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September 2, 2023

John Schindler
Secretary General
Financial Stability Board
Centralbahnplatz 2
Basel CH-4002
Switzerland

Re: *Proposed Revisions to the FSB's 2017 Policy Recommendations*

Dear Mr. Schindler:

ICI Global¹ appreciates the opportunity to provide comments on the Financial Stability Board's (FSB) consultation on proposed revised policy recommendations for liquidity risk management for open-ended funds (OEFs).² Our members help millions of retail investors around the world by offering funds in which they can invest to save for retirement, education, and other important financial goals.

OEFs play an important role in supporting economic growth and capital formation by providing investors, especially retail investors, with the benefits of collective investing. As the FSB has noted, any recommendations regarding the regulation of OEFs should not unduly reduce OEFs' ability to perform their core economic function.

ICI Global is generally supportive of the FSB's work to clarify its previous liquidity risk management recommendations for OEFs. While we do not agree with all aspects of the revisions, we support the FSB's aim to expand the availability of LMTs for OEFs. We appreciate that the FSB acknowledges that OEF managers are professionals and fiduciaries and are best positioned to manage liquidity risk, and that flexible access to a broad set of LMTs is in the best interest of investors. We also agree with the FSB's recommendation that

¹ ICI Global carries out the international work of the [Investment Company Institute \(ICI\)](#), the leading association representing regulated investment funds. With total assets of \$40.8 trillion, ICI's membership includes mutual funds, exchange-traded funds (ETFs), closed-end funds, and unit investment trusts (UITs) in the United States, and UCITS and similar funds offered to investors in Europe, Asia, and other jurisdictions. ICI's mission is to strengthen the foundation of the asset management industry for the ultimate benefit of the long-term individual investor. ICI Global has offices in Brussels, London, Hong Kong, and Washington, DC.

² FSB, *Addressing Structural Vulnerabilities from Liquidity Mismatch in Open-Ended Funds – Revisions to the FSB's 2017 Policy Recommendations: Consultation Report* (July 5, 2023) (the Consultation), which seeks to revise, FSB, *Policy Recommendations to Address Structural Vulnerabilities from Asset Management Activities* (January 12, 2017) (2017 FSB Recommendations).

OEF redemption terms should be consistent with their investment strategies and the liquidity of the assets they hold.

We agree with the FSB's statement that there cannot be a one-size-fits-all approach to OEF liquidity risk management. However, some of the FSB's proposed revisions are inconsistent with the FSB's own statement and would restrict fund managers' discretion to manage liquidity in the interests of investors. ICI Global cannot support these aspects of the proposed revisions.

Specifically, we do not support the proposal to require all OEF managers to use at least one anti-dilution LMT from a prescribed list. The FSB bases this recommendation on the notion that OEF managers should take steps to mitigate potential first-mover advantage, but this reflects an unsubstantiated presumption that all OEFs generate dilution of a magnitude sufficient to trigger runs on funds and fire sales of assets that create or amplify financial stability risk. OEF managers should be empowered to manage liquidity using tools they identify as appropriate in their specific context.

ICI has presented research that demonstrates average dilution for US funds and UCITS is *de minimis* and, thus, too small to incentivize the redemptions that FSB theorizes could trigger or amplify financial instability. OEFs have a long track record of avoiding runs, including during stressed conditions such as the March 2020 COVID crisis. Yet, the FSB's recommendation appears to be a mandatory requirement for all OEFs to address a problem which may be present in relatively few funds. At a minimum, the FSB should acknowledge that the issue with OEFs is not so black-and-white and move forward more prudently, conditioning any required adoption of an LMT on first identifying a need for an LMT.

We also do not support the FSB's fund bucketing proposal. We recognize that the FSB is concerned that the liquidity OEFs offer through redemption rights may be inconsistent with the liquidity of the assets OEFs hold. The FSB's proposal would assign funds into one of three buckets based solely on portfolio assets, requiring subjective judgments of asset liquidity. By ignoring other key liquidity factors, the outcome of the fund bucketing exercise is not well targeted or proportionate to the varying degree of liquidity risk among OEFs.

As the FSB finalizes the revisions to the 2017 Recommendations, we encourage the FSB to recall the outcome of its 2022 assessment of their implementation.³ The FSB found a high degree of implementation in surveyed jurisdictions, concluding that only targeted, proportionate revisions to the recommendations were needed.⁴ The two proposals to which ICI Global objects (the proposed mandate that all OEFs must use an anti-dilution LMT and the fund bucketing approach) are not targeted or proportionate. Striking these proposals would not diminish the 2017 Recommendations or leave the FSB's concerns unaddressed.

³ FSB, *Assessment of the Effectiveness of the FSB's 2017 Recommendations on Liquidity Mismatch in Open-Ended Funds* (December 14, 2022) (FSB Assessment).

⁴ *Id.* at 23-24, 46-49.

Executive Summary

ICI Global supports the FSB's current efforts to revise and clarify its 2017 liquidity risk management recommendations for OEFs. While we do not agree with all aspects of the revisions, we support (Section I):

- Expanding the availability of liquidity management tools, where it is appropriate and consistent with jurisdictional mandates;
- Redemption terms for OEFs that are consistent with investment strategies and portfolio liquidity; and
- That there cannot be a one-size-fits-all approach to OEF liquidity risk management.

ICI Global does not support certain FSB proposed revisions that go beyond targeted clarifications, including:

- The requirement that all OEFs must use an anti-dilution LMT, because for many funds, dilution is *de minimis*, even in stressed market conditions. (Section II)
- The proposed bucketing framework, which is disproportionate, costly, and lacks clarity. (Section III)

We also disagree with the FSB's premise that the OEF structure, and the potential for dilution, creates and amplifies financial stability risk. (Sections IV and V)

- Our empirical research shows that dilution in US and European markets is on average too small to incentivize the vast redemptions that some regulators and policymakers theorize would trigger runs on funds and lead to financial instability.
- We provide analysis illustrating that existing legal frameworks for OEFs have protected investors and the financial system, including through stressed conditions.

I. OEF Managers Are Best Positioned to Manage an OEF's Liquidity Risk for the Benefit of Investors

ICI Global is generally supportive of the Consultation, through which the FSB proposes to clarify its previous liquidity risk management recommendations for OEFs.

OEFs play an important economic role and support financial stability. They help protect and augment the savings of retail investors, promote orderly and efficient capital markets, and facilitate economic growth. OEFs provide investors with the benefits of collective investing and liquidity risk management. It is critically important to consider any liquidity-related recommendations (such as those related to anti-dilution LMTs) in the context of the broader OEF practices and legal frameworks, which have protected investors and the financial system, including through stressed market events. OEFs have avoided runs, including during the March 2020 COVID crisis.

OEFs offer their investors redemption rights, which entitle a shareholder to a proportionate share of the fund's net assets upon returning its shares to the fund. While requirements and terms differ, OEFs generally must pay proceeds to the redeeming shareholder reasonably

promptly following the redemption request. Doing so requires sound liquidity management, which funds have had in place for decades.

Apart from the redemption rights feature that is shared by nearly all OEFs, ICI Global welcomes the FSB's acknowledgment that OEFs are otherwise quite diverse, varying significantly in their objectives, portfolio investments, strategies, size, investor flows, redemption history, shareholder bases, and methods of distribution.⁵ These areas of difference are among the critical considerations for OEF managers in assessing an OEF's liquidity risk.

We agree with the FSB that fund managers "have the primary responsibility and are best placed to manage the liquidity of their portfolios" and "are well positioned to determine the appropriate level of liquid asset holdings for each OEF they manage."⁶ We welcome the FSB's recognition that "OEFs are only one part of a broader market eco-system, which supports a holistic and proportionate approach to addressing these vulnerabilities."⁷ ICI Global appreciates the FSB's intention that its recommendations be proportionate to the varying liquidity risks presented by different OEFs, with the FSB seeking to "set out the key objectives that an effective regulatory and supervisory framework should achieve but are high-level and flexible so that they can be incorporated into a wide variety of regulatory frameworks...."⁸ We welcome the FSB's intention not to "imply a 'one-size-fits-all' approach across all OEFs or jurisdictions."⁹

A. The availability of LMTs should be expanded while maintaining OEF managers' flexibility to manage liquidity risk

ICI Global is generally supportive of the proposed revision to Recommendation 4 and its related guidance that seeks to ensure that a broad set of liquidity management tools and measures are available.¹⁰ As discussed above, OEFs employ sound liquidity risk management practices and are already highly regulated.¹¹ Nevertheless, we appreciate that the FSB recognizes that fund managers are professionals and fiduciaries that need flexibility in

⁵ Consultation at 10.

⁶ *Id.* at 10 and n.18. See also IOSCO, *Anti-dilution Liquidity Management Tools – Guidance for Effective Implementation of the Recommendations for Liquidity Risk Management for Collective Investment Schemes: Consultation Report* (July 5, 2023) (IOSCO Consultation) at 8.

⁷ Consultation at 7.

⁸ *Id.* at 10.

⁹ *Id.*

¹⁰ *Id.* at 16. Notably, in 2022, the FSB found many jurisdictions enhanced their regulatory frameworks since 2017. Specifically, thirteen of sixteen jurisdictions that the FSB surveyed widened the availability of LMTs for OEFs. The three did not do so already permitted a wide range of LMTs prior to 2017. See FSB 2022 Assessment at 48-49.

¹¹ See Section V.B.

liquidity risk management and access to a broad set of tools to facilitate OEF management of liquidity risk.¹²

ICI Global further appreciates that, in Recommendation 4, the FSB is not solely focused on anti-dilution LMTs. Since March 2020, certain jurisdictions and standard-setting bodies have focused inordinately on *anti-dilution* LMTs at the expense of broader reforms to enhance the functioning and resilience of capital markets and the supply of market liquidity, which would support funds' ability to manage their liquidity risk. For example, the US Securities and Exchange Commission's (SEC) recent liquidity proposal includes significant changes to the bucketing provisions of the SEC's liquidity risk management rule and a swing pricing mandate¹³—measures that we strongly oppose.¹⁴

ICI Global encourages regulatory authorities, including the FSB, to focus more on modernizing capital markets rules that may inhibit the supply of market liquidity. For example, we have suggested to the SEC that facilitating OEFs' ability to execute fixed-income cross trading¹⁵ and modernizing interfund lending/borrowing rules should be examined. To the extent that the capacity of banks, dealers, and other financial institutions to intermediate fixed-income transactions has decreased over the years and has not been sufficiently responsive in stressed conditions (*e.g.*, in March 2020), alternatives such as cross trading could help relieve the strains on all affected market participants.

We generally agree with the statement in the proposed revision to Recommendation 4 that “[a]uthorities should also reduce operational and other barriers that prevent the use of”¹⁶ LMTs. Reducing operational and other barriers is part of authorities ensuring that fund managers have access to and can use a broad set of LMTs. However, this language must not mandate that authorities seek to reduce operational and other barriers in all cases, irrespective of the broader consequences. Accordingly, we propose revising Recommendation 4 to clarify this consideration of the appropriateness of various potential measures for each jurisdiction's bespoke markets and legal frameworks with the following edit:

Where appropriate, authorities should also reduce operational and other barriers that prevent the use of such tools and measures, consistent with their jurisdictional mandates.

¹² We also agree with the FSB's recognition of the limitations of anti-dilution LMTs – they “might not reduce redemptions driven by other factors such as ‘dash-for-cash’ or ‘flight-to-safety.’” Consultation at 16. As set forth in more detail below, this has implications for the proposed revisions to Recommendation 5, which would require all OEFs to consider and use at least one anti-dilution LMT. *See* Section II and Appendix C.

¹³ SEC, *Open-End Fund Liquidity Risk Management Programs and Swing Pricing; Form N-PORT Reporting*, SEC Release No. 33-11130, 87 Fed. Reg. 77172 (Dec. 16, 2022) (SEC Proposal).

¹⁴ *See* ICI, [Comment Letter on Open-End Fund Liquidity Risk Management Programs and Swing Pricing](#), (February 14, 2023) (LRM Comment Letter).

¹⁵ This could be accomplished through amendments Rule 17a-7 (the cross-trading rule).

¹⁶ Consultation at 16.

B. Redemption terms should be consistent with investment strategies and portfolio liquidity

ICI Global supports the revised text of Recommendation 3 and the related guidance that emphasize the need for funds to ensure that their redemption terms are consistent with their investment strategies and liquidity of portfolio assets.¹⁷ We agree that it is critical for an OEF to assess and manage its liquidity risk and that its chosen investment strategy must be appropriate for the OEF. We also support the FSB’s decision not to include minimum regulatory requirements for liquid asset holdings across the OEF sector.¹⁸ We agree that these types of provisions could have unintended consequences (*e.g.*, they could lead to procyclical behavior); these decisions must be left to funds and their managers as part of their overall liquidity risk management.

Although we support the text of Recommendation 3, we strongly oppose the proposed fund bucketing requirements set forth in the explanatory guidance. For the reasons set forth in Section III below, we urge the FSB not to pursue the proposed three-bucket framework. Recommendation 3 itself (as the FSB proposes to amend it) provides adequate guidance and can stand on its own.

II. ICI Global Opposes Prescriptive Revisions That Restrict OEF Managers’ Discretion to Manage Liquidity Risk

While ICI Global is generally supportive of the FSB’s aim to clarify its 2017 Recommendations, we do not agree with certain revisions that restrict OEF managers’ discretion to manage liquidity in the interests of investors. These revisions are not appropriately targeted to address the FSB’s stated concerns and are inconsistent with the principle the FSB states elsewhere, and with which we agree, that there cannot be a one-size-fits-all approach to risk management.

We oppose the proposed revision to Recommendation 5 that would require “managers of open-ended funds [to] consider and use” anti-dilution LMTs, and that these tools “impose on redeeming and subscribing investors the explicit and implicit costs of redemptions and subscriptions, including any significant market impact...”¹⁹

Fund managers are already expected to exercise their sound professional and fiduciary judgment in the best interest of investors.²⁰ Accordingly, fund managers should broadly assess liquidity risk, which should include the risk of significantly diluting remaining investors’ interests in the fund in meeting redemptions. If a fund manager determines that an

¹⁷ *Id.* at 13.

¹⁸ *Id.* at n.14.

¹⁹ Consultation at 17. For a more detailed discussion of our objections, *see* Appendix C.

²⁰ *See* IOSCO, *Recommendations for Liquidity Risk Management for Collective Investment Schemes* (February 7, 2018) (2018 Recommendations) at 3.

OEF's dilution is significant, it then would assess various "anti-dilution approaches," which would include (but not necessarily be limited to) IOSCO's five specified anti-dilution LMTs,²¹ along with any other measure that the manager reasonably believes would address dilution in the interests of investors. This is necessarily a fund-specific activity, and the need for anti-dilution LMTs cannot simply be assumed.

Complying with the proposed mandate for all OEFs to use an anti-dilution LMT would harm the operation of many funds and not serve the interests of those funds and investors. For many OEFs, needless costs associated with mandatory adoption of an anti-dilution LMT will outweigh any potential benefits, for example, recouping *de minimis* dilution for non-transacting investors. Being forced to adopt an LMT in all cases, even when there is no tie or substantiation to the need or benefit of such a measure, would not serve the interests of investors or—given the importance of collective investing—the financial system.

With respect to costs (addressed in the proposed third sentence of Recommendation 5²²), any anti-dilution LMTs should incorporate only those costs that the manager can calculate or estimate with high confidence, with the overall objective being improved precision rather than deterring redemptions.²³

Recommendation 8 addresses asset managers' consideration and use of quantity-based LMTs.²⁴ While we have no objection to the proposed changes to the first sentence of Recommendation 8, we cannot support the revised third sentence, which recommends that, where jurisdictions consider it appropriate, authorities should provide direction in stressed market conditions regarding OEFs' use of such tools and measures, taking into account the costs and benefits of such action from a financial stability perspective.²⁵

Other than the relevant authority's ability to suspend redemptions, any decisions to activate or deactivate LMTs must remain the responsibility of the fund manager. As the FSB has recognized elsewhere in the Consultation, given the variability in OEFs, fund managers are best positioned to determine when it would be appropriate to activate or use an LMT for a particular OEF and how a tool's activation could affect the OEF's investors. We urge the FSB to strike the third sentence in the proposed revision of Recommendation 8. It is appropriate for all OEFs to assess liquidity risk—including significant dilution—but adoption, activation, and use of anti-dilution LMTs should not be required.

