs' underlying portfolio securities. Empirical research on these issues is challenging and highly time consuming.

Econometric models that attempt to disentangle arbitrage and price discovery and test for their presence are complicated. Because arbitrage, price discovery, and any transmission effects are likely to occur within the trading day, it would be optimal to use intraday data on ETFs and their underlying securities to examine these questions. Unfortunately, the sheer quantity of data quickly becomes unwieldy, as many ETFs hold hundreds, and sometimes thousands, of portfolio securities. Studies using intraday data often are limited to a small number of ETFs, making it difficult to generalize the results to a broader group of ETFs.⁶ As a result, many researchers, therefore, use end-of-day prices for ETFs and their underlying securities and net asset values ("NAVs") in their analyses.

A 2014 Madhavan and Sobczyk study takes this approach by examining daily prices and NAVs for 947 ETFs from 2005 through 2014 for the efficiency of the arbitrage mechanism and the presence of price discovery.⁷ The study considers whether ETF premiums and discounts reflect both arbitrage opportunities and price discovery. The authors use a "state-space" representation to decompose the ETF premium and discount into a price discovery component, an arbitrage component, and a NAV pricing noise component. They find that ETFs exhibit signs of both arbitrage and price discovery, which varies by type and size of ETF.

In particular, the results of the study indicate that domestic equity ETFs have the highest speed of arbitrage—that is, market participants move quickly to take advantage of differences between the observed price of the ETF and its true value. Domestic and international fixed income ETFs have substantially slower speeds of arbitrage. The slower speed of arbitrage for fixed income ETFs is consistent with both price discovery and higher transaction costs (wider bid/ask spreads) for fixed income securities when compared to domestic equities.

⁶ For example, a 2013 paper by B. Marshall, N. Nguyen, and N. Visaltanachoti ("ETF Arbitrage: Intraday Evidence") examines the arbitrage mechanism using intraday data for two S&P 500 index ETFs. Similarly, another study by L. Deville, C. Gresse, and B. de Severac ("Direct and Indirect Effects of Index ETFs on Spot Futures Pricing and Liquidity: Evidence from the CAC 40 Index," *European Financial Management*, 20(2), at 352-373, 2014) analyzes intraday data on one ETF and the CAC 40 index constituents. Lastly, T. Roncalli and B. Zheng look at the intraday trading behavior of four EURO STOXX 50 ETFs ("Measuring the Liquidity of ETFs: An Application to the European Market," 2014).

⁷ A. Madhavan and A. Sobczyk, "Price Dynamics and Liquidity of Exchange-Traded Funds", forthcoming in the *Journal of Investment Management* (2015).

The study also finds that price discovery increases with assets under management (“AUM”) in all of the asset classes examined. Specifically, the study indicates that price discovery explains more of the movements in premiums and discounts of larger ETFs than for smaller ETFs for domestic equity, international equity, domestic fixed income, and international fixed income ETFs.

Some academic studies suggest that ETFs transmit non-fundamental return volatility to their underlying securities. For example, a 2015 Ben-David, Franzoni, and Moussawi paper reports evidence suggesting that the higher the percentage of a stock held by ETFs, the higher that stock’s return volatility.⁸ We believe such results should be treated with caution and require further study. For instance, ETFs’ proportion of stock market capitalization has been trending up for many years without creating an obvious upward trend in market volatility. Domestic equity ETFs’ share of the total market value of the NYSE and NASDAQ rose from about ½ percent in January 2001 to 4.72 percent by June 2015. In contrast, stock market volatility, as measured by the VIX, though varying widely over the period—rising sharply during the financial crisis and subsequently falling—was essentially trendless. It is, therefore, not surprising that the authors report summary statistics showing essentially no correlation between ETF ownership and daily stock price volatility.⁹ This result is difficult to reconcile with their other, more complex regression analysis, which indicates that ETF ownership has a statistically significant impact on a stock’s return volatility.

As noted above, the models necessary to study the ETF arbitrage function, price discovery, and transmission to underlying securities are complicated and the results can be difficult to assess. Often, initial insight to these thorny issues may be gleaned from simpler approaches, which we attempt to do in the following discussion.

2. The impact of market participants’ arbitrage on trading of portfolio securities held in ETFs.

In this section, we address questions regarding the role that primary market activity—the sum of gross creations and gross redemptions—may play in the markets for ETF portfolio securities. We also seek to respond to the SEC’s request for information about the trading of ETFs that invest in less-liquid assets. The SEC focuses on fixed income instruments and, accordingly, our analysis is of bond ETFs.

ETF primary activity captures both arbitrage activity (that is, the financial incentive for the AP (or its customer) to engage in creations or redemptions with the ETF to capture differences in value between the ETF’s secondary market shares and the assets comprising its creation or redemption basket) and sudden changes in demand for an ETF’s shares that can arise from exogenous changes in market conditions. We examine four categories of domestic bond ETFs—ETFs investing in U.S.

⁸ See I. Ben-David, F. Franzoni, and R. Moussawi, “Do ETFs Increase Volatility?” (March 2015), available at <http://www.sec.gov/comments/s7-11-15/s71115-1.pdf>.

⁹ See *id.* at 45, Table 3, Panel B.

government bonds, corporate bonds (excluding high-yield), high-yield bonds, and municipal bonds. We then estimate what percentage of total daily bond market trading in those bond asset classes is attributable to the primary market activity of bond ETFs.¹⁰ Given the concern voiced by some regulators that investors in bond funds will redeem heavily when interest rates rise, we also examine the share of bond sales attributable to redemptions of bond ETFs in each bond category.

Because the SEC requests information for general, or “normal,” market conditions and for “stressed” periods, we divide our analysis into two timeframes. For the stressed period, we selected the period from May 10, 2013 to July 31, 2013, which covers most of what is commonly referred to as the “Taper Tantrum.”¹¹ For the normal period, we selected the most recent comparable length timeframe from May 11, 2015 to July 31, 2015.¹²

In summary, we find that in both the stressed and normal periods, daily bond ETF primary market activity was a relatively small share of bond market trading across all four of the bond asset classes examined. Daily redemptions of U.S. government, corporate, and municipal bond ETFs as a percent of their respective categories’ bond sales also were minor. In the normal period, we estimate that daily redemptions of high-yield bond ETFs were a larger percentage of high-yield bond sales compared with the Taper Tantrum period, but the overall share was fairly low.

We believe these figures suggest that arbitrage in bond ETF shares is, at most, a minor contributor to, and certainly not a primary driver of, price changes in the underlying bond markets. The arbitrage mechanism affects the price of the underlying securities if ETF primary market activity sufficiently alters demand or supply in the market. Given the negligible share of trading attributable to primary market activity in U.S. government, corporate, and municipal bond ETFs, it is highly improbable that these flows are setting prices in these underlying markets. On certain days, high-yield bond ETF creations and redemptions accounted for a higher, but still relatively small, share of underlying bond trading. On these days, creations and redemptions, whether from arbitrage or sudden changes in demand for high-yield bond ETF shares caused by exogenous changes in market conditions, may be contributing to setting the new equilibrium prices for the underlying high-yield bonds. This

¹⁰ Daily creations and redemptions for each domestic bond ETF are estimated by multiplying the daily change in the shares outstanding by the daily NAV from Bloomberg. Aggregate daily primary market activity is estimated by adding creations and the absolute value of redemptions across all ETFs in each domestic bond asset class each day. *See* Appendix A for a discussion of why this approach yields daily estimates of aggregate ETF primary market activity that are a close approximation to actual monthly ETF primary market activity.

¹¹ In the summer of 2013, bond prices moved sharply downward in response to indications that the Federal Reserve might begin to curtail its massive bond buying program. Over the four-month period, May to August 2013, the nominal interest rate on the 10-year Treasury bond rose 108 basis points, with more than two-thirds of this increase occurring over the period May 10, 2013 to July 31, 2013. Data limitations prevented us from studying the entire month of May 2013, as daily trading volume in structured bonds are not available prior to May 10, 2013 on the FINRA TRACE website.

¹² On net, the nominal interest on the 10-year Treasury decreased by 8 basis points over the period May 11, 2015 to July 31, 2015. There was, however, a short period of eight business days from May 29 to June 10, 2015 in which the 10-year Treasury rate rose 38 basis points and then drifted back down over the remainder of the period.

does not imply, however, that these new prices did not reflect fundamentals or were necessarily different from those that would have been attained without the presence of high-yield bond ETFs.

U.S. government bond ETFs

As shown in Figure 1, primary market activity of U.S. government bond ETFs comprised a negligible share of total trading in U.S. government securities on a daily basis during both the Taper Tantrum and the normal period.¹³ For half of the days, we estimate that creations and redemptions amounted to less than 0.10 percent of total trading during the Taper Tantrum period (top left panel) and less than 0.08 percent of total trading during the normal period (top right panel).¹⁴ This share varied day-to-day in both periods, with a maximum percentage of 0.48 percent on July 1, 2013 in the Taper Tantrum period and 0.52 percent on May 20, 2015 in the normal period.

Redemptions as a share of U.S. government bond sales also were trivial in both periods.¹⁵ For half of the days, we estimate that redemptions amounted to less than 0.09 percent of total sales during the Taper Tantrum period (bottom left panel) and less than 0.05 percent of total trading during the normal period (bottom right panel). On June 3, 2013, redemptions of U.S. government ETFs were \$1.3 billion and accounted for 0.62 percent of U.S. government bond sales. On May 20, 2015, redemptions were \$1.4 billion and accounted for 1.01 percent of U.S. government bond sales.

