

April 29, 2018

Mr. Brent J. Fields, Secretary  
Federal Advisory Committee Management Officer and Secretary  
Securities and Exchange Commission  
100 F Street NE  
Washington DC 20459

RE: Meeting of the Fixed Income Market Structure Advisory Committee (File No. 265-30)

Dear Mr. Fields:

The Investment Company Institute (ICI)<sup>1</sup> appreciated the opportunity to participate in the April 9, 2018 meeting of the Securities and Exchange Commission's Fixed Income Market Structure Advisory Committee (FIMSAC) regarding liquidity considerations for bond ETFs. This letter provides some additional comments and materials relating to the liquidity of bond ETFs. In particular, we discuss concerns raised at the FIMSAC meeting of whether corporate bond ETFs pose risks to the market through a potential "liquidity mismatch" (which SEC staff described as the difference between relatively liquid bond ETF shares and the less liquid bonds that ETFs hold). We hope our comments will be helpful to FIMSAC, and its subcommittee on bond ETFs and bond mutual funds, as they further consider this issue.

Recently, there has been much discussion surrounding the question of whether bond ETFs pose concerns, possibly because they are required to meet daily redemptions but may hold less liquid assets. This letter makes three key points in response to this question.

- We are aware of no convincing evidence that bond ETFs pose concerns for bond market liquidity or pose broader risks to the financial markets.

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<sup>1</sup>The [Investment Company Institute](http://www.ici.org) (ICI) is the leading association representing regulated funds globally, including mutual funds, exchange-traded funds (ETFs), 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 members manage total assets of US \$21.9 trillion in the United States, serving more than 100 million US shareholders, and US \$7.5 trillion in assets in other jurisdictions. ICI carries out its international work through [ICI Global](http://www.ici.org), with offices in London, Hong Kong, and Washington, DC.

- To the extent that regulators nevertheless have concerns that the liquidity of a bond ETF can be greater than the liquidity of the ETF's underlying portfolio securities ("liquidity mismatch"), two features of ETFs should mitigate these concerns: (1) most ETF trades occur in the secondary market and do not "touch" the ETFs' underlying bonds; and (2) ETF share creations and redemptions, which do touch the underlying bonds, generally take place in-kind and, in any case, are a small share of total ETF shares traded and a small share of overall trading in the bond market.
- Evidence suggests that bond ETFs contribute to corporate bond market liquidity, including during periods of market stress.

We discuss these issues briefly and direct your attention to the appendix to this letter, which lists ICI publications that provide more detailed analysis and information related to ETFs.

1. We are aware of no convincing evidence that bond ETFs pose concerns for corporate bond market liquidity or pose broader risks to the financial markets. In recent years, a few studies have claimed (or have been read as claiming) to have found empirical evidence that bond funds, whether mutual funds or ETFs, could create or add to bond market instability. Work in this area, however, is preliminary and policy makers should for a number of reasons regard the work with considerable caution.

These studies typically share a number of methodological shortcomings. Among other things, they: (1) often may conflate correlation and causation; (2) incorrectly assume that statistical results arising from a cross-section of funds can be taken to apply to funds at an aggregate or market-wide level; (3) make claims that are far too strong relative to the statistical strength or economic significance of the reported results; (4) are unaware of institutional details that may affect their results; and (5) generally fail to consider alternative but plausible explanations for correlations in the data.<sup>2</sup>

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<sup>2</sup> With respect to bond ETFs, one example is a [December 2017 European Systemic Risk Board working paper by Kevin Pan and Yao Zeng, entitled "ETF arbitrage under liquidity mismatch."](#) The paper states that a "natural liquidity mismatch emerges when liquid exchange traded funds (ETFs) hold relatively illiquid assets. We provide a theory and empirical evidence showing that this liquidity mismatch can reduce market efficiency and increase the fragility of these ETFs." The paper suggests that it does this, in part, by measuring the relationship between bond inventories of authorized participants (APs) and arbitrage of corporate bond ETFs by APs. In reality, data on APs' bond inventories and their ETF arbitrage activities are not publicly available. The authors are thus using approximations whose accuracy is unknown. In addition, the authors appear to treat all corporate bond purchases and sales of dealers who are also APs as if those purchases and sales are only for dealers in their capacity as APs. In fact, however, those purchases and sales may represent the actions that dealers (who happen to be APs) as agents undertake for their many other clients. Moreover, the paper could easily be misread as indicating that because APs are the only participants who may interact with the ETF, they are the only market participants who can undertake arbitrage. In fact, various market participants other than APs engage in arbitrage involving ETF shares. It is unclear how this would affect the authors' results. Finally, the authors claim "there is strong evidence that an increase in market volatility given an ETF premium, reduces the amount of arbitrage done by APs." This claim, however, is unduly strong, given the reported results. For example, this claim is based on a statistical analysis (i.e., a regression on page 61, column 3 in the authors' paper) that explains very little variation in creations and redemptions (just 2 percent, leaving 98

Moreover, suggestions that bond ETFs could pose concerns have often been based on the fact that bond ETF assets are growing fast and accounting for a larger share of the corporate bond market. While it is true that the assets under management by bond ETFs have increased, bond ETFs comprise a modest portion of the corporate bond market. As Figure 1 shows, assets in bond ETFs rose from \$242 billion at year-end 2015 to \$404 billion at year-end 2017, an increase of 67 percent. But even with that growth, bond ETF constituted just 3.2 percent of the corporate bond market. Even if bond ETFs continued to garner market share at the same pace over the next ten years as they did from 2015 to 2017, they would still account for less than 10 percent of the corporate bond market.<sup>3</sup> We are aware of no research demonstrating that such a small portion of the market can pose market-wide liquidity concerns or create substantial risk for the broader financial markets.

