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Via Electronic Submission

July 21, 2020

Vanessa Countryman  
Secretary  
U.S. Securities and Exchange Commission  
100 F Street, NE  
Washington, DC 20549-1090

**Re: Proposed Rule Regarding Good Faith Determinations of Fair Value  
Investment Company Act Release No. IC-33845  
File No. S7-07-20**

Dear Ms. Countryman:

The Vanguard Group, Inc. (“Vanguard”)<sup>1</sup> and the Vanguard Funds appreciate the opportunity to comment on the U.S. Securities and Exchange Commission’s (the “Commission”) recent release (the “Proposing Release”) proposing Rule 2a-5 regarding the good faith determination of fair value (the “Proposed Rule”) and the rescission and/or withdrawal of certain prior Commission releases and guidance.<sup>2</sup> We support the Commission’s efforts to modernize the framework for fund valuation practices. We commend the Commission’s thoughtful consideration of the Proposed Rule and the Commission’s observation that regulatory developments, the growth of the asset management industry, and the introduction of increasingly complex securities to fund portfolios have altered how fund boards, investment advisers, and various other participants engage in the valuation process. Our primary comments are:

- We support the Commission’s approach to modernizing the framework for fund valuation practices, including basing the rule on current practices and permitting allocation of responsibility for fair value determinations to a fund’s adviser.
- We encourage the Commission to avoid being unnecessarily prescriptive to preserve necessary flexibility for fund boards and advisers.

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<sup>1</sup> Vanguard is one of the world's leading asset managers, managing over \$6.1 trillion in assets worldwide as of June 30, 2020. Vanguard offers approximately 200 U.S. mutual funds and 80 U.S. exchange-traded funds (“ETFs”). Vanguard’s mission is to take a stand for all investors, treat them fairly, and give them the best chance for investment success.

<sup>2</sup> *Good Faith Determinations of Fair Value*, Investment Company Act Release No. IC-33845 (April 21, 2020), <https://www.sec.gov/rules/proposed/2020/ic-33845.pdf>.

- To preserve flexibility, we recommend that the final rule reflect the spectrum of valuation risk associated with fixed income securities and suggest related modifications to the Proposed Rule’s recordkeeping requirements. We recommend that the Commission clarify that differences in valuation methodologies may be appropriate for the same security held by different fund structures overseen by a single board. We recommend that the Commission modify the requirements regarding quarterly and prompt board reporting to ensure fund boards receive a reasonable volume of relevant and tailored information. We also recommend that certain burdensome requirements pertaining to price challenges be omitted from the adopting release to better reflect the role of price challenges in the valuation process.
- Finally, we recommend that the final rule not be driven by concerns about future ETF discounts similar to those experienced during the recent COVID-19 related market volatility.

**I. We support the Commission’s approach to modernizing the framework for fund valuation practices, and encourage the Commission to avoid being unnecessarily prescriptive to preserve necessary flexibility for fund boards and advisers.**

We support modernizing the patchwork of valuation guidance issued by the Commission over the last five decades and support the many ways in which the Proposed Rule will both enhance the regulatory framework and provide clarity to the asset management industry on valuation matters. First, we support the Commission’s approach to base the Proposed Rule on the current practices and valuation infrastructure used by funds to fair value their investments. Vanguard’s valuation practices have evolved over the years to address the needs and risks of our fund line-up. Our practices are robust and have successfully served us through crises such as the recent market volatility relating to the COVID-19 pandemic.

Second, we support the Proposed Rule’s approach to permitting allocation of responsibility for fair value determinations to the fund’s adviser or sub-adviser(s). This approach correctly recognizes the complexities of the valuation process and the practical need for many boards to seek the adviser’s expertise and resources in making day-to-day fair value determinations,<sup>3</sup> as well as the contributions by other participants such as administrators.