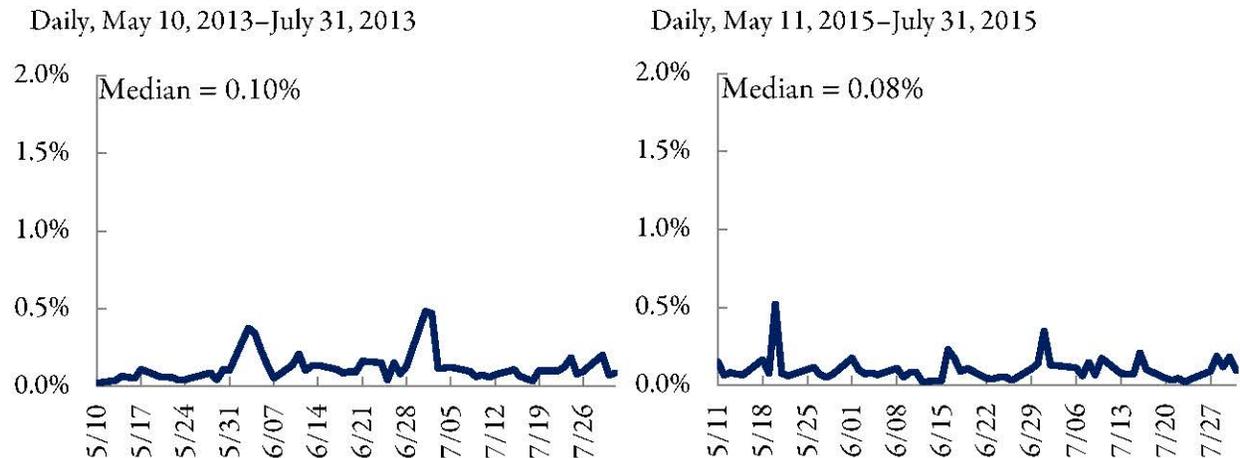
¹³ The dollar amount of daily primary market activity for both periods is shown in the upper panels of Figure B-1 in Appendix B.

¹⁴ The cumulative amount of primary market activity for U.S. government bond ETFs was \$23.8 billion over the Taper Tantrum period and \$17.6 billion over the normal period.

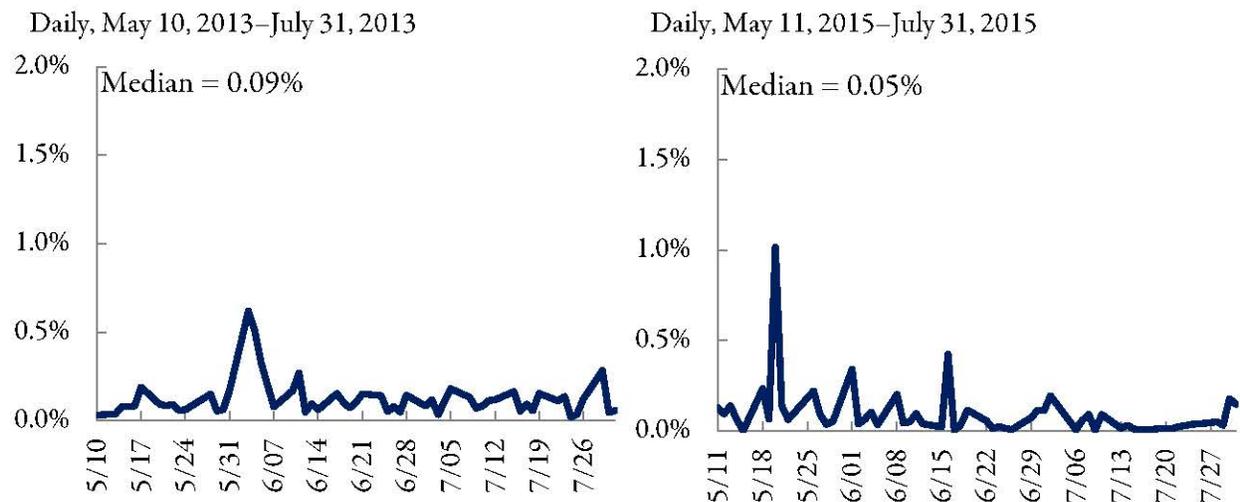
¹⁵ The dollar amount of daily redemptions for both periods is shown in the lower panels of Figure B-1 in Appendix B. The cumulative amount of redemptions for U.S. government bond ETFs was \$12.3 billion over the Taper Tantrum period and \$7.9 billion over the normal period.

Figure 1: U.S. Government Bond ETFs¹

Primary market activity² as a share of U.S. government bond market trading³



Redemptions as a share of U.S. government bond sales⁴



¹ This category includes ETFs that primarily invest in Treasury and U.S. government agency securities, but excludes ETFs that primarily invest in U.S. government agency pass-through mortgage-backed securities (MBS). These agency-MBS ETFs are included in the domestic corporate bond category. As of June 2015, U.S. government bond ETFs accounted for 21 percent of domestic bond ETF total net assets.

² Daily creations and redemptions for each domestic bond ETF are estimated by multiplying the daily change in the shares outstanding by the daily NAV from Bloomberg. Aggregate daily primary market activity is estimated by adding creations and the absolute value of redemptions across all ETFs in each domestic bond asset class each day.

³ Daily trading of Treasury securities are approximated by using the average daily trading volume for primary dealer transactions with others for U.S. Treasury securities, including TIPS reported weekly by the Federal Reserve Bank of New York. Daily trading of U.S. government agency securities are from the FINRA TRACE website.

⁴ U.S. government bond sales are estimated as 50 percent of U.S. government bond market trading.

Sources: Investment Company Institute tabulations of Bloomberg data, Federal Reserve Bank of New York, and FINRA TRACE.

Corporate bond ETFs (excluding high-yield)

As shown in Figure 2, primary market activity of corporate bond ETFs also represented a tiny fraction of total trading in corporate bonds on a daily basis during both the Taper Tantrum and the normal period.¹⁶ For half of the days, we estimate that creations and redemptions amounted to less than 0.13 percent of total trading during the Taper Tantrum period (top left panel) and less than 0.21 percent of total trading during the normal period (top right panel).¹⁷ This share varied day-to-day in both periods with a maximum percentage of 0.40 percent on June 25, 2013 in the Taper Tantrum period and 0.65 percent on June 25, 2015 in the normal period.

Redemptions of corporate bond ETFs as a share of bond sales were insignificant during both the Taper Tantrum period and the normal period.¹⁸ For half of the days, we estimate that redemptions amounted to less than 0.11 percent of total sales during the Taper Tantrum period (bottom left panel) and less than 0.16 percent of total trading during the normal period (bottom right panel). On June 25, 2013, redemptions of corporate bond ETFs were \$646 million and accounted for 0.53 percent of corporate bond sales. On June 25, 2015, redemptions were \$528 million and accounted for 1.03 percent of corporate bond sales.

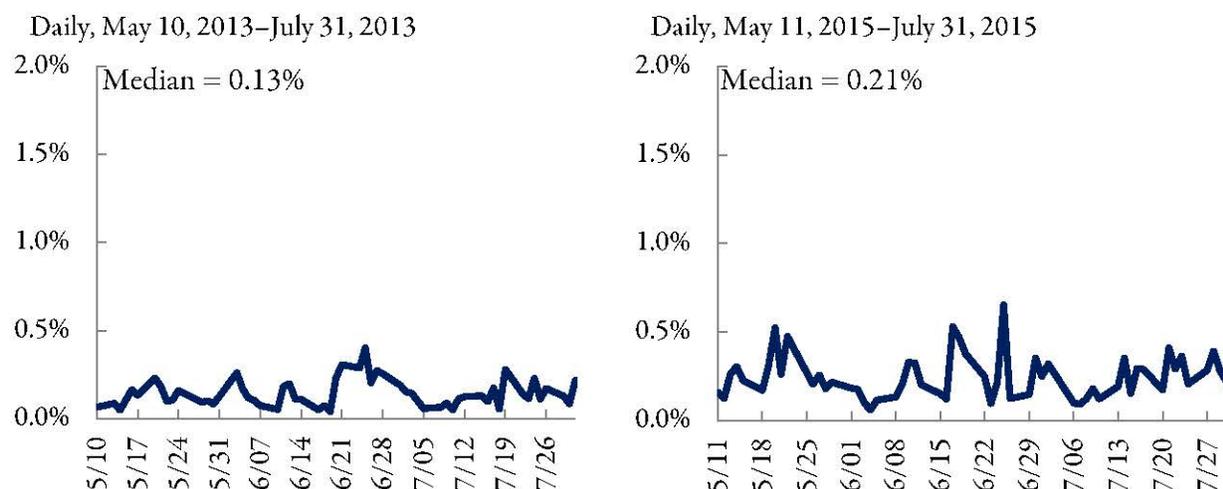
¹⁶The dollar amount of daily primary market activity for both periods is shown in the upper panel of Figure B-2 in Appendix B.

¹⁷The cumulative amount of primary market activity for domestic corporate bond ETFs was \$19.0 billion over the Taper Tantrum period and \$25.6 billion over the normal period.

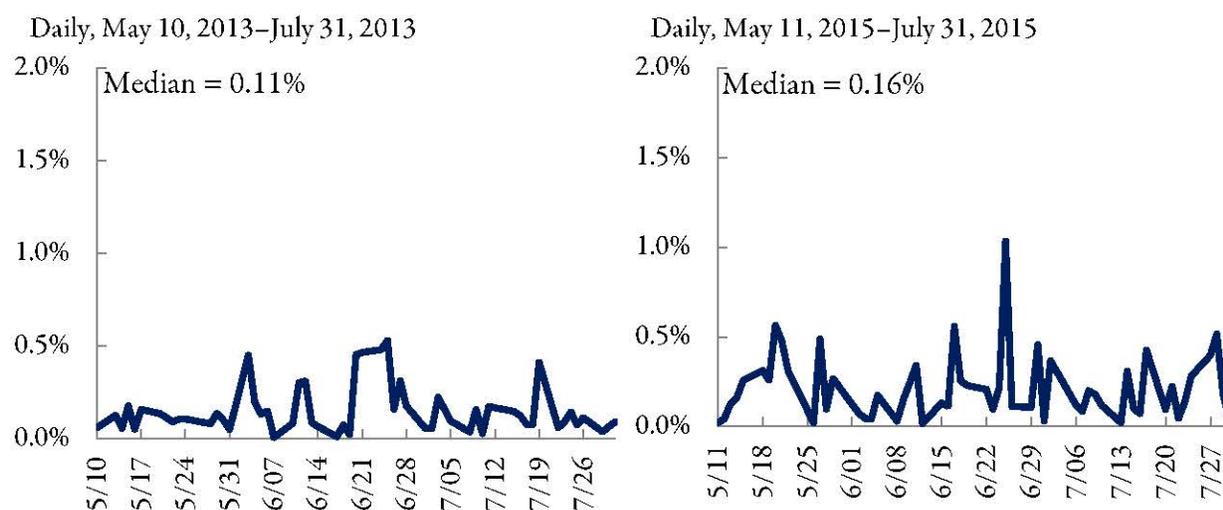
¹⁸The dollar amount of daily redemptions for both periods is shown in the lower panel of Figure B-2 in Appendix B. The cumulative amount of redemptions for domestic corporate bond ETFs was \$10.0 billion over the Taper Tantrum period and \$10.8 billion over the normal period.