²¹ See IOSCO Consultation at 12-13.

²² Consultation at 17.

²³ See Appendix C for a more detailed discussion.

²⁴ Consultation at 19.

²⁵ *Id.*

III. The Proposed Fund Bucketing Framework Is Disproportionate and Unnecessary

In 2022, both the FSB and IOSCO separately found that all jurisdictions responding to their surveys had regulatory frameworks in place that were consistent with requiring a suitable dealing frequency and offering guidance on determining suitable frequency.²⁶ While both the FSB and IOSCO identified some variability in approach,²⁷ IOSCO recognized that “the issue of how to calculate a suitable dealing frequency consistent with investment objectives, assets and liabilities, is a fairly technical one.”²⁸ IOSCO identified some jurisdictions that already vary their permitted dealing frequency according to the liquidity of the underlying asset classes; for example, funds comprised substantially of blue-chip equity assets could have daily dealing.²⁹

We note the FSB’s concerns with respect to liquidity risk management. The FSB indicates that the liquidity OEFs offer through daily dealing could be inconsistent with the liquidity of the assets they hold, and further notes the potential for OEFs to have substantial holdings of illiquid assets. To address these concerns, the FSB proposes bucketing funds based on the liquidity of the assets they hold, which we have examined carefully.

The FSB’s proposed three-bucket framework is disproportionate, going much farther than necessary to address the FSB’s concerns about liquidity mismatch. It would override jurisdictions’ varied and successful approaches to the implementation of Recommendation 3. The rigid, top-down “three-sizes-fit-all” construct for all OEFs lacks calibration and requires subjective judgments to categorize assets’ liquidity, making application ill-suited to all OEFs globally.

Conceptually, both investments and OEFs fall along a liquidity risk spectrum. OEF managers recognize that their approaches to liquidity risk management (*e.g.*, use of tools and other mitigants) must be proportionate to the fund’s degree of liquidity risk (*e.g.*, higher-risk funds must do more to mitigate this risk) along the spectrum.

The proposal that every fund be placed into one of three buckets based only on portfolio asset types—from which certain fund-level obligations and limitations will flow—is also inherently arbitrary and blunt. The approach ignores many other key liquidity risk factors (*e.g.*, historical fund flows, redemption history, nature of the shareholder base, method of distribution, and use and availability of liquidity risk mitigants). The exercise would result in the same outcome for OEFs in Categories 1 (liquid) and 3 (less liquid); each would be required to adopt an LMT (a requirement that we oppose).³⁰ In addition, the approach could

²⁶ See FSB Assessment at 46-47; IOSCO, *Thematic Review on Liquidity Risk Management Recommendations: Final Report* (November 22, 2022) (IOSCO Assessment) at 57-58.

²⁷ See FSB Assessment at 46-47; IOSCO Assessment at 57-58.

²⁸ IOSCO Assessment at 57-58.

²⁹ *Id.* at 58.

³⁰ See Section II and Appendix C.

force funds to change their redemption terms involuntarily. Such hardwired approaches have been shown in other markets to have the unintended consequence of being confusing and harmful to investors, particularly retail investors, and potentially destabilizing.

The proposed fund bucketing exercise necessarily requires jurisdictions to adopt frameworks for bucketing individual investments. As the Consultation states, “[e]ach jurisdiction will need to determine its overall liquidity framework and an overall approach to defining assets as liquid, illiquid or less liquid (or comparable categories).”³¹

The Consultation suggests definitions of these three crucially important terms—“liquid,” “less liquid,” and “illiquid” assets—at a high level but does not address the critical assumptions and inputs (*e.g.*, relating to size (or quantity), cost, and time) needed for an asset bucketing framework. We urge the FSB to eliminate the framework and do not suggest the FSB define these categories.

The costs associated with fund bucketing would be significant and are not justified. Recent US experience demonstrates that making bucketing a key element of a jurisdiction’s regulatory liquidity framework is highly fraught. Adopted in 2016, the SEC’s liquidity rule requires a fund to classify each of its investments into one of four liquidity buckets using a “days to cash/days to sale” framework (depending on the bucket), generally on a monthly basis.

Liquidity bucketing in the US has been a costly compliance exercise that has not meaningfully contributed to understanding liquidity risk by funds, advisers, or the SEC. Informed by members’ careful and deliberate evaluation of their experiences, we have communicated our objections to the SEC’s bucketing scheme, as proposed in 2015 and adopted in 2016, on numerous occasions. The US bucketing exercise and its resulting output are highly subjective and variable, and bucketing output is forward-looking, hypothetical, and an overly-simplistic measure of a fund’s liquidity risk profile. These concerns would be greatly exacerbated if the SEC adopts amendments to this bucketing framework as proposed in 2022. Among other things, these amendments would severely and adversely affect funds and their investors by constraining portfolio management and compromising fund performance and investment operations.³²

We have no reason to believe that the global adoption of the FSB’s proposal, although different from the SEC’s approach, would fare any better. The rigid and disproportionate nature of FSB’s proposal and the lack of distinction between the outcomes make it highly likely that costs associated with the fund bucketing approach would outweigh any benefit to investors or the financial system.

³¹ Consultation at 14.

³² We describe the current US bucketing requirements and summarize our concerns with them—both in their current form and as the SEC has proposed to amend them—in more detail in Appendix D.

IV. The Presumption That the OEF Structure Creates and Amplifies Financial Stability Risk Is Unsubstantiated

The FSB presumes in the Consultation that potential dilution incentivizes “excess” redemptions, due to a purported first-mover advantage, and that such redemptions create and amplify financial stability risk.

ICI offers empirical analysis in Section IV.B below and the attached research appendices³³ to show that the OEF structure does not inherently create or amplify financial stability risk.

A. The Consultation lacks data

In the 2017 recommendations, the FSB identified liquidity mismatch in OEFs as a *potential* structural vulnerability.³⁴ The FSB theorized that during market stress, redemptions could increase, and OEFs’ asset sales to meet redemptions could increase market volatility and “interact with a decline in secondary market liquidity” thus creating “the potential for contagion across asset classes.”³⁵ At the same time, the FSB recognized that historically, non-money-market OEFs “have not generally created global financial stability concerns in recent periods of stress and heightened volatility...”³⁶

In the 2017 recommendations, the FSB also identified the theory of first-mover advantage as a *potential* vulnerability but recognized several countering factors, including: “investment strategy constraints on what assets a fund may sell; many investors’ long-term investment horizon and relatively firm investment allocations; application of liquidity management tools to address or mitigate first-mover effects; [and] fund operator fiduciary duty considerations.”³⁷ The FSB did not presume then that the OEF structure would pose financial stability risk, but rather recognized that “[t]here are a number of contingencies that would need to occur in OEFs to amplify risks to financial stability.”³⁸ Each of these contingencies would not just need to occur, but they each would need to be “significant.”³⁹ Ultimately, the FSB concluded that these risks were largely addressed by existing regulatory frameworks, but some “residual risks” could be mitigated through policy recommendations.⁴⁰

³³ Appendix A presents a summary of recent ICI research on first-mover advantage, dilution, and systemic risk in OEFs. Appendix B provides a description of the methodology ICI used to estimate dilution in fixed-income UCITS.

³⁴ 2017 FSB Recommendations at 11.

³⁵ *Id.*

³⁶ *Id.* at 11 and n.27, citing ICI analysis.

³⁷ *Id.* at 11-12.

³⁸ *Id.* at 12.

³⁹ *Id.*

⁴⁰ *Id.* at 14-15.

In support of the current Consultation, the FSB draws upon its 2022 Assessment to assert that the potential impact that can arise from structural liquidity mismatch in OEFs has grown. The FSB essentially bases this assessment on the observed growth in the OEF sector in absolute terms and the lower liquidity supply observed in stressed conditions.⁴¹ The FSB simultaneously notes that its 2022 “analysis is subject to a number of limitations and assumptions and therefore the results should be interpreted cautiously.”⁴² Regrettably, the public was unable to comment and identify flaws in the assumptions or methodology in the FSB’s data analyses in the 2022 Assessment, which was published without a consultation. In the current Consultation, the FSB does not quantify the amount of dilution in OEFs or empirically test the assumptions inherent in the FSB’s presumptions about the OEF structure. The FSB has also not undertaken an examination of the benefits OEFs bring to markets and economies.

Despite the FSB’s own warning of caution as noted above, certain elements of the current Consultation are neither cautious nor measured and not supported by empirical analysis. Without the benefit of such empirical analysis, the Consultation relies on unsubstantiated assumptions that first-mover advantage can strike every OEF and that all funds may generate dilution of a magnitude to trigger “excess” redemptions and cause financial instability.

B. ICI’s research shows that the OEF structure, and potential dilution, do not create or amplify financial stability risk

ICI conducted extensive empirical analysis across multiple large markets, as detailed in the attached research appendices, which shows that dilution can vary by type of fund, among funds of a given type, and with market conditions. On average, dilution is too small to incentivize the vast redemptions that policymakers hypothesize could trigger or amplify financial instability.

Our research demonstrates that for US-registered mutual funds, dilution for equity funds has been on average zero over the past 14 years and two basis points (at an annual rate) for taxable bond funds. Moreover, even during the stressed period of March 2020, dilution, though larger, was still too small to incentivize mass redemptions, even for bond mutual funds that focus primarily on high-yield debt.

To support our responses to the Consultation, ICI empirically analyzed dilution in fixed-income UCITS, and the results showed that dilution is on average quite small and were consistent with average dilution in US funds. Dilution for all fixed-income UCITS averaged 3 basis points per year from 2018 to 2022 and estimates for high-yield bond UCITS are about 9 basis points per year. As with the case of the US market, dilution estimates for fixed-income UCITS were somewhat higher in March 2020, but too small to have incentivized mass redemptions. For example, the total estimated dilution for high-yield bond UCITS for

⁴¹ FSB Assessment at 11-13.

⁴² Consultation at 6.

the entire month of March 2020 was between 3 and 38 basis points, depending upon the method used.⁴³

Context is critical to understand the potential impact of dilution on investor behavior. In all cases that we examined in both the US market and for fixed-income UCITS, our estimates for average dilution are vastly outweighed by daily variability in market returns and long-term returns that investors earn. Set against the backdrop of the sharp fall in market values in March 2020 (e.g., returns on high-yield bond UCITS fell 1,360 basis points, while those on US high-yield bond funds fell 1,230 basis points), estimated dilution would likely have been background noise for fund shareholders' investment decisions.

ICI's analysis challenges the notion that there is something about the OEF structure that generates a unique and strong incentive for first movers to redeem sharply.⁴⁴ The first-mover hypothesis as used in the Consultation implies that investors in OEFs and direct investors in stocks and bonds should behave differently during market downturns, since direct investors bear the full liquidity cost of selling securities and therefore cannot be incentivized by dilution. Thus, if the first-mover hypothesis as applied to OEFs is correct, mutual fund investors should react much more strongly to changes in market conditions than direct investors. However, this does not appear to be the case.

Analysis of the US market indicates that investors in mutual funds (indirect investors) and those in separately managed accounts (SMAs) (direct investors), react similarly to changes in market conditions. As one striking example, we estimate that percentage outflows from taxable bond mutual funds and separately managed fixed income accounts were nearly identical in March 2020.

ICI also examined US bond mutual funds' purchases and sales in March 2020 and found no evidence that these funds amplified market stresses during that month. These mutual funds did not sell an economically meaningful amount of high-yield bonds in March 2020 (accounting for only an estimated 19 of 557 basis points). Foreign investors, who directly owned their securities and bore their own liquidity costs, sold far more Treasury notes and bonds than US bond mutual funds.

In sum, ICI's research findings indicate that dilution is too small to incentivize widespread redemptions, even in stressed market conditions, and contradicts the assumption of a first-mover advantage. Direct investors respond virtually the same as mutual fund investors to market conditions. We found no evidence that OEFs are an inherent source of asset market stress amplification. In March 2020, mutual fund sales had negligible impact, while direct investors bearing their own liquidity costs had a greater impact. The FSB asserts that dilution incentivizes "excess" redemptions, due to a purported first-mover advantage, and that such

⁴³ See Appendix A for the full analysis.

⁴⁴ See Christof W. Stahel, *Strategic Complementarity among Investors with Overlapping Portfolios*, (working paper, May 1, 2022).

redemptions could create and amplify financial stability risk. The FSB does not attempt, however, to quantify the amount of dilution in OEFs or to empirically test the assumptions inherent to the premise.

V. Existing Legal Frameworks for OEFs Protect Investors and the Financial System

The FSB's 2017 Recommendations acknowledged that existing OEF legal frameworks support liquidity management and mitigate liquidity risk, finding the frameworks help mitigate any potential vulnerabilities.⁴⁵ In its 2022 Assessment of the 2017 Recommendations, the FSB found a high degree of implementation in the legal frameworks of the assessed jurisdictions and among the practices of surveyed OEFs.⁴⁶ We provide background on OEF practices and legal frameworks below to reinforce how the FSB's revisions to its 2017 Recommendations can support these frameworks, which have protected investors and the financial system, including through stressed market conditions.

A. Managing OEF redemptions requires sound liquidity risk management practices

Liquidity risk management of an OEF requires consideration of several factors, including the fund's objectives and investment strategy, the liquidity of its portfolio investments, portfolio characteristics (*e.g.*, degree of concentration and large positions), investor flows and redemption history (in normal and reasonably foreseeable stressed conditions), characteristics of its shareholder base, fund liabilities, and available liquidity tools.

Mindful of these factors, fund managers then must manage liquidity risk. First and foremost, liquidity risk management is ingrained in product design, portfolio construction, and security selection. When such risk is elevated, funds may use mitigants such as highly liquid asset allocations, lines of credit, and interfund lending arrangements. Anti-dilution LMTs may be used too, but they are only a sub-set of LMTs (broadly understood), and an even smaller sub-set of liquidity risk management practices more generally.

B. Legal frameworks buttress OEFs' liquidity risk management practices

The general principles of OEF liquidity risk management largely already have been codified in legal frameworks around the globe. We provide details below on the US and EU liquidity frameworks as important examples but do not suggest that either ought to be a global model. In fact, we strongly recommend against pursuing the SEC approach to liquidity bucketing,

⁴⁵ See 2017 Recommendations at 11. In stark contrast, the underlying methodology the FSB uses to assess liquidity risks in non-bank financial intermediation (NBFIs), including the OEF sector, explicitly ignores existing regulatory frameworks. FSB, *Global Monitoring Report on Non-Bank Financial Intermediation* (December 20, 2022) at 32 ("Authorities classify entities [for the narrow measure of NBFI] on a pre-mitigant basis – that is, authorities assume a scenario in which policy measures have not been adopted or risk management tools are not exercised.")

⁴⁶ See FSB Assessment at 46-49.

which has generated significant costs without clear benefits.⁴⁷ Rather, we are illustrating that regulators have recognized and focused intensely on the importance of liquidity risk management, establishing and enhancing legal frameworks in recent years.⁴⁸

Prudent liquidity risk management must be multi-faceted and take into account fund specific factors. In the US alone, the OEF sector to which the SEC's rules apply is large and diverse, currently consisting of over 8,600 long-term mutual funds and about 3,100 ETFs.⁴⁹ Similarly for Europe, the number of UCITS totals about 35,300 funds.⁵⁰ As the FSB recognizes, liquidity risk management practically should not be governed by "one-size-fits-all" rules or standards.

As an illustration, the liquidity risk management rule adopted by the US SEC in 2016⁵¹ requires US OEFs to:

- Adopt and implement a written liquidity risk management program, administered by a liquidity program administrator, under which the fund must assess, manage, and periodically review its liquidity risk.
- Classify each portfolio investment into one of four liquidity "buckets" at least monthly.
- Determine and maintain a minimum amount of its portfolio in "highly liquid investments" (an HLIM).
- Limit illiquid investments to 15% of net assets.

The SEC also requires that the liquidity risk management program be subject to continued board oversight.

Reporting and disclosure requirements complement the SEC's liquidity rule. Most notably, US OEFs must report to the SEC investment-specific bucketing information each month and must promptly report if a fund breaches the 15% illiquid investments limit or its HLIM (if applicable).