Third, we support the adoption of uniform standards for determining a security’s fair value in good faith in the context of a risk- and oversight-based regime. We agree with the Commission’s observation in the Proposing Release that proper valuation is critical to a registered fund. However, we believe that a final rule focusing on uniform standards should provide flexibility to advisers and boards to tailor their valuation processes to the facts and circumstances relevant to a fund’s portfolio, while still ensuring proper valuation. The Proposing Release already contemplates this type of flexibility in the context of periodic assessments of material valuation risks,<sup>4</sup> testing fair value methodologies,<sup>5</sup> and reasonable segregation of portfolio

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<sup>3</sup> For similar reasons we support the Proposed Rule’s approach to permit a multi-manager fund to have multiple advisers assigned the role of determining fair value of the different investments that those advisers manage.

<sup>4</sup> See Proposing Release at 18 (declining to identify the specific valuation risks to be addressed or the frequency for re-assessing such risks under Proposed Rule 2a-5(a)(1), as valuation risks “depend on the facts and circumstances of a particular fund’s investments”).

<sup>5</sup> See *id.* at 23 (noting that that specific tests and frequency of testing “are matters that depend on the circumstances of each fund and thus should be determined by the board or the adviser”).

management and the fair value process,<sup>6</sup> and we encourage the Commission to retain this flexibility in the final rule.

In sections II. – V. below, we share additional recommendations for preserving adviser and board flexibility and modifying requirements that are unnecessarily prescriptive. Absent designation as a safe harbor or interpretive guidance, a final rule that is overly prescriptive may raise liability concerns, and difficult judgments on valuation made by the adviser or the fund board could be subject to unnecessary second-guessing.<sup>7</sup>

**II. We recommend that the final rule reflect the spectrum of valuation risk associated with fixed income securities and suggest modifications to the Proposed Rule’s recordkeeping requirement.**

We recommend that the final rule reflect the spectrum of valuation risk associated with fixed income securities. The Proposed Rule would apply in equal measure to all securities for which there is no readily available market quotation as defined in the rule, including evaluated securities. In practice, this would result in all fixed income securities being subject to the requirements of the Proposed Rule. Fixed income as an asset class, however, contains a broad spectrum of securities with different valuation challenges and risks. For example, the valuation challenges associated with U.S. Treasury bonds differ significantly from those associated with emerging market high yield bonds. This approach of treating all fixed income securities equally differs from current practice, which through the incorporation of accounting standards has evolved to recognize the different valuation risks and challenges associated with Level 2 and Level 3 securities.<sup>8</sup>

The approach is also unnecessarily prescriptive and inconsistent with the Proposed Rule’s risk-based focus. This is the case in particular with respect to the Proposed Rule’s recordkeeping requirements. Under the Proposed Rule, funds must maintain “appropriate documentation to support fair value determinations, including information regarding the specific methodologies applied and the assumptions and inputs considered when making fair value determinations.” This type of recordkeeping is appropriate for Level 3

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<sup>6</sup> The Commission declined to take a prescriptive approach to segregation of portfolio management and valuation “to allow funds to structure their fair value determination process and portfolio management functions in ways that are tailored to each fund’s facts and circumstances.” *See id.* at 55. This approach is necessary given that portfolio managers, while not tasked with fair value determinations, may nonetheless be able to provide important market perspective to aid in the fair value determination process.

<sup>7</sup> For example, fund boards and advisers, in an effort to avoid second-guessing, could interpret the provision regarding selecting appropriate fair value methodologies for new types of fund investments in which a fund intends to (but does not yet) invest to require fund boards and advisers to predict all types of investments in which a fund may invest in the future, which may be impracticable and could serve to constrain advisers seeking to invest in novel types of securities. We recommend that this requirement be omitted from the final rule. We note that the Proposed Rule requires that methodologies be periodically reviewed for appropriateness and accuracy, and we recommend that the adopting release instead clarify that any such periodic reviews provide a sufficient opportunity to select the appropriate methodologies for valuing new securities that funds have determined to include in their portfolios going forward.