Figure 2: Corporate Bond ETFs¹ (excluding high-yield)

Primary market activity² as a share of domestic corporate bond market trading³



Redemptions as a share of domestic corporate bond sales⁴



¹ This category includes ETFs that primarily invest in U.S. government agency pass-through MBS and excludes ETFs that primarily invest in bank loans and ETFs that primarily invest in high-yield bonds. ETFs that primarily invest in high-yield bonds are analyzed separately. As of June 2015, domestic corporate bond ETFs accounted for 59 percent of domestic bond ETF total net assets.

² Daily creations and redemptions for each domestic bond ETF are estimated by multiplying the daily change in the shares outstanding by the daily NAV from Bloomberg. Aggregate daily primary market activity is computed by adding creations and the absolute value of redemptions across all ETFs in each domestic bond asset class each day.

³ Daily trading of domestic corporate bonds is the sum of daily trading of agency and non-agency MBS, other asset-backed bonds, and corporate bonds, excluding high-yield bonds from FINRA TRACE.

⁴ Domestic corporate bond sales are estimated as 50 percent of domestic corporate bond market trading.

Sources: Investment Company Institute tabulations of Bloomberg and FINRA TRACE data and FINRA TRACE.

High-yield bond ETFs

As shown in Figure 3, the share of trading in high-yield bonds attributable to primary market activity of domestic high-yield bond ETFs is highly variable on a daily basis.¹⁹ Nevertheless, the daily share of primary market activity relative to daily high-yield bond market trading infrequently exceeded 4 percent during the Taper Tantrum and 6 percent during the normal period. For half of the days, we estimate that creations and redemptions amounted to less than 1.60 percent of total trading during the Taper Tantrum period (top left panel) and less than 2.29 percent of total trading during the normal period (top right panel).²⁰ During the Taper Tantrum, primary market activity's share of total trading hit a peak of 8.49 percent on July 3, 2013, likely due to \$243 million of ETF shares creations on an especially light day of trading in advance of the holiday. On June 29, 2015, primary market activity was \$619 million and accounted for 7.84 percent of high-yield bond trading.

Redemptions of high-yield ETFs as a share of bond sales have been higher in the normal period than during the Taper Tantrum.²¹ For half of the days, we estimate that redemptions accounted for less than 0.98 percent of high-yield bond sales during the Taper Tantrum period (bottom left panel) and less than 1.71 percent of high-yield bond sales during the normal period (bottom right panel). On July 5, 2013—the day after the holiday and also a light trading day—high-yield ETF redemptions were \$40 million and accounted for 7.70 percent of high-yield bond sales—the maximum during the Taper Tantrum period.

In the normal period, we estimate that redemptions relative to high-yield bond trading exceeded 8 percent on four days: (1) June 5, 2015, \$548 million in redemptions, accounting for 11.53 percent of high-yield bond sales, (2) June 8, 2015, \$709 million in redemptions, accounting for 14.80 percent of high-yield bond sales, (3) June 26, 2015, \$474 million in redemptions, accounting for 9.33 percent of high-yield bond sales, and (4) June 29, 2015, \$617 million in redemptions, accounting for 15.65 percent of high-yield bond sales. On each of these days, the high-yield bond market volume was 20 to 35 percent lower than the average daily trading volume over the prior 10 business days. This analysis also assumes all redemptions converted into bond sales on the same day, which may not be the case if APs (or their clients) that received the bonds opted to hold them indefinitely or temporarily until trading volume in the underlying bond market picked up.

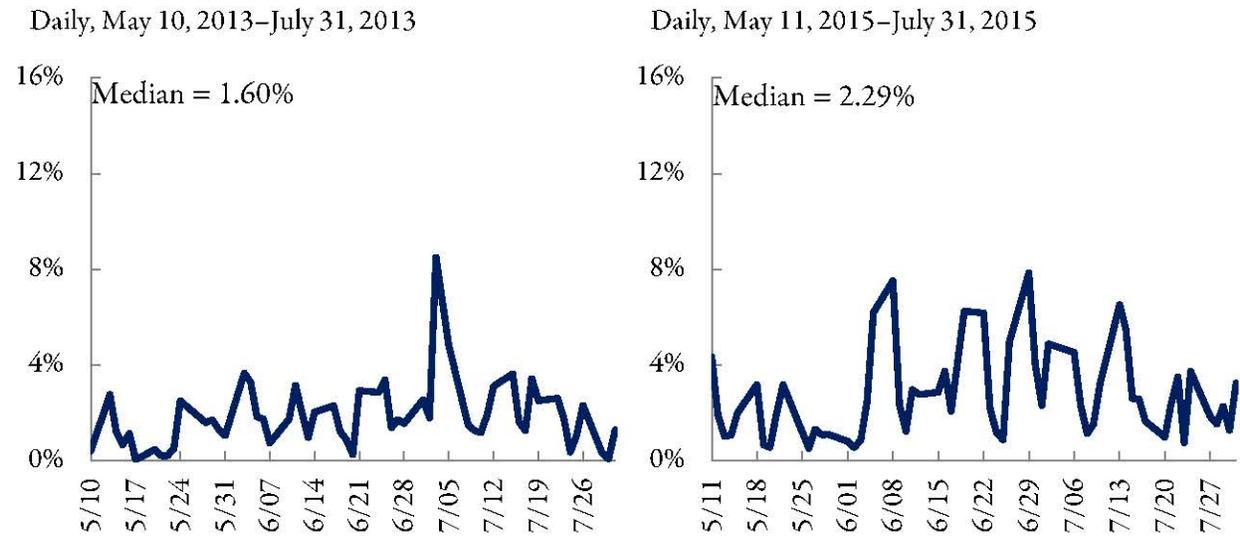
¹⁹ The dollar amount of daily primary market activity for both periods is shown in the upper panel of Figure B-3 in Appendix B.

²⁰ The cumulative amount of primary market activity for high-yield bond ETFs was \$10.3 billion over the Taper Tantrum period and \$17.5 billion over the normal period.

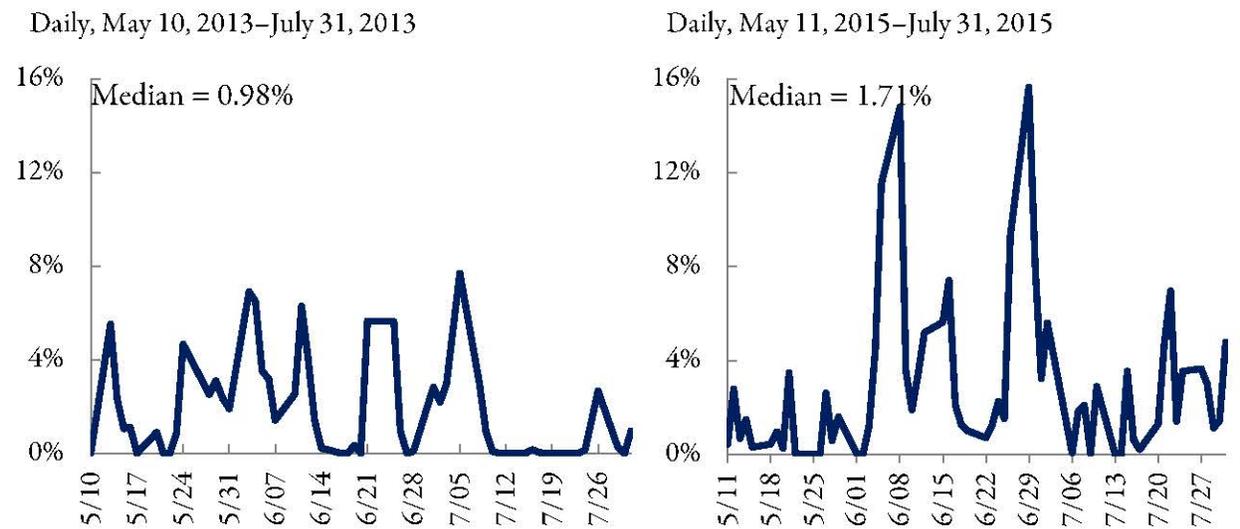
²¹ The dollar amount of daily redemptions for both periods is shown in the lower panel of Figure B-3 in Appendix B. The cumulative amount of redemptions for domestic corporate bond ETFs was \$5.4 billion over the Taper Tantrum period and \$9.7 billion over the normal period.

Figure 3: High-Yield Bond ETFs¹

Primary market activity² as a share of high-yield bond market trading³



Redemptions as a share of high-yield bond sales⁴



¹ This category excludes ETFs that primarily invest in bank loans. As of June 2015, high-yield bond ETFs accounted for 14 percent of domestic bond ETF total net assets.

² Daily creations and redemptions for each domestic bond ETF are estimated by multiplying the daily change in the shares outstanding by the daily NAV from Bloomberg. Aggregate daily primary market activity is computed by adding creations and the absolute value of redemptions across all ETFs in each domestic bond asset class each day.

³ Daily trading of high-yield bonds in the Taper Tantrum are ICI calculations of FINRA TRACE data and in the normal period are from the FINRA TRACE website.

⁴ High-yield bond sales are estimated as 50 percent of high-yield bond market trading.

Sources: Investment Company Institute tabulations of Bloomberg and FINRA TRACE data and FINRA TRACE

Municipal bond ETFs

As shown in the top panel of Figure 4, the share of total trading in municipal bonds attributable to primary market activity of municipal ETFs is quite small.²² For half of the days, we estimate that creations and redemptions amounted to less than 0.15 percent of total trading during the Taper Tantrum period (top left panel) and less than 0.21 percent of total trading during the normal period (top right panel).²³ This share varied day-to-day in both periods with a maximum percentage of 1.14 percent on July 9, 2013 in the Taper Tantrum period and 0.66 percent on July 7, 2015 in the normal period.