In the US, in addition to this liquidity risk management framework, OEFs are subject to many other legal requirements, which include:

⁴⁷ We discuss our serious objections to the SEC's current and proposed "bucketing" requirements in more detail in Section III above and Appendix D.

⁴⁸ In 2022, the FSB found many jurisdictions enhanced their regulatory frameworks since 2017. Specifically, thirteen of sixteen jurisdictions that the FSB surveyed widened the availability of LMTs for OEFs. The three did not do so already permitted a wide range of LMTs prior to 2017. *See* FSB Assessment at 48-49.

⁴⁹ Source: Morningstar. Data as at June 2023.

⁵⁰ *See* EFAMA, *Quarterly Statistical Report Q1 2023*.

⁵¹ Rule 22e-4 under the Investment Company Act of 1940 (the "US liquidity rule").

- Daily valuation requirements, under which a fund must value each of its portfolio investments every business day to calculate its daily net asset value (NAV). A fund then uses its NAV to process daily purchases and redemptions by fund shareholders.
- Various requirements related to capital structure, borrowing, and derivatives usage, which greatly minimize the possibility that a fund's liabilities will exceed the value of its assets.
- Ongoing oversight by independent boards of directors and a chief compliance officer, who administers a written compliance program reasonably designed to prevent violations of the federal securities laws.
- Both tax and securities laws' diversification standards.
- Extensive disclosure and reporting requirements, which requires the OEF to update its registration statement annually, provide semi-annual shareholder reports (an independent accountant must audit the financial statements included in the annual report), and make monthly Form N-PORT filings that include a complete list of the fund's portfolio investments and other information.

Funds in the EU (UCITS) are also subject to specific liquidity risk management requirements.⁵² UCITS managers are required to:

- Formulate forecasts and perform analyses concerning each investment's contribution to the UCITS portfolio composition, liquidity, and risk and reward profile prior to investment.
- Have in place procedures that enable the management company to assess the exposure of managed UCITS to market, liquidity, and counterparty risks.
- Periodically assess and review the effectiveness of their risk management policies, notifying National Competent Authorities (NCAs) of any material changes.
- Conduct tests at least annually that enable assessment of the liquidity risk of each managed UCITS under exceptional circumstances.

Additionally, UCITS are subject to a very detailed legal framework that includes:

- Oversight requirements, under which managers must be located in the EU and are required to perform functions such as valuation and pricing, regulatory compliance monitoring, share issuances and redemptions, and marketing.

⁵² See Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009, on the Coordination of Laws, Regulations, and Administrative Provisions Relating to Undertakings for Collective Investment in Transferable Securities (UCITS), as amended (UCITS Directive) at Article 84(1); Directive 2010/43/EU of 1 July 2010 (Implementing UCITS Directive) at Articles 23(4), 38(1), and ESMA, *Final Report: Guidelines on Liquidity Stress Testing in UCITS and AIFs* (September 2, 2019).

- Eligibility rules, whereby UCITS must invest 90 percent of their assets in “transferable securities” (*i.e.*, company shares and equivalents, bonds and other securitized debt, negotiable securities that carry the right to acquire any such transferable securities by subscription or exchange) and other liquid assets. The remaining 10 percent may be placed in money market funds (MMFs) or other transferable securities other than the above.
- Diversification requirements which require that no more than 10 percent of the UCITS net assets can be invested in securities or MMFs issued by the same entity, and the total value of the securities of issuers in which a UCITS has invested more than 5 percent of its assets must not exceed 40 percent of its assets.
- Disclosure requirements under which UCITS must make public the issue, sale, repurchase, or redemption price of its units each time it issues, sells, repurchases, or redeems them, and at least twice a month.

In January 2020, ESMA conducted an assessment of UCITS managers’ compliance with liquidity risk management obligations, finding that most UCITS managers have implemented and applied sound liquidity risk management processes.⁵³ ESMA also identified the risk as “low” that liquidity risk management could jeopardize the capacity to meet redemption requests or to honor other liabilities. Critically, ESMA found that there were a *very limited* number of UCITS with *potential* asset/liability mismatch risks.

C. Competition and business incentives further support dilution management

The FSB and IOSCO Consultations generally define dilution as the estimated costs of liquidity associated with fund subscriptions or redemptions⁵⁴ and the IOSCO Consultation indicates that these dilution costs are comprised of explicit and implicit transaction costs. Used in this way, dilution is a sub-set of overall fund transaction costs. For example, the US liquidity rule defines “liquidity risk” as “the risk that the fund could not meet requests to redeem shares issued by the fund *without significant dilution of remaining investors' interests in the fund.*”⁵⁵ Thus, managing potential dilution is expressly part of liquidity risk management for US OEFs. As fiduciaries, US investment advisers owe their clients (including funds) a duty of care, which includes the duty to seek best execution of a client’s transactions where the adviser has the responsibility to select broker-dealers to execute client

⁵³ See ESMA, Public Statement, [ESMA Presents the results of the 2020 Common Supervisory Action on UCITS liquidity management](#) (March 24, 2021) at 2.

⁵⁴ See, e.g., IOSCO Consultation at 7 (“This proposed guidance focuses on a subset of LMTs, referred to hereafter as anti-dilution LMTs, that aim to pass on the estimated costs of liquidity associated with fund subscriptions / redemptions to the subscribing / redeeming investors by adjusting the price at which they transact.”).

⁵⁵ Rule 22e-4(a)(11) under the Investment Company Act (emphasis added).

trades.⁵⁶ This requires an adviser to “periodically and systematically” evaluate the execution it is receiving for clients.

Even without express requirements, funds and advisers are incentivized to minimize potential dilution. Transaction costs, whether due to general portfolio reallocations or investor flows, are captured in fund performance. Funds compete fiercely on performance because it is a major consideration in fund selection by investors⁵⁷ and third parties. The more effectively an adviser minimizes transaction costs, the better the fund’s performance, the more attractive that fund will be to investors, and ultimately, the more successful that adviser will be.

As with liquidity risk more generally, however, the objective is to minimize as much as practicable—not eliminate—transaction costs and potential dilution. Transaction costs are part of investing generally, whether in an individual account or a pooled investment vehicle such as an OEF. In a pooled vehicle, transaction costs are mutualized, as are the shared benefits of greater diversification, economies of scale, professional portfolio management, and more efficient portfolio trading—these are all part of the bargain.

D. OEFs historically have managed liquidity successfully

OEFs have managed liquidity and met redemptions successfully while pursuing their investment objectives and strategies, including in stressed conditions such as March 2020. For instance, in 2022, US long-term mutual funds’ gross redemptions totaled \$5.6 trillion, or 25% of year-end 2021 assets for those funds.⁵⁸ Cases of funds failing to meet redemptions in the US are exceedingly rare. Indeed, the SEC did not grant exemptive orders permitting *any* long-term OEFs to suspend redemptions during the stressed markets of 2008 or 2020.

While suspensions are more common in the EU than in the US, only a very small percentage of UCITS suspended redemptions for a short period of time in March 2020.⁵⁹ These UCITS were generally dealing with idiosyncratic circumstances in their home jurisdictions, with the primary reason for suspensions being fund valuation concerns, not an inability to meet redemption requests.⁶⁰

⁵⁶ SEC, *Commission Interpretation Regarding Standard of Conduct for Investment Advisers*, SEC Release No. IA-5248 (June 5, 2019) at 19-20.

⁵⁷ Holden, Sarah, Michael Bogdan, and Daniel Schrass, “[What US Households Consider When They Select Mutual Funds, 2022](#)” ICI Research Perspective 29, no. 4 (April 2023) (finding that, in the US in 2022, 95 percent of mutual fund–owning households said that they reviewed the historical performance of a fund, with 45 percent indicating that a fund’s historical performance was very important when making their fund purchase decision).

⁵⁸ See generally ICI, *Trends in Mutual Fund Investing, December 2022* (January 30, 2023).

⁵⁹ See ICI, *Experiences of European Markets, UCITS, and European ETFs During the COVID-19 Crisis*, Report of the COVID-19 Market Impact Working Group (December 2020) at 32-33.

⁶⁰ See ESRB, *Recommendation of the European Systemic Risk Board (ESRB) on liquidity risk in investment funds* (November 12, 2020), at 30. Only 140 of 33,529 funds, 0.0041%, reported temporary suspensions. *Id.*

* * * * *

Conclusion

We appreciate your consideration of ICI Global's comments. If you have questions or would like to discuss our comments further, please contact me or Kirsten Robbins at +1-202-326-5800.

Sincerely,

/s/ Michael N Pedroni

Michael N. Pedroni
Chief Global Affairs Officer, ICI, and
Head of ICI Global

Appendix A

Summary of Recent ICI Research on First-Mover Advantage, Dilution, and Systemic Risk in Open-ended Funds

A.1 Introduction

Policymakers have frequently expressed concerns that there may be a structural vulnerability arising from a liquidity mismatch in open-end funds (OEFs) that could become a systemic risk. This concern is primarily based on the theory that there is a *first-mover advantage* in funds, which may cause investors to redeem heavily during a crisis to avoid dilution, and, in turn, could lead OEFs to “fire-sell” securities, thereby potentially amplifying stress throughout the financial system.

Given the critical importance of dilution as a motivating factor for the further policy work of both IOSCO and the FSB, it is worth defining, right from the outset, what we mean by dilution for the purposes of this technical appendix. Dilution occurs when fund investors buy or sell fund shares and the transaction costs of meeting those purchases or redemptions, such as bid-ask spreads or market impact costs from the fund having to buy or sell portfolio securities, are borne by non-transacting fund investors as a reduction in the fund’s return. However, dilution goes beyond a mere calculation of transactions costs. Importantly, any assessment of dilution needs to consider the effects of net flows to the fund. While a fund may transact in the marketplace, incurring, for example, the bid-ask spread or execution fees, a fund that simultaneously experiences zero net flows (*i.e.*, gross outflows are covered by gross inflows) cannot, given the above definition, have experienced any dilution since transactions costs do not relate to returning or receiving shareholder capital.

In this appendix, we provide a synopsis of academic and recent ICI research on topics directly related to first-mover advantage, dilution, and financial stability in OEFs, using data from US mutual funds, US separately managed accounts, and fixed-income UCITS (Section A.2). We show that:

- Estimated dilution among US mutual funds and fixed-income UCITS is too small, even during periods of financial stress, to be an incentive for the vast redemptions that regulators and academics posit (Section A.3);
- If the first-mover hypothesis as applied to OEFs is valid, OEF investors should react much more strongly to changes in market conditions than do direct investors, but that does not appear to be the case. In March 2020, investors who held bonds directly were just as likely to sell as those who held bonds indirectly through mutual funds (Section A.4); and
- Irrespective of potential dilution, US bond mutual funds’ portfolio transactions did not meaningfully amplify bond market stresses in March 2020 (Section A.5).

In short, the evidence is weak that dilution, first-mover advantage, or funds' portfolio transactions pose financial stability concerns.

A.2 The Academic Literature on Dilution and First-Mover Advantage Remains Divided¹

Direct evidence of a first-mover effect in the academic literature is lacking. Instead, studies tend to provide evidence that mutual fund flows track market returns (or fund returns). One study which is often cited as documenting a first-mover effect is Goldstein, Jiang, and Ng (2017).² The paper examines the relationship between monthly fund flows and performance and argues that the authors found evidence that bond fund “outflows are sensitive to bad performance more than their inflows are sensitive to good performance,” a so-called “concave performance-to-flow relationship.” Goldstein et al. (2017), however, does not claim to have found evidence of a first-mover advantage. Instead, as the paper’s abstract states, its findings “**may** [*emphasis added*] generate a first-mover advantage among investors in corporate bond funds,” leaving open the possibility that their results also **may not** imply a first-mover advantage.

Another study by Feroli, Kashyap, Schoenholtz, and Shin (2014)³ claims to have found evidence of a first-mover advantage in bond mutual funds. Research by Collins and Plantier (2014),⁴ however, challenges the findings in Feroli et al (2014). Collins and Plantier (2014) discuss the econometric identification problems in Feroli et al (2014) and show that the posited evidence of a first-mover advantage in their results vanishes once variables proxying for changes in monetary policy are introduced into the analysis.

Choi, Kronlund, and Oh (2022) argues that stale NAV pricing in bond mutual funds creates an opportunity for fast-moving investors to redeem from overvalued funds, exacerbating the risk of fund runs, diluting returns of buy-and-hold investors.⁵ The paper finds some dilution, but it varies across fund type, and is quite modest even for less liquid funds.

In addition, Woodlaw (2020) calls into question much of the existing literature on dilution and flow-induced sales.⁶ This paper shows that many papers on asset fire sales and price pressures

¹ An annotated bibliography outlining the often-cited academic literature and alternative views can be found at www.ici.org/system/files/2023-05/23-fund-liquidity-dynamics-bibliography.pdf.

² “Investor flows and fragility in corporate bond funds,” *Journal of Financial Economics*, 126(3):592–613.

³ “Market Tantrums and Monetary Policy,” Chicago Booth Research Paper no.14-09.

⁴ “Are Bond Mutual Fund Flows Destabilizing? Examining the Evidence from the Taper Tantrum.”

⁵ “Sitting bucks: Stale pricing in fixed income funds,” *Journal of Financial Economics*, 145(2): 296-317.

⁶ “Measuring Mutual Fund Flow Pressure as Shock to Stock Returns,” *Journal of Financial Economics* 75(6): 3221-3243.

suffer from a design flaw in that price pressures attributed to funds' portfolio sales are due to fundamental market pressures for which those other studies failed to account. Further, proxies for funds' forced sales do not capture actual sales or market fundamentals. Once these problems are corrected for, Woodlaw (2020) finds no evidence of a link between funds' portfolio sales and price pressures.

A.3 Empirically Estimated Dilution Is Far Too Small to Motivate Mass Redemptions

ICI has long disputed the first-mover hypothesis for two reasons. First, the theoretical models that produce this result do not consider real world factors such as taxes, reinvestment risk, long investment horizons, and other features that undoubtedly influence investor behavior and can make redeeming less appealing.⁷ Second, for the first-mover hypothesis to be credible, dilution must be highly predictable, immediately visible, and so substantive that it provides an incentive for investors to redeem to try to avoid dilution. If dilution is economically small, there is little cost to investors remaining in funds, and, indeed, the costs to investors of redeeming could far exceed anticipated dilution. Finally, any assessment of the magnitude of dilution needs to go beyond a calculation of transactions costs to also include the impact of net flows to the fund. As mentioned previously, a fund that experiences zero net flow cannot have experienced dilution.

To provide an evidential base, we estimate average dilution for various types of US mutual funds and for fixed-income UCITS using two prominent approaches from the academic literature, Zitzewitz (2003) and Choi et al. (2022),⁸ and a third approach developed by ICI research staff.⁹ Net flows to the fund are a key component in all three approaches.

Overall, we estimate that daily dilution for US mutual funds and for fixed-income UCITS is on average too small to motivate the heavy redemptions that the first-mover hypothesis envisions. Estimated dilution is typically in the order of tenths or hundredths of a basis point and a few basis points per day during periods of stress for certain types of funds.¹⁰ The daily estimates accumulate to higher levels at an annual rate, but they are still quite small.

⁷ See Sean Collins, "[First-Mover Advantage: The Theory Is Only as Good as its Assumptions.](#)" *ICI Viewpoints*, June 7, 2023.

⁸ See Zitzewitz (2003), "Who Cares about Shareholders? Arbitrage-Proofing Mutual Funds," *Journal of Law and Economics*, October, 19(2), 245-280; Choi, Kronlund, and Oh (2022), "Sitting bucks: Stale pricing in fixed income funds," *Journal of Financial Economics*, 145, 296–317.

⁹ For a description of the internal ICI methodology, see Appendix B. This methodology is used in the estimation of dilution of UCITS fixed-income funds only. Due to data and time limitations, the current UCITS analysis is focused on fixed-income only.

¹⁰ We emphasize that these are estimates of fund dilution. In our analysis, a positive number for estimated dilution suggests redeeming investors may be gaining at the expense of non-redeeming investors. Negative dilution estimates
footnote continued on the next page

For example, for US core bond mutual funds, estimated dilution ranges from 0.2 to 2 basis points at an annual rate.¹¹ Estimates for high-yield bond mutual funds and municipal bond mutual funds, which some regulators and academics have characterized as “illiquid”, are still quite marginal, average 3 to 6 basis points and 0.4 to 4 basis points at an annual rate, respectively (Figure 1a).