<sup>8</sup> Specifically, Level 2 involves use of significant observable inputs (including quoted prices for similar securities, interest rates, prepayment speeds, credit risk, etc.), while Level 3 involves use of significant unobservable inputs (including the fund’s own assumptions used to determine the fair value of investments).

securities that generally are valued by the adviser based on unobservable inputs. However, the requirement would be a significant increase in recordkeeping obligations for Level 2 securities for which the adviser generally receives prices from a vendor. Given the robust pricing vendor due diligence required by the Proposed Rule, we recommend that the final rule permit flexibility with respect to the type of recordkeeping required for Level 2 securities that are valued using vendor-evaluated prices. We believe that a detailed understanding of vendor models and processes, reviews of methodologies and information used by vendors, and reviews of testing processes used by vendors should be a sufficient proxy for the detailed records of the inputs used by vendors to value Level 2 securities currently required by the Proposed Rule. Indeed, the Proposing Release itself states that the pricing vendor oversight provision “is designed to help ensure that pricing information received from pricing services serves as a reliable input for determining fair value in good faith.”<sup>9</sup> Moreover, this approach to recordkeeping would better align with current practices and vendor oversight at asset managers such as Vanguard.

**III. We recommend that the Commission clarify that differences in fair value methodologies may be appropriate for the same security held by different fund structures overseen by a single board.**

We recommend that the Commission clarify that differences in fair value methodologies may be appropriate for different fund structures based on each structure’s attendant valuation risks, and that a single fund board overseeing different types of funds may adopt fair value methodologies that result in different valuations of the same security held by those different types of funds. We believe that this is currently permissible under Commission staff guidance (the “Staff Guidance”) which states that “the good faith requirement is a flexible concept that can accommodate many different considerations, and that the specific actions that a board must take will vary, *depending on the nature of the particular fund*, the context in which the board must fair value price, and the pricing procedures adopted by the board.”<sup>10</sup> The Commission is proposing to withdraw the Staff Guidance as part of this rulemaking.<sup>11</sup> To clarify the continuation of this position from the Staff Guidance in the final rule, we recommend that the Commission explicitly incorporate the Staff Guidance into the final rule, adopting release, or subsequent FAQs. We also recommend that the Commission omit the requirement in the Proposing Release that “any methodologies selected be applied consistently to the asset classes for which they are relevant,”<sup>12</sup> which could be read to contradict the Staff Guidance.

While issued two decades ago, the Staff Guidance directing a board to consider the nature of a fund remains relevant given the continuing proliferation of ETFs. The Commission has indicated that the risk of price arbitrage – and the risk that funds may dilute the value of their shareholders’ interests if they calculate their net asset values (“NAVs”) using closing prices that were established before a significant event has occurred – has been a significant driver for requiring mutual funds to fair value securities, particularly foreign

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<sup>9</sup> See Proposing Release at 25.

<sup>10</sup> See Letter from Douglas Scheidt, Associate Director and Chief Counsel, Division of Investment Management to Craig S. Tyle, General Counsel, Investment Company Institute re: Letter to the ICI Regarding Valuation Issues (April 30, 2001) (“2001 ICI Letter”); Letter from Douglas Scheidt, Associate Director and Chief Counsel, Division of Investment Management to Craig S. Tyle, General Counsel, Investment Company Institute re: Letter to the ICI Regarding Valuation Issues (December 8, 1999).

<sup>11</sup> See Proposing Release at 66-67.

<sup>12</sup> See *id.* at 20 n.46.

securities.<sup>13</sup> However, certain structural features of ETFs protect ETFs from the risk of price arbitrage: first, the majority of ETF transactions occur in the secondary market, where market events and basic supply and demand forces (rather than the daily NAV calculation) dictate the transaction price, and second, many ETFs transact in-kind. Consequently, while any funds with mutual fund shareholders must continue to apply fair value adjustments to foreign securities, a large majority of the ETF industry appears to use the local market closing price (rather than a fair value price) to value foreign securities held by ETFs.<sup>14</sup> Mutual funds and ETFs, therefore, should not be constrained by a requirement in the final rule to apply identical fair value policies for valuing foreign securities.