Redemptions of municipal ETFs as a share of bond sales was somewhat higher and more variable in the Taper Tantrum period versus the recent normal period, but still inconsequential.²⁴ For half of the days, we estimate that redemptions amounted to less than 0.26 percent of total sales during the Taper Tantrum period (bottom left panel) and less than 0.09 percent of total trading during the normal period (top right panel). Municipal bond ETF redemptions of \$114 million accounted for 2.24 percent of municipal bond sales on July 9, 2013.

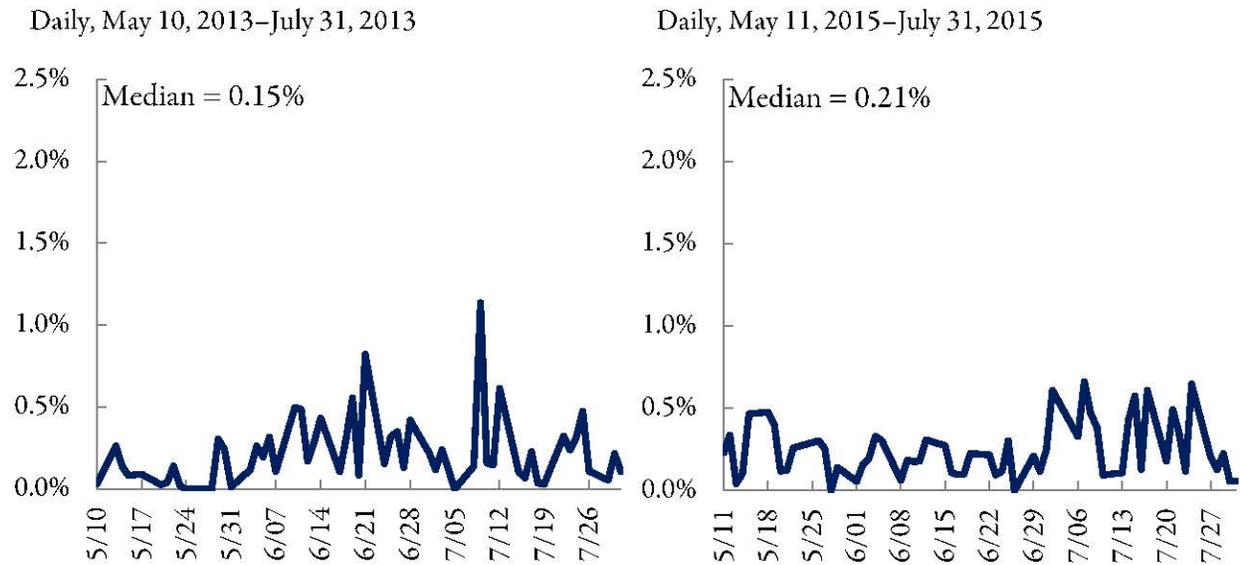
²² The dollar amount of daily primary market activity for both periods is shown in the upper panel of Figure B-4 in Appendix B.

²³ The cumulative amount of primary market activity for municipal bond ETFs was \$1.5 billion over the Taper Tantrum period and \$1.3 billion over the normal period.

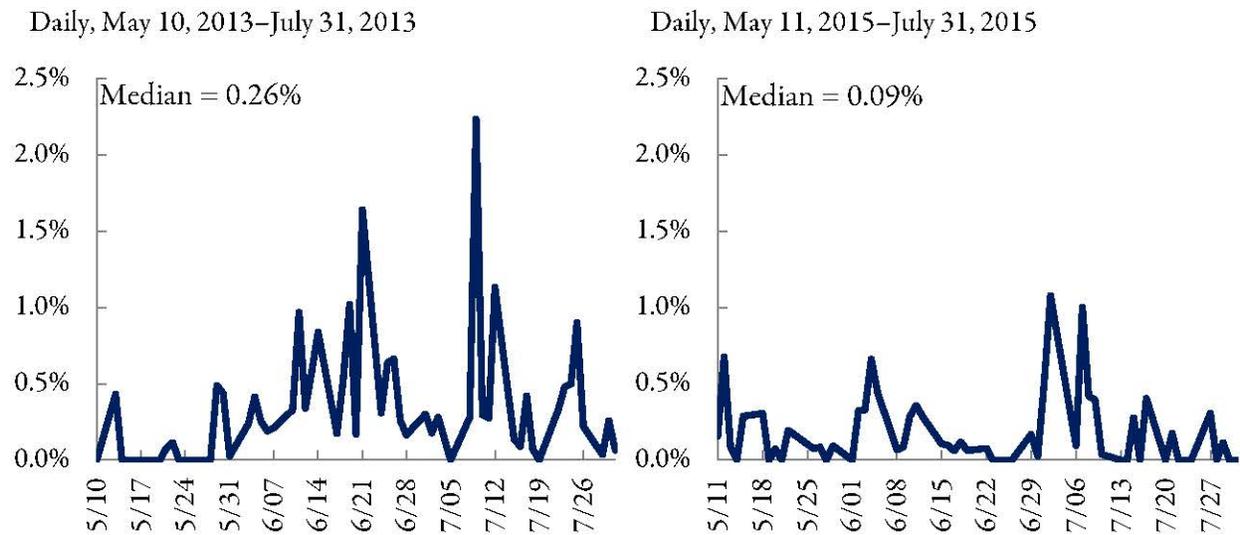
²⁴ The dollar amount of daily redemptions for both periods is shown in the lower panel of Figure B-4 in Appendix B. The cumulative amount of redemptions for municipal bond ETFs was \$1.2 billion over the Taper Tantrum period and \$0.5 billion over the normal period.

Figure 4: Municipal Bond ETFs¹

Primary market activity² as a share of municipal bond market trading³



Redemptions as a share of municipal bond sales⁴



¹ As of June 2015, municipal bond ETFs accounted for 6 percent of domestic bond ETF total net assets.

² Daily creations and redemptions for each domestic bond ETF are estimated by multiplying the daily change in the shares outstanding by the daily NAV from Bloomberg. Aggregate daily primary market activity is computed by adding creations and the absolute value of redemptions across all ETFs in each domestic bond asset class each day.

³ Daily trading of municipal bonds is from MSRB's Electronic Municipal Market Access (EMMA).

⁴ Municipal bond sales are estimated as 50 percent of municipal bond market trading.

Sources: Investment Company Institute tabulations of Bloomberg data and EMMA

3. The effect of ETF trading activity on price discovery.

The SEC requests comment on whether ETF trading affects price discovery of illiquid underlying securities. To respond to this request, we look to the recent five-week closure of the Greek stock market and the price dynamics of U.S.-registered Global X FTSE Greece 20 ETF (GREK).²⁵

As shown in Figure 5, for the six months before the closure of the Greek stock market on June 29, 2015, movements in the price of GREK (blue line) were closely aligned with movements in its benchmark index, the FTSE/ATHEX Custom Capped Index (green line). After the Greek stock market shutdown, the benchmark remained flat (that is, stayed the same) during the market closure. The price of GREK, however, immediately traded down 19 percent. After this initial drop in price, GREK partially recovered before drifting down to \$9.49 per share.

Market participants trading GREK during the Greek stock market closure were likely basing their valuations of GREK on the prices of ADRs that were still trading in GREK's portfolio. Although ADR's comprised almost half of GREK's portfolio at the time, market participants did not have prices for the remainder of the underlying portfolio.²⁶ The test of how well market participants had gauged the value of GREK's underlying securities and incorporated that information into the price of GREK was apparent on the first day the Greek stock market reopened on August 3. The price of GREK barely moved, while the benchmark index moved down towards the price of GREK.

We believe this example demonstrates that ETFs can add liquidity to the marketplace and can be a means for price discovery when the markets for their underlying securities become dislocated. In this particular instance, there was no primary market activity by APs, despite GREK remaining open for creations and redemptions while the underlying Greek market was closed. The market price of GREK captured market sentiment and traded near the market open.²⁷

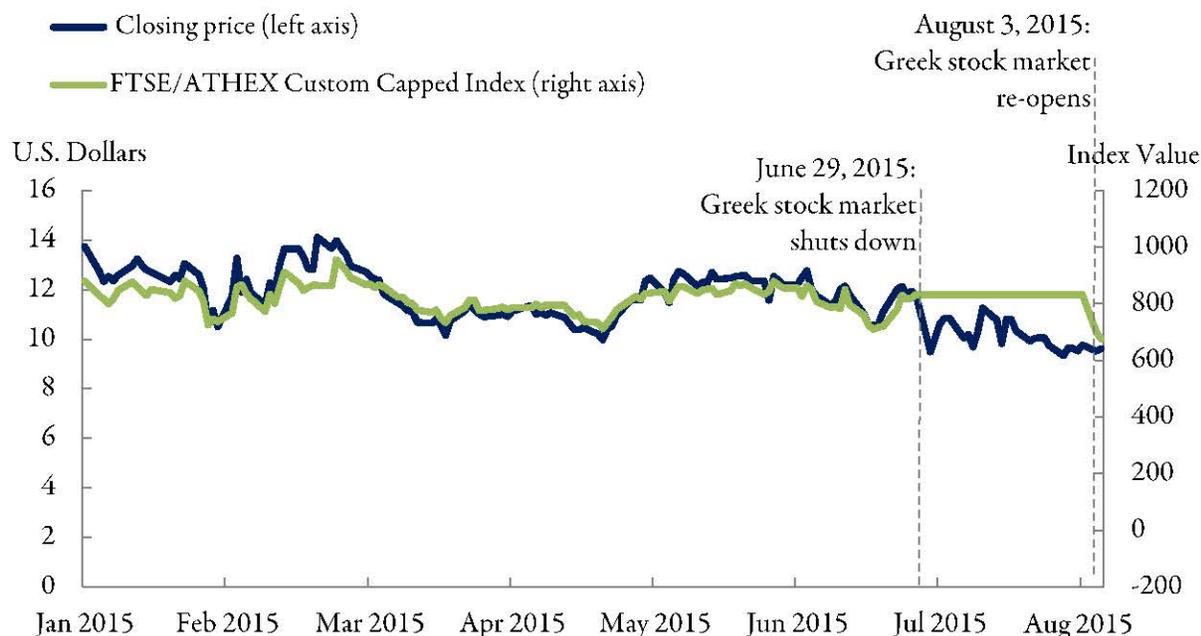
²⁵ See D. Nadig, "Greece ETF GREK Shines During Turmoil," ETF.Com Analyst Blogs (August 4, 2015), available at: www.etf.com/sections/blog/greece-etf-grek-shines-during-turmoil?nopaging=1.