Estimates for fixed-income UCITS funds tell a similar story. The estimated annual rate of dilution for fixed-income UCITS funds is between 0.5 and 3.4 basis points. Estimates for high-yield UCITS funds are similarly small, ranging from 1.3 to 9.4 basis points per annum (Figure 1b).¹²

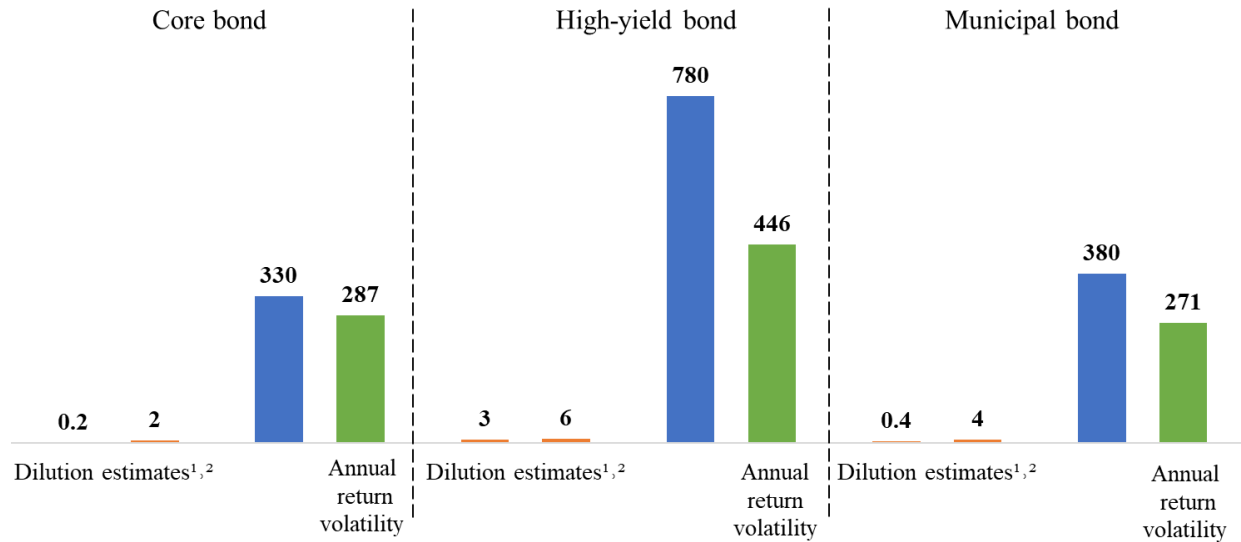
It seems quite unlikely that such levels of dilution could motivate investors to redeem heavily. Although dilution estimates can vary across individual funds and day-to-day for a given fund, any potential dilution must be set in context. As seen in Figure 1a and 1b, the dilution estimates are miniscule compared to annual returns on these funds and the average annual variability of fund returns. Consequently, the most salient pricing signals investors are likely to base their decisions on are broad changes in market returns and volatility.

indicate that redeeming investors would have been better off not redeeming today because the fund’s net asset value rose in coming days.

¹¹ We define core bond mutual funds as those funds classified under ICI’s investment grade and multisector bond mutual fund categories. In aggregate, core bond mutual funds invest a significant majority of their assets in investment grade debt, of which US Treasuries and agencies are their largest holdings. Investment grade corporate debt accounts for less than 30 percent of their overall assets. See Figure 4 in Shelly Antoniewicz and Sean Collins, [“Policymakers Need to Focus on Economic Fundamentals and Not Blame Bond Mutual Funds: Examining the Evidence of Investment Grade Corporate Bond Yield Spreads in March 2020,”](#) ICI Viewpoints (July 2022).

¹² Swing pricing is a well-established liquidity management tool used regularly by some UCITS in some jurisdictions, and many ICI Global members use it as a way to mitigate the effects of investors’ redemptions on remaining investors. But the effectiveness cannot be quantified from our results. For example, it would be inappropriate to assume that dilution estimates should be lower for UCITS (which often use swing pricing) than for US funds (which do not currently use swing pricing). Although we use similar methodologies to estimate dilution for UCITS and US funds, owing to differences in the availability of data from Morningstar, our estimates for the US and UCITS use different sample periods, have differing levels of fund coverage, and use fund categories that can be dissimilar. For example, high-yield UCITS focus importantly on emerging market debt, whereas high-yield US bond mutual funds focus more predominantly on US debt, and this may affect dilution estimates. Moreover, funds, whether UCITS or US funds, may use a range of approaches to manage dilution. For instance, UCITS have available a range of tools besides swing pricing that they may use to help manage dilution. In the US, where, for operational reasons, swing pricing is currently not feasible, US funds can adjust by managing liquidity to address dilution if it is economically material.

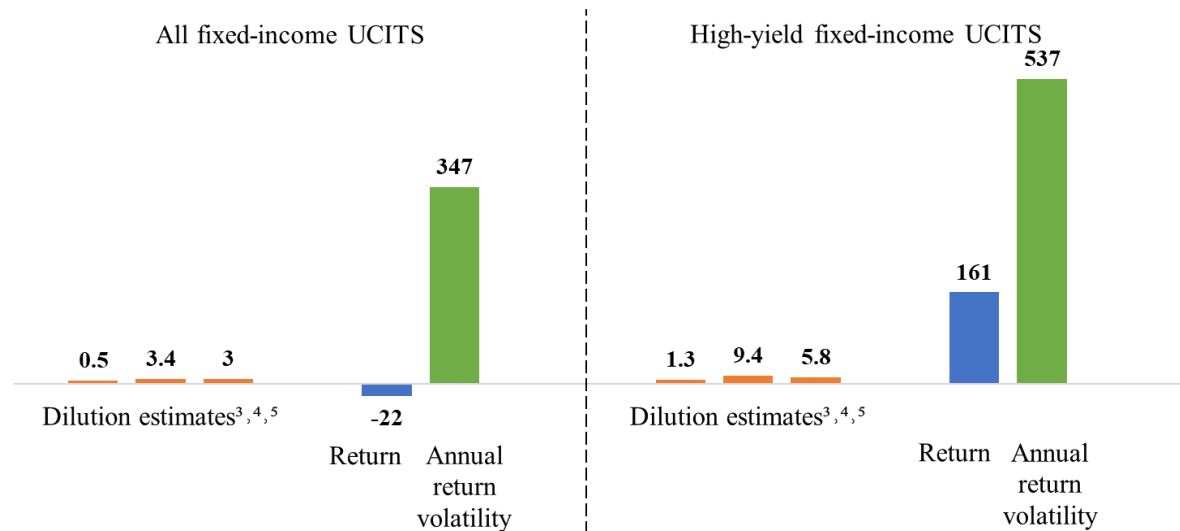
Figure 1a
Hard to See that Dilution Is a Factor Motivating Investors to Redeem from US Bond Mutual Funds...
 Annual average in basis points, 2009 to 2022



¹ Left dilution bar represents ICI estimate for US bond funds based on model from Zitzewitz (2003).

² Right dilution bar represents ICI estimate for US bond funds based on model from Choi, Kronlund, and Oh (2022).

Figure 1b
... and also for Fixed-Income UCITS
 Annual average in basis points, 2018 to 2022



³ Left dilution bar: ICI estimate for fixed-income UCITS based on model from Zitzewitz (2003).

⁴ Middle dilution bar: ICI estimate for fixed-income UCITS based on model from Choi, Kronlund, and Oh (2022).

⁵ Right dilution bar: ICI estimate for fixed-income UCITS based on internal ICI model (see appendix B for a description).

Sources: ICI calculations based on Morningstar and Refinitiv data

Of course, investors could be more concerned about dilution during periods of market stress. To assess this, ICI estimated daily dilution for US bond mutual funds and fixed-income UCITS for each day in March 2020, a period of broad market stress stemming from pandemic-related developments.¹³

For US mutual funds, as seen in Figure 2a below, even in March 2020, estimated dilution was small. It is most sizable for high-yield and municipal bond funds, but even then, with ranges only from 1 to 5 basis points per day depending on the model used. For fixed-income UCITS (top left panel of Figure 2b), estimated dilution is also small, with ranges between 0-1 basis point(s), depending on the model used. In fact, on only five days in March 2020 did estimated dilution rise slightly above 1 basis point. As might be expected, high-yield UCITS experienced higher estimated daily dilution (between 1-7 basis points depending on the model), but given the stresses in March 2020, that still seems relatively small (top right panel of Figure 2b).

Given the small size of estimated dilution, it is natural to ask, “Was dilution of a magnitude to really factor into fund investors’ decisions to redeem during that time?” A comparative analysis of price volatility and overall market return provides unique insights to this question.

For both US mutual funds and fixed-income UCITS, the effect of estimated daily dilution is swamped by both market volatility and returns.¹⁴ For example, for US high-yield bond mutual funds, the highest day of estimated dilution in March 2020 might be about 5 basis points (depending on the model used), but high-yield returns on average varied *daily* by 150 basis points that month. A similar story also unfolds for high-yield UCITS in March 2020. Estimated dilution peaks at 5 basis points on one day, but that same day (March 16), high-yield bond prices fell nearly 400 basis points.

In other words, daily returns varied 23 to 150 times more than the dilution estimates, suggesting that fund investors, like all other investors, whether in pooled investment vehicles or not, were likely focusing on the steep losses on bonds and the spikes in bond return volatility stemming from a rapid deterioration in global macroeconomic conditions, and not any potential dilution.¹⁵

¹³ See Shelly Antoniewicz, Sean Collins, and Hammad Qureshi, “[Setting the Record Straight on Dilution, First-Mover Advantage, and Financial Stability Risk](#),” *ICI Viewpoints*, June 5, 2023.

¹⁴ This point is clearly illustrated in the bottom two panels of Figure 2b. In these panels the daily return of a fixed-income index and high-yield index are charted with the daily estimated dilution results. Daily returns far outweigh any dilution results by order of magnitudes.

¹⁵ See “[The Impact of COVID-19 on Economies and Financial Markets](#),” Investment Company Institute, October 2020.

Figure 2a
Estimated Daily Dilution for Selected Types of US Mutual Funds in March 2020
 Basis points

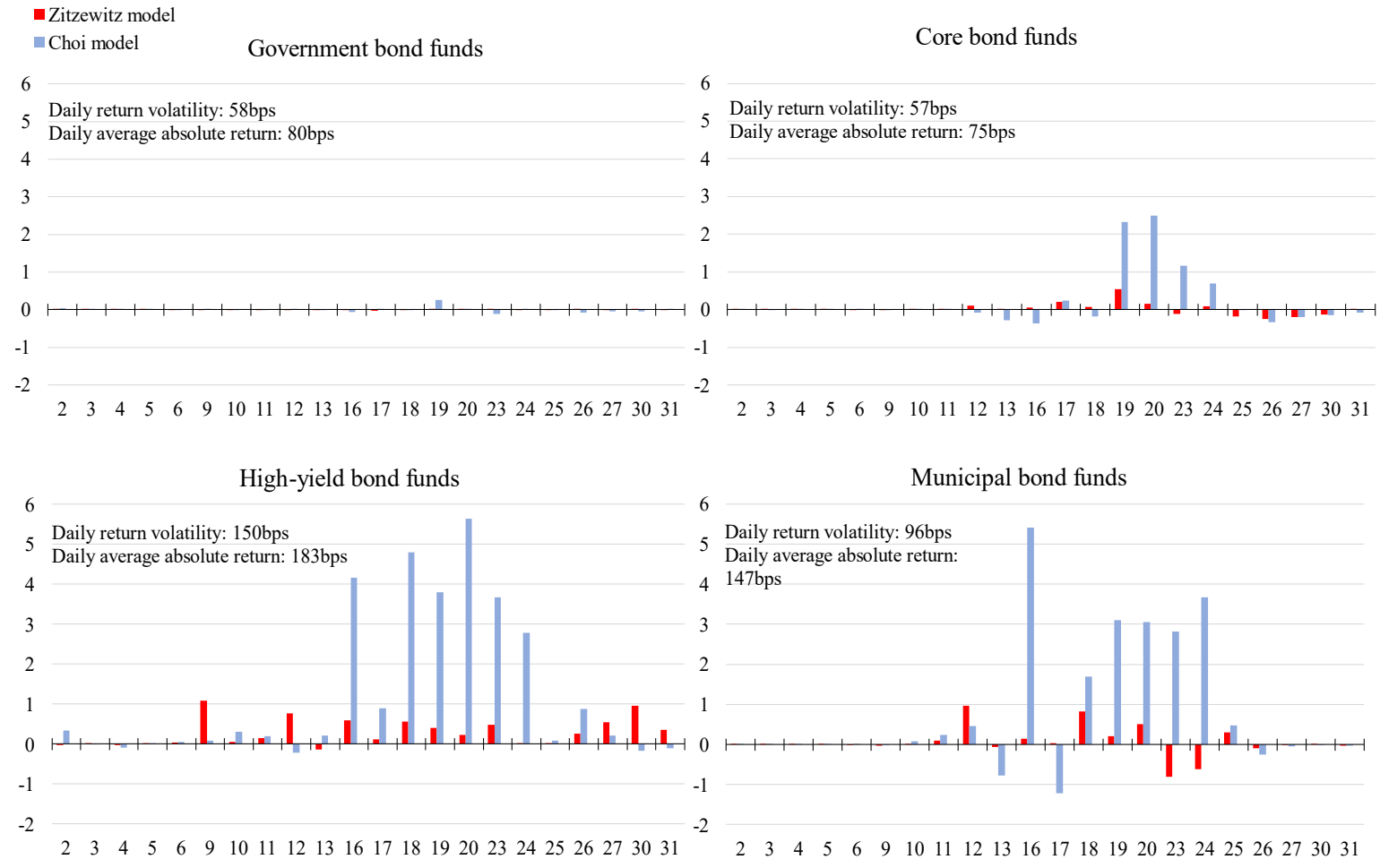
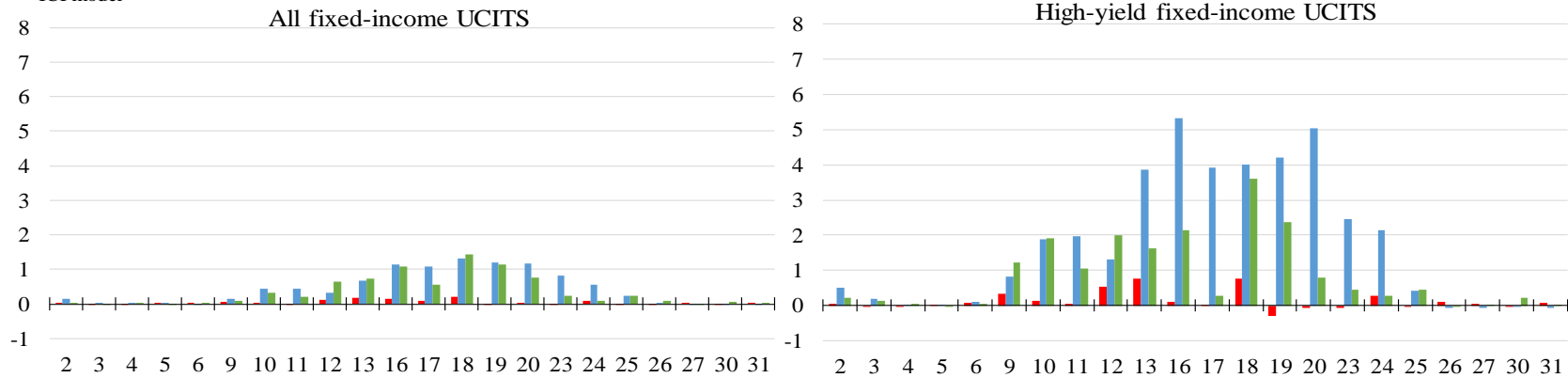


Figure 2b
Estimated Daily Dilution for Selected Types of Fixed Income UCITS in March 2020

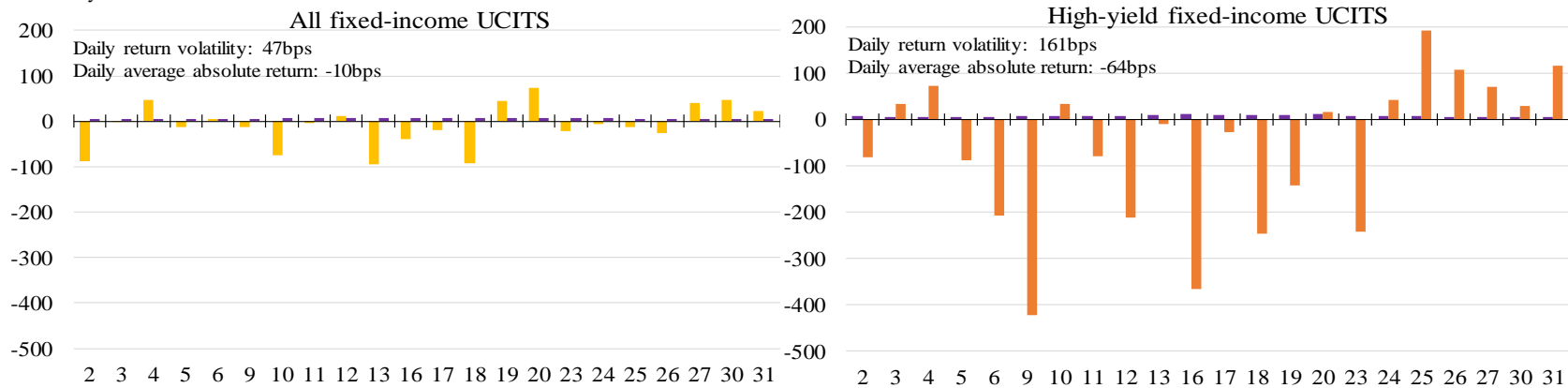
Estimated dilution, bps, daily, March 2020

- Zitzewitz model
- Choi model
- ICI model



Estimated dilution compared to returns, bps, daily, March 2020

- Bloomberg Global Aggregate Total Return Index (expressed in euros) returns
- Bloomberg Global High Yield Total Return Index (expressed in euros) returns
- Daily maximum dilution across models*



*Calculated as the maximum daily value of either Zitzewitz, Choi, and ICI models.
 Sources: ICI calculations of Morningstar and Refinitiv data.