We do not believe this recommendation contradicts the Proposed Rule or the Proposing Release, but the Commission nonetheless should clarify its position when issuing the final rule. In a risk-based valuation regime, a fund's adviser and board logically should consider the impact of the structure of a fund on the fund's valuation risk when determining the appropriateness of a fair value methodology. The Proposing Release notes that an assessment of material valuation risks can take into account "the types of investments held or intended to be held by the fund" and "potential market or sector shocks or dislocations."<sup>15</sup> In the example above, the magnitude of both of these identified valuation risks is lessened by the ETF structure. A board overseeing both ETFs and funds with mutual fund shareholders should take into account the severity of the risk of price arbitrage for foreign securities held by each fund structure, and tailor each structure's fair value methodology accordingly. The Proposing Release also notes that the Commission "would expect that boards . . . would use the appropriate level of scrutiny based on the fund's valuation risk, including the extent to which the fair value of the fund's investments depend on subjective inputs."<sup>16</sup> In the ETF example above, the inputs to be used for valuation – and by extension the fund's valuation risk – could be different for the ETF versus a mutual fund.<sup>17</sup>

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<sup>13</sup> See, e.g., *Disclosure Regarding Market Timing and Selective Disclosure of Portfolio Holdings*, Investment Company Act Release No. IC-26287 (December 11, 2003), <https://www.sec.gov/rules/proposed/33-8343.htm> ("Mutual funds that invest in overseas securities markets are particularly vulnerable to market timers who may take advantage of time zone differences between the foreign markets on which international funds' portfolio securities trade and the U.S. markets which generally determine the time as of which NAV is calculated ("time-zone arbitrage")... [M]arket timing may dilute the value of long-term shareholders' interests in a mutual fund if the fund calculates NAV using closing prices that are no longer accurate."); 2001 ICI Letter ("Fair value pricing can protect long-term fund investors from short-term investors who seek to take advantage of funds as a result of significant events occurring after a foreign exchange or market closes, but before the funds' NAV calculation.").

<sup>14</sup> See Deloitte, *Aligning technology, risk management, and opportunity in the valuation process: Fair Valuation Pricing Survey*, 107 (17th ed.) (September 20, 2019) (wherein only 21% of survey respondents offering both mutual funds and ETFs reported applying identical procedures for determining if a foreign equity price should be adjusted from its closing exchange price).

<sup>15</sup> See Proposing Release at 17.

<sup>16</sup> See *id.* at 35.

<sup>17</sup> A clarification about a board's ability to approve different fair value methodologies for mutual funds and ETFs is necessary particularly in light of language in the Proposing Release stating that "if a fund invests in securities that trade in foreign markets, the board or adviser generally should identify and monitor for the kinds of significant events that, if they occurred after the market closes in the relevant jurisdiction but before the fund prices its shares, would materially affect the value of the security and therefore may suggest that market quotations are not reliable." See *id.* at 21-22. As explained in this letter, it appears to be common industry practice for the definition of "significant event" requiring a fair value adjustment to a security to

Moreover, the Proposed Rule conceptually allows a fund board to consider different valuations for the same security across funds that the board oversees by permitting a fund's board to assign the fair value determination relating to any or all fund investments to a fund's primary adviser or one or more sub-advisers.<sup>18</sup> For example, sub-advisers could use different fair value methodologies or vendors to reach different values for the same security. Permitting different valuation methodologies based on differing fund structures should be analogous to considering different valuation methodologies based on the identity of the adviser.