²⁶ As required by the Investment Company Act, GREK continued to publish a daily NAV that reflected fair value pricing pursuant to its pricing policies and procedures approved by the fund's board. As a result, the daily NAV may have provided market participants with information on an implicit valuation of the non-trading securities in the fund's portfolio.

²⁷ In another case, when the Egyptian stock market closed in early 2011, the Market Vectors Egypt ETF (EGPT) suspended creations and redemptions because it lacked sufficient amount of available ADRs or other securities that were still trading. EGPT traded at a substantial premium relative to where the Egyptian stock market opened. See *supra* note at 25.

Figure 5: GREK ETF Allowed Investors Access to Liquidity and Price Discovery

Daily, January 2, 2015–August 4, 2015



Source: Bloomberg

Authorized Participants

The SEC requests comment on the impact to an ETF if one or more of its APs suspends creations or redemptions. This request might be informed by concern expressed by some that the primary market in ETF shares depends heavily on a limited number of active APs, and that this dependence could add stress to the financial markets if an active AP were to step away from creating and redeeming ETF shares.

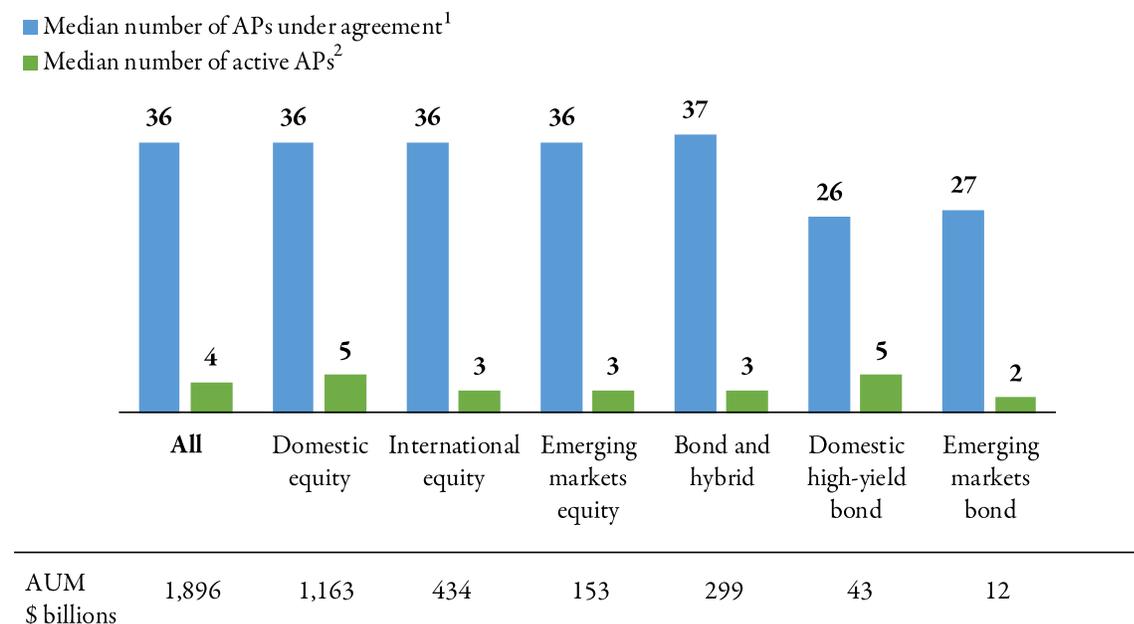
Generally speaking, an AP (or its customer if the AP is acting as agent) trades with the ETF if there is an opportunity for arbitrage. This arbitrage opportunity helps keep the market price of ETF shares near the per share NAV.²⁸ In contrast, closed-end funds do not have a similar arbitrage feature and can trade at significant premiums or discounts to their NAVs.

²⁸ For further discussion of the role of APs and other traders in the arbitrage mechanism, see Letter from Barbara Novick, Vice Chairman, and Ira Shapiro, Managing Director, Blackrock, to Brent J. Fields, Secretary, Securities and Exchange Commission (August 11, 2015), available at <http://www.sec.gov/comments/s7-11-15/s71115-10.pdf>.

In 2014, ICI conducted a survey of its members that sponsor ETFs to collect information on APs.²⁹ Half of the ETFs in the sample have at least 36 APs under contract and at least four active APs that create and redeem ETF shares (Figure 6).

Figure 6: There Are Many APs Available For Most ETFs

November 2014



¹APs are entities that have a legal contract with an ETF distributor to create and redeem ETF shares.

²For purposes of the survey, an AP was deemed active in an ETF if it had conducted at least one creation or redemption in that particular ETF's shares in the previous six months.

Source: Investment Company Institute

Two recent instances of an active AP stepping away demonstrate that for most ETFs other APs are available:

- ***Knight Trading Group, Inc.***, one of the biggest U.S. trading firms, suffered a technology error on August 1, 2012. Knight was an active AP for most ETF sponsors in the United States. As a result of the firm's losses, Knight's ability to create and redeem ETF shares was severely impaired. Other APs saw an opportunity and stepped in rapidly to fill the void. The response was quickest for larger ETFs that invest primarily in domestic equities because these ETFs have more APs that are active and more APs under agreement than other types of ETFs. Even for

²⁹ For more details on the results of the survey, see "Understanding the Role and Activities of Authorized Participants of Exchange-Traded Funds" (March 2015), available at https://www.ici.org/pdf/ppr_15_aps_ctfs.pdf.

smaller domestic equity ETFs and U.S. fixed-income ETFs, other APs stepped in to facilitate creations and redemptions, which kept the ETF primary market functioning.

- *Citigroup Inc.*, a major AP, temporarily ceased transmitting redemption orders to various ETFs that had foreign underlying securities on June 20, 2013, because it had reached an internal net capital ceiling imposed by its corporate banking parent. According to press reports, Citigroup decided to no longer post collateral in connection with redemption activity in these ETFs.³⁰ Although fewer APs can quickly step into the international space,³¹ one large active AP was able to process redemption requests without any problems. In addition, investors could have turned to the secondary market, which was functioning normally and not showing signs of stress, to sell their ETF shares.

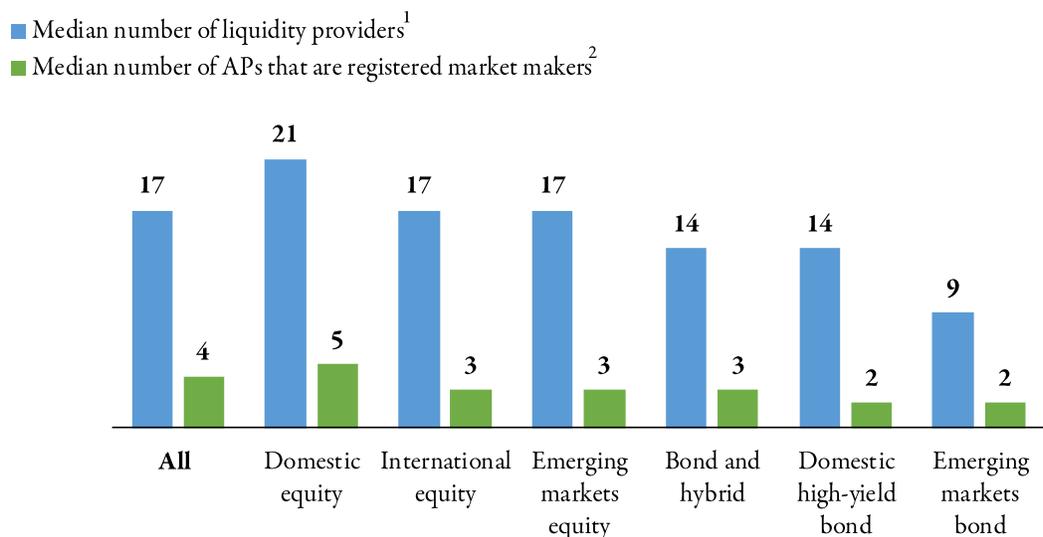
In the highly unlikely event that no AP had stepped forward to create and redeem in either of these cases, the affected ETF shares would have continued to trade on secondary markets, presumably at temporarily larger discounts or premiums to their underlying values. Impacts would have been contained to the affected ETFs and not transmitted to other ETFs or the underlying securities markets.

It is important to note that APs that are registered market makers are not the only entities that provide liquidity in the trading of ETF shares in the secondary market. In fact, there are a host of other entities that provide liquidity in ETF shares (Figure 7). These entities can help facilitate trading of ETF shares in the secondary market should a registered market maker come under stress. This was the case when Knight Trading Group, a registered market maker for more than 400 U.S. ETFs ranging in size and across investment objectives (domestic and international, equity, fixed income, and commodity), came under financial pressure in the summer of 2012. When Knight curtailed its ETF market making activities during that time, there was little to no impact on trading in larger ETFs because many other liquidity providers were competing for these trades. For smaller ETFs in which Knight acted as a registered market maker, bid/ask spreads temporarily widened in the immediate aftermath of Knight's withdrawal, but returned to normal within a day or so as other registered market makers and liquidity providers stepped in.

³⁰ APs that create and redeem ETFs with foreign underlying securities generally must post collateral upfront with the ETF custodian to protect the ETF if the AP fails to deliver the agreed upon securities.

³¹ Often, the ability to conduct transactions in foreign securities is more challenging than for domestic securities. For example, some foreign markets require investors to have foreign investor status, a local bank account, and a local custodian to pre-collateralize trades. As a result, APs that do not have these arrangements in place are unable to create and redeem shares of these ETFs.

Figure 7: There Are Many ETF Liquidity Providers



AUM \$ billions	1,896	1,163	434	153	299	43	12
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¹For purposes of the survey, liquidity provider was defined as an entity that regularly provides two-sided quotes in an ETF's shares.

²A registered market maker is registered with a particular exchange to provide two-sided markets in an ETF's shares.
Source: Investment Company Institute

Exchange Listing Standards, and Urgently Needed Enhancements

The SEC requests comment on whether current exchange listing standards are effective in light of the increasing complexity of ETFs. We strongly support efforts to add certainty and uniformity to the ETF listing process.