A.4 The OEF Structure is Not an Incentive for OEF Investors to Behave Uniquely

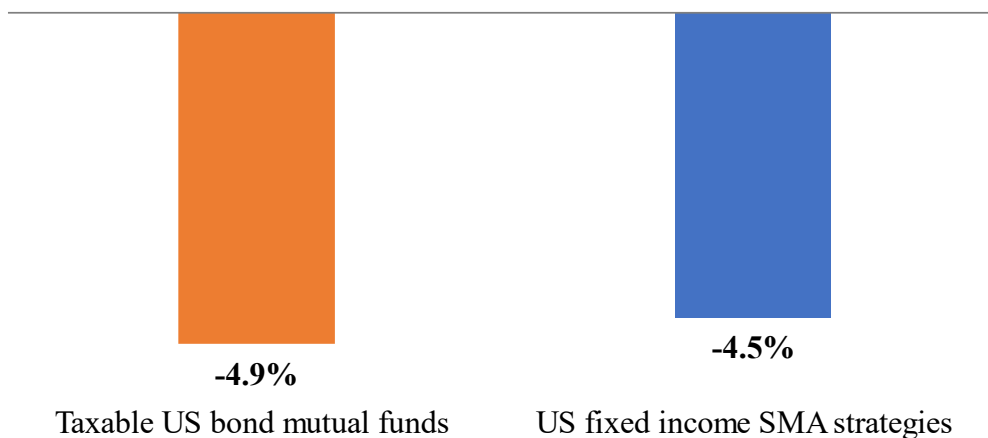
In addition, new research challenges the theory that there is something about the structure of OEFs that generates a unique and strong incentive for fund investors to redeem heavily when asset prices are tumbling.

Academic theory asserting a first-mover advantage unique to OEFs implies that investors in OEFs and direct investors in stocks and bonds should behave differently during market downturns. The first-mover hypothesis, being the assumed motivation of results in often-cited academic literature, asserts that the shared liquidity of investors in OEFs creates an incentive for fund investors to redeem heavily during market downturns since liquidity costs are absorbed by the remaining fund investors. But direct investors have no such incentive because they bear the full liquidity cost of selling securities. Thus, if the first-mover hypothesis as applied to OEFs is correct, fund investors should react much more strongly to changes in market conditions than do direct investors.

Figure 3

If the First-Mover Hypothesis Is Correct, Bond OEF Investors Should React Much More Strongly to Market Changes than Do Direct Investors in Bonds—But that Doesn't Appear to Be True

Outflows as a percentage of net assets, March 2020



Sources: ICI calculations of ICI and Morningstar Direct data

That does not appear to be the case, however. Stahel (2022) suggests that OEF investors and direct owners react similarly to changes in market conditions.¹ The author reports that the so-

¹ See Christof W. Stahel (2022), "[Strategic Complementarity among Investors with Overlapping Portfolios](#)," working paper, Investment Company Institute.

called “concave performance-flow” relationship (*i.e.*, flows react more strongly to price declines than they do for price increases), which some academics have argued is evidence of a first-mover advantage in bond OEFs, is also found in performance and flow data in the US for fixed-income separately managed accounts (SMAs). SMAs are accounts in which investors directly own portfolios of securities and thus bear the full liquidity costs of selling. As one striking example, we estimate that percentage outflows from taxable bond mutual funds and fixed income SMAs in the US were nearly identical in March 2020 (Figure 3), 4.9 percent versus 4.5 percent, respectively.²

A.5 No Evidence that US Mutual Funds Amplified Bond Market Stresses in March 2020

Some policymakers have repeatedly voiced concerns that during a market downturn a first-mover advantage might cause OEFs to fire-sell assets, amplifying liquidity strains and transmitting shocks through the financial system. However, such policymakers typically provide no hard evidence to support these claims. Some of these policymakers vaguely cite the so-called “dash for cash” during March 2020 as evidence, claiming that US mutual funds were among the largest recorded sellers of Treasuries during that period.

ICI has documented hard evidence that should allay concerns about OEFs amplifying liquidity strains.³ We collected from bond mutual funds in the US their actual daily portfolio purchases and sales during March 2020⁴ and found no evidence that bond mutual funds significantly amplified market stresses during that tumultuous month.

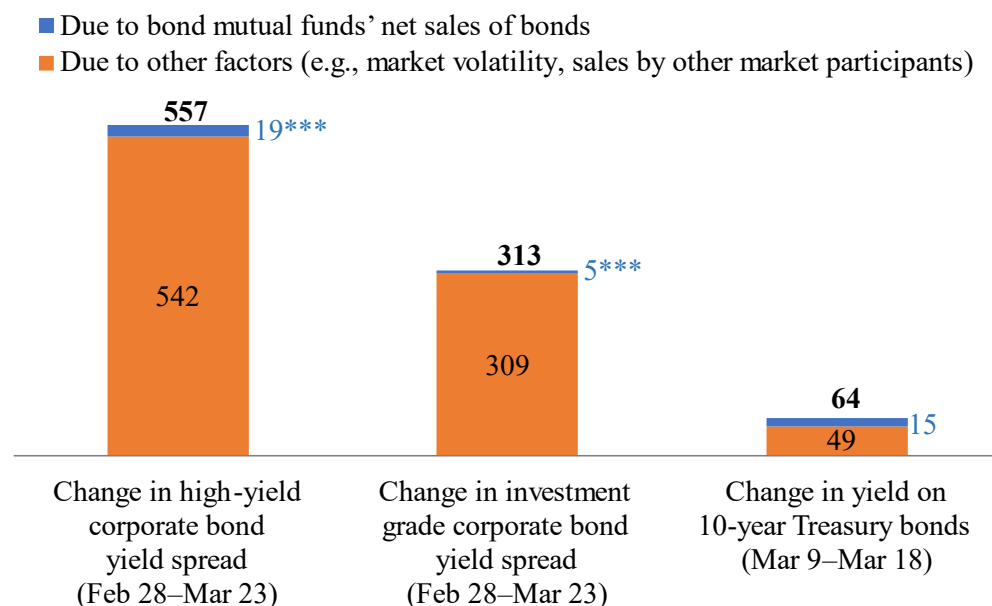
² Although some might be tempted to argue that the modestly higher outflows from bond mutual funds compared to fixed income SMAs in Figure 3 are evidence of a first-mover incentive in mutual funds, that would be incorrect. Stahel (2022) formally tests whether investors in mutual funds behave differently (*e.g.*, redeem more heavily) than investors in comparable SMAs. Stahel’s results show there is no statistical difference between mutual fund investors’ responses and those of SMA investors. In other words, the differences in Figure 3 are within statistical margins of error. This implies that any difference in aggregated outflows shown in Figure 3 is attributable to other factors, such as sampling error arising from variations in data sources, data definitions, breadth of data coverage, and other data related issues, rather than from fund investor behavior.

³ See Shelly Antoniewicz and Sean Collins, “[Setting the Record Straight on Bond Mutual Funds’ Sales of Treasuries](#),” ICI Viewpoints, February 24, 2022; Shelly Antoniewicz and Sean Collins, “[Policymakers Say Bond Mutual Funds Contributed Significantly to Treasury Market Stress but...](#),” ICI Viewpoints, March 24, 2022; Sean Collins and Shelly Antoniewicz, “[Policymakers Need to Focus on Economic Fundamentals and Not Blame Bond Mutual Funds: Examining the Evidence of Investment Grade Corporate Bond Yield Spreads in March 2020](#),” ICI Viewpoints, July 6, 2022; Sean Collins and Shelly Antoniewicz, “[Core Bond Mutual Funds Had Little Impact on the Investment Grade Corporate Bond Market](#),” ICI Viewpoints, August 4, 2022.

⁴ See Shelly Antoniewicz and Sean Collins, “[ICI Bond Mutual Fund Survey Brings Facts to the Debate](#),” ICI Viewpoints, February 24, 2022.

Policymakers frequently cite certain academic studies as suggesting that mutual funds’ sales of portfolio securities amplify stresses in financial markets. These studies typically provide evidence that selling by mutual funds has a *statistically* significant effect on market prices (or yields), but upon closer examination those effects are not *economically* meaningful.⁵ In addition, these studies do not have data on funds’ actual sales of bonds. Instead, the authors attempt to infer funds’ bond sales from funds’ month- or quarter-end holdings, fund returns, and estimated fund flows—all of which could introduce imprecision into their analyses.

Figure 4
Mutual Funds’ Net Sales of Bonds in March 2020 Had Little Effect on US Bond Markets
 Change in yield spread (high-yield and investment grade) or change in yield (Treasury)
 Basis points



*** indicates that the influence of bond funds’ net sales of high-yield and investment grade corporate bonds are statistically significant at the 1 percent level. In the regression for the 10-year Treasury bond, the influence of bond funds’ net sales of Treasury bonds is not statistically significant.

Note: In the figure, the heights of the bars for high-yield and investment grade bonds are changes in yield spread. For high-yield bonds, the yield spread is the difference between the ICE BofA US High-Yield Index yield and the yield on 7-year Treasury bonds from February 28, 2020, to March 23, 2020. Bond mutual funds sold \$11 billion on net in high-yield bonds over the period. For investment grade corporate bonds, the yield spread is the difference between the yield on the ICE BofA BBB US Corporate Index and the yield on 10-year Treasury bonds from

⁵ See LRM Comment Letter, Appendix A at 33 to 35 for a detailed discussion on the lack of economic significance in the results reported in several research papers recently cited by the Securities and Exchange Commission. These papers include Coval and Stafford (2007), “Asset fire sales and purchases) in equity markets,” *Journal of Financial Economics*, 86, 479–512; Yiming Ma, Kairong Xiao, and Yao Zeng (2022), “Mutual fund liquidity transformation and reverse flight to liquidity,” *The Review of Financial Studies*; and Haddad, Moreira, and Muir (2021) “When Selling Becomes Viral: Disruptions in Debt Markets in the COVID-19 Crisis and the Fed’s Response,” *The Review of Financial Studies*, 34, 5309–5351.

February 28, 2020, to March 23, 2020. Bond mutual funds sold \$10 billion on net in investment grade corporate bonds over the period. For Treasury bonds, the height of the bar is the change in the yield on US Treasury securities at 10-year constant maturity from March 9, 2020, to March 18, 2020—the period when the Treasury market was dislocated. Bond mutual funds sold \$62 billion in Treasury notes and bonds over the period.

Sources: ICI calculations of ICI bond mutual fund survey, Refinitiv, TRACE, and Federal Reserve Bank of St. Louis FRED data

To more precisely analyze whether bond mutual funds had a significant impact on the bond markets during March 2020, we estimated the contribution of their *actual* daily net sales of bonds on the increase in high-yield and investment-grade corporate credit spreads and the increase in the yield on the 10-year Treasury bond.

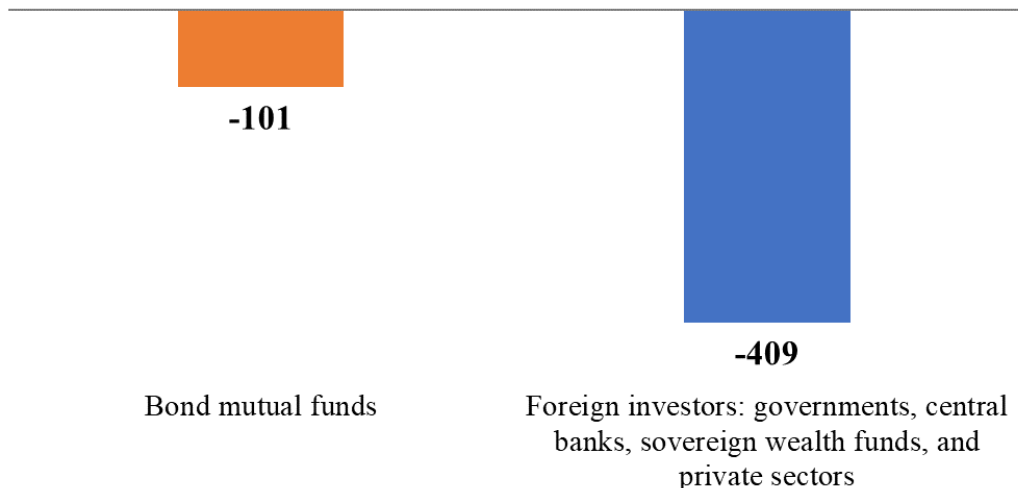
We find that, while there is a *statistically* significant effect of mutual funds' net sales of high-yield bonds on their yield spreads to Treasuries,⁶ the *economic* effect in March 2020 was very small. The \$11 billion in high-yield bonds that bond mutual funds sold on net from February 28 to March 23, 2020, accounted for only an estimated 19 basis points of the 557 basis point increase in high-yield credit spreads over the same period (Figure 4).

In addition, foreign investors—which includes non-US banks, foreign central banks, sovereign wealth funds, and others—sold far more Treasury notes and bonds in March 2020 (an estimated \$409 billion) than did US bond mutual funds. These foreign investors sold heavily despite owning their securities directly and thus having to bear their own liquidity costs.

⁶ See LRM Comment Letter, Supplemental Appendix on Asset Market Stress Amplification, Figure A3.1 for the detailed results of the regression models estimating the relationship between the change in high-yield and investment grade credit spreads/Treasury yields and mutual funds' net purchases/sales of these securities.

Figure 5
Foreign Investors Sold Four Times More Treasuries Than US Bond Mutual Funds

Net sales of Treasury notes and bonds, billions of dollars, March 2020



Sources: ICI calculations of ICI bond mutual fund survey and Weiss (2022)⁷

A.6 Conclusion

The empirical evidence presented in this appendix raises serious doubts about the validity of the first-mover advantage and stress amplification hypotheses underpinning some policymakers' perception of the behavior of OEF investors.

ICI's work on estimating dilution in US mutual funds and in fixed-income UCITS shows that even during stressed markets dilution is economically too small to credibly motivate investors to redeem heavily. Other research by ICI shows that investors who hold fixed-income securities directly respond virtually the same as bond mutual fund investors when there is a downturn in the market. Such evidence legitimately contests the theory that mutual funds' pooled structure creates a unique first-mover incentive. Taken together, this seriously calls into question the cogency of the first-mover theory as applied to OEFs.