**IV. We recommend modifications to the requirements regarding quarterly and prompt board reporting to ensure boards receive a reasonable volume of relevant and tailored information.**

- 1. We recommend modifications to the provision regarding quarterly board reporting to ensure boards receive relevant and tailored information designed to effectively facilitate board oversight.**

We recommend modifications to the provision regarding quarterly board reporting to ensure boards receive relevant and tailored information designed to effectively facilitate board oversight. We believe that the Proposed Rule and Proposing Release are overly prescriptive by identifying in the Proposed Rule an extensive list of items that must be reported to the board quarterly ("Required Quarterly Reporting") and by including in the Proposing Release an extensive list of additional quarterly reporting items for an adviser's consideration ("Additional Quarterly Reporting"). Not all of the Required Quarterly Reporting items identified in the Proposed Rule will be relevant information for, or have changed during, each reporting period. As such, we recommend permitting advisers to report to a fund's board regarding those Required Quarterly Reporting items on a less frequent basis, such as annually in connection with the compliance review undertaken pursuant to Rule 38a-1. We also recommend that the Commission omit the list of Additional Quarterly Reporting items from the adopting release, as inclusion of the Additional Quarterly Reporting items could lead advisers to consider the items required reporting, rather than suggestions, to avoid liability. The Required Quarterly Reporting items and the Additional Quarterly Reporting items together would result in a significant amount of unnecessary material for fund boards to review, which would not advance the goal of relevant and tailored reporting and effective facilitation of board oversight.

These modifications would not prevent boards from receiving relevant information at frequent intervals where necessary for proper oversight. As part of its oversight responsibilities, a fund board is required to "critically review the information provided to them . . . and request any information that they feel is necessary to conduct that oversight."<sup>19</sup> This requirement itself should ensure that the fund board receives relevant and tailored information at appropriate intervals, rendering unnecessary the proposal's prescriptive lists of Required Quarterly Reporting and Additional Quarterly Reporting items. Moreover, frequent reporting to the board regarding material valuation matters is required by the Proposed Rule's provision regarding prompt reporting.

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differ between a mutual fund and an ETF given the differences in fund structure, and we recommend that the adopting release acknowledge this.

<sup>18</sup> See *id.* at 33-34.

<sup>19</sup> See *id.* at 46.

**2. We recommend modifications to the provision regarding prompt board reporting to ensure that a fund board is not inundated with unnecessary reporting.**

We also recommend modifications to the provision regarding prompt board reporting to ensure that a fund board is not inundated with unnecessary reporting. The concept of a matter that *could* have had a material impact on the fair value of portfolio investments would be challenging to implement. This could have the unintended consequence of generating a significant amount of irrelevant board reporting in an effort by advisers to comply with the requirement and avoid liability. We recommend that the Commission clarify in the adopting release that advisers have the flexibility to define materiality within their own policies and procedures. This definition could, for example, be based on an NAV error threshold test. We also recommend that the Commission remove the requirement that matters that *could* have materially impacted the fair value of portfolio investments be promptly reported, as such information would be more appropriate to be included in regular quarterly reporting or at other appropriate frequencies based on facts and circumstances.

We also believe that three days is an insufficient amount of time to investigate and draft a report regarding all valuation matters within the Proposed Rule's broad concept of materiality, especially those that *could* have materially affected the fair value of portfolio investments and especially during times of market volatility. We recommend that prompt reporting on material matters not be required to occur after a set number of days; rather, the timing of prompt reporting should be left to the adviser to determine depending on facts and circumstances. For example, while at times it may be appropriate for a board to receive a report within a matter of days or weeks of the discovery of an event, at other times it may be more useful for the board instead to receive a condensed report of related valuation matters that arose over a period of time.

**V. We recommend that certain burdensome requirements pertaining to price challenges be omitted to better reflect the role of price challenges in the valuation process.**