The current listing process slows the launch of new ETFs, creates different rules for similar products depending on the approval vintage, deprives investors of new opportunities, and is an inefficient use of SEC's resources. NYSE Arca, Inc. recently proposed "generic listing standards" for actively managed ETFs that satisfy certain criteria, making it less time consuming for such funds to list and trade their shares on the exchange.³² Generic listing standards would reduce many of the problems with the current listing process.

³²SEC Release No. 34-75115 (June 5, 2015), 80 FR 33309 (June 11, 2015) and SEC Release No. 34-74433 (March 4, 2015), 80 FR 12690 (March 10, 2015) (which would amend NYSE Arca Equities Rule 8.600). ICI filed a comment letter with the SEC supporting the NYSE Arca's efforts to adopt generic listing standards for actively managed ETFs. See Letter from Dorothy Donohue, Deputy General Counsel—Securities Regulation, Investment Company Institute, to Brent J. Fields, Secretary, Securities and Exchange Commission (March 31, 2015), available at <http://www.sec.gov/comments/sr-nysearca-2015-02/nysearca201502-2.pdf>.

Under current rules, a sponsoring exchange must file a Rule 19b-4 application with the SEC, and obtain SEC approval, before it can begin listing and trading the shares of each actively managed ETF. This approval is required on an individual fund basis for actively managed ETFs. From start to finish, this process can easily take over a year and is a key difference between launching index-based and actively managed ETFs. The SEC has approved rules for many exchanges to allow index-based ETFs that meet certain generic listing requirements to be listed without obtaining SEC approval on an individual fund basis.³³ Importantly, the NYSE Arca rule filing would provide uniform listing criteria for actively managed ETFs, which are not new and have been in the marketplace for over seven years with a demonstrated trading history.

Also, while not directly within scope of the Release, we strongly encourage the SEC to revisit the ETF rule first proposed in 2008 that would allow most ETFs to begin operating without obtaining from the SEC individual exemptive orders under the Investment Company Act. A more uniform regulatory framework built on the experience gained through the review and approval of many individual applications for exemptive relief would help eliminate the current disparate array of exemptive orders that permits some ETF sponsors more flexibility in product offerings than other ETF sponsors.³⁴

ETF Closures and Liquidations

The SEC requests comment on the consequences to investors of the closure and liquidation or termination of an ETF. ETFs like other regulated funds do not guarantee returns (or even a return of investors' principal) to investors, and investors know a fund's gains or losses belong to them alone.³⁵ Unlike highly leveraged financial institutions, ETFs operate under strict regulatory restrictions on

³³ Section 19(b) of the Exchange Act requires an exchange to obtain SEC approval for the listing or trading of any new ETF. Rule 19b-4(e) creates an exception from this requirement for ETF shares that meet generic listing requirements that have already been approved by the SEC.

³⁴ For example, some early ETF sponsors have exemptive orders that give them greater latitude to accept non *pro rata* substitutions other than cash from individual APs for creations on any given day. ETFs that do not have this ability tend to have increased tracking differences between the ETF and its index, increased creation costs, wider bid/ask spreads, and higher transaction costs for investors.

³⁵ See, e.g., Investment Company Institute, "Orderly Resolution" of Mutual Funds and Their Managers (July 15, 2014), available at https://www.ici.org/pdf/14_ici_orderly_resolution.pdf. On several previous occasions, ICI has explained, with supporting data and analysis, why regulated funds do not pose risks to financial stability. See, e.g., Letter to Mr. Patrick Pinschmidt, Deputy Assistant Secretary for the FSOC, from Paul Schott Stevens, President & CEO, Investment Company Institute, dated March 25, 2015, available at http://www.ici.org/pdf/15_ici_fsoc_ltr.pdf. For further discussion, see, e.g., Letter to Secretariat of the Financial Stability Board from Paul Schott Stevens, President & CEO, Investment Company Institute, dated April 7, 2014, at Appendix F (discussing the historical experience of US stock and bond funds, including modest redemptions by mutual fund investors during periods of financial stress). The letter is available at http://www.ici.org/pdf/14_ici_fsb_gsifi_ltr.pdf.

leverage and most use little to no leverage. Without leverage, it is virtually impossible for a fund to become insolvent—*i.e.*, for its liabilities to exceed its assets.

Similar to any other investment product, market demand determines the success of an ETF. New ETFs generally start small and grow in AUM as new shares are created. Some ETFs attract or maintain sufficient demand to increase their AUM substantially; while others take more time because of market conditions. Still other ETFs never attract or maintain sufficient assets and, as a result, typically will exit the business through a liquidation or merger with another fund. Indeed, ETFs exit the business each year, but do not cause disorder broadly affecting the investing public, market participants, or financial markets. As shown in Figure 8, in the past decade 1,521 new ETFs came to market and 334 ETFs merged or liquidated (mostly going unnoticed).

Figure 8: Number of ETFs

Year-end, 2005–2014

	Created	Liquidated/ Merged	Total at year-end
2005	50	0	201
2006	143	1	343
2007	258	0	601
2008	130	48	683
2009	113	46	748*
2010	170	49	869
2011	207	15	1,061
2012	135	79	1,117
2013	141	39	1,222*
2014	174	57	1,339

*The difference between the number of ETFs created and liquidated may not equal the difference between the total number of ETFs at year-end because of conversions. In 2009, two ETFs converted from holding securities directly to investing primarily in other ETFs. In 2013, three ETFs converted from investing primarily in other ETFs to holding securities directly.

Note: Data exclude ETFs that invest primarily in other ETFs.

Source: Investment Company Institute

When an operating company is unsuccessful, its share price drops and can even go to zero and equity investors lose all their money. When an ETF is liquidated or merged, investors receive the market value of the underlying securities less any accrued fees and expenses. For example, if the liquidating ETF is an index-based ETF that tracks the S&P 500, investors will receive their share of the market value of the ETF's S&P 500 securities. There is an established and orderly process by which the fund liquidates its assets, distributes the proceeds *pro rata* to investors and winds up its affairs, all without consequence to the financial system at large. This process adheres to requirements in the

Mr. Brent J. Fields

August 17, 2015

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Investment Company Act and state or other relevant laws based on the domicile of the fund, including consideration and approval by the fund's board of directors.

ETF liquidations are relatively straightforward because like other types of regulated funds they have simple capital structures. A fund contracts with a limited number of service providers and it pays these service providers through routine asset-based or annual service fees that are accrued in advance on the fund's books.³⁶ The Investment Company Act strictly regulates and limits the ability of a fund to borrow or lend money or other assets, and to engage in transactions involving leverage. Accordingly, a primary focus of the liquidation process is the conversion of the fund's portfolio investments to cash or cash equivalents. How long this process takes will depend upon such factors as portfolio liquidity, the degree of ease in converting portfolio securities to cash or cash equivalents and the fund's investment strategy and objectives. Typically, the process will take place over a time period that the fund's investment adviser and board of directors—consistent with their fiduciary obligations to the fund—deem appropriate. If a particular situation demands an expedited timetable, the investment adviser and fund board have the ability to act swiftly. Nothing would require, however, an immediate sell-off of a fund's entire portfolio or the distribution of liquidation proceeds to investors within a specific timeframe (*e.g.*, seven days).

* * * *

We look forward to working with the SEC as it continues to examine these critical issues. In the meantime, if you have any questions, please feel free to contact me directly at [REDACTED], Shelly Antoniewicz, senior economist, at [REDACTED], or Jane Heinrichs, associate general counsel, at [REDACTED].

Sincerely,

David W. Blass
General Counsel

cc: The Honorable Mary Jo White, Chair
The Honorable Luis A. Aguilar, Commissioner
The Honorable Daniel M. Gallagher, Commissioner
The Honorable Kara M. Stein, Commissioner
The Honorable Michael S. Piwowar, Commissioner

Mr. Steve Luparello,
Director, Division of Trading and Markets

Mr. David Grim
Director, Division of Investment Management

³⁶ In addition to the investment adviser, ETF service providers typically include the custodian, administrator, auditor, transfer agent, and distributor.

Appendix A

Gross daily aggregate ETF primary market activity is the sum of gross creations and gross redemptions across all ETFs in each bond asset class each day. These data are not available on a daily basis, but are available on a monthly basis as part of ICI's monthly statistical collection on ETFs. Higher frequency data, therefore, must be estimated. We estimate daily aggregate ETF primary market activity as the sum of estimated creations and the absolute value of estimated redemptions across all ETFs each day. We estimate daily creations and redemptions for each ETF by multiplying the daily change in the shares outstanding by the daily NAV. This approach could significantly underestimate daily gross primary market activity if individual ETFs had creations and redemptions that offset each other.¹

In fact, this approach produces daily estimates that, when summed across months, closely approximate gross primary market activity reported in the monthly data. Table A-1 shows the sum of gross creations and gross redemptions from the monthly reported data and the sum of the daily estimates of primary market activity over the same months for which we can compare.² The largest gap is a \$4.2 billion difference between the monthly data (\$24.5 billion) and daily estimates (\$20.3 billion) for primary market activity of U.S. government bond ETFs for the two-month period of June and July 2013. The smallest gap is a \$100 million difference between the monthly data and daily estimates for primary market activity of municipal bond ETFs for the two-month period May and June 2015.

Table A-1: Comparison of Daily Estimates to Monthly Reported Domestic Bond ETF Gross Primary Market Activity

\$ billions	June 3, 2013 to July 31, 2013		May 1, 2015 to June 30, 2015	
	Monthly ¹	Daily ²	Monthly ¹	Daily ²
U.S. government	\$24.5	\$20.3	\$15.7	\$13.5
Domestic corporate	\$15.2	\$14.7	\$21.4	\$18.5
High-yield	\$10.1	\$8.3	\$15.6	\$13.3
Municipal	\$1.5	\$1.3	\$0.9	\$0.8

1. Sum of monthly gross creations and gross redemptions for the period for each bond asset class. Data are from Tables 9 and 10 of the Investment Company Institute's Historical Supplemental Exchange-Traded Fund Report.

2. Sum of aggregate daily primary market activity for the period. Aggregate daily primary activity is estimated by adding creations and the absolute value of redemptions across all ETFs in each bond asset class each day. Daily creations and redemptions for each ETF are estimated by multiplying the daily change in the shares outstanding by the daily NAV from Bloomberg.