Figure 1: ETF Share of Corporate and Foreign Bonds

Billions of dollars	Bond ETF assets (\$ billions)	Corporate and foreign bonds (\$ billions)	Bond ETF market share (percent)
2015	242	11,697	2.1
2016	310	12,600	2.5
2017	404	12,772	3.2

Source: Federal Reserve Board

2. If concerns about a liquidity mismatch persist even absent compelling evidence, regulators should recognize that ETFs address that issue in two ways.

First, 79 percent of activity in bond ETF shares takes place in the secondary market. These trades do not touch the underlying securities in the ETF. They simply represent investors trading shares of ETFs among themselves. Also, because trading of ETF shares typically takes place on equity trading venues, liquidity can in many cases, and particularly in the case of corporate bond ETFs, be better than the liquidity of the ETFs' underlying fixed income securities which commonly trade "over the counter" (e.g., off-venue, in a bilateral manner). Thus, in a very real sense, ETFs are *adding* to market liquidity by

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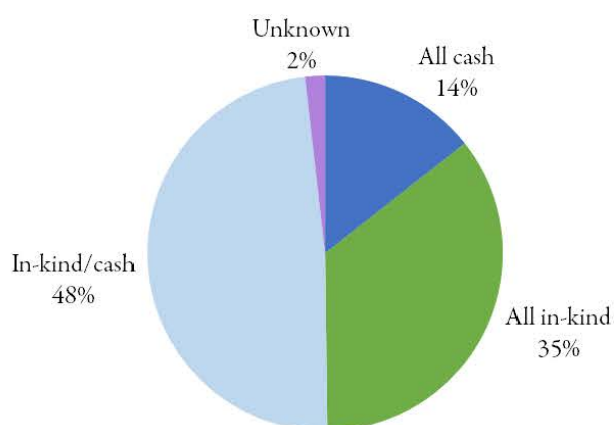
percent of the variation unexplained). Moreover, the claim that an increase in volatility reduces arbitrage is somewhat misleading. Their results (again page 61, column 3) indicate that an increase in market volatility will lead to an *increase* in arbitrage, not a *decrease* as the authors suggest. What the authors' statistical results in fact indicate is that arbitrage increases with volatility but that increase is *moderated* if investors take into account any correlation between volatility and ETF premiums or discounts.

<sup>3</sup> This 10 percent figure is calculated as follows. From 2015 to 2017, the share of the corporate bond market held by ETFs increased from 2.1 percent to 3.2 percent, which amounts to an average annual gain in market share of 0.55 percentage points (i.e.,  $(3.2-2.1)/2 = .55$ ). At this rate, over the next ten years, bond ETFs' share of the corporate bond market would increase by 5.5 percentage points (i.e.,  $0.55 \times 10 = 5.5$ ). In 2017, bond ETFs held 3.2 percent of the corporate bond market. Thus, in 10 years, at an annual gain in market share of 0.55 percentage points, bond ETFs would still only hold 8.7 percent of the corporate bond market (calculated as  $3.2\% + .55\% \times 10$ ).

offering investors a highly liquid instrument that provides exposure to less liquid market segments, such as the corporate bond market.

Second, the remaining activity in bond ETFs—creations and redemptions—occurs between APs and ETFs. As Figure 2 shows, these trades generally are “in-kind.” In the case of a creation, the AP bundles securities (and perhaps some amount of cash), which it delivers to the ETF in exchange for newly created ETF shares. In the case of a redemption, the AP delivers ETF shares to the ETF and in return receives a bundle of underlying securities (and in some cases an amount of cash). Thus, any potential “liquidity mismatch” is mitigated by the direct exchange of ETF shares for securities and perhaps some amount of cash.

Figure 2: Percent of Taxable Bond ETFs with Specified Basket Type



Source: Investment Company Institute tabulations of Bloomberg data

Furthermore, creations and redemptions of bond ETFs tend to be very small relative to trading volumes in the corporate bond market. For example, in 2017, the combined total of gross creations and gross redemptions of corporate bond ETF shares amounted to merely 2.5 percent of the dollar value of corporate bond market trades.<sup>4</sup>

3. Bond ETFs contribute to liquidity, including during periods of market stress. Based on an analysis of the high-yield bond market and high-yield ETFs during December 2015, we found that trading in high-yield bond ETFs supplemented trading in the high-yield market itself. This suggests that, if anything, bond ETFs add to market liquidity during periods of market stress (for more information, see reference [1] in the appendix).

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<sup>4</sup> In 2017, gross creations plus gross redemptions for investment grade and high yield corporate bond ETFs equaled \$228 billion (\$152 billion in gross creations and \$76 billion in gross redemptions). In 2017, trades of investment grade and high yield bonds totaled nearly \$9.1 trillion. This implies a ratio of 2.5 percent ( $228/9,100 = 2.5$  percent).

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As another example, in November 2017, yields on high-yield bonds jumped about 50 basis points. As high-yield bond prices fell, secondary market trading volume of high-yield bond ETFs more than doubled from \$7 billion per week to over \$16 billion per week. That suggests market participants used high-yield ETFs to express their views about the high-yield bond market, aiding price discovery. Moreover, because these trades took place in the secondary market for ETFs, they did not “touch” the bond ETFs’ underlying securities, which should help allay concerns that bond ETFs poses risks to the financial system because of a “liquidity mismatch.”

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If you have any questions or would like additional information, please contact me at

[REDACTED], [REDACTED] or my colleague Shelly Antoniewicz at [REDACTED], [REDACTED].

Sincerely,  
/s/ Sean Collins

Sean Collins  
Chief Economist  
Investment Company Institute



## Appendix

### Selected Bibliography of ICI Publications on ETFs

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