We also recommend that certain requirements in the Proposing Release pertaining to price challenges be omitted from the adopting release, as they are unnecessarily burdensome and mischaracterize the role of price challenges. As a threshold matter, price challenges are an expected part of a robust pricing process intending to produce a more accurate price. However, the Proposing Release appears to imply that boards should consider enhanced oversight of price challenges. For example, as part of the discussion regarding quarterly board reporting, the Proposing Release suggests that boards review “[s]ummaries of adviser price challenges to pricing information provided by third-party vendors and of price overrides, including back-testing results related to the use of price challenges and overrides.”<sup>20</sup> Moreover, in discussing the requirement to promptly report to a fund's board regarding material valuation matters, the Proposing Release states that “a significant increase in price challenges or overrides likely would reflect a material change to the fund's valuation risks that should be promptly reported to the board.”<sup>21</sup> While we agree that a board should enhance its oversight of any aspects of the valuation process it deems necessary, we believe that requiring boards to enhance oversight of pricing challenges in particular would yield little benefit. It is important to note that an increase in the number of price challenges, as is typical for example during bouts of market volatility, should not be considered a weakness in the design or implementation of the pricing

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<sup>20</sup> See *id.* at 46.

<sup>21</sup> See *id.* at 49 n.113.

process or the product provided by pricing vendors; rather, it is an indication that the pricing process is working as intended.

The Proposing Release also suggests that boards or advisers establish “objective thresholds” as part of the criteria for the circumstances under which price challenges typically would be initiated.<sup>22</sup> However, such objective thresholds – and the absence of flexibility for an adviser to choose to not initiate a price challenge given the facts and circumstances – could result in unnecessary or frivolous price challenges that do not advance the intended purpose of price challenges. During normal market conditions – as well as during periods of significant market volatility such as that related to the COVID-19 pandemic – the focus and resources of advisers and fund boards should not be on unnecessary price challenges that could arise if the final rule is adopted as proposed.

## **VI. We recommend that the final rule not be driven by concerns about future ETF discounts.**

Finally, we would like to address observations from the recent COVID-19 related market volatility. Unusually large discounts were observed in March 2020 for ETFs from multiple providers and across ETFs that invest in various types of bonds, including U.S. Treasury, municipal, and corporate bonds. It should be expected that the divergence between an ETF’s market price and NAV would increase, particularly for fixed income ETFs, during periods of elevated market volatility and reduced liquidity.<sup>23</sup> Given these dynamics and the Commission’s ongoing analysis of the effects of COVID-19 on markets and market participants, we think it is important that the final rule not be driven by concerns about future ETF discounts and that the Commission further study the ETF discounts that occurred during March of 2020.

It is important to bear in mind that during times of lower liquidity in the underlying markets, premiums or discounts can emerge due to a variety of factors.<sup>24</sup> In March, more pronounced discounts occurred as a result of a steep drop-off in liquidity, which led to an increase in the price of liquidity for bonds. When setting the price of liquidity, a market maker may consider the estimated transaction cost of the bid-offer spread of the underlying securities and a risk premium to offset the risk that the actual trading cost is greater

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<sup>22</sup> See *id* at 26.

<sup>23</sup> Bond ETFs continued to serve as a vital source of price discovery and liquidity for fixed income investors during this period of relatively lower liquidity in some underlying fixed income securities. During the most intense period of market volatility in mid-March, the trading volume of all ETFs across the industry was nearly quadruple their average daily volume in 2019 (\$300 billion in March 2020 compared to \$86 billion in 2019). Trading volumes for Vanguard ETFs increased as well, with a daily average trading volume of \$23 billion, about 3.5 times the 2019 average. This underscores the important role played by ETFs as a source of liquidity, particularly during periods of relatively lower liquidity in the underlying securities. Additionally, ETFs acted as “shock absorbers” for the market, as about 90% of ETF trading occurs on the secondary market between ETF investors with no direct impact to the underlying securities.

<sup>24</sup> During times of reduced liquidity, if the size of the premium or discount were to exceed the heightened transaction costs of the underlying market, market makers would typically engage in arbitrage involving the creation or redemption of ETF shares and, in doing so, would bring the market price and NAV closer to alignment. It is important to be aware that even though the level of the premium or discount can vary, the ETF’s bid-ask spread itself can still remain tight. In fact, the bond ETF bid-ask spread is often tighter than the spread on the underlying bonds because the ETF consolidates the many different bonds in the underlying strategy into a standardized, tradable unit, concentrating liquidity. This liquidity in the shares of the bond ETF adds to the liquidity of the underlying bond market, since market participants can buy and sell bond market exposure by trading solely in the shares of the ETF.

than expected (the “Liquidity Risk Premium”). Less liquid bonds tend to experience higher values for these factors than more liquid bonds. During March 2020, both components were elevated for virtually all bonds.