¹ For example, an ETF that received four orders for creations and three orders for redemptions on the same day would, all else equal, show an increase in shares outstanding equal to one creation unit. Our approach would estimate primary market activity for this ETF as the value of one creation unit. The actual primary market activity for this ETF, however, is the sum of the value of the four creations and three redemptions, or the value of seven creation units.

² Monthly gross creations and gross redemptions for July 2015 will not be available until the end of August 2015.

We also find that the differences between actual gross primary market activity and our approach of calculating daily estimates have little to no impact on our results regarding the share of total trading in the bond markets attributable to primary market activity of bond ETFs. As shown in Table A-2, the shares produced using our daily estimation technique for primary market activity are close to those obtained using actual gross primary market activity over the two periods studied. The differences between the share measures are imperceptible in the U.S. government, domestic corporate, and municipal bond categories. Even in the high-yield category, the differences are relatively small. The share estimates derived from our approach—1.82 percent for the June 2013 to July 2013 period and 2.48 percent for the May 2015 to June 2015 period—are less than 0.5 percentage points away from the shares calculated using actual primary market activity from the monthly data—2.22 percent and 2.91 percent, respectively.

Table A-2: Comparison of Shares of Total Trading Activity for Daily Estimates and Monthly Reported Gross Primary Market Activity

	June 3, 2013 to July 31, 2013			May 1, 2015 to June 30, 2015		
	Bond market trading \$billions	Primary market activity percent of total trading		Total trading billions	Primary market activity relative to total trading	
		Monthly ¹	Daily ²		Monthly	Daily
U.S. government	\$13,959	0.18%	0.15%	\$12,574	0.12%	0.11%
Domestic corporate	\$10,348	0.15%	0.14%	\$8,902	0.20%	0.18%
High-yield	\$455	2.22%	1.82%	\$536	2.91%	2.48%
Municipal	\$497	0.29%	0.26%	\$445	0.24%	0.21%

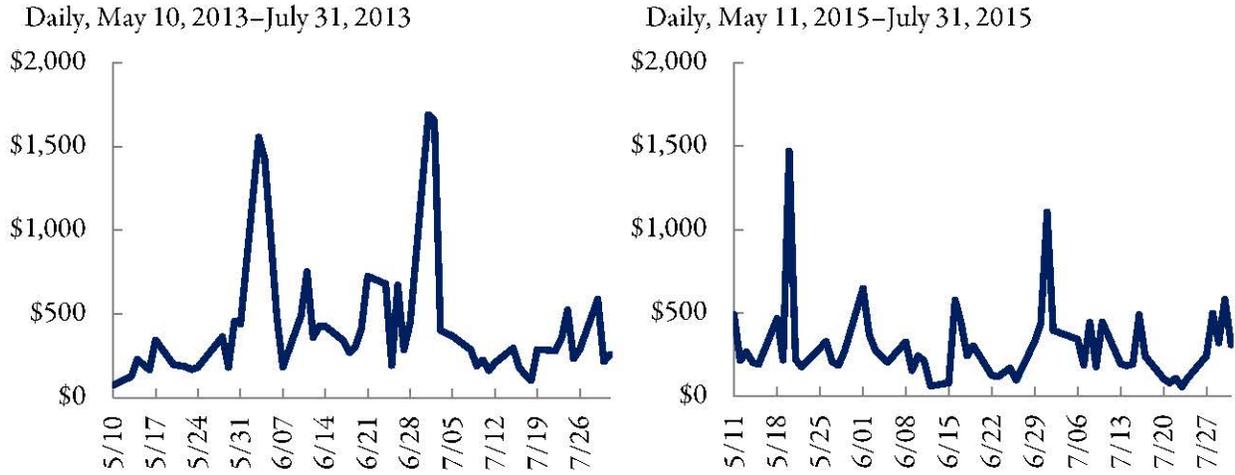
1. Calculated as primary market activity over the period using monthly data as reported in Table A-1 divided by bond market trading for each bond asset class.

2. Calculated as primary market activity over the period using daily data as reported in Table A-1 divided by bond market trading for each bond asset class.

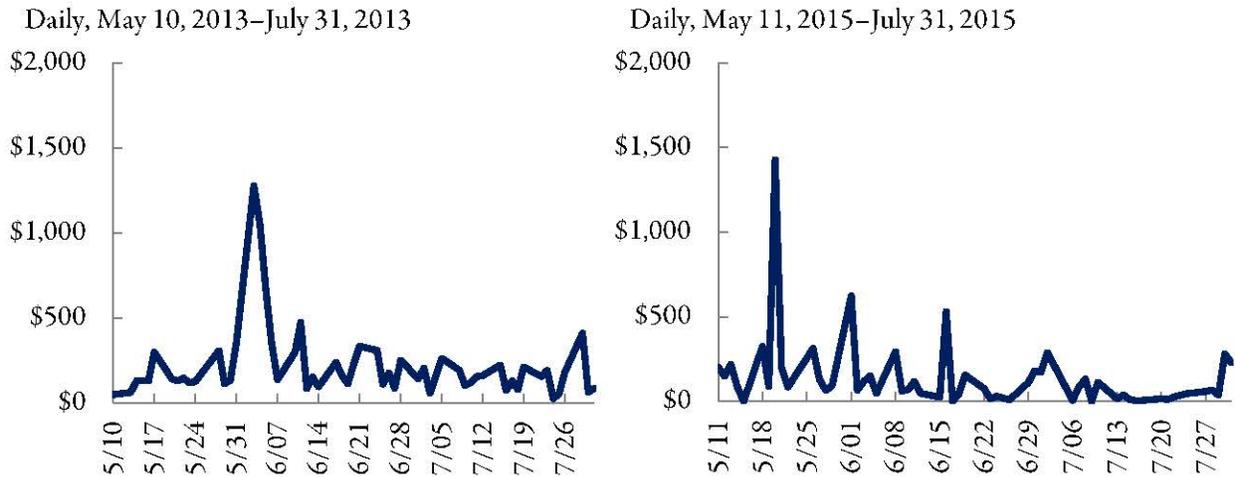
Appendix B

Figure B-1: US Government Bond ETFs¹

Primary market activity,² millions of dollars



Redemptions, millions of dollars



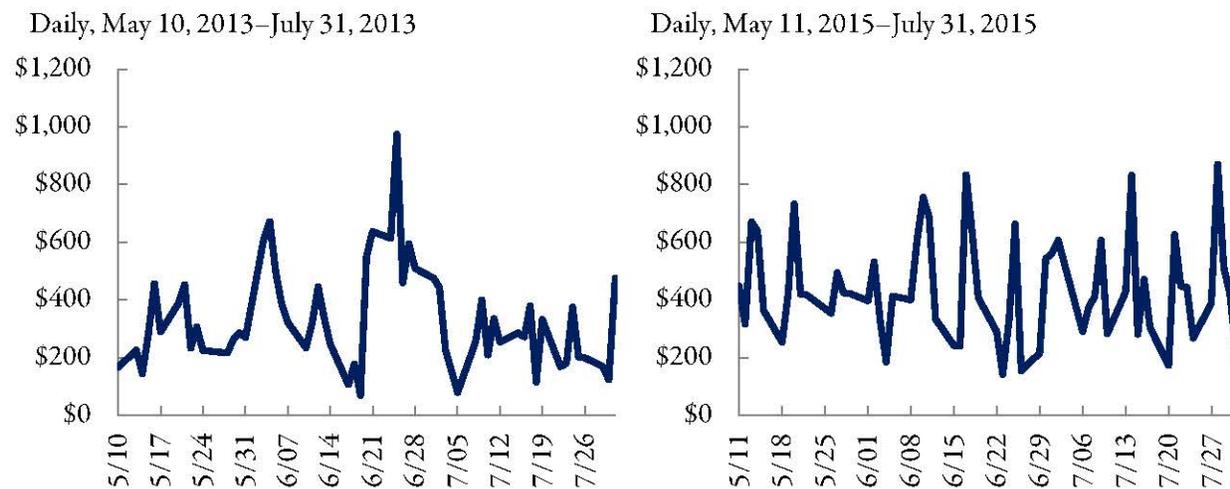
¹ This category includes ETFs that primarily invest in Treasury and U.S. government agency securities, but excludes ETFs that primarily invest in U.S. government agency pass-through mortgage-backed securities (MBS). These agency-MBS ETFs are included in the domestic corporate bond category. As of June 2015, U.S. government bond ETFs accounted for 21 percent of domestic bond ETF total net assets.

² Daily creations and redemptions for each domestic bond ETF are estimated by multiplying the daily change in the shares outstanding by the daily NAV from Bloomberg. Aggregate daily primary market activity is computed by adding creations and the absolute value of redemptions across all ETFs in each domestic bond asset class each day.

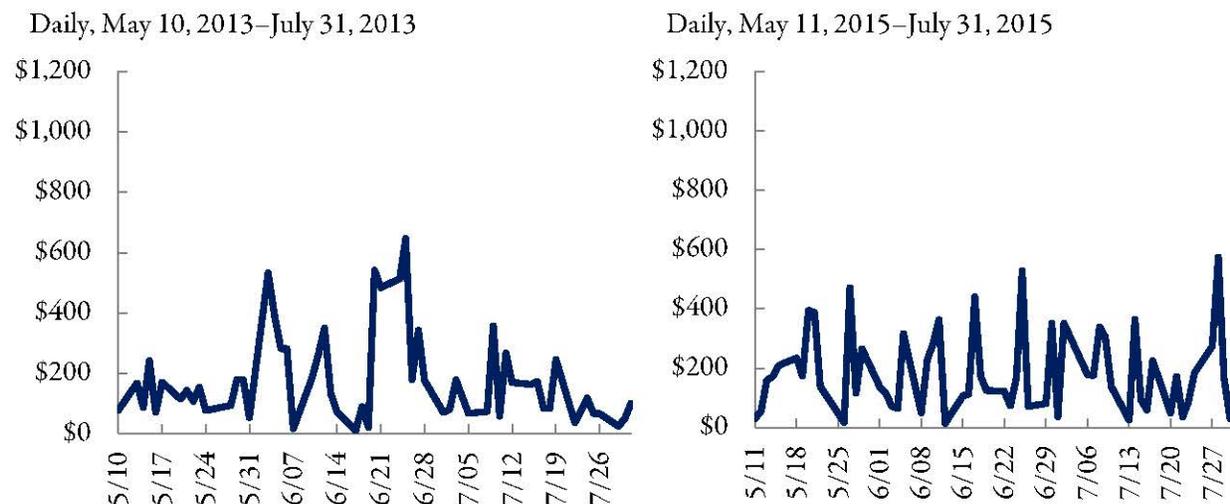
Source: Investment Company Institute tabulations of Bloomberg data