Also, ICI's analysis showing that bond mutual's net sales during March 2020 had a negligible impact on the corporate bond and Treasury markets in the United States disputes the theory that OEFs are an inherent source of asset market stress amplification.

⁷ See Colin R. Weiss, "Foreign Demand for US Treasury Securities During the Pandemic," FEDS Notes, Federal Reserve Board (January 28, 2022).

Appendix B

Description of ICI Methodology used to Estimate Dilution in UCITS Funds

B.1 Introduction

This appendix outlines ICI's method for calculating dilution in fixed-income UCITS. It differs from the two other methods (Zitzewitz, 2003, and Choi et al. 2022) used to estimate dilution presented in appendix A.¹ More detail is available upon request.

B.2 Dilution of Long-term Mutual Funds

This approach defines dilution as the loss to a fund's remaining or current shareholders if redeeming shareholders receive a NAV that is above the fundamental value of a share, or purchasing shareholders pay a NAV that is below the fundamental value of a share.

We compute daily dilution for a given fund as daily per-share dilution times the number of shares redeemed or newly issued on that day. To estimate per-share dilution, we identify for each UCITS a daily "benchmark" ETF within the same investment objective that matches the characteristics of the UCITS (portfolio allocations and return characteristics) as closely as possible. The per-share dilution estimate of the UCITS is taken to be the ratio of the benchmark ETF's closing secondary market price (adjusted for ETF secondary market liquidity) to the ETF's NAV.² In effect, this approach assumes that the per-share ratio of closing price to NAV of the benchmark ETF is an unbiased estimate of the corresponding per-share ratio of fundamental value to NAV of the matched UCITS.

B.3 Data

We collect from Morningstar daily data for the period January 2018–December 2022 flows, total net assets, and returns for all UCITS classified as "Fixed Income."³ We also collect for each UCITS ETF its daily flows, NAV, closing secondary market price, and bid and ask prices.⁴

We match each (non-ETF) UCITS with a benchmark UCITS ETF. This match is performed anew for each day in the sample, meaning that the benchmark ETF for a given (non-ETF) UCITS can change daily. The estimated daily fixed-income UCITS fund dilution is then the

¹ See Zitzewitz (2003), "Who Cares about Shareholders? Arbitrage-Proofing Mutual Funds," *Journal of Law and Economics*, October, 19(2), 245-280; Choi, Kronlund, and Oh (2022), "Sitting bucks: Stale pricing in fixed income funds," *Journal of Financial Economics*, 145, 296–317.

² Since an ETF's closing price generally differs from its true value by a liquidity component, we adjust the closing price by half the market's bid-ask spread at the close.

³ Our decision to limit the time period to these four years is driven by data quality issues. Daily data on UCITS funds is questionable before 2018.

⁴ We also collect for all UCITS fixed-income funds and UCITS ETFs their end-of-month asset allocations and fill these allocations in for every day of the following month for identifying a UCITS fund's daily ETF benchmark.

product of the matched ETF's per-share ratio of closing price to NAV times the number of shares redeemed or issued.

Appendix C

September 2, 2023

Damien Shanahan
International Organization of Securities Commissions
Calle Oquendo 12
28006 Madrid
Spain

Re: *Public Comment on Liquidity Management Tool Guidance – Consultation Report*

Dear Mr. Shanahan:

ICI Global¹ appreciates the opportunity to provide comments on the International Organization of Securities Commission's (IOSCO) consultation on proposed Liquidity Management Tool (LMT) Guidance for Open-Ended Funds (OEFs).² Our members help millions of retail investors around the world by offering funds in which they can invest to save for retirement, education, and other important financial goals.

OEFs play an important role in supporting economic growth and capital formation by providing investors, especially retail investors, with the benefits of collective investing. As IOSCO itself has noted, any recommendations regarding the regulation of OEFs should not unduly reduce OEFs' ability to perform their core economic function.

ICI Global is generally supportive of the proposed guidance set forth in the Consultation, which we find extends IOSCO's earlier work by focusing on anti-dilution LMTs.³ While we do not agree with all aspects of the proposed guidance, we support IOSCO's aim to expand the availability of LMTs for OEFs. We appreciate that IOSCO acknowledges that OEF managers are professionals and fiduciaries and are best positioned to manage liquidity risk, and that flexible access to a broad set of LMTs is in the best interest of investors. We support the flexible aspects of the proposed anti-dilution LMT framework in the guidance that recognize the benefits of collective investing while promoting effective management of dilution, including: the distinction between adoption and activation of anti-dilution LMTs;

¹ ICI Global carries out the international work of the [Investment Company Institute \(ICI\)](#), the leading association representing regulated investment funds. With total assets of \$40.8 trillion, ICI's membership includes mutual funds, exchange-traded funds (ETFs), closed-end funds, and unit investment trusts (UITs) in the United States, and UCITS and similar funds offered to investors in Europe, Asia, and other jurisdictions. ICI's mission is to strengthen the foundation of the asset management industry for the ultimate benefit of the long-term individual investor. ICI Global has offices in Brussels, London, Hong Kong, and Washington, DC.

² IOSCO, *Anti-dilution Liquidity Management Tools – Guidance for Effective Implementation of the Recommendations for Liquidity Risk Management for Collective Investment Schemes: Consultation Report* (July 5, 2023) (the Consultation).

³ IOSCO, *Recommendations for Liquidity Risk Management for Collective Investment Schemes* (February 7, 2018) (2018 Recommendations); IOSCO, *Open-ended Fund Liquidity and Risk Management—Good Practices and Issues for Consideration* (February 7, 2018).

aiming to mitigate rather than eliminate dilution; and leaving the definition of “material dilution impact” open.

We agree with IOSCO’s statement, that there cannot be a one-size-fits-all approach to OEF liquidity risk management. However, some elements of the proposed guidance are inconsistent with IOSCO’s own statement and would restrict fund managers’ discretion to manage liquidity in the interests of investors. ICI Global cannot support these aspects of the Consultation.

Specifically, we do not support the proposal to require all OEF managers to use at least one anti-dilution LMT from a prescribed list. IOSCO bases this proposal on the notion that managers should take steps to mitigate potential first-mover advantage, but this reflects an unsubstantiated presumption that all OEFs generate dilution of a magnitude sufficient to trigger runs on funds and fire sales of assets that create or amplify financial stability risk. OEF managers should be empowered to manage liquidity using tools they identify as appropriate in their specific context.

ICI has presented research that demonstrates average dilution for US funds and UCITS is *de minimis* and, thus, too small to incentivize the redemptions that IOSCO theorizes could trigger or amplify financial instability. OEFs have a long track record of avoiding runs, including during stressed conditions such as the March 2020 COVID crisis. Further, given the diversity of funds and jurisdictions, anti-dilution LMTs may not always be appropriate to address investor protection concerns. Yet, IOSCO appears to be recommending a mandatory requirement for all OEFs to address a problem which may be present in relatively few funds, if any. At a minimum, IOSCO should acknowledge that the issue with OEFs is not so black-and-white and move forward more prudently, grounding the consideration and adoption of LMTs on an identified need.

We also do not support the proposal to require the inclusion of potentially unreliable estimates of implicit costs (*e.g.*, market impact) in the implementation of LMTs. Contrary to IOSCO’s stated goal of promoting investor protection, investors could be harmed if calculations of market impact diminish overall accuracy.

ICI Global suggests adjustments to the proposals to address our objections. In particular, we encourage IOSCO to emphasize the importance of liquidity risk assessment broadly and the discretion that fund managers need to manage it accordingly. We also propose that the guidance permit OEFs to voluntarily include implicit costs in their implementation of LMTs where they can do so with high confidence.

As IOSCO finalizes the proposed guidance, we encourage IOSCO to recall the outcome of its 2022 review of its 2018 Recommendations, which generally found a high degree of

implementation among the included jurisdictions.⁴ ICI Global's suggested adjustments would not diminish the proposed guidance or leave IOSCO's concerns unaddressed.

Executive Summary

ICI Global supports IOSCO's current efforts to update its proposed guidance on liquidity management, which we find extends IOSCO's earlier work by focusing on anti-dilution LMTs. While we do not agree with all aspects of the proposed updated guidance, we support many aspects of the proposed guidance and anti-dilution LMT framework that recognize the benefits of collective investing while promoting effective management of dilution (Section I):

- Broad availability of anti-dilution LMTs;
- That fund managers are best placed to decide whether and how to use LMTs;
- That there cannot be a one-size-fits-all approach to OEF liquidity risk management;
- The distinction between adoption and activation of anti-dilution LMTs;
- Aiming to mitigate rather than eliminate dilution; and
- Leaving the definition of "material dilution impact" open.

ICI Global does not support certain portions of the proposed guidance that would restrict responsible entities' discretion to manage liquidity risks in the interests of investors, including:

- The requirements that all OEFs must use an anti-dilution LMT and take steps to mitigate a presumed first-mover advantage, because for many funds dilution is *de minimis* even in stressed market conditions (Section II).
- The requirement that OEFs impose implicit costs (*e.g.*, market impact) in the implementation of anti-dilution LMTs, since investors could be harmed if calculations of market impact diminish overall accuracy. Using the simplifying assumption that funds sell a pro rata slice to calculate market impact could also overstate costs and erroneously presume a preferred approach to portfolio management (Section III).

We also disagree with IOSCO's premise that the OEF structure, and the potential for dilution, creates and amplifies financial stability risks.

- Our empirical research shows that dilution in US and European markets is on average too small to incentivize the vast redemptions that some regulators and policymakers theorize would trigger runs on funds and lead to financial instability (Section IV).
- We provide analysis illustrating that existing legal frameworks for OEFs in member jurisdictions have protected investors and the financial system, including through stressed conditions (Section V).

⁴ IOSCO, *Thematic Review on Liquidity Risk Management Recommendations: Final Report* (November 22, 2022) (IOSCO Assessment).

I. OEF Managers Are Best Positioned to Manage an OEF’s Liquidity Risk for the Benefit of Investors

ICI Global is generally supportive of the Consultation, through which IOSCO proposes guidance for the design and use of anti-dilution LMTs for OEFs.

OEFs play an important economic role and support financial stability. They help protect and augment the savings of retail investors, promote orderly and efficient capital markets, and facilitate economic growth. We appreciate that IOSCO acknowledges that “OEFs provide investors with the benefit of collective investing, [and] investors should also collectively bear the reasonable costs of investing via such vehicles.”⁵ We agree with IOSCO that “[l]iquidity risk management is critical to the orderly functioning of OEFs and to safeguard the interests of and protecting investors.”⁶

It is critically important to consider any liquidity-related recommendations (such as those related to anti-dilution LMTs) in the context of broader OEF practices and legal frameworks, which have protected investors and the financial system, including through stressed market events. OEFs have avoided runs, including during the March 2020 COVID crisis.

OEFs offer their investors redemption rights, which entitle a shareholder to a proportionate share of the fund’s net assets upon returning its shares to the fund. While requirements and terms differ, OEFs generally must pay proceeds to the redeeming shareholder reasonably promptly following the redemption request. Doing so requires sound liquidity management, which funds have had in place for decades.

Apart from the redemption rights feature that is shared by nearly all OEFs, funds are otherwise quite diverse, varying significantly in their objectives, portfolio investments, strategies, size, investor flows, redemption history, shareholder bases, and methods of distribution. These areas of difference are among the critical considerations for responsible entities in assessing an OEF’s liquidity risk.

We agree with IOSCO that responsible entities, such as fund managers, “have the primary responsibility and are best placed to manage the liquidity of their OEFs.”⁷ We appreciate the flexibility that IOSCO generally includes in the proposed guidance, which is consistent with IOSCO’s stated intention to not apply a one-size-fits-all approach across all OEFs or jurisdictions.

⁵ Consultation at 20. See also FSB, *Addressing Structural Vulnerabilities from Liquidity Mismatch in Open-Ended Funds – Revisions to the FSB’s 2017 Policy Recommendations: Consultation Report* (July 5, 2023) (FSB Consultation) at 10 and n.18.

⁶ Consultation at 6.

⁷ *Id.* at 8. See also 2018 Recommendations at 3.

A. The availability of LMTs should be expanded while maintaining OEF managers' flexibility to manage liquidity risk

ICI Global is generally supportive of IOSCO's proposed guidance for the design and use of anti-dilution LMTs, including the inclusion of multiple anti-dilution LMTs under Proposed Guidance 2.⁸ IOSCO clearly recognizes responsible entities are professionals and fiduciaries that need flexibility to manage liquidity risks, given the diversity of OEFs, and having access to a broad set of tools promotes such flexibility. We appreciate that IOSCO understands that the appropriateness of a tool varies with the characteristics of OEFs and that IOSCO does not elevate a single tool (*e.g.*, swing pricing) above the rest.⁹ OEF managers are attentive and incentivized to manage dilution in the best interest of the funds and their investors.¹⁰ When an OEF's analysis indicates that adoption of an LMT is appropriate, choosing an approach then requires an additional multi-factor fund-specific analysis that incorporates considerations such as operational cost and feasibility.

ICI Global appreciates the inclusion in the Consultation of Section V, which discusses some of the challenges associated with using and broadening the availability of LMTs (*e.g.*, operational barriers). We have written extensively about these challenges in the US and about the differences between the EU and US markets.¹¹ Unfortunately, as discussed in Section II, IOSCO does not adequately account for these challenges or market differences in parts of the proposed guidance.

B. Flexible elements of the proposed guidance promote sound liquidity risk management

ICI Global broadly supports flexible elements of the proposed guidance and anti-dilution framework that recognize the benefits of collective investing while promoting effective management of dilution. This generally includes the provisions that address:

- Maintaining appropriate systems, procedures and controls with respect to the design and use of LMTs (Proposed Guidance 1);
- Maintaining adequate and appropriate governance arrangements for liquidity risk management processes (Proposed Guidance 5); and
- Publishing clear disclosures of the objectives and operation of LMTs (Proposed Guidance 6).¹²

⁸ Consultation at 12-13.

⁹ *Id.* at 8-9, 12-13.

¹⁰ See Section V.C below, describing how dilution is reflected in OEF returns.

¹¹ See ICI, [Comment Letter on Open-End Fund Liquidity Risk Management Programs and Swing Pricing](#), (February 14, 2023) (LRM Comment Letter).

¹² We agree with the importance of disclosing information to investors and appreciate the Consultation's recognition of the potential for unanticipated consequences. It is critical that disclosures are proportionate and designed in a manner that prevents clients from circumventing thresholds or timing trades systematically, which would run counter to investor protection.

For similar reasons, we also strongly support Proposed Guidance 4, which clearly provides that LMTs need not remain permanently activated. Since dilution for many funds is *de minimis*, we agree that setting activation thresholds (e.g., using partial swing pricing or redemption fees tied to specified triggers) may reduce the costs associated with implementing anti-dilution LMTs. Responsible entities may determine activation thresholds are appropriate and in the best interest of investors.

In considering anti-dilution LMTs and activation thresholds, we agree that the appropriate objective should be mitigation of potential dilution, not elimination. There are practical limits to reducing dilution. Where dilution is *de minimis*, as illustrated in our analysis,¹³ adopting anti-dilution measures could cost substantially more than the potential dilution costs. Responsible entities reasonably may therefore determine that adopting anti-dilution measures is not in investors' best interest.

We also support IOSCO's decision not to define "material dilution impact." Given the variety of OEFs and investments they hold, dilution is relative and does not lend itself to an absolute numerical definition or threshold. We therefore recommend replacing the term "material" in this context throughout the Consultation with "significant."¹⁴ This substitution would also recognize that transaction costs and dilution are inherent in pooled investing. As IOSCO acknowledges, "OEFs provide investors with the benefit of collective investing, and investors should also collectively bear the *reasonable* costs of investing via such vehicles."¹⁵

II. OEFs Should Not Be Required to Use an Anti-dilution LMT or Take Steps to Mitigate Purported First-Mover Advantage

Proposed Guidance 2 states that responsible entities should "consider and use at least one appropriate anti-dilution LMT for each OEF under management."¹⁶ Although we would expect responsible entities to *consider* a range of approaches to managing liquidity risk, including in some cases anti-dilution LMTs, they should not be required to *use* at least one anti-dilution LMT.¹⁷ IOSCO already expects responsible entities will "exercise their sound professional judgment in the best interest of investors."¹⁸ Assessing and managing liquidity risk is necessarily a fund-specific activity, and the need for anti-dilution LMTs cannot simply

¹³ See Section IV.