The increased Liquidity Risk Premiums and transaction costs in turn impacted the market-determined prices of bond ETFs. NAVs for bond funds are typically determined using a third-party valuation model. These valuation models generally use “matrix pricing” to estimate a bond’s current market value by extrapolating a non-traded bond’s price based on the market prices of similar bonds that did trade that day, along with changes in rates and credit spreads. An ETF’s NAV calculation focuses on the cost to liquidate bonds in a broad portfolio; however, it does not reflect the cost and risk of market makers providing intraday, immediate liquidity. ETF market prices on the other hand reflect the market’s moment-by-moment collective judgment, which includes factors such as: valuation estimates of the ETF’s holdings by market participants, transaction costs, and Liquidity Risk Premiums for various bonds, as well as supply and demand for the ETF.

Certain deviations between NAVs and ETF market prices can be expected even under normal circumstances due to these different inputs. We believe that pricing vendors performed well overall during the crisis given the extremely volatile markets and large amounts of data they were taking in on a daily basis. Nevertheless, we are exploring concepts that could help add more transparency to bond pricing that could potentially enhance the models available today. Meanwhile, the March bond ETF market prices were a reflection of the cost to sell underlying bonds in abnormally volatile market conditions with increased Liquidity Risk Premiums.

Due to the rapidly changing dynamics in the market, elevated Liquidity Risk Premiums, and increased transaction costs, we also witnessed variances in the different pricing methodologies used by pricing vendors relative to market makers. As noted above, the matrix pricing approach to NAV calculation for bond ETFs typically relies on a pricing model that extrapolates a bond’s value based on actual trades in similar bonds. If trading in the underlying bonds is diminished and there are fewer observable trades, the likelihood of discrepancies between different valuation models is increased. Market makers and issuers across the industry may use similar yet independent valuation models which may have nuanced differences. Market makers putting capital at risk were understandably cognizant of reducing their liquidity risk profile as they acquired ETF shares in the market, and subsequently redeemed the ETFs for the underlying bonds which they proceeded to sell in the market. As heavy sell pressure increased, ETF discounts occurred due to the increasing transaction costs and increasing Liquidity Risk Premiums that the market makers needed to include to manage their risk in a rapidly changing environment.

Finally, underlying market transaction costs substantially influence the existence of premiums and discounts. Bond ETFs are more sensitive to changing transaction costs and investor demand than other listed ETF categories. This can largely be explained by the over-the-counter nature of trading in these bonds, an effect that is especially pronounced for corporate and high yield bond ETFs. If there is greater relative pressure to sell an ETF, the ETF’s market price could drop, causing premiums to fall or leading to the emergence of a discount. In mid-March, many bond ETFs, both from Vanguard and other ETF sponsors, experienced sharp selling pressure that came on rapidly as volatility brought on by the coronavirus pandemic and other factors affected the markets. Importantly, during that time bond ETF sellers could easily still find ETF buyers with whom to transact.

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We appreciate the opportunity to submit these comments and would welcome further discussion with the Commission. If you have any questions or wish to discuss our comments in greater detail, please do not hesitate to contact Lance Barrett at [REDACTED] or Tiina Vaisanen at [REDACTED]

Sincerely,

/s/ John Bendl

John Bendl  
Chief Financial Officer  
The Vanguard Funds  
Principal, Chief Accounting Officer, Treasurer, and Controller  
The Vanguard Group, Inc.

cc: The Honorable Jay Clayton, Chairman  
The Honorable Hester M. Peirce  
The Honorable Elad L. Roisman  
The Honorable Allison Herren Lee  
Dalia Blass, Director, Division of Investment Management  
Brett Redfearn, Director, Division of Trading and Markets