Figure B-2: Domestic Corporate Bond ETFs¹ (excluding High-Yield)

Primary market activity,² millions of dollars



Redemptions, millions of dollars



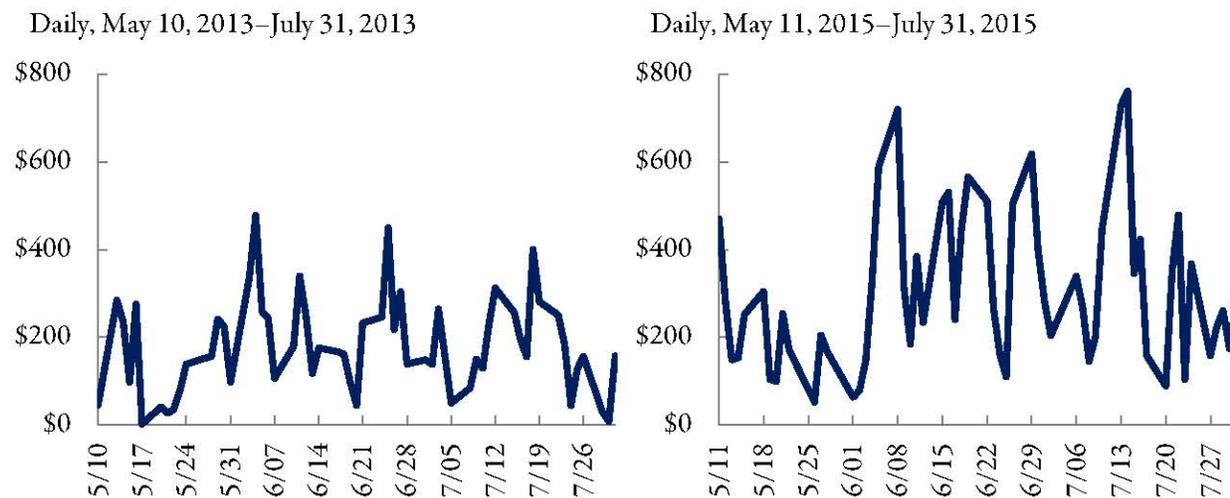
¹ This category includes ETFs that primarily invest in U.S. government agency pass-through MBS and excludes ETFs that primarily invest in bank loans and ETFs that primarily invest in high-yield bonds. ETFs that primarily invest in high-yield bonds are analyzed separately. As of June 2015, domestic corporate bond ETFs accounted for 59 percent of domestic bond ETF total net assets.

² Daily creations and redemptions for each domestic bond ETF are estimated by multiplying the daily change in the shares outstanding by the daily NAV from Bloomberg. Aggregate daily primary market activity is computed by adding creations and the absolute value of redemptions across all ETFs in each domestic bond asset class each day.

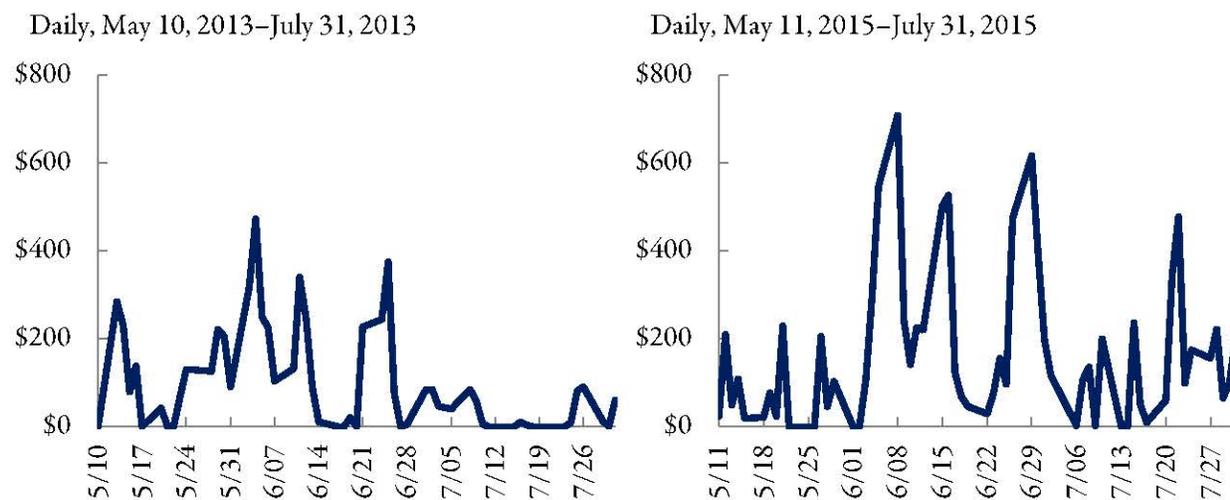
Source: Investment Company Institute tabulations of Bloomberg data

Figure B-3: High-Yield Bond ETFs¹

Primary market activity,² millions of dollars



Redemptions, millions of dollars



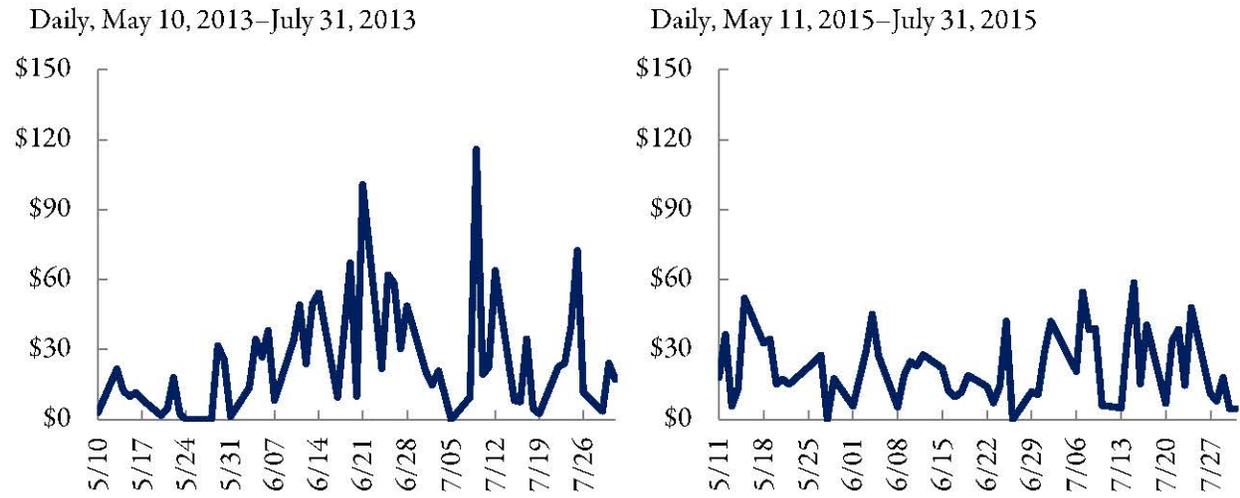
¹ This category excludes ETFs that primarily invest in bank loans. As of June 2015, high-yield bond ETFs accounted for 14 percent of domestic bond ETF total net assets.

² Daily creations and redemptions for each domestic bond ETF are estimated by multiplying the daily change in the shares outstanding by the daily NAV from Bloomberg. Aggregate daily primary market activity is computed by adding creations and the absolute value of redemptions across all ETFs in each domestic bond asset class each day.

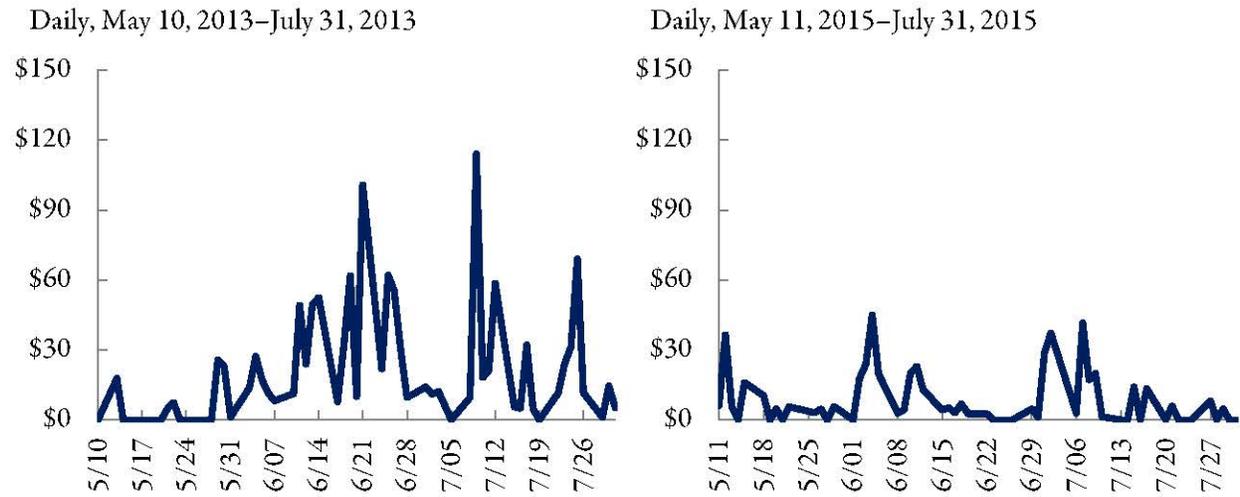
Source: Investment Company Institute tabulations of Bloomberg data

Figure B-4: Municipal Bond ETFs¹

Primary market activity,² millions of dollars



Redemptions, millions of dollars



¹ As of June 2015, municipal bond ETFs accounted for 6 percent of domestic bond ETF total net assets.

² Daily creations and redemptions for each domestic bond ETF are estimated by multiplying the daily change in the shares outstanding by the daily NAV from Bloomberg. Aggregate daily primary market activity is computed by adding creations and the absolute value of redemptions across all ETFs in each domestic bond asset class each day.

Source: Investment Company Institute tabulations of Bloomberg data