¹⁴ See the definition of "liquidity risk" in Rule 22e-4 applicable to US OEFs: "the risk that the fund could not meet requests to redeem shares issued by the fund *without significant dilution* of remaining investors' interests in the fund." (emphasis added).

¹⁵ Consultation at 20 (emphasis added).

¹⁶ *Id.* at 12.

¹⁷ We assume that when IOSCO indicates the term "use," this refers to adopting and putting into place the processes for activating an LMT, rather than activating an LMT. In either case, whether and how to adopt or activate an LMT should remain in at the discretion of the OEF manager.

¹⁸ 2018 Recommendations at 2.

be assumed, especially if the cost of operationalizing an LMT exceeds the benefit to shareholders.

ICI's research illustrates that for many funds, dilution on average is *de minimis*, even in stressed market conditions. For such funds and their investors, any benefits associated with adopting an anti-dilution LMT would likely be *de minimis* and outweighed by the significant costs of adopting, activating, and using *any* anti-dilution LMT.¹⁹ These observations are consistent with IOSCO's work in Section V of the Consultation, which identifies costs and other potential barriers to implementing anti-dilution LMTs. Unfortunately, IOSCO does not factor the impact of these costs and barriers into Proposed Guidance 2. These associated costs are not sufficiently mitigated by permitting OEFs to only *activate* tools when dilution becomes material, as Proposed Guidance 4 would do. Even in such cases, OEFs (and, depending on the LMT, intermediaries and other third parties) would still incur costs associated with *adopting* the tool and activation thresholds.

Responsible entities should be required to assess liquidity risk, but given the latitude to manage it—which may, but need not, include use of anti-dilution LMTs—in the best interest of investors. Accordingly, we recommend making the assessment of liquidity risk the core of Guidance 2. If a fund manager determines that an OEF's dilution is significant, it then would assess various “anti-dilution approaches,” which would include (but not be limited to) IOSCO's five specified anti-dilution LMTs, along with any other measure that the manager reasonably believes would address dilution in the interests of investors. Given the number and variety of OEFs and the context-specific nature of liquidity risk management, a global mandate of *any* liquidity risk measure (or even a small menu of anti-dilution LMTs) would be problematic, and in many cases generate costs that would exceed any benefits.

While we support requiring OEFs to assess liquidity risk, including the risk of significantly diluting remaining investors' interests in the fund, we object to Proposed Guidance 1 and 2 requiring OEFs to take steps to mitigate “potential first-mover advantage arising from structural liquidity mismatch in OEFs.” The proposed guidance should not require OEFs to take actions based upon a premise that is unsubstantiated, and we urge IOSCO to delete this phrase from Proposed Guidance 1 and 2.

Specifically, we urge IOSCO to revise Proposed Guidance 1 to state:

Responsible entities should have appropriate internal systems, procedures and controls in place at all times in compliance with applicable regulatory

¹⁹ If adopted, Proposed Guidance 2 would cause many OEFs (and in some cases, intermediaries and other third parties) to incur costs to implement LMTs. These costs would include, or relate to, enhancing and testing systems; revising policies, procedures, and contractual agreements; administrative and accounting services; regulatory and legal costs; and transfer agent/recordkeeping costs. In addition, OEFs would incur ongoing costs to administer and use LMTs. For example, costs pertaining to data and frequent communications between intermediaries and other third parties would arise from calculating swing factors or liquidity fees. Smaller funds may be disproportionately affected by LMT-related costs. In some jurisdictions, imposing new burdens on intermediaries could affect their willingness to support and offer funds, which in turn could increase costs, reduce choice, and decrease investors' ability to invest through intermediaries.

requirements for the assessment, design, and, where they opt to do so in the best interest of shareholders, use of anti-dilution LMTs as part of the liquidity risk management of their OEFs.

III. OEFs Should Not Be Required to Impose Implicit Costs on Subscribing and Redeeming Investors

Proposed Guidance 3 provides that anti-dilution LMTs used by responsible entities should impose on subscribing and redeeming investors “the estimated cost of liquidity, *i.e.*, explicit and implicit transaction costs of subscriptions or redemptions, including any significant market impact of asset purchases or sales to meet those subscriptions or redemptions.”²⁰ ICI Global opposes requiring inclusion of implicit transaction costs (*e.g.*, market impact) in any such estimated cost of liquidity. Such a requirement would oblige OEFs in some cases to make highly subjective judgments, particularly where the necessary underlying data is unavailable. Poorly calibrated fees would penalize certain investors and produce unfair results. Obtaining this data may also be costly and lacks a demonstrated benefit. When calculating market impact, using the simplifying assumption that funds sell a pro rata slice could overstate costs and erroneously presume a preferred approach to portfolio management.

For these reasons, and as described in greater detail immediately below, we encourage IOSCO to modify Proposed Guidance 3 as follows:

An OEF is permitted on a voluntary basis to include implicit costs where the OEF concludes that they can be estimated with high confidence.²¹

A. Calculating implicit costs is subjective

Calculating market impact often is a subjective activity for which some OEFs have no readily available and reliable data. It cannot be done with certainty for a hypothetical transaction, and particular concerns have been expressed about the inability to measure or model market impact. Several factors that play a role in price slippage may move in different directions or magnitudes and cannot be disaggregated, including spread changes for risky assets; liquidity premiums (widening of bid/offer) for larger trades or smaller odd lots; and secular market sentiment. Without the ability to disaggregate these components, there is often no robust mechanism to quantify and predict their behavior going forward.

²⁰ Consultation at 14.

²¹ ICI Global also recommends revising Proposed Guidance 3 in accordance with our other proposed revisions. More specifically, the revisions should:

- Clarify Proposed Guidance 3 applies only when responsible entities choose to adopt an anti-dilution LMT for a particular fund (*see* Section II (revisions to Proposed Guidance 1 and 2)).
- Replace the term “material dilution impact” with “significant market impact” to recognize that dilution is relative and cannot be fully eliminated and that investors should collectively bear the reasonable costs of collective investment (*see* Section I).

While models are used for other liquidity risk purposes, market impact models often lack the precision necessary to adjust a NAV. Given the difficulty of this exercise, we urge IOSCO to amend the proposed guidance to allow flexibility for OEFs to incorporate the market impact cost only where calculation is practicable and can be performed with high confidence using sufficiently reliable data.

B. Unreliable estimates could harm investors

IOSCO expresses concern that the actions of subscribing and redeeming investors could harm non-transacting investors. The Consultation states that “fees should be calibrated conservatively (*i.e.*, set at higher levels).”²² We disagree.

As OEFs estimate dilution, taking an expansive view of transaction costs that sacrifices precision does not necessarily result in a “fairer” outcome. Estimated transaction costs could be higher than actual transaction costs. Non-transacting investors would benefit from redemptions and redeeming investors will have been treated unfairly. Fees cannot be calibrated in a way that penalizes or otherwise unduly burdens exiting investors in the name of protecting remaining investors. Fairness requires balancing protections for both redeeming and remaining investors. In addition, a presumption to always “aim high” could be inconsistent with applicable law in certain member jurisdictions²³ and at odds with the importance IOSCO places on fair valuation.²⁴

C. The “pro rata” transaction assumption could overstate costs and erroneously imply a preferred portfolio management approach

IOSCO generally defines the estimated cost of liquidity “as the transaction costs expected to be incurred by the fund to buy/sell a pro-rata slice of all assets in the portfolio...”²⁵ In the Consultation, IOSCO acknowledges the pro-rata transaction is used as a proxy, and “does not mean that a fund manager will always need to buy/sell a pro rata slice.”²⁶ Rather, “fund

²² Consultation at 18.

²³ For example, Section 2(a)(32) of the Investment Company Act defines “redeemable security” as “any security, other than short-term paper, under the terms of which the holder, upon its presentation to the issuer or to a person designated by the issuer, is entitled (whether absolutely or only out of surplus) to receive approximately his proportionate share of the issuer’s current net assets, or the cash equivalent thereof.” In 2005, the SEC adopted Rule 22c-2, which permits investment companies to impose a redemption fee of not more than 2% of the amount redeemed. In setting the 2% limit on fund redemption fees, the SEC highlighted the importance of the redeemability of fund shares and stated its view that a redemption fee higher than 2% “could harm ordinary shareholders who make an unexpected redemption as a result of a financial emergency” and “would in our judgment impose an undue restriction on the redeemability of shares required by the [Investment Company] Act.” SEC, [Mutual Fund Redemption Fees](#), SEC Release No. IC-26782, 70 Fed. Reg. 13328 (Mar. 18, 2005) at 13331.

²⁴ See Consultation at 11 (“Valuation is extremely important because an OEF must redeem and sell its units or shares at its NAV.”).

²⁵ *Id.* at 15.

²⁶ *Id.*

managers need to make appropriate judgments to determine what the actual trading strategy should be in the best interests of all investors as a whole.”²⁷

We agree that a fund manager’s role includes making appropriate judgments on how to respond to inflows or outflows in the investors’ best interests. Therefore, the “buy/sell a pro rata slice” assumption should not be required to estimate liquidity costs.

The proposed guidance should not suggest or otherwise assert that there is a “right” way to buy or sell portfolio investments in response to flows, which would be contrary to IOSCO’s acknowledgement that fund managers must have flexibility to act in the best interest of investors. Responsible entities must consider many risks and factors as they manage a portfolio, in order to account for the diversity of OEFs, including investment objectives, strategies, and underlying portfolio assets.

The pro rata slice assumption presumes there is a rigid relationship between daily flows and portfolio transactions even though such an approach may at times be sub-optimal. Less liquid assets may sell at lower values during market stress and at higher values once the stress has ended. Conversely, liquid assets may sell at a premium (or hold their value) during market stress. Pro rata selling therefore could cause a fund to lock in losses when certain markets are temporarily depressed. Also, rigidly selling multiple small positions to create a pro rata vertical slice can be less efficient than other approaches and thus could lead to increased transaction costs.

Selling a vertical slice may also be inconsistent with OEFs’ actual cash and portfolio management practices. For instance, funds can meet redemptions through receipt of income (*e.g.*, interest and dividends from portfolio investments, which for fixed-income funds can be regular and sizable), share purchases, and in-kind redemptions. Highly liquid investments and short-term forms of borrowing also can be used to meet redemptions, which provides flexibility to sell portfolio investments at more opportune times.

The slicing approach provides a simplifying assumption that could ease administrative burdens and certain funds may deem it appropriate in certain circumstances (*e.g.*, in calculating a swing factor or liquidity fee). Yet the assumption should not be required for all funds, because it may overstate transaction costs and inappropriately presume a preferred portfolio management approach.

²⁷ *Id.*

IV. The Presumption That the OEF Structure Creates and Amplifies Financial Stability Risk Is Unsubstantiated

IOSCO presumes in the Consultation that potential dilution incentivizes “excess” redemptions, due to a purported first-mover advantage, and that such redemptions create and amplify financial stability risk.²⁸

ICI offers empirical analysis here and in the attached research appendices²⁹ to show that dilution is on average too small to incentivize the vast redemptions that some regulators theorize would trigger or amplify financial stability risk.

Our research demonstrates that for US-registered mutual funds, dilution for equity funds has been on average zero over the past 14 years and two basis points (at an annual rate) for taxable bond funds. Moreover, during the stressed period of March 2020, dilution, though larger, was still too small to incentivize mass redemptions, even for bond mutual funds that invest primarily in high-yield debt.³⁰

To support our response to the Consultation, ICI empirically analyzed dilution in fixed-income UCITS, and the results showed that dilution is on average quite small and consistent average dilution in US funds. Dilution for all fixed-income UCITS averaged three basis points per year from 2018 to 2022 and estimates for high-yield bond UCITS are about nine basis points per year. As with the case of the US market, dilution estimates for fixed-income UCITS were somewhat higher in March 2020, but too small to have incentivized mass redemptions. For example, the total estimated dilution for high-yield bond UCITS for the entire month of March 2020 was between 3 and 38 basis points, depending upon the method used.³¹

Context is critical to understand the potential impact of dilution on investor behavior. In all cases that we examined in both the US market and for fixed-income UCITS, our estimates for average dilution are vastly outweighed by daily variability in market returns and long-term returns that investors earn. Set against the backdrop of the sharp fall in market values in March 2020 (*e.g.*, returns on high-yield bond UCITS fell 1,360 basis points, while US high-yield bond funds fell 1,230 basis points), estimated dilution would likely have been background noise for fund shareholders’ investment decisions.

ICI’s analysis challenges the notion that there is something about the OEF structure that generates a unique and strong incentive for first movers to redeem sharply. The first-mover hypothesis as used in the Consultation implies that investors in OEFs and direct investors in

²⁸ *Id.* at 6-7.

²⁹ Appendix A presents a summary of recent ICI research on first-mover advantage, dilution, and systemic risk in OEFs. Appendix B provides a description of the methodology ICI used to estimate dilution in fixed-income UCITS.

³⁰ *See* LRM Comment Letter.

³¹ *See* Appendix A for the full analysis.

stocks and bonds should behave differently during market downturns, since direct investors bear the full liquidity cost of selling securities and therefore cannot be incentivized by dilution. Thus, if the first-mover hypothesis as applied to OEFs is correct, mutual fund investors should react much more strongly to changes in market conditions than direct investors. However, this does not appear to be the case.

Analysis of the US market indicates that investors in mutual funds (indirect investors) and those in separately managed accounts (SMAs) (direct investors), react similarly to changes in market conditions. As one striking example, we estimate that percentage outflows from taxable bond mutual funds and separately managed fixed income accounts were nearly identical in March 2020.

ICI also examined US bond mutual funds' purchases and sales in March 2020 and found no evidence that these funds amplified market stresses during that month. These mutual funds did not sell an economically meaningful amount of high-yield bonds (accounting for only an estimated 19 of 557 basis points) in March 2020. Foreign investors, who directly owned their securities and bore their own liquidity costs, sold far more Treasury notes and bonds than US bond mutual funds.

In sum, ICI's research findings indicate that dilution is too small to incentivize widespread redemptions, even in stressed market conditions, and contradicts the assumption of a first-mover advantage. Direct investors respond virtually the same as mutual fund investors to market conditions. We found no evidence that OEFs are an inherent source of asset market stress amplification. In March 2020, mutual fund sales had negligible impact, while direct investors bearing their own liquidity costs had a greater impact. IOSCO asserts that dilution incentivizes "excess" redemptions, due to a purported first-mover advantage, and that such redemptions could create and amplify financial stability risk. IOSCO does not attempt, however, to quantify the amount of dilution in OEFs or to empirically test the assumptions inherent to the premise.

V. Existing Legal Frameworks for OEFs Protect Investors and the Financial System

Existing OEF legal frameworks support liquidity management and mitigate liquidity risk. In its 2022 Assessment, IOSCO found a high degree of implementation of its 2018 Recommendations in the legal frameworks of the assessed jurisdictions and among the practices of surveyed OEFs. We provide background on OEF practices and legal frameworks below to reinforce how IOSCO's proposed guidance can support these frameworks, which have protected investors and the financial system, including through stressed market conditions.

A. Managing OEF redemptions requires sound liquidity risk management practices

Liquidity risk management of an OEF requires consideration of several factors, including the fund's objectives and investment strategy, the liquidity of its portfolio investments, portfolio characteristics (*e.g.*, degree of concentration and large positions), investor flows and redemption history (in normal and reasonably foreseeable stressed conditions), characteristics of its shareholder base, fund liabilities, and available liquidity tools.

Mindful of these factors, fund managers then must manage liquidity risk. First and foremost, liquidity risk management is ingrained in product design, portfolio construction, and security selection. When such risk is elevated, funds may use mitigants such as highly liquid asset allocations, lines of credit, and interfund lending arrangements. Anti-dilution LMTs may be used too, but they are only a sub-set of LMTs (broadly understood), and an even smaller sub-set of liquidity risk management practices more generally.

B. Legal frameworks buttress OEFs' liquidity risk management practices

The general principles of OEF liquidity risk management largely already have been codified in legal frameworks around the globe. We provide details below on the US and EU liquidity frameworks as important examples but do not suggest that either ought to be a global model. In fact, we do not recommend pursuing the US Securities and Exchange (SEC) approach to liquidity bucketing, which has generated significant costs without clear benefits.³² Rather, we are illustrating that regulators have recognized and focused intensely on the importance of liquidity risk management, establishing and enhancing legal frameworks in recent years.³³

Prudent liquidity risk management must be multi-faceted and take into account fund specific factors. In the US alone, the OEF sector to which the SEC's liquidity rule applies is large and diverse, currently consisting of over 8,600 long-term mutual funds and about 3,100 ETFs.³⁴ Similarly for Europe, the number of UCITS totals about 35,300 funds.³⁵ As IOSCO recognizes, liquidity risk management practically should not be governed by "one-size-fits-all" rules or standards.

As an illustration, the liquidity risk management rule adopted by the SEC in 2016³⁶ requires US OEFs to:

- Adopt and implement a written liquidity risk management program, administered by a liquidity program administrator, under which the fund must assess, manage, and periodically review its liquidity risk.
- Classify each portfolio investment into one of four liquidity "buckets" at least monthly.

³² We discuss our serious objections to the SEC's current and proposed "bucketing" requirements in more detail in our response to the FSB Consultation, attached as Appendix C.

³³ In 2022, the FSB found many jurisdictions enhanced their regulatory frameworks since 2017. Specifically, thirteen of sixteen jurisdictions that the FSB surveyed widened the availability of LMTs for OEFs. The three did not do so already permitted a wide range of LMTs prior to 2017. See FSB, *Assessment of the Effectiveness of the FSB's 2017 Recommendations on Liquidity Mismatch in Open-Ended Funds* (December 14, 2022) (FSB Assessment) at 48-49.

³⁴ Source: Morningstar. Data as at June 2023.

³⁵ See EFAMA, *Quarterly Statistical Report Q1 2023*.

³⁶ Rule 22e-4 under the Investment Company Act of 1940 (the "US liquidity rule").

- Determine and maintain a minimum amount of its portfolio in “highly liquid investments” (an HLIM).
- Limit illiquid investments to 15% of net assets.

The SEC also requires that the liquidity risk management program be subject to continued board oversight.

Reporting and disclosure requirements complement the SEC’s liquidity rule. Most notably, US OEFs must report to the SEC investment-specific bucketing information each month and must promptly report if a fund breaches the 15% illiquid investments limit or its HLIM (if applicable).

In the US, in addition to this liquidity risk management framework, OEFs are subject to many other legal requirements, which include:

- Daily valuation requirements, under which a fund must value each of its portfolio investments every business day to calculate its daily net asset value (NAV). A fund then uses its NAV to process daily purchases and redemptions by fund shareholders.
- Various requirements related to capital structure, borrowing, and derivatives usage, which greatly minimize the possibility that a fund’s liabilities will exceed the value of its assets.
- Ongoing oversight by independent boards of directors and a chief compliance officer, who administers a written compliance program reasonably designed to prevent violations of the federal securities laws.
- Both tax and securities laws’ diversification standards.
- Extensive disclosure and reporting requirements, which requires the OEF to update its registration statement annually, provide semi-annual shareholder reports (an independent accountant must audit the financial statements included in the annual report), and make monthly Form N-PORT filings that include a complete list of the fund’s portfolio investments and other information.

Funds in the EU (UCITS) are also subject to specific liquidity risk management requirements.³⁷ UCITS managers are required to:

- Formulate forecasts and perform analyses concerning each investment’s contribution to the UCITS portfolio composition, liquidity, and risk and reward profile prior to investment.

³⁷ See Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009, on the Coordination of Laws, Regulations, and Administrative Provisions Relating to Undertakings for Collective Investment in Transferable Securities (UCITS), as amended (UCITS Directive) at Article 84(1); Directive 2010/43/EU of 1 July 2010 (Implementing UCITS Directive) at Articles 23(4), 38(1); and ESMA, *Final Report: Guidelines on Liquidity Stress Testing in UCITS and AIFs* (September 2, 2019).

- Have in place procedures that enable the management company to assess the exposure of managed UCITS to market, liquidity, and counterparty risks.
- Periodically assess and review the effectiveness of their risk management policies, notifying National Competent Authorities (NCAs) of any material changes.
- Conduct tests at least annually that enable assessment of the liquidity risk of each managed UCITS under exceptional circumstances.

Additionally, UCITS are subject to a very detailed legal framework that includes:

- Oversight requirements, under which managers must be located in the EU and are required to perform functions such as valuation and pricing, regulatory compliance monitoring, share issuances and redemptions, and marketing.
- Eligibility rules, whereby UCITS must invest 90 percent of their assets in “transferable securities” (*i.e.*, company shares and equivalents, bonds and other securitized debt, negotiable securities that carry the right to acquire any such transferable securities by subscription or exchange) and other liquid assets. The remaining 10 percent may be placed in Money Market Funds (MMFs) or other transferable securities other than the above.
- Diversification requirements which require that no more than 10 percent of the UCITS net assets can be invested in securities or MMFs issued by the same entity, and the total value of the securities of issuers in which a UCITS has invested more than 5 percent of its assets must not exceed 40 percent of its assets.
- Disclosure requirements under which UCITS must make public the issue, sale, repurchase, or redemption price of its units each time it issues, sells, repurchases, or redeems them, and at least twice a month.

In January 2020, ESMA conducted an assessment of UCITS managers’ compliance with liquidity risk management obligations, finding that most UCITS managers have implemented and applied sound liquidity risk management processes.³⁸ ESMA also identified the risk as “low” that liquidity management could jeopardize the capacity to meet redemption requests or to honor other liabilities. Critically, ESMA found that there were a *very limited* number of UCITS with *potential* asset/liability mismatch risks.

C. Competition and business incentives further support dilution management

The IOSCO Consultation generally defines dilution as the estimated costs of liquidity associated with fund subscriptions or redemptions³⁹ and indicates that these dilution costs are

³⁸ See ESMA, Public Statement, *ESMA Presents the results of the 2020 Common Supervisory Action on UCITS liquidity management* (March 24, 2021) at 2.

³⁹ See, *e.g.*, Consultation at 7 (“This proposed guidance focuses on a subset of LMTs, referred to hereafter as anti-dilution LMTs, that aim to pass on the estimated costs of liquidity associated with fund subscriptions / redemptions to the subscribing / redeeming investors by adjusting the price at which they transact.”).

comprised of explicit and implicit transaction costs. Used in this way, dilution is a sub-set of overall fund transaction costs. For example, the US liquidity rule defines “liquidity risk” as “the risk that the fund could not meet requests to redeem shares issued by the fund *without significant dilution of remaining investors’ interests in the fund.*”⁴⁰ Thus, managing potential dilution is expressly part of liquidity risk management for US OEFs. As fiduciaries, US investment advisers owe their clients (including funds) a duty of care, which includes the duty to seek best execution of a client’s transactions where the adviser has the responsibility to select broker-dealers to execute client trades.⁴¹ This requires an adviser to “periodically and systematically” evaluate the execution it is receiving for clients.

Even without express requirements, funds and advisers are incentivized to minimize potential dilution. Transaction costs, whether due to general portfolio reallocations or investor flows, are captured in fund performance. Funds compete fiercely on performance because it is a major consideration in fund selection by investors⁴² and third parties. The more effectively an adviser limits transaction costs, the better the fund’s performance, the more attractive that fund will be to investors, and ultimately, the more successful that adviser will be.

As with liquidity risk more generally, however, the objective is to minimize as much as practicable—not eliminate—transaction costs and potential dilution. Transaction costs are part of investing generally, whether in an individual account or a pooled investment vehicle such as an OEF. In a pooled vehicle, transaction costs are mutualized, as are the shared benefits of greater diversification, economies of scale, professional portfolio management, and more efficient portfolio trading—these are all part of the bargain.

D. OEFs historically have managed liquidity successfully

OEFs have managed liquidity and met redemptions successfully while pursuing their investment objectives and strategies, including in stressed conditions such as March 2020. For instance, in 2022, US long-term mutual funds’ gross redemptions totaled \$5.6 trillion, or 25% of year-end 2021 assets for those funds.⁴³ Cases of funds failing to meet redemptions in the US are exceedingly rare. Indeed, the SEC did not grant exemptive orders permitting *any* long-term OEFs to suspend redemptions during in the market strains of 2008 or 2020.

⁴⁰ Rule 22e-4(a)(11) under the Investment Company Act (emphasis added).

⁴¹ SEC, *Commission Interpretation Regarding Standard of Conduct for Investment Advisers*, SEC Release No. IA-5248 (June 5, 2019) at 19-20.

⁴² Holden, Sarah, Michael Bogdan, and Daniel Schrass. “[What US Households Consider When They Select Mutual Funds, 2022.](#)” ICI Research Perspective 29, no. 4 (April 2023) (finding that, in the US in 2022, 95 percent of mutual fund–owning households said that they reviewed the historical performance of a fund, with 45 percent indicating that a fund’s historical performance was very important when making their fund purchase decision).

⁴³ See generally ICI, *Trends in Mutual Fund Investing, December 2022* (January 30, 2023).

While suspensions are more common in the EU than in the US, only a very small percentage of UCITS suspended redemptions for a short period of time in March 2020.⁴⁴ These UCITS were generally dealing with idiosyncratic circumstances in their home jurisdictions, with the primary reason for suspensions being fund valuation concerns, not an inability to meet redemption requests.⁴⁵

* * * * *

Conclusion

We appreciate your consideration of ICI Global's comments. If you have questions or would like to discuss our comments further, please contact me or Kirsten Robbins at +1-202-326-5800.

Sincerely,

/s/ Michael N. Pedroni

Michael N. Pedroni
Chief Global Affairs Officer, ICI, and
Head of ICI Global

⁴⁴ See ICI, *Experiences of European Markets, UCITS, and European ETFs During the COVID-19 Crisis*, Report of the COVID-19 Market Impact Working Group (December 2020) at 32-33.

⁴⁵ See ESRB, *Recommendation of the European Systemic Risk Board (ESRB) on liquidity risk in investment funds* (November 12, 2020) at 30. Only 140 of 33,529 funds, 0.0041%, reported temporary suspensions. *Id.*

Appendix D

Summary of Concerns with the US Liquidity Classification (Bucketing) Scheme

Adopted in 2016, the SEC’s liquidity rule (Rule 22e-4 under the Investment Company Act) is an uneasy amalgam of sound principles-based provisions¹ and overly prescriptive bucketing requirements. Currently, the US liquidity rule requires a fund to classify each of its investments, generally on a monthly basis.

More specifically, taking into account relevant market, trading, and investment-specific considerations, a fund must classify each portfolio investment (based on a reasonably anticipated trading size for each) into one of four buckets, based on the number of days in which the fund reasonably expects the investment would be convertible to cash (or simply sold or disposed of, in the case of the third and fourth buckets) in current market conditions without significantly changing the market value of the investment, as follows:

- “highly liquid investments:” cash and investments convertible into cash in three business days or less;
- “moderately liquid investments:” investments convertible into cash in more than three calendar days but in seven calendar days or less;
- “less liquid investments:” investments able to be sold or disposed of in seven calendar days or less; and
- “illiquid investments:” investments that cannot be sold or disposed of in seven calendar days.

We have communicated its objections to the SEC about its bucketing scheme, as proposed in 2015 and adopted in 2016, on numerous occasions.² Our concerns about the current requirements are briefly summarized below:

- *The bucketing exercise and its resulting output are highly subjective and variable.* Variations in underlying data, measurement periods, methodologies, and assumptions that funds use to bucket investments can significantly affect reported information in ways that

¹ The liquidity rule’s sound elements include its written program requirement; principles-based framework for assessing, managing, and reviewing liquidity risk; and board oversight provisions. These aspects of the rule have enhanced the discipline and rigor of funds’ liquidity risk management practices, and, in our view, strengthened them, including in the face of the unprecedented global events of March 2020.

² See Letter from David W. Blass, General Counsel, ICI, to Brent J. Fields, Secretary, SEC (January 13, 2016); Letter from Brian K. Reid, Chief Economist, ICI, to Brent J. Fields, Secretary, SEC (January 13, 2016); Letter from David W. Blass, General Counsel, ICI, to Brent J. Fields, Secretary, SEC (May 17, 2016); Letter from Paul Schott Stevens, President and CEO, ICI, to The Honorable Jay Clayton, Chairman, SEC (July 20, 2017); Letter from Paul Schott Stevens, President and CEO, ICI, to Brent J. Fields, Secretary, SEC (November 3, 2017); and Letter from Paul Stevens, President and CEO, ICI, to Brent Fields, Secretary, SEC (May 18, 2018).

regulators or the public may not understand. Consequently, presenting bucketing information in a standardized format (to a regulator or the public) may inaccurately imply a degree of methodological consistency across funds that does not exist, and any resulting comparisons across funds could be misleading. Aside from variation, the number of methodological choices and assumptions that a fund must make to bucket all of its portfolio investments is legion. Further, output will be highly sensitive to certain inputs and assumptions that funds choose.

- *Bucketing output is forward-looking and hypothetical.* A fund has no way of knowing in advance with certainty how much of an investment, and at what cost, could be sold within a given time frame. Funds may use backward-looking data to assist with making these determinations, but the data are often limited and incomplete.
- *Bucketing output is an overly-simplistic measure of a fund's liquidity risk profile.* This bucketing information greatly risks misleading regulators or investors because it provides too simplistic and reductive a measure of a fund's liquidity risk profile. Funds may assess some risks using a single metric, but liquidity risk cannot be so simplistically assessed using bucketing information (or any other single metric, for that matter). Liquidity is notoriously multi-faceted and hard to measure, particularly for instruments that trade over-the-counter. For each investment, a fund must distill all this relevant information to a single "days-to-cash/sale" number and place the investment into one of four liquidity buckets. The aggregated bucketing information is a further distillation, resulting in four (or fewer) numbers meant to capture the liquidity profile of the entire portfolio.
- This process also would obscure key differences between investments that may be placed in the same bucket. For instance, an investment could be classified as "illiquid" because of certain innate qualities (*e.g.*, limitations on transfer), or because of the position's size. In the case of a classification motivated primarily by size, the fund can sell the investment—but it may take longer than seven days to do so without generating a significant value impact. This would not be apparent to regulators or investors, who would see only one aggregated "illiquid investments" figure, and based on the name, likely assume severe restraints on the ability to sell that may not exist.

The complexity and variety of inputs, together with the process of analyzing and reducing them to a few standardized outputs, must give serious pause concerning the reliability and comparability of those outputs.

Moreover, the US bucketing provisions do not exist solely to generate reporting information for the SEC. Bucketing output also is critical in determining funds' compliance with the 15% illiquid investments limit and, for certain funds, their "highly liquid investment minimums." In such a framework, improperly calibrated regulatory requirements can severely and adversely affect funds and their investors by constraining portfolio management and compromising fund performance and investment operations; limiting investor access to investment strategies and asset classes; and adding unwarranted compliance costs and burdens to all funds. These concerns

are not theoretical—the SEC’s recent proposed amendments to the liquidity rule³ would have these effects. We responded to the SEC, outlining our concerns in detail and showing that the proposed changes would make even certain highly liquid equity funds unviable.⁴

Finally, the SEC has proposed to make aggregated bucketing information publicly available each month, which we also strongly oppose.⁵

³ SEC, *Open-End Fund Liquidity Risk Management Programs and Swing Pricing; Form N-PORT Reporting*, SEC Release No. 33-11130, 87 Fed. Reg. 77172 (Dec. 16, 2022) (SEC Proposal).

⁴ See [Letter from Eric J. Pan, President and CEO, ICI, to Vanessa Countryman, Secretary, SEC](#), (February 14, 2023). Under the SEC proposal, certain highly liquid large cap equity funds would see a substantial portion of their portfolios classified as “illiquid” and would be unable to comply with the rule’s 15% illiquid investments limit.

⁵ As explained above, such information by its nature is subjective, forward-looking, and hypothetical and risks misleading and confusing investors. The proposed bucketing changes make this output even worse by distorting funds’ liquidity risk profiles, including by unfairly misrepresenting the liquidity of larger funds and producing anomalous results.